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**Interactive Activities to Teach Medical English to Future  
Medical Professionals:  
A Needs Analysis Perspective Undertaken Among  
Pharmacy Students at Djillali Liabes University**

Thesis submitted to the Department of English in Fulfilment of the Requirements for the Degree  
of Doctorate 'LMD' in Didactics of English for Specific Purposes

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## **Declaration of Originality**

I hereby declare that the submission of this dissertation is entirely the result of my investigation and that due reference or acknowledgement is made, whenever necessary, to the work of other researchers.

**Signed: TALHA Boualem**

## DEDICATION

First and foremost, all praise is due to Allah for the countless blessings. This work is in remembrance of my late father; his wisdom and wit deserve accolades for inspiring me to be a better person every day. I appreciate everything you have done for me, I hope to be half the man you were, and may God grant you the Heavens for all eternity.

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## Abstract

This age of international competition and globalisation pushed Algerian students to acquire thorough knowledge and expertise in their appropriate fields, as well as have good English language mastery. This suggests the need for a specific, well-tailored curriculum to address students' problems and help them gain proficiency in English. Our study targets second-year pharmacy students enrolled in the Medical faculty of Taleb Mourad, Djillali Liabes University. The study uses a Needs Analysis framework to investigate students' purposes of language learning and general preferences, their expectations and needs, their views concerning cognitive enhancement, and personal growth, as well as identify their perceptions and attitudes towards using interactive activities and games to learn the language. The study utilises three research tools: classroom observations, students' questionnaires, and teachers' semi-structured interviews. Results show that Pharmacy students recognise the importance of English and welcome the use of information and communications technologies like videos, podcasts, and the Internet. These students are also in favour of implementing practical sessions to participate more in small group discussions, project presentations, debates, and role-plays. Additionally, Pharmacy students prefer interactive activities and games in the EMP course because they view them as practical, fun tasks that lower anxiety, help recycle grammar learnt, promote creative thinking and brainstorming, expand their vocabulary and language proficiency, and can improve their four-language skills as well as the social ones. To conclude, the findings of this study have given an overview of teaching English for Medical Purposes, in the hope that it will enhance ESP teaching methodologies.

**Keywords:** Needs analysis, English for medical purposes, Teaching Medical English, Interactive Activities, Educational Games.

## الملخص

قد دفع عصر المنافسة الدولية والعولمة الطلاب الجزائريين إلى اكتساب معرفة وخبرة شاملة في مجالاتهم المناسبة بالإضافة إلى إتقان اللغة الإنجليزية. ويشير هذا إلى الحاجة إلى منهج محدد مصمم بصفة جيدة لمعالجة مشاكل الطلاب ومساعدتهم على اكتساب الكفاءة في اللغة الإنجليزية. تستهدف دراستنا هاته طلاب السنة الثانية صيدلة في كلية الطب بجامعة طالب مراد ، جامعة جيلالي ليايس. تستخدم الدراسة إطار عمل تحليل الاحتياجات للتحقيق في أغراض الطلاب لتعلم اللغة وأولوياتها العامة ، وتوقعاتهم واحتياجاتهم ، وآرائهم بشأن التعزيز المعرفي ، والنمو الشخصي ، وكذلك تحديد تصوراتهم ومواقفهم نحو استخدام الأنشطة والألعاب التفاعلية لتعلم اللغة. استعمل في الدراسة ثلاث أدوات بحثية ، وهي الملاحظات الصفية ، استبيانات الطلاب ، والمقابلات شبه المنظمة للمعلمين. تظهر النتائج أن طلاب الصيدلة يدركون أهمية اللغة الإنجليزية ويرحبون باستخدام تكنولوجيا المعلومات والاتصالات مثل مقاطع الفيديو والبيث الصوتي والإنترنت ؛ كما يفضل هؤلاء الطلاب أيضاً ادراج الأعمال الموجهة للمشاركة بشكل أكبر في حوارات المجموعات الصغيرة وعرض المشاريع والمناقشات وتمثيل الأدوار. بالإضافة إلى ذلك ، يفضل طلاب الصيدلة الأنشطة والألعاب التفاعلية في دورة اللغة الإنجليزية للأغراض الطبية، لأنهم ينظرون إليها على أنها مهام عملية وممتعة تقلل من القلق ، وتساعد في إعادة تدوير القواعد المكتسبة ، وتعزيز التفكير الإبداعي والعصف الذهني ، توسيع مفرداتهم وكفاءتهم اللغوية، ويمكنها تحسين مهاراتهم اللغوية الأربع بالإضافة إلى المهارات الاجتماعية. في الختام ، أعطت نتائج هذه الدراسة لمحة عامة عن تدريس اللغة الإنجليزية للأغراض الطبية على أمل أن تعزز منهجيات تدريس اللغة الإنجليزية للأغراض محددة.

**الكلمات المفتاحية:** تحليل الاحتياجات، اللغة الإنجليزية للأغراض الطبية، تدريس اللغة الإنجليزية الطبية، الأنشطة التفاعلية، الألعاب التعليمية.

## Résumé

L'ère de la mondialisation et de la concurrence internationale a incité, les étudiants algériens à acquérir des connaissances et développer des compétences dans leurs domaines ainsi qu'une bonne maîtrise de la langue anglaise. Pour ce faire, un programme adapté et répondant à leurs attentes et à mettre en place dans le but de résoudre certains problèmes entravant leur formation en langue anglaise. Notre cas d'étude concerne les étudiants de la deuxième année pharmacie de la faculté de médecine Taleb Mourad, de l'université Djillali Liabès. Ce travail mené par le biais d'une enquête, consiste en une analyse des besoins et des objectifs d'apprentissage d'anglais ainsi que les préférences générales des apprenants ; leurs points de vue concernant l'amélioration cognitive et la croissance personnelle. Cette étude permet également d'identifier les perceptions et attitudes des étudiants à l'égard de l'utilisation des activités ludiques pour apprendre l'anglais. Pour ce faire, l'étude requiert trois outils de recherche à savoir des observations en classe, des questionnaires à l'égard des étudiants ainsi que des entretiens semi-structurés adressés aux enseignants. Les résultats démontrent que les étudiants reconnaissent l'importance de l'anglais dans leur formation et accueillent favorablement l'insertion et l'utilisation des Technologies de l'Information et de la Communication. Ces étudiants sont également favorables à la mise en place de travaux dirigés pour participer davantage aux discussions en petits groupes, présentations de projets, débats et jeux de rôle. De plus, les étudiants en pharmacie préfèrent les activités ludiques dans le cours d'anglais à des fins médicales car ils les considèrent comme des tâches pratiques et amusantes qui réduisent l'anxiété, aident à recycler la grammaire apprise, favorisent la pensée créative et le remue-méninges, élargissent leur vocabulaire et leurs compétences linguistiques et améliorent les quatre compétences ainsi que leurs compétences sociales. Pour conclure, les résultats de cette étude ont donné un aperçu de l'enseignement de l'anglais à des fins médicales dans l'espoir d'améliorer les méthodologies d'enseignement de l'anglais à des fins spécifiques.

**Mots clés :** Analyse des besoins, Anglais à visée médicale, Enseignement de l'anglais médical, Activités interactives, Jeux éducatifs.

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## List of Abbreviations and Acronyms

<b>CALL</b>	Computer Assisted Language Learning
<b>CEF</b>	Common European Framework
<b>CLT</b>	Communicative Language Teaching
<b>CMC</b>	Computer-mediated communication
<b>CV</b>	Curriculum Vitae
<b>EAP</b>	English for Academic Purposes
<b>EBE</b>	English for Business and Economics
<b>EBP</b>	English for Business Purposes
<b>EFL</b>	English as a Foreign Language
<b>EGP</b>	English for General Purposes
<b>ELT</b>	English Language Teaching
<b>EM-EP</b>	English for Medicine for Educational Purposes
<b>EM-OP</b>	English for Medicine for Occupational Purposes
<b>EOP</b>	English for occupational Purposes
<b>EPP</b>	English for Professional Purposes
<b>ESL</b>	English as a Second Language
<b>ESP</b>	English for specific purposes
<b>ESS</b>	English for the Social Sciences
<b>EST</b>	English for Science and Technology
<b>EVP</b>	English for Vocational Purposes
<b>FL</b>	Foreign Language
<b>GE</b>	General English
<b>Gen Z</b>	Generation Z- Zoomers
<b>GP</b>	General Practitioner
<b>ICT</b>	Information and Communication Technology
<b>IELTS</b>	International English Language Testing System
<b>L1</b>	First Language
<b>L2</b>	Second Language
<b>MALL</b>	Mobile-Assisted Language Learning

<b>MCQ</b>	Multiple Choice Question
<b>MOOC</b>	Massive Open Online Course
<b>NA</b>	Needs Analysis
<b>PBL</b>	Problem-based Approach
<b>TESOL</b>	Teaching English to Speakers of Other Languages
<b>TILT</b>	Translation in Language Teaching
<b>TOEFL</b>	Test of English as a Foreign Language
<b>TOEIC</b>	The Test of English for International Communication

**CHAPTER I:  
INTRODUCTORY  
CHAPTER**

## Introduction

Today, most influential medical journals are written in English, and English has become the Lingua Franca of medical sciences, i.e. the preferred language for scholarly publications and international conferences. Thus, we have reached the era of medical English, which is strikingly similar to the age of medical Latin in that medical staff have selected a single language for international communication. Such prevalence has created a setting in which students of medical fields are required to obtain information, knowledge and experience about their fields by listening to talks and lectures, viewing multimedia resources, and reading various science and technology materials that are mostly in English.

In addition, the recent past years have witnessed a rise in interest in English as a language, an interest not only in setting it as the medium for tertiary studies but also in setting it as the official second language of the country. While we might be years far from beholding such an exploit, the fruits of the shift in interest are being claimed in the present time, ones like the huge interest in ESP in Algeria, ESP courses at the tertiary level or the implementation of English in primary schools, or incentivising subject teachers to get an English Bachelor diploma. However, the courses of ESP in Algeria are mostly lacking and mainly teach General English (GE). Thus, this study aims at improving the status quo, and to do so, one must start with a course design preceded by needs analysis, two of the foundation stones of ESP. This research work aims to design a course targeted toward students of pharmacy studying at the faculty of medicine Taleb Mourad, the University of Sidi Bel Abbes, and to incorporate a set of interactive activities within the course design (lesson plan), promoting the use of the constructivist approach in the ESP class. The study is based on identifying the specific academic English language needs of the pharmacy students (Second- year students), assessing their views and preferences vis-à-vis a set of preselected interactive activities, and attempting to elaborate a Medical English course. The needs analysis in this action research has been conducted using different data collection tools (both quantitative and qualitative).

As stated before, designing an appropriate ESP curriculum, which would match the needs of the learners and help them meet the objectives of a language course, can only be achieved by conducting a comprehensive needs analysis. Since needs analysis allows course designers to explore what will motivate learners to acquire language most efficiently, it plays a particularly crucial role in English for Specific Purposes curriculum development. Coupled with the fact that at the foundation of the study lies the conviction that language learning, specifically learning a language for specific or occupational purposes, is an ongoing lifelong learning endeavour, the course would be designed with that notion in mind.

This chapter is organised into eight main sections, leading with a background of the study containing a brief discussion of the study in itself, followed by an overview of similar studies found in

literature, then more or less establish some foundation of our study and formulate a set of expectations. It will be followed by stating the problems and reasons behind conducting this study, followed by the main research question and the sub-questions. The sixth element will address some of the hypotheses elaborated and formulated from reviewing the literature. That, in turn, is tailed by the main objectives of the study and the significance of the study, which would address what the work is supposed to accomplish, as well as describe the purpose and the reasons for conducting the research, then the settings and a statement of the problem.

### **1.1. Background of the Study**

Due to the increasing significance of globalisation, English has acquired an even more influential role. At the tertiary educational level, such a role has incited the need to teach not only General English but English for Specific Purposes as well so that we could meet the demands of students' fields of study. Additionally, the preparation of undergraduate students for either entering the employment market or continuing their academic path has prioritised the importance of ESP. These ESP courses can be defined as language programs designed for people who are learning English with an identifiable purpose and clearly specifiable needs (Dudley-Evans & St John, 1998; Johns, Ann M., 2001; Widdowson, 1983); it emerged from the concern to make language courses more relevant to the learners' needs (Richards, 2001). Today, there are numerous examples of people from different backgrounds wanting to learn English, who are conscious of its importance and are usually aware of the specific needs of their occupational or academic fields, and the demand for medical English at the university level is one of those examples.

Furthermore, Maher asserts that English is accepted as the international spoken and written language of medicine, mainly because in many non-English speaking countries, information is frequently published in English, even if it is for local consumption (Maher, 1986b, p. 216), thus, using English in a particular community to serve a specific purpose. This vital role obliges those who want to be healthcare professionals and are non-native speakers of English to study it in order to acquire at least a solid command of both written and spoken skills, which resulted in a crucial demand to learn and teach English in the medical field, making EMP an important component of the medical studies curriculum at many health sciences and medical colleges, with the goal of addressing learners' specific needs and thus helping them be proficient and successful in English, both in their academic studies and in the professional workplace. Algeria is no exception, where English now is either a compulsory subject for some medical fields (Pharmacy and dentistry) or an optional one for medical students, where they need to acquire at least the B2 level. However, the issue that arises in such settings is whether the learners' needs are being addressed, something we hope to tackle meticulously in this work.

Regarding ESP learners, they are typically exceedingly motivated adults with decent knowledge and experience in their particular fields or students being trained for a future profession. Their needs are

very different from those of ordinary learners of English as a second language. This, by no means, insinuates that ESP neglects grammar and language structures; however, the focus is generally more on vocabulary in context and communication since the students are learning the language integrated into a subject matter area significant to them "in order to communicate a set of professional skills and to perform particular job-related functions" (Fiorito, 2005). Thus, it is safe to assume that EMP students are adults who already have some familiarity with English, have a basic knowledge of English, and are learning the language so as to interact using a set of professional skills and execute particular job-related functions. So, the EMP program should therefore be built on the assessment of learners' needs and the functions for which English is required.

Additionally, ESP practitioners deem finding out what is specifically suitable, accessible and applicable for the target situation and the needs of the target language learners a necessity. And EMP courses are similar to all ESP courses in that their learners study English with identifiable goals, such as asking for and giving information in different contexts, explaining various medical procedures, asking about medical history, talking about symptoms, patients' feelings, handovers, etc. Moreover, the basic insight into the trends of EMP emerging as this distinguishable branch of ESP allows us to seek and attempt to offer course design, content and materials related to medical English, which can be achieved by being responsive to the agenda of the language learners. These trends emphasise the importance of intra-professional communication and spoken interactions in conferences or medical discourse communities (Master, 2005), coupled with the fact that Basturkmen considers doctor-patient communication skills to be the heart of the field (Basturkmen, 2010). Consequently, in discerning the learners' needs, needs analysis is regarded as an integral part of decision-making processes in EMP. Because using an English medical coursebook, in the absence of conducting a needs analysis process, is never sufficient for a medical student studying English as a Foreign Language, i.e. the case of Algerian medical students, mainly since most of the medical English coursebooks in the market are addressing the needs of students in an English as a Second Language setting.

Regarding Needs analysis, Brown (Porter & Brown, 1997, p. 35) states that it involves activities and procedures conducted to gather necessary information for designing an effective curriculum which will meet the needs of a particular group of students. He further points out that needs analyses involve gathering information about how much the students already know and what they still need to learn. In a needs analysis, the topics, language uses and skills considered most important for the target group to learn are investigated, which we will attempt to undergo in this study. Moreover, With the wide spread of ESP around the world and in Algeria, various needs analyses have been conducted in our country to explore learners' specific needs. They differed from each other in terms of the educational contexts in which they were conducted. Our focus was mainly on the ones addressing the needs of medical students. For example, the study conducted by Lakhrif Halima and Mahieddine Rachid (Halima & Rachid, 2020) in which they concluded that EMP course designers should place great importance on providing tasks

that are diverse and meet the learners' specific needs in order to boost their motivation; they also stressed the value of integrating grammar and vocabulary (particularly technical terms), as well as Placing speaking at the core of interest, while designing the EMP course. They also accentuated allocating enough time to train in deciphering medical terms and supplying teachers and learners with sufficient English medical documents.

They further recommended the introduction of Medical English for physicians in their faculty of medicine (Halima & Rachid, 2020). Alternatively, the descriptive study conducted by Bouguenus Abdallah (BOUGUENOUS, 2019) aimed at providing explanations of the target situation. Students' language needs were analysed through the use of two questionnaires and a structured interview. The findings revealed the great importance of learning English and the necessity to design effective ESP courses for medical students, as well as the urgent need to provide ESP teachers with the required training to achieve successful English medical teaching. The results of the study suggest that the interactive skills of listening and speaking were considered the most significant skills and that translation was also perceived as an important skill. And concluded with the need for fundamental reform to improve the quality of ESP teaching in the medical field of the Algerian university, with the contribution of many practitioners who should work together to implement strong medical English in our faculties and institutes. These studies also pointed out the need for a suitable curriculum design matching ESP students' needs. However, conclusions can not necessarily be drawn from those studies, especially since we are dealing with pharmacy students attending Djillali Liabes University in Sidi Bel Abbes, a French medium context. So, a comprehensive needs analysis from the perspectives of enrolled students, Pharmacists, and content area instructors was conducted for the purpose of this study,

With regards to Algeria, Algerian Medical students study English for seven years prior to entering university, where four years are acquired in Middle school and three more in high school, yet during those years, students were mainly taught through traditional methods in teacher-centred English language classrooms, where grammar is the main focus taught through drills and memorisation. Such classes lack interaction and feedback; thus, the results are usually uninspiring, which was highlighted by numerous studies (Liao, 1996; Mosha, 2014), remarking that the lack of formal training of English teachers and the use of conventional Grammar Translation Methods at the secondary level of education are the paramount factors responsible for students' incompetence. Worth mentioning that students usually have no encounter with English at university outside the English course, i.e. no Practical work or workshops are done in English. Pharmacy students only study English for their second year; however, Dentistry students study English in the first and second years. Additionally, there are no pre-established medical courses in Algerian medical universities with a program that would enhance the English language proficiency of medical students or one that is specifically aimed at meeting their particular medical needs. Moreover, there are no EMP textbooks developed focusing on the current needs and

future prospects of the medical learners in Algeria (or ones for English as a foreign language learners), something that raises the challenge when designing a curriculum for these medical students.

Furthermore, Jha (Jha, 2014) has stated that a key to teaching good English lies in whether it is taught as a language or as a subject, and in most Algerian Medical Universities, English is taught as a subject, the Faculty of Medicine, Taleb Mourad University of Djillali Liabes Sidi Bel Abbes, is no exception, where learners study English in the form of lectures, so students' attendance is not mandatory. Thus, they tend to skip the classes treating the language classes the same way they would subject classes, hoping to get a passing grade by cramming for exams. And regarding class size, some teachers affirmed that if all students would attend, they might have a problem, but with the usual conditions, the size is not that much of an issue because most students would not attend. Thus, it is another challenge that the ESP practitioner has to address in order for language teaching to take place. One way to solve such a problem is by addressing students' motivation; medical students are known for being highly motivated and driven learners and cooperative, attentive and quiet during class. They have different English levels of proficiency that are reflected through voluntary reading or sharing opinions and examples, where high achieving students are the ones that usually volunteer for the task. This discrepancy in students' levels caused major issues in the early years of implementing the syllabus and still does to some extent.

Additionally, the Medical field is becoming more and more specified with the massive influx of research-oriented approaches that make it highly competitive both nationally and internationally, so learners could use any leverage they might have to secure themselves a position in this highly competitive field and English might just be that plus they needed, something the ESP practitioner could highlight so as to motivate the learners to make an extra effort to learn and improve at the Language. However, it is worth mentioning that Algerian universities are known to have crowded classes; thus, the ESP practitioner might find some challenges that would hinder paying individual attention to learners' progress.

Furthermore, our study aims at investigating the language needs of these learners to attempt and design a syllabus that would address these needs. We also need to take into account that the acquisition of a foreign language implies training in authentic contexts and social interaction, this study analyses the use of new pedagogical tendencies, such as the implementation of role plays, debates, games, and the use of different multimedia tools, as effective resources to carry out communicative and interactive activities for teaching ESP, and it aims to implement such activities in the Curriculum to judge their impact on learners, with the hope of motivating the learners to attend and to actively engage in the learning process. Therefore, another objective of the present work seeks to integrate creative materials and activities, some of which are related to information-communication technologies (ICT) in teaching ESP and analysing their impact and their advantages.

## 1.2. Similar Studies

The success of language learning can only be achieved if students are properly motivated, which is possible if they believe that their professional needs have been studied and considered while elaborating working programs, selecting studying materials or textbooks, and compiling lists of words and phrases typically used in their branch of training. On top of that, students must be confident that what they are learning now, especially lexical input, will be necessary for their future work (Semenchuk, 2015); this can be made possible if a needs analysis has been conducted, and to do that there are certain basic questions to be considered such as: who the learners are? What their view towards language learning is? What particular skill will they need in their account and on-the-job situation? What their linguistic background or level of competence is? What their purpose and expectations are, and if they are similar or not? In order to answer some of those questions, numerous studies have been conducted worldwide. Such studies were conducted in order to investigate learners' needs in different contexts. Since the current study aims to investigate tertiary-level students' English language requirements in medical contexts, the scope of the research on similar studies is narrowed down to those focused on English medical contexts.

The following overview provides a sampling of studies in needs analysis conducted in different parts of the world. This overview will first present studies conducted within the field of English for specific purposes (Boroujeni & Fard, 2013; Eslami, 2010) and then present other studies conducted within the field of medical English. Firstly, the studies reviewed include various groups of undergraduate students (Alqurashi, 2016; Kayaoğlu & Akbaş, 2016; Mohammed Abbas Hamza, 2019). In addition to the students, some of the studies also gathered data from the English language instructors and content area instructors and administrators (Boroujeni & Fard, 2013; Eslami, 2010; Franklin-Landi, 2017; Halima & Rachid, 2020; Hwang & Lin, 2010; Syakur et al., 2020). While the data were generally collected from students and instructors via questionnaires and interviews, some (Faraj, 2015) made use of observations and journal keeping as a part of ethnography in conducting a needs analysis.

Regarding teaching English in general, some of the previous studies were the one by Samira Atefi Boroujeni and Fateme Moradian Fard (Boroujeni & Fard, 2013), where they attempted to discover the learning needs of Iranian university students to assess the implementation of CLT in the ESP context, where they used two different questionnaires for students and for teachers (multi-option questions, and scaled questions) as instruments of data collection. Their study was conducted on 90 first-year students and 30 university professors. The results of the data analysis revealed that students preferred a classroom environment rather for pair and group work and other activities like games and role-plays, Students in the study preferred being at the centre of the learning experience, and the teacher played the role of a facilitator and guide, regarding teachers' intake; thus, students' learning needs and styles supported the adoption of Communicative Language Teaching and Method. Another study was established by Zohreh R. Eslami (Eslami, 2010), where they investigated EAP students' and instructors' perceptions of the

problematic areas in EAP programs. The participated in that study were a total of 693 EAP students majoring in different academic fields and 37 instructors.

The findings of the study support the view that students 'greatly' need to increase their general proficiency in English, where limited vocabulary, slow reading speed, poor listening, speaking, writing and reading comprehension, boring classes, access to the Internet, and lack of instructors' emphasis on the use of the Internet were ranked highly by the majority of the students as the problems faced. Furthermore, the results show that students prefer learner-centred classes with more involvement in class activities and that teachers need to make constant efforts to keep up to date with new teaching methods to be able to facilitate interactive classrooms with students of different English proficiency levels. Teachers may therefore need to apply diverse communicative activities in language classrooms to give EAP students opportunities to practice using English in a different context and focus more on self-regulated learning. Their findings revealed that the Use of technology and student-centred approaches to teaching are among the highly important issues to consider based on the opinions of EAP students.

Concerning studies with regard to teaching and learning medical English, In Taiwan, a study was conducted by Yanling Hwang and Siouzih Lin (Hwang & Lin, 2010) aimed at providing an overview of the linguistic needs and perspectives of medical students and faculty members in Taiwan. A total of 378 medical students and 24 faculty members participated in the questionnaire in the form of seven sections of 30 close-ended questions. The results of the survey showed that students deem English as very important. In response to the importance of English skills for medical students, they ranked reading as the most important, followed by listening, speaking and writing, respectively. When asked to rate the most difficult English language problems that students face in their academic studies, poor speaking skills, limited vocabulary, poor writing and poor listening comprehension, respectively, were on top for the respondents. With regard to reading, most participants felt that reading English newspapers and magazines was the most important, followed by reading English medical journals followed by reading English textbooks and lecture handouts.

In response to listening, both understanding the daily conversations and understanding the medical conversations were the most important aspects, tailed by understanding radio and TV programs. Regarding speaking, most participants felt that carrying on daily conversations was the most important aspect, while the rest thought that presenting classroom oral presentations should be the focus. In terms of writing, most participants felt that writing for a practical purpose (e.g. memos, e-mail messages, letters) was the most important aspect, followed by writing medical reports. Thus, their research demonstrated that a communicative language teaching (CLT) method could be applied to ESP teaching, which is in line with other studies (Boroujeni & Fard, 2013; Eslami, 2010). Secondly, the general English Curriculum should cultivate and emphasise listening, speaking, and reading skills. Authentic reading materials, such as English-language newspapers and magazines, should be used. Group

discussion, cooperative learning, role-playing, and problem-solving can be used in the English classroom to improve students' listening and speaking abilities. Students should be managers of their own learning, and they should be encouraged to negotiate meaning, interact with others in the group, and use effective and active learning strategies that will reinforce the value of student-to-student interaction. Moreover, up-to-date information and authentic audio-visual materials, such as sitcoms from TV, songs or clips from YouTube, or DVDs, create an authentic English learning environment so that students will be immersed in the use of English. Third, it was advised that EGP courses should be offered in the first year and EMP courses designed for the second and third years. Responding to questions about curriculum design, most students and faculty members thought that first-year students should be enrolled in a reading class, sophomores in a listening class, and juniors in a conversation class.

Another similar descriptive case study in a Turkish setting by Mustafa Naci KAYAOĞLU and Raşide DAĞ AKBAŞ (Kayaoğlu & Akbaş, 2016) in which they aimed to investigate the academic English language needs of first-year medical students. Data was collected through a structured questionnaire with 47 items. The questionnaire was administered to 169 students at the Faculty of Medicine at Karadeniz Technical University. The quantitative data analysis indicated that English learning seems to be more important for the students as prospective medical doctors and that students' primary purpose in learning English is to be able to interact with others and achieve a score in the related language exams. Another result is that face-to-face traditional language classroom is relatively more desirable for the participants, and they seem to be against assessment in English courses. As for the major language skills, speaking is the most important skill to improve, followed by listening, reading and writing, respectively. The essential speaking sub-skills are speaking to the public on medical issues, discussing medical issues in conferences, and speaking in conversational English. In addition to this, listening to medical audio & video sources, medical conversations and oral presentations were considered to be the most significant listening sub-skills among all. Additionally, reading medical books, articles and manuals are regarded as the essential reading sub-skills, while writing articles, projects and taking notes as the most important writing sub-skills. They suggested that English should be seen as a part of medical education. To this end, all stakeholders, including department administration, field experts and lecturers in the medical faculty, should contribute to giving importance to English by conducting courses in English and raising students' awareness of the status of English in the field. They concluded by stating that English courses in medicine faculty should focus on major language skills and give priority to communication skills and that students' awareness of the importance of each language skill should be raised, and that all skills should be integrated into the syllabus. They concluded by stating that students' resilience towards e-learning environments should be removed, which could be done by preparing some briefings, training or seminars on the related issues.

In the Arabic setting, two studies were referenced from Saudi Arabia, the first by Aldur Mohammed Abbas Hamza (Mohammed Abbas Hamza, 2019). The study aimed to find an effective

method of teaching English for Saudi medical students in the EFL context and the challenges in regard to their use of English and to suggest the most appropriate way of English language instruction. Data were collected via questionnaires (Likert's scale, multiple choice and ranking questions) which were administered to students enrolled at the faculty of Prince Sattam Bin Abdu Al Aziz University (PSAU) (from 1<sup>st</sup> year to the 6<sup>th</sup>). In his study, Aldur (Mohammed Abbas Hamza, 2019) found that Any suggested curriculum should include the four major English language skills, as well as English grammar and medical vocabulary. And that it is better to start with general English classes in the pre-medical year and then teach EMP, which can be given for subsequent years of medical studies. The materials of EMP should be taken directly from the medical subjects to enhance the authenticity, which can increase students' motivation and willingness to learn. Teachers of English should improve their knowledge of medical subjects by attending training sessions and workshops. Technology should be used more often as it might be helpful in providing an English-speaking environment for local use. Also, Communicative language teaching (CLT) should be used for teaching English in the medical context to develop communicative competence. Another similar study was conducted by Fahad Alqurashi (Alqurashi, 2016), exploring the English language needs of 156 Saudi fellowship doctors and medical students who were enrolled in medical and training programs in Australian hospitals and universities. The participants covered a wide range of medical majors such as medicine, paramedics, nursing, radiology, medical laboratories, and pharmacy.

The Data were collected via a questionnaire sent to the participants via e-mail. Participants' responses showed that the most regularly used language subskills were those sub-skills they considered very important, which were reading instructions for assignments/projects, writing assignments, listening to instructions for assignments, and participating in discussions. According to the study's findings, college English language programs for students majoring in medicine should put more of an emphasis on enhancing language-related skills including fluency, understanding, accuracy, and structure. The study concludes by pointing out that the Curriculum in medical schools in Saudi Arabia is almost totally problem-based, with only a few sessions delivered as interactive lectures, and that medical schools in Saudi Arabia are a traditional educational environment where the Curriculum is teacher-centred, discipline-based and hospital-based with no options or elective modules. Thus, it is imperative to restructure English for medical purposes programs in Saudi Arabia to make better course design, content, and materials responsive to target language learners' own future goals. One that includes materials to improve communicative competence aspects to ensure effortless cultural interaction with co-workers from all around the world.

In a Libyan setting, a study by Basim M. Abubaker Faraj (Faraj, 2015) investigated and assessed the English language needs of Libyan medical students and addressed the problems they faced in using English in their medical studies, as well as the impact of such problems on their academic achievement. Also, it was about the effectiveness of the English language program in medical education in Libya in

providing a basis for the development of medical English courses and teaching approaches in the Libyan context. Three groups of participants were recruited for the study; 58 medical students from 1<sup>st</sup> to 5<sup>th</sup> year enrolled in the Faculty of Medicine, both English language teachers and subject teachers, and the dean of the faculty. In regard to research tools, two sets of questionnaires, one for medical students and the other for the teachers as well as the dean of the Faculty of Medicine. Informal interviews with one of the English language teachers and the academic registrar of the faculty were also conducted. Only one open-ended item as well as 19 close-ended items, ranging from True-False, multiple-choice and ranking items.

The study finding could be summed up in the following: Any suggested curriculum should include all major English language skills where all different skills are taught correspondingly at the current stage; then, adaptations should be made afterwards in accordance with the further needs analysis. It is better to start with general English classes at the pre-medical and have specific English language materials (EMP) taught in the three subsequent years of medical studies. The materials of EMP should be taken directly from the medical subjects to enhance the authenticity, which can increase students' motivation and willingness to learn. Teachers of English should improve their knowledge of medical subjects, such as terminology and structures used in medical texts, by attending training sessions and workshops. Technology should be used increasingly by providing different authentic materials to be used by medical students in the class, encouraging students to learn how to use technology for the purpose of language learning. And lastly, it was suggested that Communicative language teaching (CLT) should be used for teaching English in the medical context.

Another study by Abd. Syakur, H.M Zainuddin, M. Afif Hasan in Indonesia (Syakur et al., 2020), where they focused on the needs analysis of first-year pharmacy students studying English courses (ESP). It also addressed the type of learning needed and the instructional approach that best suits these needs. Research data were obtained using questionnaires and structured interviews with lecturers and students about their learning needs. Regarding the purpose of learning English, most students selected to be able to actively communicate with regard to health issues and terms in pharmacy, followed by being able to understand the grammar found in English both in reading and in conversation, followed by being able to understand books, journals, readings, and reports in the health and pharmaceutical fields in English; and the fourth point was to be able to understand the contents of the conversation, and speech/lecture. Thus, regarding the skills that are considered important in learning English, the ability to speak or communicate was first, then mastery of grammar, next was the ability to read, and last was the ability to write. In connection with the selection of teaching materials that are in accordance with the subject area of the students, it was noticed that all topics related to healthcare and the pharmaceutical field were deemed equally important to study (Introduction to basic pharmacy, prescription pharmacy, Health and drugs, Healthy lifestyle and microbiology and pharmacy). The study also showed that innovative and interactive teaching of English via the use of multimedia technology-based learning is

expected to support students in achieving the best learning performance. Through appropriate teaching methods and media and games integrated into the classroom (such as multimedia, crosswords and multiple choices), lecturers can provide an academic atmosphere of learning that is appropriate for students studying ESP in the classroom based on the needs of students, learning goals and objectives that produce competencies as expected and determined.

Furthermore, In the French setting, a setting that is considered relatively similar to the Algerian one, where students carry their medical studies in French, A study by Rebecca Franklin-Landi (Franklin-Landi, 2017) was mainly set in two parts. The first one was carried out in October 2015 to analyse the needs of 2<sup>nd</sup>-year medical students, and the same questionnaire that was given to students was also used with ten medical professors. And the second one was in March 2016, to see what the students of 3<sup>rd</sup> year thought of the lessons they had had and to see if those lessons had met their expectations and needs. These students studied at Nice University Medical Faculty. In the first and second studies, qualitative data collection tools were used in the form of a short multiple-choice questionnaire and interviews. While the first study was a needs analysis of medical students, the second one focused on c previously identified needs and attempted to satisfy them using audio-visual specialised fiction or 'Fiction À Substrat Professionnel' (FASP). The study showed a general acceptance of the necessity for English in medical studies, underlined the importance of oral skills for medical students and a need for cultural references in EMP, taking into consideration the opinions of professionals in the domain. Students assessed their needs as more vocabulary-based, although this is perhaps due to their professional inexperience, and these demands will surely change as their practical knowledge increases. The second study showed an evolution in students' critical analysis and in their cultural and medical practice awareness, finding that it was possible to satisfy a demand for quality language education with students who are not language specialists and that audio-visual FASP seems to be an interesting and useful pedagogical tool in ESP to meet the differing needs of specific professions.

The study In the Algerian context was conducted by Lakhrif Halima and Mahieddine Rachid, in which they concluded that the EMP course designers should place great importance on providing tasks that are diverse and meet the learners' specific needs in order to boost their motivation; they also stressed the value of integrating grammar and vocabulary (particularly technical terms), as well as Placing speaking at the core of interest, while designing the EMP course. They also accentuated allocating enough time to train in deciphering medical terms and supplying teachers and learners with sufficient English medical documents. They further recommended the introduction of Medical English for physicians in their faculty of medicine(Halima & Rachid, 2020).

It should be emphasised that the results of all of these studies mainly indicated that speaking was regarded as the most needed skill(Franklin-Landi, 2017; Halima & Rachid, 2020; Kayaoğlu & Akbaş, 2016; Syakur et al., 2020), as medical students mostly needed English in order to read English medical

texts, The results also pointed out the need for learning vocabulary and structures used in medical texts. However, there are some differences among the different parties of the studies towards the importance of other language skills. The study by Hwang and Lin is a good example, where students valued reading (Hwang & Lin, 2010), or the one by Chia et al.'s (Chia et al., 1999) where they concluded that in their freshman English course, listening was considered the most important skill. Writing skill is also seen as an important productive skill, as students need to take notes in English in their medical courses or even write papers in their field. In their study, general English in the freshman year (first year), followed by medical-specific elective courses over the successive three years, was seen as the most reasonable pattern to be adopted (Faraj, 2015; Hwang & Lin, 2010; Mohammed Abbas Hamza, 2019). and all parties agreed that the materials should be relevant to the medical field, which was the case in other studies as well (Faraj, 2015; Halima & Rachid, 2020; Hwang & Lin, 2010; Mohammed Abbas Hamza, 2019; Syakur et al., 2020). Similarly, regarding what materials to use, It was revealed that students prefer authentic reading materials such as periodicals, journals or textbooks published in English. Additionally, all parties agreed that textbooks should be appropriate to Students' proficiency levels and their language needs, and extra reading materials such as journals and papers should be provided along with the textbooks.

Furthermore, there were some studies on the proper use of the affluent studying resources and technical means, such as the Internet, Skype, e-mail, and plenty of other interactive tools (Eslami, 2010; Faraj, 2015; Hwang & Lin, 2010; Mohammed Abbas Hamza, 2019; Syakur et al., 2020). And others asserted the usefulness of using tools like audio-visual (Franklin-Landi, 2017; Hwang & Lin, 2010; Syakur et al., 2020) activities or games and role-plays (Boroujeni & Fard, 2013; Syakur et al., 2020). These studies asserted that the use of such technologies and tools could engage students' interests, provide excellent opportunities for individual, cooperative and class activities with vocabulary, and also allow the evaluation, monitoring, and regulating of the process of using language material for communicative purposes. Furthermore, in Samira Atefi Boroueni's (Boroujeni & Fard, 2013) study, students expressed a need for specific medical terminology, whereas practising doctors highlighted the need for cultural understanding instead. Indeed, the importance of such cultural interaction is noted in other EMP needs analysis literature (Alqurashi, 2016; Franklin-Landi, 2017), as well as the potential difficulty of certain contact situations for non-anglophone doctors (Ferguson, 2012), which include participating in informal discussion, and entertaining/ being entertained. When specific medical terminology is mentioned, it is a secondary objective, with teaching from a medical and healthcare perspective being the priority (Antic, 2007).

All of these studies indicated the following common fundamental outcomes: students value English and are interested in improving their language skills (some more than others), students welcome the use of technology and interactive activities from videos to games to role-plays, students believe that they should study general English in the first year then have medical English classes in the following

ones, and lastly, students felt that their needs were not fully being met by their existing Curriculum and the methods of instruction. Such findings align with the study by Petra Zrnikova (Zrníková, 2015); they state that the goal of the EMP course should be realistic and adequately difficult with a balance between General English ( giving instructions, advice, reasoning) and medical English, coupled with the implementation of ICT on top of the traditional methods to ensure a wide scale of teaching techniques.

### 1.3. Statement of the Problem

Needless to say, the number of needs analyses carried out to investigate the language requirements of different groups of students worldwide is uncountable, yet only a few have been conducted on medical students ones like (Chia et al., 1999; Hwang & Lin, 2010) in Taiwan, (Syakur et al., 2020) in Indonesia, (Boroujeni & Fard, 2013; Eslami, 2010) in Iran, (Kayaoğlu & Akbaş, 2016) in Turkey,(Alqurashi, 2016; Mohammed Abbas Hamza, 2019) in Saudi Arabia,(Faraj, 2015) in Lybia, (Franklin-Landi, 2017) in France, a setting which is considered relatively similar to the Algerian one, and in Algeria (BOUGUENOUS, 2019; Halima & Rachid, 2020). Even though these studies were thorough, their results cannot be projected on our case study; thus, they are inadequate (inadequate but not irrelevant) if we are aiming to understand the needs of Medical students at the faculty of Taleb Mourad Djillali Liabes University because every local context is unique, and curriculums may differ in terms of the medium of instruction, curriculum goals, or types of students.

Furthermore, English instructors teaching Medical students attempt to design their own syllabus, which consists of texts related to the health sector as well as some related tasks, compiled mostly from the Internet. Thus, it is safe to assume that there is no standard curriculum or instructional materials determined by higher institutions for these classes. Hence, the instructor is the one who sets the objectives or determines the content of the courses or materials used in those classes as they see fit and teaches the students whatever is convenient to them, yet usually, both the course content and the teachers' training, when weighed, are found wanting. Topics in such classes generally consist of a mixture of reading, translation and vocabulary exercises with some vocabulary lists to memorise. However, students' general requirements or problems related to the courses have not been investigated before, and they are typically not properly dressed. For instance, modern EMP courses should meet plenty of demands, and ESP practitioners are supposed to consider not only the language required for students' future professional and academic success but also several present-day skills like critical thinking, the ability to handle their own learning process, setting goals and coming up with ways to attain them something we do not really notice in the current EMP classes.

This study, therefore, will explore the unique English language needs and expectations of Medical students at Taleb Mourad's medical faculty. Worth noting that Djillali Liabes University, like all Algerian Medical faculties, is a French medium, so it has been very challenging to present an English syllabus to both the administration and the students. The shortcomings of the General English program

have previously led to the frustration and demotivation of the students. Therefore, a curriculum renewal beginning with a needs analysis was necessary to make use of the given limited class hours (set around twenty hours per term) in the most efficient way and to meet the medical students' specific English language needs. And if we factor in the fact that Algerian students generally spend seven years studying English as a compulsory subject at their secondary and higher secondary levels of education, yet they lack sufficient competence when it comes to the use of English in actual situations, we can conclude that drastic measures need to take place. Such measures would follow a needs analysis, and this needs analysis will be conducted to identify the ways in which the English courses within the present conditions can be matched to the students' perceived as well as potential and unrecognised future needs. In addition, to evaluate the results of implementing a set of selected interactive activities in the EMP course and their impact on students' attendance, engagement, motivation and language learning.

To note that Hull (Hull, 2004, p. 3) observes that the level and methods of basic English language teaching are not really adequate for teaching English for medical purposes since the language of medicine and health care is unique, where one can only understand this specific jargon by spending time studying it in meaningful and contextual ways. Moreover, that specific lexis, which is essential for those who intend to work in the healthcare professions, is constructed around medical terminology. According to Gylys and Wedding (1983, cited in (Liu et al., 2019)), medical terminology is a specific terminology used for the purpose of efficient communication in the healthcare field, identifying and understanding the specifics of this terminology and the ways it will be used in a particular context requires what scholars refer to as needs analysis.

Additionally, the students are taught through a faulty mode of learning at their foundation level, and English teaching is no exception. Where their minds are made much more prone to memorising, and in our context (learning English), memorising particular grammatical structures, forms and patterns of language. With no room for active thinking, creative brainstorming and logical reasoning. Something we experience very vividly when students fail to express themselves in actual situations (debating a quote, sharing their opinion on political/ethical issues) no matter how much knowledge of the English language they have acquired previously, so their specific needs are entirely overlooked. Furthermore, it is imperative for medical students to not only have sufficient competence in English language communication skills but also in supplementary language skills (e.g., giving presentations, discussions, lectures, seminars, workshops etc.).

The incentive behind conducting this study was mainly to address the aforementioned problem as well as the needs of the so-called Generation Z, where learners are known to have a very short attention span, making the act of keeping them focused and engaged very challenging, which inspired the proposition of implementing interactive activities in the process of teaching ESP in general, the case study was one of the pharmacy students hence the tendency towards Medical English. Yet one major

obstacle was the fact that we cannot properly evaluate the impact of interactive activities on medical students as well as their opinions and reactions towards it; if we do not have a well-tailored efficient syllabus and a specific course of English that keeps in view the needs of the Algerian students of pharmacy. An endeavour that is achievable only through conducting a thorough needs analysis.

So, an analysis of students' needs, interests, abilities, and difficulties is necessary in order to design the appropriate Curriculum and identify what learners would like to do with the language, what language skills they already know, what kind of language skills they lack, what kind of problems they encounter, what interactive activities they would enjoy and learn from, and how best to incorporate these activities. Understanding these needs and identifying the language that learners will use in their target careers is likely to be of great importance in the ESP learning and teaching process, especially in Algeria, where these points are vaguely addressed, hence the motives behind conducting this study. While determining students' needs, the study also tries to discover what kind of problems occur in those classes and if it is possible to improve them in terms of the materials, course hours, language of instruction, etc.

Finally, in this age of international competition and globalisation, it has become highly essential for Algerian students to have maximum knowledge and expertise in their appropriate field as well as in English language skills. This suggests that there should be a specific curriculum that would help students gain proficiency in English in the different areas of healthcare and address their problems according to their individual needs in a well-tailored manner. Thus, this study uses a Needs Analysis framework to investigate Students' Purposes of language and General preferences, their expectations and needs, their thoughts on the previous program, their views in regard to cognitive enhancement, personal growth and management of learning, and their preferred interactive tasks. And identifying the perceptions and attitudes of students towards English and games/interactive activities.

#### **1.4. Research Questions**

Our study aimed to investigate a primary research question, which was how to best promote the learning of English in English for medical purposes classes; the study case was second-year pharmacy students. To best address such a research question, we had to elaborate on a set of sub-questions that would properly address the numerous concerns we had. These research questions are elaborated as follows:

The following subsidiary questions were designed in order to answer the main research question:

1. What are the pharmacy students' academic English language need, and what language skills (reading, writing, listening, and speaking) and sub-skills do they prioritise? Additionally, what are the medical students' preferences with reverence to learning styles, class settings, and methodology?

2. Which interactive activities would promote the best language learning in English for medical purposes classes (i.e., Pharmacy classes), and how to use such activities to promote not only vocabulary learning but communication skills as well?

3. What are the shortcomings of the existing program, and how to remedy such shortcomings?

The study results can provide a practical model for similar needs analyses of EFL programs for distinct groups of students, such as medical groups, for those studying either pharmacy, medicine, or even dentistry, or other groups of students studying ESP. It may also be beneficial when attempting to identify the English academic needs of medical students in other universities, either in Algeria or in other countries where English is taught as a foreign language. Thus, we hope that our study contributes to the compiling of a database regarding medical students' academic English needs in addition to the implications of implementing interactive activities in medical classes.

Accordingly, this study is an attempt to investigate the challenges of teaching English to medical students, their needs, their lackings, and their preferences, and the efficacy of implementing interactive tasks in EMP classes. And we believe that the result of the study can be overgeneralised to other ESP courses. At the local level, a needs analysis study which will explore the English academic requirements of the medical students at Djillali Liabes through the perspectives of content area instructors, doctors, and students may help determine how to make the most efficient use of the students' limited class time (which was set to two hours per week, across one to two terms) by defining their specific needs, specific skills and setting the appropriate activities. Thus, creating a bridge to achieve the learning objectives. Which is something we would attempt to achieve throughout this study.

### 1.5. Hypothesis

In an attempt to answer the research questions raised above, we have put forward a list of relevant hypotheses. They are stated as follows:

From the literary reviews and previous studies, it is safe to assume that the English language is considered an important subject by the medical faculty due to the "English" commotion by the ministry and to Covid aftermath. Regarding Language skills, the most valuable skill for Pharmacy students in Algerian universities would be Speaking, followed by reading and vocabulary, where less importance is given to writing and listening, mostly because students might believe that their listening skills are already good and regarding writing, with the advancement of technology such as autocorrect student suppose that their writing can always be correct using technological tools and applications. The students also should put the translation in high regard since it is a skill they usually need and use.

Regarding their learning preferences, we believe that General English classes are needed, but they can not be the only classes students have because EMP instructions are necessary to prepare the medical students in their academic and occupational lives, thus a mixture of both General English and Medical

English. Additionally, we presume that learners would prefer blended classrooms (some zoom conferences and some Amphy lectures) over traditional lectures, and when it comes to classes, students usually like practical sessions (also known as Travaux dirigés TDs) more than Amphy lectures due to the fact that students are fewer in such classes, thus more incentive to participate in class, more individual feedback, and less peer pressure.

Vis-à-vis the Curriculum, we believe that one year of general English and two years of Medical English with ample use of authentic, relevant materials is what students would prefer, giving low-proficiency learners enough time to improve their language so that they are able to tackle Medical English, and having two years to fully address the different aspects of Medical English. Such a curriculum would cater better for the students' communicative needs in terms of four English language skills (i.e., listening, speaking, reading and writing).

With regards to the implementation of a set of interactive activities, and taking into account that we are dealing with Generation Z learners, also known as the Digital native (the generation of people born in the late 1990s and early 2000s according to Merriam-webster), It is our belief that any interactive activity would be welcomed as long as it would address the students' future work settings, such activities can range from crosswords puzzles to extract from drama tv shows to games and many other activities that would also encourage learners to be more active in the learning process, and be an active participant. Moreover, we believe that these activities are appreciated more at the start of the lecture as a warm-up or at the end, and even as homework.

## 1.6. Objectives

In The present study, an ESP needs analysis approach has been applied in order to investigate the academic and occupational linguistic needs of medical learners, mainly second-year pharmacy students enrolled in the Medical faculty of Taleb Mourad, Djillali Liabes University, so that we can elaborate a syllabus that would properly address such needs, and then gauge students' views on using Interactive activities to learn the language, where some activities are used in class to better assess the learners' reaction. Additionally, It has become clear that modern language classrooms should be set in a way that would prepare students to face real-world problems that engage them in higher-order thinking skills – creativity, innovation, communication, collaboration, critical thinking and problem-solving (Alsowat, 2016). With these skills, students will become creators of knowledge, competent and productive communicators, successful collaborators, independent and inventive thinkers, problem solvers and career experts, and Pharmacy students are a perfect example of a fertile soil on which such seeds could be planted. Hence the motive behind the use of interactive activities like debating the quotes, discussing videos about medical /ethical matters etc.

This study highlights the perceptions regarding the specific English language needs of pharmacy students and their views on using Interactive activities. The research takes into account the students' purposes of learning the language and their general preferences, their expectations and needs, the problems they face, their thoughts on the existing program, their views in regard to cognitive enhancement, personal growth and management of learning (*vis-à-vis* brainstorming, use of mnemonics, and language learning as a life-long endeavour), their assessment preferences. And identifying the perceptions and attitudes of students towards using games/interactive activities to learn English.

A central aim of this study is, therefore, to propose a set of interactive activities aimed at motivating students and fostering their engagement in class, so they could learn English, thus creating fun and engaging ways of teaching English at the tertiary level to a group of adult learners who will use it both in their current academic study as healthcare students and in their future careers as healthcare professionals, in order to function effectively in these specific situations.

Another reason for this study is to affirm Crocker's statement that there is usually a high degree of similarity among ESP courses in terms of context and difficulties faced. The results of this mixed-method research are expected to be transferable to these similar courses (Crocker, 1984: 26) to the set and see if we could implement these activities in other ESP courses. The choice of this instrument as a tool of research for the present investigation is because it is considered the most appropriate means to identify the learners' lacks in English and reveal their real needs in language acquisition.

Finally, this research is a twofold one, utilising two important activities (needs analysis and evaluating Interactive activities' implementation) in the process of curriculum development in order to fulfil the needs and demands of Pharmacy students at the Medical faculty Taleb Mourad Djillali Liabes University, for both the present academic and future professional purposes. We firmly believe that the results of this study will allow us to create an effective curriculum, syllabi and materials in the context of Pharmacy students studying at Taleb Mourad Djillali Liabes University.

### **1.7. Significance of the study**

The research project in question was undertaken with the following aims in mind:

English courses are increasingly abundant in Algerian universities in practically every field, and the Medical ones are no exception. However, the English classes taught to Medical students are classes where learners usually only study General English (GE), which does not really satisfy many of the students' specific needs (such as communication and social interaction within the medical field). Moreover, the former research in applied linguistics has shown that English for medical purposes is a distinct variety in the field of ESP; thus, English taught to medical students should be different from General English, mainly because the courses in GE are not designed based on pre-conducted needs analysis, to identify the specific needs of the students of pharmacy. So, the researcher tries, throughout

this study, to develop a syllabus that would include teaching Medical English and consider the needs of Pharmacy students.

Although teaching English for Specific Purposes courses for students in Algeria has gained a lot of momentum and importance, even more so with medical learners, there have been very few studies that examine the English language needs of medical students and non that explore the needs of Pharmacy students. Thus, it became more of a necessity to elaborate a course of English for Medical Purposes (EMP) that fulfils the academic and occupational communicative needs of Pharmacy students, nevertheless designing a curriculum that would match learners' needs and help them meet the goals of a language course can only be achieved by conducting a comprehensive needs analysis (the cornerstone of English for Specific Purposes curriculum development) that would explore what will motivate learners to acquire language in the most efficient way.

Furthermore, the study of the literature showed that ESP learners and medical ones, in particular, encounter difficulties in interactive skills such as listening and speaking (maintaining conversations or debates, brainstorming, project presentation, or merely understanding native speakers). It also showed that these students are required to write mostly technical materials like charts, prescriptions, referral letters or even articles, something that medical students usually find very daunting, coupled with the fact that they lack grammar knowledge (reflected in their writing or speaking) creating a handicap that would block their progress. Therefore, conducting a needs analysis would allow us to address these challenges so that the designed English courses are directly related to the language needs of the learners, elaborated in a manner that would alleviate some of the challenges they face and at the same time provide a practical framework for other ESP teachers.

Previous research had been conducted in Algeria to address numerous areas of ESP (e.g., business, commerce and nursing and computer sciences); in a similar sense conducting this research became a necessity if we are to identify the specific needs of Pharmacy learners because we believe that there are no courses available in Algeria that address the specific needs of pharmacy students and that are built on a previously conducted needs analysis. A course where academic and occupational situations are the main focus.

Thus, another objective was to study literature and select a set of interactive activities to potentially use in ESP classes in general (and more specifically, in our case, with pharmacy students). This research is also an attempt to advance the teaching of not only EMP but also ESP in the Algerian context and make such classes more engaging and motivating for learners. Thus, provides practical data for EMP programs' development and the implementation of interactive Activities in such programs, where ESP practitioners can gain insights from the study in not only EMP but also different areas of ESP, drawing comparisons and contrasts regarding the language situation of Pharmacy students in this

research with other ESP studies around the country. Additionally, this study would give a clear picture of the role of English used in medical international workplace settings as a lingua franca.

Generally speaking, The Study seeks to investigate students' reasons for studying the language, their preferred skills, learning style/environment and tools, as well as their opinions on the program and any suggestions for the English syllabus they would like implemented; thus, the present work aims at providing a description of the linguistic needs and perceptions of pharmacy students studying at the faculty of Taleb Mourad the University of Sidi Bel-Abbes in Algeria as well as their views and preferences regarding using interactive activities. So, the major concern in the present research is to investigate the specific academic English language needs of pharmacy students enrolled at an Algerian faculty of medicine, as well as study the value of using a set of interactive activities and gauge learners' opinions on their use. Then, attempt to elaborate and implement a syllabus that satisfies those needs.

### **1.8. The Organisation of the Thesis**

As far as the structure of the present Thesis is concerned, it is divided into five main chapters. The first chapter has set out the background and the setting of the study by briefly discussing the teaching situation in Algerian universities, some of the similar studies found in literature, and the rationale for undertaking it. It also deals with the main research problem tailed by the main research questions, the Hypotheses presented by the researchers, and the main objectives of the reach as well as the research design. Chapter Two reviews the present literature pertaining to ESP and approaches to curriculum development in ESP and reports findings related to the importance of English in the medical field. It begins by presenting the origin and history of ESP, then some definitions of ESP and outlining its characteristics. Next, it examines the relationship between ESP and language theories and the approaches to curriculum development in ESP and presents the process of ESP curriculum development. This chapter also sheds light on English for Medical Purposes (EMP), one of the subdivisions of ESP. The focus on EMP is due to the fact that EMP is what pharmacy students should be learning, so the researcher addressed its characteristics and the different methods of teaching EMP, as well as the learner's autonomy. The detailed theoretical overview of needs analysis also included an outline of the classifications of needs and the framework of needs analysis and a review of some research studies of needs analysis in the ESP context concluding with the methodology of needs analysis.

The third chapter goes on to offer definitions of some of the approaches and examples of the major interactive activities that were deemed valuable to use in EMP courses, such as Crossword puzzles, Role plays, and Games. This chapter also addressed the reasons and motives behind using each activity with some practical examples used during the teaching of EMP and how to best implement such activities in the EMP course (or the ESP one in general).

Chapter four is generally a practical one, and it briefly describes some examples of interactive activities used in class. It also addresses the English language teaching situation in Algeria and discusses the state of EMP teaching at Taleb Mourad faculty, the University of Djillali Liabes; the researcher attempted to accomplish that by presenting the case study from the learning context to time allocation, class size and target students' profile. The chapter further explains the research's methodology design by enlightening the choice of the method, the setting, the participants, the procedures and the selection of the convenient instruments of research for collecting and analysing the data (use of both qualitative and quantitative research techniques) that may serve better the objectives of the concerned work, issues of access and ethics are also considered. Additionally, the researcher shows the findings, analyses the results and interprets the participants' perceptions towards taking efficient EMP courses, and reports findings in response to the questions related to the English language needs of Pharmacy students and to the implementation of interactive activities in the ESP courses.

The fifth chapter is devoted to drawing appropriate conclusions about this study, discussing the overall key findings and thus offering the implications of the study as well as proposing effective recommendations and suggestions for further research on the basis of the theoretical discussion and the findings obtained in the previous chapters. The findings of the study are discussed with reference to each of the research questions and in relation to relevant literature. Closing with a summary of the major findings. It is an opportunity to suggest some pedagogical practices and ask for the implementation of real effective courses in the Algerian medical faculty. This is, undoubtedly, done through determining the responsibility and the role of all the concerned members of the medical community; learners, teachers and even decision-makers and curriculum developers. Finally, the researcher closes the present chapter by stating the major limitations of the study.

### **Conclusion**

This chapter served as a brief summary of issues related to our study, addressing, succinctly, the background and the setting of the study by briefly discussing the teaching situation in the Algerian university. Some of the similar studies found in the literature ones addressing teaching ESP and EMP and the rationale for undertaking the research. It also states the main research problem subdivided into the main research questions, followed by the Hypotheses presented by the researcher, and then the main objectives of the present study and the reasons for undertaking such research. Concluding with as well as the research design or the organisation of the Thesis.

**CHAPTER TWO: THE REVIEW  
OF THE LITERATURE**

## Introduction

The purpose of this chapter is to review the relevant literature in regard to English for Specific Purposes (ESP) and its origins and principles; it also addresses the sub-divisions of English for Specific Purposes (ESP) with an emphasis on English for Medical Purposes (EMP), the teaching of EMP, learner's autonomy in EMP classes and needs analysis. Therefore, the first section presents definitions and purposes of ESP, similarities and differences between ESP and English for general purposes, and characteristics of ESP; and is followed by the development of ESP courses and ESP's sub-categories. The second section looks specifically at EMP, including the importance of EMP, its characteristics, and the teaching of EMP and motivating EMP learners. The third section defines 'needs' and clarifies the importance of needs analysis and its purposes, as well as the methodology of conducting a needs analysis and ESP curriculum designs. Thus, this section concludes with examples of needs analysis studies in medical contexts, both from Algeria and abroad.

### 2.1. English for Specific Purposes

Over the course of years, English for Specific Purposes (ESP) has emerged as a predominant subdivision of English language teaching. This dominance is a result of many incentives, such as globalisation via the Internet, the emergence of international trade relations and the increasing interest in Science and Technology. For scholars, ESP is viewed as a learner-centred approach that focuses mainly on the learners' needs. As expressed by Hutchinson and Waters (1987: 19): "ESP is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning". It is then clearly affirmed that ESP is a new approach to language teaching based on students' needs, with the objective of providing the students with the vocabulary and the language skills they need for their academic and/or occupational career. Hutchinson and Waters (1987) also point out that ESP courses are triggered by the question 'why do learners need to learn English?', indicating that learners' specific reasons for learning are what monitors the decisions concerning the ESP course.

### 2.2. The origins and principles of ESP

The origins of the ESP movement can be traced back to economic activities taking place in the 1950s and 1960s. After the emergence of English as the lingua franca in the post-war years and with the international developments and exchanges in technology and commerce. The need for specific professional and academic English courses arose. Hutchinson and Waters (1987:6) state that: "In ESP context, the effect of the historical occurrences resulted from a mass of people across the globe who wanted to learn the English language because of the key language for the fields of science, technology and commerce. This branch of English Language Teaching (ELT) comes from learners' language needs in accordance with their professions or job description.". Therefore, ESP was set in motion to meet the growing demands of the real world during the 1960s and with an even more accelerating pace in the 1970s (Dudley-Evans & St. Johns, 1998; Hutchinson & Waters, 1987).

Regarding the maturity of ESP, according to Hutchinson and Water, what stimulated the growth of ESP was the expansion of demand for English to suit particular needs and developments in the fields of linguistics and educational psychology (Hutchinson & Waters, 1987). Furthermore, ESP was never a monolithic universal phenomenon, as Hutchinson and Waters (1987) illustrated, “ESP was not a planned and coherent movement, but rather a phenomenon that grew out of a number of converging trends.”, thus we can assert that it developed at dissimilar speeds, yet mainly in five stages, which were represented by different concepts emerging during the development of ESP. They are register analysis, rhetorical or discourse analysis, target situation analysis, skills and strategies, and a learning-centred approach.

The first stage is highlighted by the Findings of Hutchinson and Waters (1987) regarding the grammatical and lexical features of the specific registers. Followed by other studies, which affirmed the differences between English for Science and Technology (EST) and General English in tenses and voices of verbs as well as sentence structure and sentence length. Such findings stressed the importance of register analysis and its impact on course design and the teaching process in general. At the rhetorical and discourse analysis stage, scholars’ attention shifted from language at the sentence level to the organisational patterns in texts, that is, to understanding how sentences were combined as meaningful units. Hutchinson and Waters (1987) created the rhetorical process chart to explain how we can use language skills to make our writing easy to read and use language features to understand the readings in a more profound manner. The target situation analysis, also known as needs analysis, is the springboard and core of ESP. It is the soul and heart of ESP because it seeks to identify learners’ needs in the targeted work or study area and to design syllabi considering the linguistic features of that situation.

Hutchinson and Waters (1987) stated that the first three stages had been about the forms of language. However, the fourth stage, skills and strategies, dealt with language skills and thinking processes that emphasise language use, through which the learners would be able to successfully carry out if provided with the requirements of the target situation. Micro-skills are now put forward as one of those requirements when teachers design syllabuses. The final stage was about adopting a learning-centred approach. Hutchinson and Waters (1987) stated that their concern with ESP was not simply the use of specific structures but language learning as well. Thus, considering the learners, their motivations and their attitudes to learn, then attempting to meet learner needs at every stage of course design by making the ESP learner an active participant, not only in the real teaching procedure but also in the syllabus and lesson planning stage (Hutchinson & Waters, 1987).

### **2.3. Definition and Characteristics of ESP**

Defining ESP has always been a controversial matter for researchers. Strevens (1980: 109) stated, “a definition of ESP that is both simple and watertight is not easy to produce” That’s why there are almost as many definitions of ESP as there are scholars who have attempted to define it. Some scholars

describe ESP as simply being the teaching of English for any purpose that could be specified. Mackay and Mountford (1978) stress ESP's tendency to evolve around work-related English needs with their definition of ESP as 'the teaching of English for a clearly utilitarian purpose'. The purpose they refer to is defined by the needs of the learners, which could be occupational, academic, or scientific. Thus, these needs regulate the content of the ESP course. Parallel to that, Robinson (1980) stated: "... an ESP course is purposeful and is aimed at the successful performance of occupational or educational roles." (p.15). Robinson emphasised that the purposes for learning the language are of utmost importance and stated that those purposes should be considered the driving force of the syllabus design in a way that would help teachers and learners avoid letting irrelevant materials be introduced into the course.

Blackie (1979: 263) argues that Mackay and Mountford's definition does not seem to cover all aspects of ESP, therefore, requests 'a satisfactory working definition' of ESP. As an alternative, Blackie (1979: 266) proposes the following definition of ESP 'programmes designed for groups of learners who are homogeneous with respect to aims, and whose specific learning objectives have been quantified and stated in communicative terms'. The fundamental element of this definition is homogeneity within the groups of learners. Which, as Blackie (1979: 264) explains, can be identified and selected based on two factors: the first factor is learners' general communicative competence in terms of language skills, which can be determined by a placement test, and the second factor would be their learning needs, which can be determined by an appropriate needs analysis. It seems, though, that Blackie's view on ESP ignored specifying the degrees to which such homogeneousness could be obtained within groups of learners since it is often extremely challenging to find a group with absolutely homogeneous needs. Thus, Cunningsworth (1983: 153) argues that 'the needs of the learners in a group may not be identical and in many cases may differ quite considerably one from another'.

For other scholars, such as Kennedy and Bolitho (1984: 13), one of the core factors influencing the design of ESP courses and their implementation is the degree of homogeneity regarding needs, abilities and the subject matter within the class. However, many other authors stress that learners' needs are ESP's core. For example, Hutchinson and Waters (1987: 19) asserted that they rather agree on a workable definition of ESP than give a straight answer. In their point of view: ESP must be seen as an approach, not as a product. ESP is not a particular kind of language or methodology, nor does it consist of a particular type of teaching material. Understood properly, it is an approach to language learning which is based on learner needs. The foundation of all ESP is the simple question: Why does this learner need to learn a foreign language? Therefore, one can say that ESP is an approach to language teaching based on learners' goals and reasons for learning a language. It is understandable that ESP does not involve particular teaching materials or methodologies, but it is an approach to language teaching centred on students' specific needs.

Munby (Munby, 1981, p. 2) supports the above view yet introduces the notion of communication into the definition of ESP courses, asserting that ESP courses are the ones where the syllabus and materials are determined in all necessities by the preceding analysis of the communication needs of the learner. Subsequently, it could be deduced that ESP courses, from syllabuses to materials used, depends on a complete analysis of the communication needs of learners. It was years after that Dudley-Evans and St John, in their analysis of ESP, attempted to resolve the debate of what ESP is. Dudley-Evans (Tony Dudley-Evans, 2000, p. 9) argued that: “ESP has tended to be a practical affair, most interested in investigating needs, preparing teaching materials, and devising appropriate teaching methodologies.”

Smoak (Smoak, 2003, p. 27), however, echoes the communicative approach presented by Munby through the introduction of the concept of real-life tasks, emphasizing that “ESP is English instruction based on actual and immediate needs of learners who have to successfully perform real-life tasks unrelated to merely passing an English class or exam. ESP is needs-based and task-oriented”. This definition, however, was soon faced with some inadequacies since it did not explain what kind of real-life tasks were envisioned. It was Orr's (Orr, 2001, p. 27) definition that made the identification of such tasks possible: ESP is English language instruction designed to meet the specific learning needs of a specific learner or a group of learners within a specific time frame for which instruction in general English will not suffice. Most often, this instruction comprises orientation to specific spoken and written English, typically unfamiliar to the average speaker, which is required to perform specific academic or workplace tasks. Orr's take on ESP highlighted yet another aspect of ESP, the specified timeframe for ESP courses (Basturkmen, 2006; Robinson, 1991). This suggests that ESP is a learning and teaching process that addresses certain objectives over a relatively fixed period of time.

The definitions above indicate how broad and multifaceted ESP is. Yet we can deduce that the definitions of ESP reported above focused chiefly on three points, which are the nature of language (specialised register and discourse), the specific purpose of learners to learn the language (learners' needs) and the contexts in which language is taught and used (specific learning settings, e.g. medical college, or specific domains, e.g. hospital). Yet, in the context of our study, ESP is understood as the teaching and learning of specific English at the tertiary level to a group of adult learners who will use it both in their current academic study as healthcare students and in their future careers as healthcare professionals. It encompasses as well the enhancement of some Micro skills that would help the students function effectively in situations specific to their field.

Now that we have addressed the various viewpoints on EPS's definition, it seems necessary to outline the key characteristics of ESP courses. The scholars Dudley Evans & St. John (1998), who established a distinction between what they referred to as ESP's absolute and variable characteristics, provide one of the most relevant descriptions of the characteristics of ESP. The concept of 'absolute', in their perspective, addresses the common features of all ESP contexts, ones that are constant no matter

what context ESP is taught for. At the same time, the notion of ‘variable’ explains the situational features of ESP contexts. They describe these characteristics as follows:

1. Absolute characteristics:
  - ESP is defined as meeting the specific needs of the learner.
  - ESP makes use of the methodology and activities of the disciplines it serves.
  - ESP is centred on the language (grammar, lexis, and register), skills, discourse and genres appropriate to these activities.
2. Variable characteristics:
  - ESP may be related to or designed for specific disciplines.
  - ESP may use, in specific teaching situations, a different methodology from that of general English.
  - ESP is usually designed for adult learners (tertiary level and above) but can be adapted to learners at primary, middle and high school levels.
  - ESP is generally designed for intermediate or advanced students, but it can also be used with beginners.

To a large extent, both types of characteristics outlined in the definitions above would help to illuminate some contentious ambiguities regarding ESP’s nature. For instance, while some assert that all ESP teaching and materials are specific to the academic discipline or profession being served, it would be excessively restrictive to argue that the term ESP should be used only in reverence to subject-specific work since, as Dudley-Evans (1998: 6) elucidates, ‘where the focus in the class is on common-core skills or genres that belong to any discipline or profession, this is as much an ESP class as the more specific work’. This implies that ESP should not essentially be a process of teaching subject content per se but rather should focus on developing learners’ knowledge of English, their language skills and their study skills so that they would acquire the language skills to learn the subject content in English on their own, if so they please.

Another noteworthy point contained in the third variable characteristic of ESP listed by Dudley-Evans and St John (1998) is that ESP does not target a particular age group, so it’s not meant just for adults but can be adapted to all educational levels. Nevertheless, McDonough (1984: 23) states that the majority of ESP learners are adults ‘since it is only by that age that they have developed a specialism or job preference’. Correspondingly, Robinson (1991: 3) comments that ‘the students on an ESP course are likely to be adults rather than children’. This view that ESP is usually taught to adults because they are more likely to be aware of specific purposes and needs in learning the language is also shared by other scholars, such as Kennedy and Bolitho (C. Kennedy & Bolitho, 1984, p. 14), who observed that “the older a learner is, the more likely he is to have his own definite ideas on why he is learning English.

In fact, many ESP learners are adults”. Kim (D. Kim, 2008, p. 1) also notes that ‘adult language learners have more compelling and specific needs to learn a foreign language’.

Furthermore, ESP regards communication skills as an essential factor in the development of knowledge. It focuses on “the specific linguistic knowledge and communication skills in order to accomplish specific purposes” (Orr, 1998). Thus, ESP places significant emphasis on preparing students to communicate efficiently in their future work environment. Consequently, teaching/learning ESP is speciality-oriented, which means it addresses the specific needs of students (Hutchinson & Waters, 1987) who learn English as a foreign language for the purpose of using it in their professional fields; therefore, they usually have their own specifically tailored courses. Such language courses are based on a particular vocabulary set and unique language skills that will be indispensable to learners in their specialised fields. Thus, we can assume that there is no one single approach for all pedagogical situations, and there is no curriculum and set of activities that are applicable in all contexts. Therefore, it is of crucial importance in ESP teaching to determine the unique features of teaching and learning and apply them in the development of the curriculum, syllabus and assessment (Hutchinson & Waters, 1987).

Consequently, we can deduce that ESP uses the time and effort of learners with specific purposes efficiently, designing matching materials and methodology, and focusing on the language features that address the learners’ needs in the target situation. In the context of this study, ESP is understood as the teaching and learning of specific language. And that ESP has been created to meet the specific academic and professional needs of learners, whereby each pedagogical situation and each group of learners is considered to be new and different from the previous one.

#### **2.4. ESP Versus EGP**

Some scholars, such as Hutchinson and Waters (Hutchinson & Waters, 1987), propose that ESP methodology is not necessarily that different from general English teaching. In their analogy of ESP as a tree, they root all the branches of language in teaching communication and learning and place the broad concept of ELT as the trunk. Yet, others such as Widdowson (1983) disagree, by stressing that ESP, on top of analysing learners’ needs and aims, also designs objectives and methodologies to fulfil them. Thus, for Widdowson, ESP is a training operation attempting to provide learners with restricted competence to meet the requirements so that to be able to carry out clearly defined tasks in their academic and occupational fields. And by training, he means the purpose of instruction and not that learners will not get educational benefits from them or will not develop communicative capacity. On the other hand, EGP is less of a training operation and more of an educational operation, which tries to provide learners with a general capacity “to cope with undefined eventualities in the future” (p. 6).

On a similar note, Dudley-Evans and St. John (1998) believe that ESP usually has a different methodology from that of general English. As the learners bring with them to the ESP classes their

specialist knowledge and the cognitive and learning processes that they accumulated throughout their specialist fields, there should be a distinguishable ESP methodology. The key variance here is that the ESP instructors are usually adaptable and flexible to adjust their methodology to the learners' changing needs. And According to Richard (2001), the difference between ESP and EGP lies in the fact that general English learners study English for language mastery itself or to pass exams and tests, whereas ESP learners study English to carry out a particular role (Richards, 2001). Other researchers point out the deference to be in methodology by putting emphasis on the context-based language requirements of ESP learners. For instance, Dudley-Evans and St. John (1998) believe that ESP differs from general English in methodology due to learners' specialised knowledge and accustomed cognitive processes. Thus, a distinct ESP methodology is necessary. Its methodology and research reflect the research from various disciplines as well as applied linguistics. "This openness to the insights of other disciplines is a key distinguishing feature of ESP" (p. 2). The key issue here is the ESP instructors' being adaptable and flexible to adjust their methodology to the learners' changing needs.

Overall, ESP may seem to be more motivating than general English since it uses the time and effort of learners with specific purposes efficiently by designing matching materials and methodology and also focusing on the language features that address the learners' needs in the target situation. Another major difference is that ESP students are adults who already have some familiarity with English and are learning the language so as to communicate an array of professional skills and perform particular job-related functions. An ESP program is therefore constructed on an assessment of purposes, needs, and functions for which English is required; thus, ESP is considered a part of a larger movement within language teaching, away from a concentration on teaching grammar and language structures to an emphasis on language in context.

Therefore, in contrast to students learning English for general purposes for whom mastery of the language for its own sake or in order to pass a general examination is the primary goal, ESP students are usually studying English in order to carry out a particular role, such as that foreign student in an English-medium university, flight attendant, architect, or doctor. Additionally, the ESP focus means that English is not taught as a subject divorced from the students' real life; instead, it is integrated into a subject matter area significant to the learners. Consequently, General English and English for Specific Purposes differ not only in the nature of the learner but also in the scope of the goals of instruction. Whereas in EFL, all four language skills, listening, reading, speaking, and writing, are stressed equally, in ESP, a needs assessment determines which language skill the learner need.

## 2.5. Categories of ESP

ESP types deliver an overall representation of the various groups of learners, which should be of great concern to the ESP teacher (Kennedy and Bolitho, 1984: 3). Furthermore, the branching of ESP can be beneficial in the distinction between the ESP courses and the general English ones. ESP scholars

have been trying to suggest distinct ways of categorising ESP types, such as those presented by Strevens (1983: 92), Hutchinson and Waters (1987: 17) and Dudley-Evans and St John (1998: 9). Hutchinson and Waters (1987), in their ELT tree, divided ESP according to the learners' specialised area: EST (English for Science and Technology), EBE (English for Business and Economics) and ESS (English for the Social Sciences). Additionally, each of these subject areas is divided into two types: EAP and EOP, depending on whether the learners need English for academic reasons or for occupational reasons. Nevertheless, they still pointed out that the differentiation between EAP and EOP is not a definite distinction since people can always work and study at the same time. It is also likely that in many cases, the language learnt for immediate use in a study environment will be used later when students take up jobs.

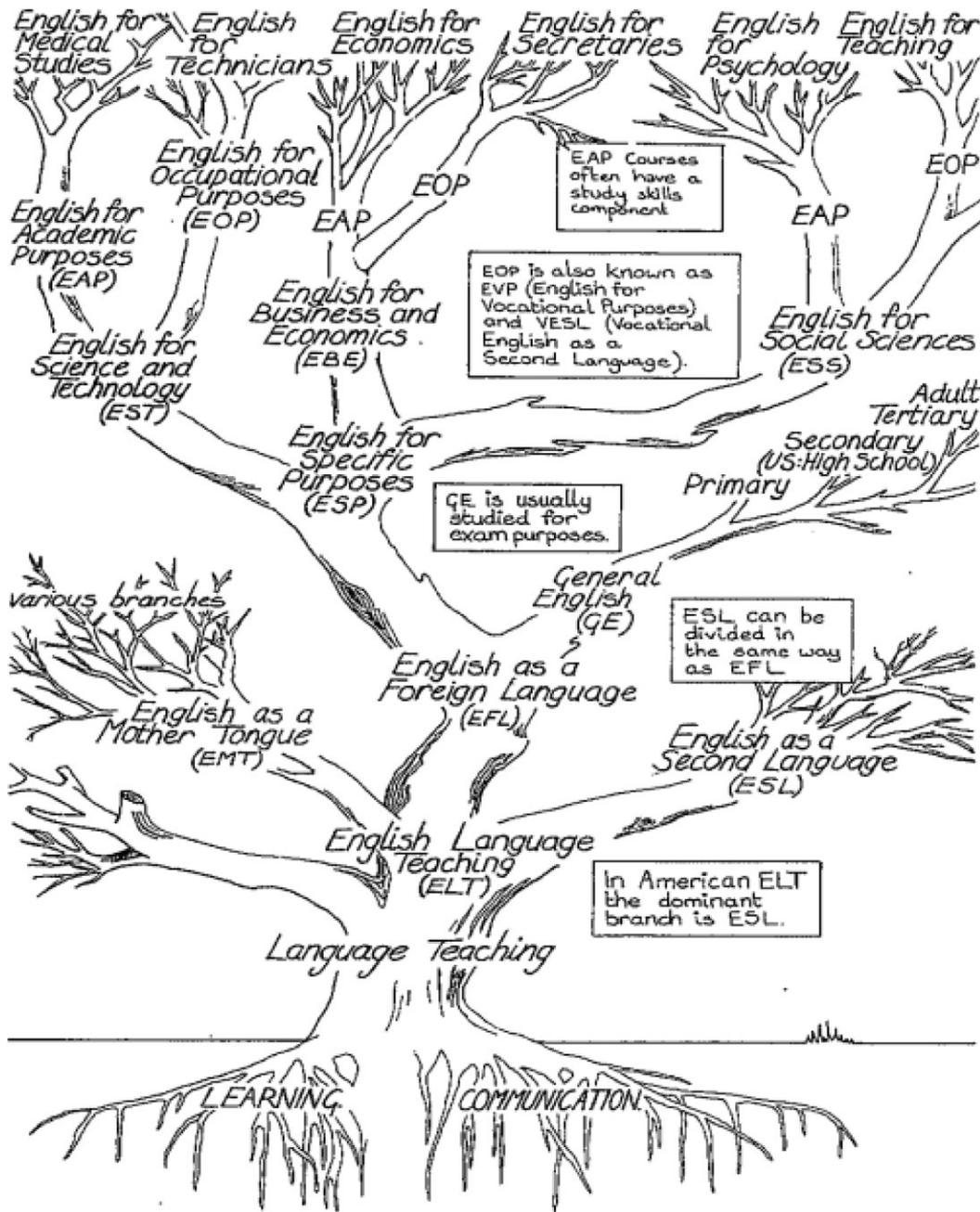
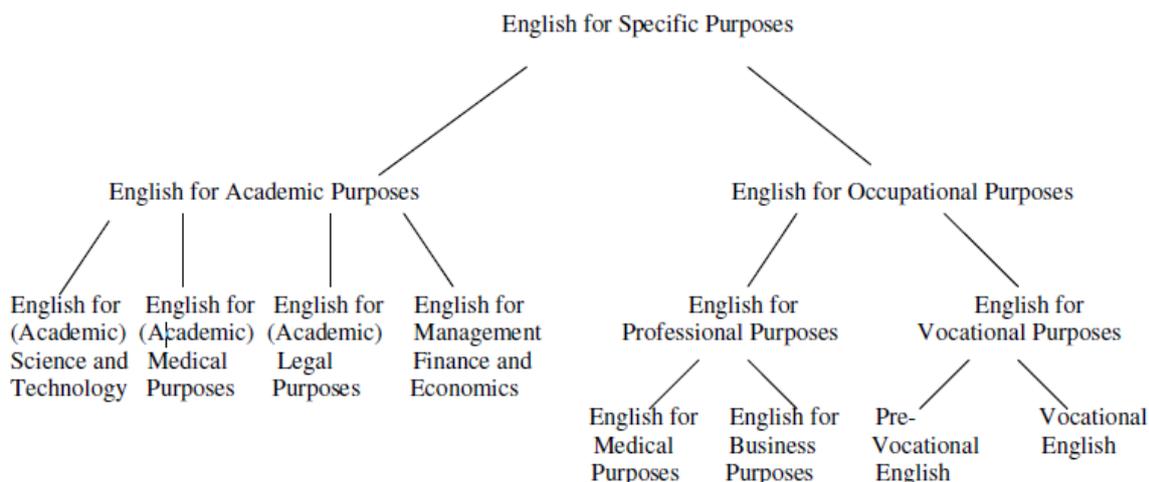


Figure 1. English Language Teaching Tree by Hutchinson & Walters (1987, p.17)

Alternatively, Dudley-Evans and St. Johns (1998) classify ESP into EAP(English for Academic Purposes), EOP(English for occupational Purposes), EST (English for Science and Technology)and EBP (English for Business Purposes). In their tree diagram, given below, they show the categories and subcategories of ESP.



Note: Dudley-Evans & St. John, 1997 (p. 7)

Figure 2: ESP Classification adapted from Dudley-Evans and St John (1998:7)

Note that in their diagram, English for Medical Purposes was categorised as both EOP and EAP. EAP in a sense that Medical students need to read English textbooks and articles, write essays and interact during the class. On the other hand, practising doctors' needs of reading articles, preparing papers, presenting at conferences, and possibly, interacting with patients in English can be categorised as EOP needs (Dudley-Evans & St. Johns, 1998).

## 2.6. English for Academic (Educational) Purposes (EAP / EEP)

EAP can be defined as the teaching of English with the specific aim of helping learners to study, conduct research or teach in that language (Flowerdew and Peacock, 2001a:8). Therefore, English in EAP can be regarded as a medium of study and not as much of a subject matter, which was advocated by Robinson (1980: 7): “English for Academic Purposes or study skills, i.e. how to study through the medium of English regardless of the subject matter or of the studies.”. Watson Todd (2003: 149) states that ‘the main goal of EAP is for students to communicate effectively in academic environments. Thus, EAP focuses on providing students with the specific communicative skills to participate in these environments (Hyland and Hamp-Lyons, 2002: 2). Therefore, EAP courses aim to help the students specialise in a particular field of study in an educational institution so as to enable them to read materials related to the particular field, listen to lectures or recordings related to the domain, make oral presentations and write reports.

## 2.7. English for Occupational (Vocational) Purposes (EOP/EVP)

Regarding EOP, it refers to the teaching of English required in employment situations; it contains professional purposes in administration, law and business, medicine, and vocational purposes for non-professionals in work or pre-work situations (Dudley-Evans and St John, 1998:7). Therefore, EOP is

often closely related to students' work or profession, because 'they are most likely required to have a certain level of English proficiency at work which is an indicator of good work performance' (Kim, 2008: 1). The teaching of English for Occupational Purposes takes into account the needs of learners in regards to the exercise of their jobs, as explained by Kennedy and Bolitho (1984): "EOP is taught in a situation in which learners need to use English as part of their work or profession." The objective of EOP courses is to meet the everyday needs of working people, and English for Occupational courses attempt to improve work-related language skills. It can be subdivided into English for Professional Purposes (EPP; e.g. EMP) and English for Vocational Purposes (EVP) or Vocational English (Dudley-Evans and St John, 1998: 6).

### **2.8. EAP Versus EOP**

The major nuisance in this regard is that in spite of its simplicity, the distinction between EAP and EOP can lead to confusion since the distinction is not straightforward (Hutchinson and Waters, 1987) in that these two broad categories frequently overlap (Belcher, 2004: 179). One can argue that the disparity between EAP and EOP lies in the nature of the learner. Namely, the learner in an EAP context is a student, while in an EOP one, he or she is an employee, to such an extent Robinson says: "EAP is thus specific purpose language teaching, differentiated from EOP by the type of the learner: future or practising student as opposed to employee or worker." (Robinson, 1991, p. 100).

Notwithstanding, this distinction is not always valid, and its vagueness can be credited to: first, the fact that there is not a clear-cut distinction between EAP and EOP, as stated by Hutchinson and Waters (1987: 16): "... people can work and study simultaneously; it is also likely that in many cases the language learnt for immediate use in a study environment will be used later when the student takes up, or returns to, a job". And the second point is that 'the goals of EAP and EOP are not always easily separable' (Belcher 2006: 134). For instance, English for Economics may be for either academic or occupational purposes. In other words, "an English course designed to help students read economics textbooks would clearly be EAP, but a course designed to teach learners how to participate in business meetings or take phone calls definitely has an EOP dimension to it" (Flowerdew and Peacock, 2001a: 11-12).

### **2.9. English for Medical Purposes**

English has gradually become the lingua franca of medical publications and conferences across the world, with scholars from various languages going for English because of the greater scientific impact and prestige associated with a wide international audience. In this sense, Ammon and Hollinger state: English has become so dominant as the International Language of science, especially of scientific publications, that its use seems to be necessary if one wants to be read or discussed outside of one's own country (1992, quoted in Hemche, 2007: 12-13). Therefore, students of medicine or any healthcare

studies need English as a means of doing their work efficiently and of furthering their specialist education' (Kourilova; 1979: 431). Moreover, the use of English in the medical field is not limited to just the countries where English is the native language; as stated before, it may be the common language used by healthcare professionals from different non-English-speaking countries. For example, in a country such as India, members of a surgical team might communicate with their counterparts in a French hospital while performing a live transmitted surgery, exchanging ideas or consulting in order to obtain the best surgical outcome; their communication would be in English even though it is not the native language of both teams, that is how widespread the English language has become.

Furthermore, recently all the most influential medical journals have been written in English, and English has become the language of choice at international conferences. Coupled with the fact that numerous recent investigative studies observed the growth in English usage in many countries and where medical scientists increasingly report preferring the use of English. Thus, we have entered the era of medical English, which is similar to the one of medical Latin in that, once again, medical staff have selected a single language for international communication. Whereas in former times, new medical expressions were derived from classical Greek or Latin roots, now they are often, partly or wholly, constituted of words borrowed from ordinary English-e.g. bypass (pontage)operation, base excess, screening, clearance,scanning.

The descriptive studies explaining the spread of English as an international medium of communication amongst medical care professionals indicate the necessity to consider special language education for medical learners. In this respect, practitioners of English for medical purposes seek to design courses and materials to address the practical needs of these learners. Especially since medical students are required to obtain ideas and information about medicine by listening to talks and lectures, viewing multimedia resources, and reading a variety of science and technology materials, most of which are in English.

Thus, English for Medical Purposes (EMP) as a subtype of ESP refers to the teaching of English to healthcare personnel like doctors, pharmacists, dentists and nurses (Maher, 1986b). Maher further explains that EMP is designed to meet the specific English language needs of the medical learner (e.g. nurse, dentist). He also asserts that it focuses on both the themes and topics specific to the medical field but on a limited range of skills which may be required by medical learners (e.g. for writing a medical paper or preparing a talk for a medical conference). Regarding the EMP courses, they are similar to all ESP courses in that their learners study English with identifiable goals, such as developing academic language skills with special emphasis on report writing, study techniques and improving oral skills. Maher states that an EMP course is designed to meet the specific English language needs of medical learners. It may focus on the restricted range of macro-skills and micro-skills, depending on the learner's

requirements, such as writing medical papers or presenting a medical case or even conducting consultations.

For us to analyse the specific needs of medical learners, it is pivotal to explore the characteristics of this special jargon and the language of healthcare personnel. Such jargon (medical lexicon) can conveniently describe a clinical phenomenon in one word; for example, it is quicker and easier to say "microcephaly" than to say "an abnormally small head." And Although medical terms have been derived from numerous languages and are terms of different origins, taken from French (e.g. massage, bougie, pipette, plaque, passage) or from Italian (e.g. influenza, belladonna, varicella), and even Arabic terms (e.g. nucha). Yet the vast majority are from Greek and Latin. Terms of Greek origin transpire mainly in clinical terminology (e.g. necrosis, anorexia, pathology), and Latin terms make up the majority of anatomical terminology (e.g. tumour, vertebra, melanocyte) as stated by Faulseit (1975, cited in (Laar, 1998)). Additionally, in the medical English register, some words that are used in daily language are represented by either technical terms, semi-technical or non-technical terms, depending on the context; for instance, if healthcare professionals are addressing patients, they would use non-technical terms, so they could be understood whereas they would use technical vocabulary if they are addressing each other Erten (2003) gave the following examples: Carpus (for wrist bone), Rubeola (for Measles), Haemorrhage (for bleed), and GERD (for heartburn). Such jargon is also filled with abbreviations, which makes communication a lot easier, especially when it comes to long technical terms (GERD: Gastroesophageal reflux disease). However, Erten (2003) points out that some abbreviations represent more than one meaning; for example, CT is used for cellular therapy, cerebral tumour, clotting time, connective tissue and so on, so the context is fundamental to infer their representations.

Moreover, Yang (Yang, 2005) states that medical terminology has two characteristics regarding the formation of the terms: 1. Apart from the one-syllable words, most medical words consist of roots and affixes. The affixes can be classified into prefixes and suffixes. Any single medical term has at least one root determining its meaning and one or more prefixes and or suffixes which alter the part of speech or the meaning of the root. 2. Medical vocabulary is not a rule-governed system but an open system consisting of a large number of low-frequency words and newly created ones. Additionally, the meaning of the terms can be deciphered through structural analysis by identifying word parts like prefixes and suffixes, allowing students to determine the words' meanings. Additionally, medical English also has different stylistic features, as pointed to by many scholars such as Ingelfinger (1976, cited in Maher, 1986b), "...an adherence to the passive voice, cumbersome diction, excessive use of initials, long sequences of nouns used as adjectives, stereotyped sentence structures and hackneyed beginnings" (p. 119).

Maher ((Maher, 1986a, p. 115) suggests two main branches of EMP. English for Medicine for Educational Purposes (EM-EP) or what Dudley Evans and St John (1998: 49) referred to as Medical

English for Academic Purposes, which involves language training as part of primary medical or healthcare studies. And English for Medicine for Occupational Purposes (EM-OP) or what Dudley-Evans and St John (1998: 49) addressed as Medical English for Occupational Purposes, which is associated with active professional requirements (e.g. consultation skills, conference presentation).

In teaching Medical English for Academic Purposes, students have to read textbooks and articles as well as write essays and short clinical reports (Dudley-Evans & St John, 1998, p. 49). However, in teaching Medical English for Academic Purposes, practising doctors read specialist articles and prepare papers and slide presentations for conferences (Dudley-Evans & St John, 1998, p. 49). Maher ((Maher, 1986a, p. 115) explains that while both teach the same skills (e.g. reading medical reports) and share content (e.g. infectious diseases), the teaching procedures, levels of knowledge and specific purposes may be different for doctors and students. Only Needs analysis can help in shaping and identifying these two basic frames. Maher (1986b: 116) further points out that most EMP courses are structured according to two essential frames, the first one being the type of learner involved (e.g., doctors, nurses, pharmacists and dentists) and the main purpose of the courses (e.g., to teach professional test preparation, practice in reading, writing, etc., or doctor-patient interaction). He also states that needs analysis can help in shaping and identifying these two basic frames.

Furthermore, the basic insight into the trends of EMP emerging as this distinguishable branch of ESP allows us to seek and attempt to offer course design, content and materials related to medical English, which can be achieved by being responsive to target language learners' own agenda. These trends emphasise the importance of intra-professional communication, spoken interactions in conferences or medical discourse communities (Master, 2005), written medical genres, including case reports, letters of referral etc. (Ferguson, 2012), and doctor-patient communication skills, which are considered by Basturkmen the heart of the field (Basturkmen, 2010). Another important aspect of EMP is written medical genres, including case reports, letters of referral etc. (Ferguson, 2013), and the fact that Medical English is also highly contextual; it is a language of its own, where Doctors and nurses use academic and technical language interspersed with common speech and workplace jargon. It rarely focuses on complete or proper sentence structure, and a good example of that is charting, where it is expected to be brief and in cryptic form (Hull, 2004).

Therefore, it is necessary to find out first what is precisely appropriate, accessible and applicable for the target situation and target language learners in terms of their needs. In discovering their needs, needs analysis is regarded as an integral part of decision-making processes in EMP. Without conducting a needs analysis process, using a medical English course book might not be enough for a medical student studying in an EFL (English as a Foreign Language) context like Algeria since most of the medical English course books in use are mostly addressing the needs of students in an ESL (English as a Second Language) context. To sum up, the dominance of English in medical accounts paved the way for the

emergence of a new ESP branch as English for Medical Purposes, which can be taught through various methods and techniques through the use of assignments, lectures, discussions, programmed learning, projects, field trips, case studies, demonstrations, workshops etc.

### **2.10. English for Science and Technology (EST)**

Whether it is taught in an educational institution or a professional environment, arguably another type of ESP, which is widely taught, is English for Science and Technology, henceforth EST. English for science and technology or EST is the part of ESP dealing with scientific topics; it grew out of the demand of "...scientists and technologists who need to learn English for a number of purposes connected with their specialities." (Kennedy & Bolitho 1984: 6). EST can be either activity-oriented when used in a professional context, or study-oriented if it is applied in a formal educational system. The point of whether EST is the third sub-branch of ESP has always been a subject of discussion amongst researchers; Hutchinson & Waters (1987) consider EST as an individual branch of ESP, and they state: "One area of activity has been particularly important in the development of ESP: this is the area usually known as EST.". Whereas others, such as Robinson (1980, 1991), argue that EST is a sub-branch shared by both EAP and EOP depending on the purpose of studying English.

### **2.11. Teaching Medical English**

The disparity between students' current language knowledge and target proficiency must be covered by appropriate and adequate Medical English teaching. Additionally, Medical English is highly technical and contextually based. In the workplace, doctors use technical and academic language and use jargon and common language. They hardly focus on proper sentence structure. Thus Medical English cannot be taught with the same methods as fundamental English language teaching (Lodhi et al., 2018). Also, we need to factor in the fact that Medical students are known to have a keen motivation to learn, which empowers their willingness to succeed in Medical English learning. They are aware of the fact that the language they learn will be a helpful instrument in getting status and better job opportunities and that it has the potential to allow them to participate actively in the exchange of scientific knowledge on an international scale since the better their Medical English is, the easier the contact with foreign patients and foreign colleagues will be. Moreover, both medical students and practising doctors get either scholarships, transitional internships or funded positions in hospitals all over the world, and since English is the Lingua Franca, students, as well as doctors, should be aware of the importance of learning medical English. While working in foreign hospitals, they find themselves under the obligation of communicating with both patients and medical staff; therefore, they seek to acquire the appropriate language skills which will allow them to write in a proper way a case history, give orders to patients and nurses and discuss problems with patients and hospital staff. They also tend to read scientific literature, deliver speeches and participate in discussions at medical conferences.

Furthermore, It is generally agreed that ESP teaching should be directed towards the needs of individuals learning the language. Regarding EMP teaching, the basic needs of medical students include understanding referent texts about the latest developments in the field of medical science, practising and improving their speaking skills with an emphasis on acquiring medical terminology through role play, pair and teamwork, and projects. In addition, practising writing skills in terms of presenting case reports or case studies and completing medical documentation is also beneficial. Furthermore, medical students should be able to follow relevant literature, write research papers, as well as participate in student exchanges and international student congresses. Such activities provide a firm base allowing them to share their knowledge and experience with colleagues from abroad, as well as to publish scientific articles in prestigious international journals (Nataša Milosavljević, 2008).

Moreover, it is generally agreed that ESP teaching should be directed towards the needs of individuals learning the language. According to the general division of ESP, English for medical purposes (EMP) can be taught to medical students for academic purposes at university. Yet can also be taught to practising doctors for academic or occupational purposes. It is, therefore, very important to differentiate between the various needs of these groups (T Dudley-Evans & St John, 1998, p. 6). According to Dudley-Evans and St John, Medical students mainly need to read textbooks and articles, write essays and short clinical reports, whereas doctors need to be able to read specialist articles, prepare papers and presentations for conferences, and interact with colleagues and patients when they will work in a foreign country (T Dudley-Evans & St John, 1998, p. 49).

Additionally, Medical English is a specialised language in many respects. Not only is its terminology very specific, but its grammar also varies from that of general English. According to Donesch (Donesch-Jezo, 2014, p. 73), the syllabus of EMP courses should comprise the use of English in four major areas, which are 1- reading scientific papers, 2- verbal communication with patients and medical staff, 3- written medical communication (writing case histories, referral letters to specialists, filling in medical documents, etc.), 4- delivery of papers and presentations at international conferences. However, we believe that teaching English for Medical Purposes to non-native English speakers includes not only the teaching of the language with its four macro-skills but also the medical jargon and other micro-skills (ones like Doctor-patient interaction, public speaking, and cultural awareness...). Aligning with O'Dowd's claims (O'Dowd, 1996), stating that Medical English teaching should not only focus on vocabulary acquisition and text analysis but also on developing communication skills, problem-solving, as well as decision-making. ESP teachers should recognise the necessity of implementing and developing the so-called higher-order thinking skills in their students so that they would be able to satisfy both professional and social requirements. Thus, the aim of such a course is to prepare students for further education or training in specific fields, where the knowledge of English would greatly facilitate this process. The goal is to instruct future medical professionals to communicate actively in English, primarily through specific situations that closely reflect the real world of professional settings. Similarly,

Maher (1986) stresses that EMP courses similar to other ESP courses should be tailor-made to the learners' purposes and needs by first thinking about who these medical learners are and what their purposes are, so as to design a specific syllabus that would enhance the communicative effectiveness of an English language course (Maher, 1986a). In order to design such specific courses, we can rely on numerous samples of courses, scholars' previously discussed materials and other strategies. For instance, researchers have attempted to develop courses using instructional methodologies such as content-based learning and problem-based learning, Grammar-translation etc. Furthermore, the use of technological equipment has been regarded as an important aspect of EMP courses since it allows real-life communication within the classroom. Various studies were undertaken to explore different ways of teaching medical terminology. Structural and traditional methods such as teaching term formation of medical terminology as a vocabulary teaching strategy and Grammar-translation have also been found in the literature.

English for medical purposes belongs to the category of discipline-specific language learning. It is well established that Medical English teaching should primarily focus on stable linguistic competence in English that is created by means of content and context-based curriculum, thus preparing students for active use of English upon graduation. In order to achieve this, it is very important that English language teaching be based on specific real situations in which the language is to be used. In addition, students should be encouraged to adopt practical skills applicable in specific future professional settings (Van Naerssen, 1978). According to Hull, the method of curriculum design and delivery for Medical English needs to shift from the traditional audio-lingual method to being contextually based and experiential. It needs to be delivered at the level of advanced English training where the focus can be dedicated to the language of the career rather than the structural foundations and rules of learning a new language (Hull, 2004). Thus, teaching should be focused on language in context and acquiring specific vocabulary, as well as on grammar and structures. This approach combines the core medical courses and an English language course. Having already oriented their education towards a specific area, medical students are generally aware of the purpose of learning English and finding it complementary in that orientation. Moreover, the knowledge of the basic field of interest allows them to identify the real context of vocabulary and language structures presented to them (Svendsen & Krebs, 1984). Additionally, EMP students are more motivated to learn, acquire and use language when the entire context of the learning is within the field of their interest, medicine and health care. All learning activities are greatly enhanced by the opportunities provided by the Instructor and within the classroom to enter into exchanges of ideas and health care practices while using a new language.

In the case of content-based classes, learners get to do the tasks in authentic contexts. Bailey (Bailey, 2000) describes such a course as organised through the concept of health to enhance students learning in an ESL context. The course usually starts with either journalistic writing, making use of a medical article, or reading books on health-related topics. And concludes with roleplays and dramas

performed after watching videos about medical issues. Bailey states that by the end of the semester, his learners made great progress in learning English since they found the course with this instruction method very authentic, immersive and useful. According to him, students' communicative skills improved with the interactions created through discussing controversial issues in the field of health. Bailey concludes that the learners experienced the pleasure of learning in groups while focusing on real and engaging health issues.

One other approach to EMP teaching is the grammar-translation method, which is still a common feature of language courses around the world (Maher, 1986b), and Algeria is no exception, where the grammar-translation method has remained a commonly practised method of ELT in general. The approach focuses on teaching the grammatical aspect of the language, such as sentence structure, parts of speech and tenses, through some medical texts and using field-related examples, impeding some translation activities every now and then. Additionally, translation can also be used to make medical texts more understandable to students. However, Newmark highlighted some eventual problems and difficulties, ones as the technical aspect of The medical language register, which can cause the translation method to fall short of the exact meaning at times; there is also the problem of standardized lexis (medical terminology, health care professionals' jargon, etc.) and the difficulty of its usage, which Newmark regards as problematic for the translator who is not a medical professional himself (Newmark, 1979). Furthermore, Maher (Maher, 1986b) argues that a heavy emphasis on translation when dealing with medical texts may not be so effective in improving Language competencies but merely encourages dependence upon the use of translation, which would be misleading at times. He identified some shortcomings to the application of translation in an EMP context, ones like the probable inaccuracy, the questionable quality of translation since teachers are not professional translators and the fact that it can prove to be time-consuming and distracting for the students. Regardless of all those shortcomings, grammar-translation method continues to be a popular way of teaching the language in most countries, that is why it is a method worth considering.

Problem-based Approach is another approach commonly applied in medical education (Huey, 2001). Huey described the aims of PBL as better acquisition and school integration of scientific and clinical knowledge, improved clinical thinking and other skills, and more effective life-long learning skills (Huey, 2001). Researchers (Huey, 2001; Kimball, 1998; Wood & Head, 2004) claim that in this approach, the tasks of the students derive from the general problem to be solved rather than being generated by the teacher and are thus a simulation of what happens in the medical field. They further maintain that this approach responds directly to students' needs. It is seen as a useful approach for teaching EAP to medical students, as it is a context-based cooperative and student-centred approach (Kimball, 1998; Wood & Head, 2004). In such an approach, students in groups can generate a problem, which could be a disease, a healthcare system or even a history of the presenting complaint notes, and other groups would discuss them and try to come up with solutions which would usually fuel fruitful

debates. Especially since small group work based on the skilfulness of each individual student is considered to be one of the important components of ESP teaching, where the objectives of teaching in small groups are encouraging students to think and discuss openly, participate actively, develop communication skills consisting of listening, explaining, asking and answering questions (O'Dowd, 1996).

Furthermore, Kimball (1998) was also one of the advocates for using problem-based learning tasks as a useful tool for the simulation of medical target settings and teaching through the web. In his course design, teachers should structure the lessons in the context of medical concepts and case studies and problem-based tasks, which would allow students to contextualise medical concepts and simulate real-world clinical thinking, and if coupled with the use of technology, it should reap even better results. He concluded that the syllabus designed with problem-solving tasks using internet web pages not only provided students with authentic sources but also reflected the foreign language needs of the medical students, as the notions about new findings, treatments, study reports, and the medical resources the students need to use are all in English. He affirms that through the web and problem-based, learner-centred activities, learners were able to experience real-world discourse, which other printed materials could not have reflected so efficiently (Kimball, 1998). Thus, the Problem-based Approach is based on an initial analysis of the problem and activation of prior knowledge through small-group discussions, together with the active processing of new information. Students learn in context with tasks that stimulate their curiosity and favour a deeper understanding and long-term memorisation, where students carry out a differential diagnosis, justify their choices and confront their hypotheses with those of other students (Faure, 2016).

Notwithstanding, there has been a wave of language learning and language teaching through a combination of behaviourism and cognitivism. Behavioural psychology promotes the teaching of the language via the emphasises on three concepts: stimulus, response and reinforcement, where learners are presented with a great deal of material over the duration of a course and regularly drilled or given oral/written feedback to reinforce accuracy and skill. Therefore, we can experience a strong emphasis on repetition with an attempt to generate a habit of using language in certain ways as a response to certain cues. Countless schools around the globe are using this method to teach English In general and Medical English more specifically. They concentrate on presenting bundles of medical terminology with very little application to the real world of medical practice. The downside to this method is that it does not nurture thinking, generalisation, or application of language other than the structured, memorised stimulus-response form. Therefore, it is a method of rote memorization, and the actual benefits of acquiring language that can be used in the career remain questionable. Note that Students studying under institutions using the behavioural method tend to do quite well on written exams of language proficiency because the exam format is so similar to the language classroom setting; therefore, the stimulus is

familiar, and the appropriate response is triggered. Yet, success on written exams does by no means guarantee the same results in the workplace.

Cognitivism, however, asserts that people acquire language by learning and internalising the rules of that language's structure (Harmer, 2007). The theory behind it is that if a student is given adequate vocabulary, they will eventually be able to create their own sentences, convey messages, and make meaning. This method is heavily reliant on teaching the language through rules and formulas, which is an exceptionally popular procedure nowadays. Lessons are created with a focus on the rule or structure for the day. Any new tasks are designed around identifying and using the rule correctly. However, this approach is, in a sense, inefficient when it comes to EMP classes since students of Medical English usually start such language studies only after requiring the foundations of the language. For that reason, the goal of Medical English should be the acquisition and application of language, not rote memorization or a direct focus on vocabulary, grammar and structure. However, Harmer points out that acquiring language subconsciously is more successful and lasts longer than learning it. He also states that currently, foreign language teaching seems to concentrate on getting the adult student to consciously learn items of language in isolation: the classroom rather than the real-life environment (Harmer, 2007). Harmer believes language acquisition is the theory of choice for teaching English for Specific Purposes. The acquisition means that vocabulary and language are acquired through a multitude of means, the most important of which is access to the language in use (in context), which is the basis of immersion courses in foreign languages.

Furthermore, there are some studies that use a mixture of approaches when teaching Medical English, where lessons are contextually and experientially based to provide practical opportunities to apply or use the language instantaneously. In such studies, the classes are interactive and promote exploration and discovery of language through discussions and exercises, and the curriculum design is based on less English language structure and more healthcare topics. The learning activities would usually include the use of actual hospital charts and forms, role-playing assessment, descriptions of medical equipment, open exploration of treatments and interventions and even discussions and debates regarding medical-health conditions and best practices. All of which should be related to the main lesson being taught. Also, in these classes, Students are encouraged to try to use language to search for synonyms, abbreviations, and alternative ways of expressing meaning to communicate with each other and peer corrections are also welcomed. Setting the teacher to be a facilitator or guide, giving feedback at the end through debriefing sessions, where the structure is incidental to the focus of the lesson, it is merely a subset of the learning, and broken English is accepted, something that we strived to accomplish in our work and a good example of such a textbook would be Oxford English For Careers Medicine 1©, where we found the book to have all of the above-mentioned topics and activities.

Additionally, medical students must also learn specialist vocabulary since it is necessary for the development of all the skills which are required in their professional setting (Donesch-Jezo, 2014). In regards to teaching medical terminology, Laar (1998) in his study, points out the need for a systematic presentation of term-forming and elements like prefixes and suffixes in medical texts. He assumed that words of Latin origin could be successfully taught via integrated teaching (Laar, 1998). The same would be said for medical English classes for non-native speakers, which would be surprisingly much easier in that context, especially since it shares the same origin as French, which is the medium for medical studies in Algeria. The latter applies to the terms of multilingual usage, which are found in several languages in phonetically, grammatically and semantically similar forms; they could be included in English courses to improve text comprehension and so that students can establish the link as well as clarify any misnomers. Laar states that as the English language is enriched by Latin and Greek borrowings, the English course is the most reasonable framework within which to teach Latin and Greek elements found in medical terms to students studying medicine (Laar, 1998). Thus, we believe that it is the ESP practitioner's responsibility to teach such concepts and help learners break down the medical terms known for their complexity and variation.

The ESP practitioner can set some goals for the English classes, like preparing students for the examination of the patient, writing a case report and oral communication in English. In other words, they can try to create some real-life situations where English was used, focusing on "a special set of vocabulary" which constitutes the medical jargon. Of course, adapting these objectives to the level of the students. Furthermore, Medical English teaching represents a constant challenge for teachers because they need to be flexible, open to new approaches and methods, make decisions and adapt themselves to constant changes. In this context, they should take on the role of organisers whose job is to create the conditions and opportunities for learning and provide assistance to students in the acquisition of knowledge and skills necessary to achieve their professional and academic goals. In addition, long-term learning is at the core of higher education, and being equal partners, both students and teachers should be aware that education is a two-way process (N Milosavljević et al., 2015). Regarding the dispute of who should teach English for medical purposes, the ESP practitioner or the subject specialist, Pauline Webber, states the teacher is at an advantage linguistically anyway, and the learners will, in fact, probably feel more relaxed at speaking in front of a teacher who is just a language expert and not a subject specialist, too, who might become an over dominant figure in the class (Webber, 1995). In that regard, the teacher may admit ignorance of the specialist discipline but must never give the impression that the subject itself is uninteresting or unimportant (Webber, 1995).

With all of the above, we can safely assume that teaching EMP is primarily focused on language in context and acquiring specific vocabulary, as well as on grammar and structures. The aim of such a course is to prepare students for further education or training in specific fields, where the knowledge of English would greatly facilitate this process. As stated before, the goal is to instruct future medical

professionals to communicate actively in English, primarily through specific situations that closely reflect the real world of professional settings. This approach combines the core medical courses and an English language course. Having already oriented their education towards a specific area, medical students are generally aware of the purpose of learning English and find it complementary to that orientation. Moreover, the knowledge of the basic field of interest allows them to identify the real context of vocabulary and language structures presented to them (Svendsen & Krebs, 1984). That denotes how demanding the teaching of English for medical purposes can be. The ESP practitioner, therefore, should first analyse the students' specific needs and only then consider which mixture of these approaches can be best suitable for their learning. This means that needs analysis is the first step for an appropriate course design. The provision of this type of course or curriculum will improve the student's motivation to learn and participate in learning activities. Immersion activities and exposure to native English speakers in video-audio or even written materials are crucial elements in enculturating the Medical English student into the way career-specific language is actually used. Designers and teachers need to be cognizant of the purpose and philosophy of the curriculum and the goals of their students. The context of lessons needs to be relevant to the work the health professionals are doing and will be doing in the future to make it valuable to them (Hull, 2004).

To conclude, English language courses for EMP students should enhance the communicative effectiveness of EMP learners. It should be based on instructional methodologies like content-based and problem-based learning. For the purpose of real-life communication in the classroom, the use of technological equipment is another important aspect of the EMP course, coupled with the relevant lessons and case studies (consisting of easy and complex medical practices, anatomy, physiology, pharmacology, pathology and treatment) (Lodhi et al., 2018). Moreover, the communicative, academic and professional language needs of medical students may vary depending on what stage of their carrier they are; therefore, it would be beneficial if we could mix the previously mentioned approaches to structure and plan the course from the inclusion of problem-based activities to the use of videos or audio recordings of conversations in real settings, all the way to the traditional passage translation and grammatical rules.

### **2.12. Learner's Autonomy in EMP**

According to a study established by Zorica Antić, developing autonomy within the students of the Faculty of Medicine is crucial for numerous reasons; for starters, students have different individual needs for their professional lives, therefore, different language needs, yet the majority have grown accustomed to over-rely on teachers in their language learning careers, which is something very similar to what we are experiencing in Algerian universities. Another reason would be the need to prepare the students for self-directed learning outside the classroom to acquire the habit of learning continuously, something that is considered the cornerstone of tertiary education. The last point is the fact that English

teachers at the Faculty of Medicine usually have less medical knowledge than the learners, so they are perceived as lay people as opposed to 'expert' students, so they can't possibly answer all questions, hence the need for students to do some extra course research every now and then (Antic, 2007). And, Since teachers cannot provide the students with all the skills and knowledge they would like to have due to various reasons, one of which might be time restrictions, the best way to help students is by providing them with strategies on how to learn by themselves (Antic, 2007), which is the first step towards autonomy, and encouraging the students to take responsibility for their own learning.

Learner autonomy was first defined by Henri Holec in the early 1980s as "the ability to take charge of one's own learning", noting that this ability "is not inborn but must be acquired either by 'natural' means or by formal learning, i.e. in a systematic, deliberate way" and "The self-directed learner chooses the methods of instruction through trial-and-error" and "For teachers, it means new objectives which help the learner define his personal objectives and help him acquire autonomy." (Holec, 1981). additionally, Autonomy has been described as "a capacity - for detachment, critical reflection, decision-making, and independent action. The capacity for autonomy will be displayed both in the way the learner learns and in the way he or she transfers what has been learned to wider contexts" (Little, 1991, p. 4). Autonomy is also defined as "the competence to develop as a self-determined, socially responsible, and critically aware participant in (and beyond) educational environments, within a vision of education as (inter)personal empowerment and social transformation" (Raya et al., 2007, p. 1). So There is nevertheless broad agreement that autonomous learners understand the purpose of their learning programme, explicitly accept responsibility for their learning, share in the setting of learning goals, take initiatives in planning and executing learning activities, and regularly review their learning and evaluate its effectiveness (Holec, 1981; Little, 1991). Thus, it can be inferred that in order for learners to have more autonomy, teachers are encouraged to turn some power over to the learners and simultaneously take such roles as bystanders, facilitators, guides, or helpers.

Furthermore, ESP teachers cannot force students to learn the thinking process, but they can increase the awareness of their own inner potential through the practice of the so-called sub-skills. These sub-skills include analytical thinking, problem-solving, deduction, and the use of imagination. In order for these skills to be improved, teachers are expected to adopt attitudes and approaches that would involve students in various activities in class (O'Dowd, 1996). Thus, the ESP practitioner attempts to provide circumstances that would enable the students to be engaged with the learning opportunities and construct their own understandings and skills. Thus, an ESP teacher must be flexible and open to new approaches and methods. It takes a lot of effort and research in the field of specialised studies of their students, but turning to new environments is always an enriching experience.

ESP courses present a challenge for teachers because they have to learn how to share their power with the students, cooperate in decision-making and constantly adjust to changes. Autonomy is based

on contact, mutual learning and interactions with the aim of creating a syllabus appropriate for the students of medicine. Zorica Antić believes that students can help in planning the course itself since they usually transfer their knowledge of medical subjects onto the English course, which enables the development of student autonomy (Antic, 2007). In this context, the teacher should take on the role of an organiser, assessor, designer, facilitator and implementer in the process. One who is tasked with creating conditions and opportunities for learning, whose responsibility is to help the students in acquiring knowledge and skills necessary for fulfilling their goals.

Autonomy presents a necessity in society which puts great emphasis on lifelong learning. The first step towards autonomy is encouraging the students to take responsibility for their own learning. The concept of student autonomy and successful learning are closely connected (Antic, 2007). For Zorica Antić, there is a set of aspects of learner's autonomy that should be nourished in EMP classes, which are: 1-Developing awareness of the learning process. 2-Teacher gradually releases control. 3-Learners are given more responsibility for their studies. 4-Learners acting as teachers in designing and checking through activities. 5-Oral presentations by learners. 6-Learner – produced materials. 7-Feedback sessions. 8-Self and peer evaluation. 9-Use of authentic materials. 10-Building of positive attitudes for learner autonomy. 11-Accepting different degrees of autonomy in learners. 12-Teacher and peer support (Antic, 2007). These aspects stated by Zorica Antić align with our vision of the purpose of the Medical English course, one where students are motivated and engaged due to the interactive activities.

To sum up, autonomy is a goal that needs to be pursued systematically in each lesson. It is not a prerequisite that students have to master but a skill the ESP practitioner has to nurture. Poorly developed independence and learning strategies may result in the loss of self-confidence in learning a foreign language and a feeling of aversion towards the further development of communication skills of the language as well as other sub-skills. Thus, it is not just the responsibility of students to be successful in their pursuit of knowledge and professional success. Teachers must also play their part in enhancing the learning and participation of EMP students by developing teaching strategies that best suit their needs and goals (Popa, 2013), focusing on ways in which autonomy can be fostered within a language curriculum and pointing students towards what can be done in order to develop the ability to manage personal learning. Moreover, when learners graduate, they want to be able to use the skills and sub-skills, and the best way to build student motivation is to enable them to develop strategies for lifelong learning.

### **2.13. Needs Analysis**

#### **2.13.1. Definition**

The efficiency and effectiveness of ESP courses in higher education institutions have become high-priority objectives over the past two decades, following the trend towards ensuring quality in

teaching. But in order to select the appropriate approach, method and techniques to teach any given language element, we must first pinpoint our students' Needs, lacks and wants, and the standard means to do that is through Needs analysis since it is a useful tool in gathering information about the attitudes, beliefs and opinion of the learners and teachers and concurrently a more comprehensive Needs analysis can be conducted to gather information about all contextual factors (Boroujeni & Fard, 2013).

Needs analysis (NA) is an information-gathering process, its emergence in language planning can be traced back to the 1970s, and its widespread proliferation in the domain is attributable to its adoption by The Council of Europe's modern language project (Boroujeni & Fard, 2013). Richards (Richards, 2001) claims that the ESP movement is what introduced needs analysis into language instruction and course design. It was only then that instructors when designing courses, started trying to figure out the needs of the students and attempt to design matching goals and objectives to meet them.

Needs analysis is considered by numerous scholars as a central aspect of the ESP course; the literature suggests that needs analysis should be regarded as the starting point when developing a curriculum, designing syllabi, planning courses, or even adopting materials effectively (J. D. Brown, 1995; Dudley-Evans & St John, 1998; K. Graves & Xu, 2000; Hutchinson & Waters, 1987; Richards, 2001). A number of different or overlapping definitions have been given to describe needs analysis; the concept denotes the presence of needs. And simply put, a need refers to "a gap between the real and ideal conditions that are both acknowledged by community values and potentially amenable to change" (Reviere et al., 1996, p. 5). Needs analysis, by definition, "...contrasts with the assumption underlying many methods, namely, that the needs and goals of learners are identical, that what they need is simply 'language,' and that Method X is the best way to teach it" (Richards & Rodgers, 2014, p. 156). Thus, a prerequisite to carry out foreign language teaching, as well as the foundation of foreign language curriculum design, which has important theoretical significance for building a scientific medical English teaching model (Li, 2015).

In devising ESP courses, scholars (Harmer, 2007; Nunan, 1988) stress that it is highly critical, to begin with creating a learner profile and searching for the target learner's expectations about the different aspects of the course, hence the need for a Needs analysis. Additionally, it is generally agreed that ESP teaching should be directed towards the needs of individuals learning the language. Regarding EMP teaching, the basic needs of medical students include understanding referent texts about the latest developments in the field of medical science, practising and improving speaking skills with an emphasis on acquiring medical terminology through role play, pair and teamwork, and projects. In addition, practising writing skills in terms of presenting case reports or case studies and completing medical documentation is also beneficial. Furthermore, medical students should be able to follow relevant literature, write research papers, as well as participate in student exchanges and international student congresses. Such activities provide a firm base allowing them to share their knowledge and experience

with colleagues from abroad, as well as to publish scientific articles in prestigious international journals (Nataša Milosavljević, 2008).

Needs analysis is generally conducted by gathering information from learners, people working or studying in the field, ex-students, documents relevant to the field, clients, employers, colleagues, and ESP researchers (Dudley-Evans & St John, 1998, p. 132). Each group will present needs specific to their own structure. As is stated, needs assessment is "population-specific", "empirically based, and outcome-oriented" (Reviere et al., 1996, p. 6); it can be achieved via various methods such as questionnaires, discussions, interviews, observations, assessments, meetings and even placement tests. Interpreting the results and then acting on these interpretations when making course decisions and materials design.

On the other hand, Graves and Xu (K. Graves & Xu, 2000) define a needs analysis as a systematic and ongoing process of gathering information about students' needs and preferences, interpreting the information and then making course decisions in order to meet those needs. They maintain that every curriculum design should begin by conducting a needs assessment, followed by the selection of materials, the design of the syllabus and the assessment of students' performances and the overall effectiveness of the program. They underline, therefore, that Needs analysis is the formal way for teachers to identify the learners' specific objectives and then translate these wants into linguistic and pedagogic notions in order to develop and organise an effective course. Furthermore, Brown (J. D. Brown, 1995) defines needs analysis as "the systematic collection and analysis of all relevant information necessary to satisfy the language learning requirements of the students within the context of the particular institutions involved in the learning situation" (p. 21). Stressing the fact that needs analysis refers to the activities and procedures used to gather the information that can be employed to develop a curriculum that would meet the learning requirements of a specific group of students.

Similarly, Richards, Platt and Weber (1985, cited in (J. D. Brown, 1995)) define needs analysis as "the process of identifying the requirements for which a learner or group of learners necessitates a language and arranging the needs according to priorities" (p. 35). Analysing students' needs would enable practitioners to gain insight into the content and the design and implementation of a language program. Thus, allowing them to develop goals, objectives, materials, and content and provide data for assessing the existing program. Lepetit and Cichocki (2002: 384) also affirm that 'curriculum designers and planners must understand the students' perceptions of language, their needs in the area of FL learning'. That is why Mackay (Ronald Mackay, 1978) stresses the fact that using informal approaches and intuition to predict learners' needs will inevitably lead to vagueness, confusion and even erroneous outcomes.

Learner needs should, by no means, be limited to language needs. Needs and wants should be interpreted so as to give guidelines for the selection and manipulation of teaching materials and topics which will, in turn, lower anxiety levels and amplify motivation among learners. They may also be used

to test the appropriateness of pedagogic tasks for renewal and improvement, as stated by Long & Crookes (M. H. Long & Crookes, 1992, p. 37): "The role needs analyses to play in curriculum development is obvious. It almost acts as a standpoint for goal setting and material selection, and syllabus design in general. With a systematic analysis of needs in a school environment, more consistent and rational decisions can be made for the modification and renewal of language programs."

One additional step in the Needs analysis is Data collection, the importance of data collection procedures aiming at the identification of the demands of the target and learning situation and the genres to be adopted (Dudley-Evans & St John, 1998) are widely acknowledged as essential stages for the development of ESP course design. Nunan (Nunan, 1988) points out that the collection of such data is the initiating point for developing a learner-centred curriculum. In learner-centred curriculum design, considering learners, their needs, and their motivations is very important, and thus, learning is seen as a process in which learners should take part in the process of designing courses (K. Graves & Xu, 2000; Nunan, 1988). He also claims that for a fruitful learner-centred curriculum, the participation of program administrators and the collaborative work of teachers, as well as the involvement of many students, in the process of developing the curriculum is crucial. This is backed by Brown (J. D. Brown, 1995), pointing out that information collected from learners, as well as other sources such as teachers, employers, administrators and institutions, must be considered important data to achieve a reliable analysis of learners' needs.

For Gardner and Winslow (Gardner & Winslow, 1983), needs analysis is conducted to produce information that, when acted upon, makes courses better suited for students' needs. They also stated that "...a part of the objectives of formal needs identification is to back up one's proposals with quantitative evidence of their importance." (Gardner & Winslow, 1983, p. 76). They added, "In many cases, concrete evidence of particular needs, such as these surveys produced, could be directly used as part of the course validation/approval procedure" (Gardner & Winslow, 1983, p. 76). According to Li(Li, 2015), Needs analysis, on the one hand, contributes to better achieving teaching objectives and, on the other hand, helps to improve learners' enthusiasm for learning. Stating further that Needs analysis has at least four major functions: to provide a basis for the development of language education policies and the introduction of foreign language courses, to provide the basis for content design and implementation for foreign language courses, to provide a basis for determining the purpose of foreign language teaching and teaching methods, to bring reference inspection and evaluation for foreign language courses(Li, 2015).

Additionally, Hutchinson and Waters (Hutchinson & Waters, 1987) regard needs analysis as not a once and for all activity but rather a continuing process. This aligns with Nunan's (Nunan, 1988) recommendation that needs analysis procedures should occur not only in the initial stages of curriculum design but rather continuously throughout the courses. Similarly, Graves (K. Graves & Xu, 2000)

affirms that when needs analysis is implemented into the teaching methodology as an ongoing process, it supports the learners to better evaluate their learning process, to become more aware of their needs, and thus “gain a sense of ownership and control of their own learning process” (p. 98). Basturkmen also points out that needs analysis “plays a role in refining and evaluating ongoing ESP courses” (Basturkmen, 2010, p. 25). Since, Needs Analysis has already been used successfully in Europe as a first step in both designing new course curricula and revising existing ones (Lepetit & Cichocki, 2002).

According to Dudley-Evans and St John (Dudley-Evans & St John, 1998), the data obtained from needs analysis allow researchers to set course objectives and determine a scientific approach to teaching. Therefore, ongoing needs analysis allows teachers to revise objectives and modify teaching techniques and materials, which allows us to constantly check and re-assess the conclusions drawn in the initial analysis. They also noted that a needs analysis must be “...interrelated with course design, materials, teaching/learning, assessment/evaluation” (p.121). They concluded by stating that it is an ongoing process of “...establishing the what and how of a course” (p.121). Dudley-Evans and John (1998, p.125) also present a comprehensive framework of needs analysis:

A. Professional information about the learners: the tasks and activities learners are/will be using for - target situation analysis and objective needs.

B. Personal information about the learners: factors which may affect the way they learn such as previous learning experiences, cultural information, reasons for attending the course and expectation of it, attitude to English - wants, means, and subjective needs.

C. English language information about the learners: what their current skills and language use are - present situation analysis – which allows us to assess (D).

D. The learners’ lacks: the gaps between (C) and (A) – lacks.

E. Language learning information: effective ways of learning the skills and language in (D), i.e. learning needs.

F. Professional communication information about (A): knowledge of how language and skills are used in the target situation – linguistic analysis, discourse analysis, genre analysis.

G. What is wanted from the course?

H. Information about the environment in which the course will be run – means analysis.

Nevertheless, needs change, or at least, perceptions of needs can change; new perceptions emerge as the course goes on, and objectives may need to be modified (Robinson, 1991). Curriculum evaluation, as an integral part of course development (Fashola, 1989), could be an effective tool to help identify the extent to which needs are met. Richards (Richards, 2001, p. 288) explains that “evaluation may be

carried out as part of the process of program development in order to find out what is working well, what is not, and what problems need to be addressed". Graves & Xu (K. Graves & Xu, 2000) define this ongoing character as a cycle with steps: starting by deciding what information to collect and the rationale behind the choice, then selecting the most convenient way to collect that information (what data need to be collected, when they should be collected, by whom, through what means and for what purposes.), after collecting the information, we get to interpret it, performing based on the results, assessing the effect and effectiveness of the action, and last but not least, deciding on further or current information to collect. Dudley-Evans and St John (Dudley-Evans & St John, 1998, p. 129) add that "evaluation will also show weakness or features that were just not suitable for the particular groups of learners".

NA can be used for a range of purposes; it can be helpful in determining whether a program should be implemented by finding out if it matches the goals and objectives of the learners for learning a language and, at the same time, used as part of a program making it more oriented towards the needs of the learners. It can also help in evaluating an existing program and, if found deficient, can help in establishing the need and selecting what kind of change may appropriately match the needs of the learners and simultaneously be acceptable to teachers (Boroujeni & Fard, 2013). When it comes to the EMP student's needs, the ones of students studying EMP in a non-English medium country might be different from those doing so in an English medium. Munby (1978: 2) affirms that 'there should be important differences in the English course for a non-native requiring English in order to study medicine in his own country as opposed to an English-speaking country. The reason is that a deficient concept of needs might impede analysis or probably render the outcomes insufficient, incompatible and inapplicable. For instance, ignoring affective factors (e.g., motivation and attitudes towards the target language) might limit needs to merely linguistic ones. In such cases, Robinson asserts that Need analysis may provide two important pieces of information, the first relates to the current level of knowledge, motivation and previous learning methods; the second relates to students' aspirations. Therefore, such pieces of intel will be of great help to the teacher to adequately perform his role (Robinson, 1980).

To sum up, needs analysis is considered the process of accumulating data that would reflect the profile of learners' needs in order to make sound decisions about the objectives, the nature and the content of a curriculum, and how to achieve these identified needs. In other words, it is a cyclical and ongoing process that can take place before, during and after the courses, considering the fact that the needs may vary over time. It has had the beneficial effect of reminding teachers, ESP practitioners and syllabus designers that the ultimate objective of language teaching is to enable the learner to communicate; as Cunningsworth highlights, the outcome of needs analysis application as greater sensitivity to students' needs is seen in terms of a profile consisting of a number of variable and interrelated features, including stylistic appropriateness, level of attainment, receptive/productive abilities, medium (speech/writing), units of meaning and forms of English (Cunningsworth, 1983, p. 154). Consequently, to be able to accept the range of concepts such as those outlined by the scholars

above (J. D. Brown, 1995; Dudley-Evans & St John, 1998; K. Graves & Xu, 2000; Hutchinson & Waters, 1987; Reviere et al., 1996; Richards & Rodgers, 2014). One must regard Needs as this umbrella term. West (1994: 3) suggests that this approach might reflect interesting differences in points of view and help the undertaking of different forms of Needs Analysis.

### 2.13.2. Types of Needs

In the literature, the concept of needs is described in similar yet somehow overlapping ways. The work of Brindley (Brindley, 1989) points to the fact that there is some difficulty in finding a usable definition of needs in terms of second language learning. In a similar fashion, Richterich (Richterich, 1980) states that “the very concept of needs has never been clearly defined and remains at best ambiguous” (p. 64). Nevertheless, Brindley (Brindley, 1989) was able to put forth two categories of needs: subjective needs and objective ones. According to Brindley, objective needs can be determined through observation of the situation, the learners, and their use of language, thus referring to the needs which can be gathered from different kinds of information about learners, how they need to use language to communicate in real life situations, along with their current level of language proficiency and what else they need to learn. Subjective needs, however, refer to the learners’ needs in the learning situation and are the unmeasurable data, thus are more complex and difficult to observe; they can be understood from affective and cognitive factors, such as learners’ personality, confidence, attitudes, wants, expectations regarding learning English, cognitive styles, and learning strategies.

On the other hand, Berwick (Berwick & Johnson, 1989) named two different needs, perceived needs and felt ones. The first, like objective needs, are presumptions of authoritative experts on the educational gaps in learners’ learning experiences; the latter is similar to subjective needs, which learners suppose they require and can be defined as the wants and desires of the learners. In contrast, Hutchinson and Waters (1987) coined the terms Target needs and Learning needs. Target needs involve what learners require to act in the target situation effectively, and learning needs involve what learners are required to do in order to learn effectively. Additionally, Hutchinson and Waters established a set of questions to identify the target language needs: “Why is the language required? How will the language be performed? What will the content areas be? Who will the learners use the language with? Where will the language be used? When will the language be used?” (p. 59). They used the umbrella term “Target needs” to reflect the target situation in terms of necessities, lacks and wants. For them, Necessities were the types of needs that are determined by the desires of the target situation, which means what learners have to know in order to function, i.e., use the language effectively in the target situation. They selected the term ‘lacks’ to refer to the gaps between target proficiency and the existing proficiency of the learners. And the ‘wants’ of learners could be regarded as subjective needs, and since they represent the learners’ expectations, Hutchinson and Waters argue that they can have a great impact on learners’ motivation in the learning process. Thus, Target needs are associated with how the students may need

to use language in their future academic or occupational field and also the necessary language skills they need to acquire to perform effectively in the target situation.

On the other hand, learning needs examines what the learners can perform in the existing learning environment along with their skills, problems, and perceptions. They designated these questions for these needs: “Why do the learners take this course? How do the learners learn? What resources are available? Who are the learners? Where will the ESP course take place? When will the ESP course take place?” (p. 62). Therefore, learning needs are concerned with how learners learn to use language efficiently, the learners’ reasons for studying the language and what language problems they mostly face. In this regard, Widdowson’s sense of two distinct kinds of needs analysis is germane. One kind, fixed on goal-oriented needs, considers what students will do with their knowledge of L2 as they proceed in their academic and/or professional careers. In contrast, the second kind of analysis, as depicted by Widdowson, is process-oriented and focuses on the presentation of language by reference to the means of learning (Widdowson, 1983, p. 2), an orientation that current developments in ESP have been responsive to. Additionally, the very elements of analysis have increased in number and variety, and the sometimes conflicting results of analyses have led to more encompassing, multifaceted views of needs (Long & Crookes, 1992).

Brown (1995) had a different classification, though, for him, Needs may either occur in the form of situational needs or language ones. The first is the type of information focusing on the human aspects of a language program, which are related to "administrative, financial, logistical, manpower, pedagogic, religious, cultural, personal, or other factors that might have an impact on the program"(Hatch & Brown, 1995), it could also refer to the physical, social, and psychological context where learning occurs, the language teaching materials available, and the dissimilarities and similarities in the students’ social backgrounds, which might have an impact on the learning process. And the second is language needs, which include" details about the circumstances in which the language will be used, the dimensions of language competence involved, the learners' reasons for studying the language, their present abilities with respect to those reasons, and so forth," i.e. the targeted linguistic behaviours that the learners should gain. These needs contain details about the situations in which language is likely to be used, the required competency, and learners’ reasons for learning a language. Therefore, one can argue that Brown’s ‘language needs’ are somewhat similar to Brindley’s subjective needs and Hutchinson and Water’s learning needs in terms of their role throughout the learning process. Similarly, the target needs, situation needs and learning needs of the students are seen as closely related to each other and, thus, similarly important for curriculum renewal.

### **2.13.3. Methodology of Needs Analysis**

Needs Analysis has crucial importance in Language learning in general and ESP in particular, and the process in which Needs Analysis is undertaken stands on almost equal importance. There is a set of

issues that ought to be taken into consideration before conducting a needs analysis, such as deciding on who will be involved in the study, what type of data will be collected, how such data will be collected and how they will be analysed and interpreted. Regarding the first issue, Brown (1995) describes four categories of people who should be involved in the Needs analysis process: the target group, the audience, the needs analyst, and the resource groups. The target group involves people about whom the information will be gathered. They can be students or teachers whose needs are being analysed. The audience, on the other hand, refers to the people who will directly make use of the outcomes of the assessment process, such as teachers, administrators and governmental institutions. Needs analysts are those who are responsible for conducting the needs analysis in a reliable and valid way. The resource group, however, includes any group of people who may serve as sources of information about the target group, like parents, language instructors, content-area instructors, and employers. Brown points out that identifying each category is of paramount importance in order to avoid excluding valuable individuals or groups.

Regarding the type of data to be collected, Brown (1995) proposes four views or philosophies to consider: Discrepancy, democratic, diagnostic and analytic. In the first one, needs are considered as discrepancies or differences between the performance demanded from learners and what they are currently achieving. In the democratic philosophy, a need is defined as any change that is demanded by a majority of the group involved. In the diagnostic philosophy, needs are anything that, if missing, would be harmful to the learning process. And an analytic philosophy defines a need as anything the students can intuitively be expected to need next based on what was acquired about them and the learning process involved. For the data collection instruments, various methods and types of instruments can be used to collect data. The most frequently used instruments are questionnaires, analysis of authentic spoken and written texts, discussions, structured interviews, observations and assessments, including formal or informal judgements of learners' performance or progress (Dudley-Evans and John, 1998, p.132).

On a Similar note, Brown believes that assessments in the form of tests are a good source of information in terms of identifying the general language mastery levels of students. He further acknowledges that interviews may be exploited thanks to the open-endedness aspect that they can bring to the data collection. As for observations, they involve watching an individual or a group of individuals and recording the behaviours that take place. Observing a group of people while they are meeting and engaged in a task may provide useful information about the people and the program.

Brown also points out that meetings are different from interviews as they can also be structured in a way that participants can be provided with some tasks like reaching a consensus. It can prove to be very fruitful in private language schools and also with adult learners who already have their occupation. In such meetings, the groups of people involved in the language program can come together and discuss the different program philosophies, the different views as to what their needs are and the objectives

related to them to reach a compromise and an agreement. Concerning questionnaires, they are viewed as a useful and time-efficient way of collecting data that can be applied to a large group of people, like the case of our studies where the number of students might exceed three hundred. Graves (2001) also points out that these questions should be clear and not ambiguous to avoid misunderstandings.

As for data analysis, it cannot be stressed enough how important it is. The understanding of these needs can then be used as the basis on which to define appropriately the effective objectives, goals, syllabus and teaching methodologies which constitute the major part of the curriculum. In order to analyse data, Computer-assisted techniques can prove to be extremely useful, especially for surveys of large populations and for questionnaires or interviews that involve a large number of questions. Regarding open-ended questions in questionnaires, they can be categorised and analysed by hand (Schutz & Derwing, 1981). And observations and interviews' data would be qualitatively processed. After the analysis of the results, Researchers interpret them and give implications for the design and development of ESP programs which should meet the needs of the learners whose needs have been assessed. Supported optionally by implications for further studies.

Similarly, Jordan (Jordan, 1997, p. 23) presents a list of steps to undertake a Needs Analysis in EAP, which could also be applicable to other types of ESP (EMP in our study), and would later be applied in our study, he states that the first step is to identify the purpose of the analysis and delimit student sample, then decide upon approaches, after that, select methods of collecting data after you have acknowledged the constraints and limitations of the study, It is only then that you could collect data and attempt to analyse and interpret your results, followed by determining the selected objectives. At a later stage, you get to Implement decisions (i.e., decide upon syllabus, content, materials, methods, etc.), and finally, Evaluate procedures and results. Jordan notes that the first step in carrying out a Needs Analysis is to identify its main purpose. Therefore, the reasons for analysing learners' needs should be clear and specific. For instance, when a Needs Analysis of future healthcare professionals is carried out (like in the case of our study), the purpose should be to determine what language skills, activities, and tasks will be required to enable them to function effectively in their academic discipline and future workplaces, and at the same time identify their attitudes towards learning English and ESP.

Accordingly, the Needs Analysis process should start by pinpointing its main objective (what information to collect and why it is needed), as well as identifying its target groups and data collection methods. Triangulation of the target group and methods is of utmost importance in Needs Analysis so as to have different perspectives and data on each aspect of the ESP course and students' needs (Jasso-Aguilar, 1999; M. Long, 2005; Orr, 2005). As soon as we identify the purpose, the target group (i.e., informants) and the methods of the Needs Analysis, we proceed to the collection of the required data on target needs. To such ends, Hyland (Hyland, 2006, p. 78) lists the most commonly used procedures for collecting needs data: questionnaires, analysis of authentic spoken and written texts, observations,

informal consultations with faculty members, learners and ESP teachers, and assessment results. Nevertheless, as Richards (Richards, 2001, p. 63) notes, it is important to make sure that only data which will be used is collected.

The subsequent stage would concern organising, analysing, interpreting and reporting the data collected. According to Dudley-Evans and St John, a decision has to be made on the statistical techniques that will be used in analysing the quantitative data and on the methods of qualitative data analysis prior to data collection. Once data is analysed and interpreted, a profile of the typical learning and target needs can be established, all while keeping in mind that the findings from a Needs Analysis are not absolute but relative (Dudley-Evans & St John, 1998, p. 126).

On another note, Richards asserts that: "needs will have to be prioritised because not all of them may be practical to address in a language program' and 'decisions will therefore have to be made concerning which of the needs are critical, which are important, and which are merely desirable" (Richards, 2001, pp. 65–66). This implies that the main and ultimate purpose of the Needs Analysis process is to develop an ESP course which would better meet students' needs. Yet, the course should be on evaluation in order to find out to what extent these needs are met, i.e. it should be an ongoing process in that it should be employed not only to design a course but also to improve the ongoing ESP course (Basturkmen, 2010; Dudley-Evans & St John, 1998).

#### **2.14. ESP Curriculum Design**

Graves defines language curriculum as: '...planning what is to be taught/learned, implementing it and evaluating it' (K. Graves, 2008, p. 149). Every course has its own curriculum in which objectives are set according to the target-specific needs of its learners. What is important in designing special programmes is to consider the level of students' knowledge of the English language. Some students are beginners; some have an intermediate level of English, while others have a high level of English and strive to improve their knowledge. For this reason, it is very important to begin the process of designing an adequate programme by performing an adequate needs analysis. Such an analysis may provide two important pieces of information: the first relates to the current level of knowledge, motivation and previous learning methods; the latter relates to students' aspirations. Therefore, this information will be of great help to the teacher to adequately perform his role (Robinson, 1980).

Additionally, the key point in course design is selecting suitable teaching materials to the learners' needs, which can be achieved through the selection of authentic materials to match learners' targeted needs, something that requires Needs Analysis to be achieved. These materials can be case reports, articles, video recordings of real dialogues, and other simulations of real-life situations. This aligns with Dudley Evans and St. John (1998) recommendations, consisting of using authentic tasks, for example, real-life project-based tasks related to the learners' fields of study, in order to prepare them for their

actual professional applications. In other words, the authenticity of materials and tasks is crucial since these materials are considered the link between the learning settings and the real world (Barnard & Zemach, 2003; Dudley-Evans & St John, 1998; Guariento & Morley, 2001).

Additionally, Research studies (Baird, 2000; Mparutsa et al., 1991) have shown that the use of related and specific content might motivate ESP learners. Therefore, in order to enhance learners' motivation, improve their English language competency and skills and meet students' specific needs, the content of the syllabus, the teaching techniques and the activities followed in their classrooms need to be related to the English the students will come across in their medical studies at university and in their future careers in hospitals and other healthcare establishments. Something we attempted to achieve with the ESP course at Djillali Liabes university. The needs were supposedly analysed, the goals and objectives were consequently established, and the teaching materials (textbooks) were selected. In short, the curriculum of the ESP course was planned and implemented. The course is considered to be a two-semester extensive course (30 weeks in total), one session a week with one hour and a half every session. The course comprises four major components: Writing & Grammar, Listening & Speaking, and Reading and Medical Terminology.

### **Conclusion**

This chapter served the goal of reviewing the relevant literature vis-à-vis English for Specific Purposes (ESP), so English for Specific Purposes (ESP) was explained in terms of its distinguishing points from English for general purposes, the development process and its categories, mainly English for Academic Purposes (EAP) and English for Occupational Purposes (EOP) and the differences between the two. Then, the literature about English for medical purposes (EMP) was reviewed in terms of the field of EMP and its importance, the characteristics of medical English, research studies and ways of teaching EMP and the autonomy of medical students. Finally, it tackled the notion of Needs analysis and its importance in curriculum design, the purposes of needs analysis, various definitions of needs, methodology of needs analysis, and similar needs analysis studies conducted in medical contexts were also presented, serving as a gateway to the study.

**CHAPTER III:  
INTERACTIVE  
APPROACH  
TO ESP  
TEACHING**

## Introduction

The third chapter is dedicated to teaching Medical English through Interactive activities and games; it starts with defining the concepts of the interactive and the constructivist approaches to language teaching. This chapter further tackles the challenges found in the literature regarding the teaching of Medical English, as well as examines at length a set of interactive activities and games that could possibly be used while teaching both General English and Medical English, such as Crossword Puzzles, Role-plays, Debating Quotes and some others; it moreover highlights the ones that are practical when teaching Grammar. This chapter also addressed the reason why the use of such activities and games might prove to be fruitful in the teaching process. Concluding with the practical use of needs analysis of medical students and some samples of Interactive activities used in our classes during the years of teaching Medical English.

### 3.1. Interactive Approach to ESP Teaching and Learning

In order to meet the increasing challenges, schools and universities need to adopt approaches and methods that would allow students to be creative and innovative and push them to think critically and analytically so that they are able to solve real-world problems. Therefore, the emphasis should be on preparing students for their future careers (Živković, 2014) so that they develop into competitive and productive members of the 21st century's highly fluid society and competitive market. In other words, allow students to learn and work collaboratively in positive working environments of openness, trust, motivation and tolerance. In that way, students take full responsibility for their learning and knowledge construction in the context of contemporary life.

As far as foreign language acquisition for professional purposes is concerned, i.e. ESP language should be perceived as the creation of meaning, and education should involve learning through practice, reflection, conversation, collaboration, courage, and commitment (Leggo, 2004, p. 30). Similarly, Hutchinson and Waters state that the purpose of an ESP course is to enable learners to function adequately in a target situation in which the learners will use the language they are learning (Hutchinson & Waters, 1987). Furthermore, one of the main aims of ESP nowadays is to find efficient ways and means for productive interdisciplinary tasks aimed at mutual enrichment and development. In response to the increasing demands of our modern society, demands that personify the desire to have employees (Medical staff in our study) equipped with not only vocabulary and language mastery but also critical thinking and problem-solving skills in addition to strong professional and interactive skills, scholars have tried to select and adopt new learning and teaching approaches and techniques, aimed at harnessing students' 'competence in both critical thinking and interactive skills and enhancing students' success in the workplace after graduation (Bezukladnikov et al., 2013, pp. 201–206). Gaining such knowledge and acquiring the proper skills can be feasible if scholars and teachers of ESP use modern methodological approaches to teach specialised vocabulary and also develop appropriate ways of teaching.

Furthermore, the last decades of the 20th century became a milestone in the development of ESP as a branch of linguistics and pedagogy. Mohammadi and Mousavi report a shift from what to teach (content-oriented approach) towards how to teach (learning-centred approach). In other words, it was a shift from a course design with fully controlled activities and tasks by the teacher to one based on encouraging learners to take responsibility for their learning by using their creativity and individual learning strategies (Mohammadi & Mousavi, 2013). Moreover, numerous following approaches to course design have established sets of desired student learning outcomes that include competencies in communication, problem-solving and critical thinking. However, relatively few of them have taken deliberate steps to assist students in developing professional interactive skills which are explicitly tied to previously stated student learning outcomes (Burns & Richards, 2009; Waters, 2010, pp. 235–238).

Opportunities for students to learn and practice interactive skills can be provided in a purposeful and progressive interactive learning environment, which can be achieved by aiming for the following objectives:

- Integrating the four language skills in the course design (listening, writing, speaking and reading)
- Facilitating the acquisition of English by using the internet and different media tools such as videos (vlogs, Medical videos, etc.)
- Developing and/or implementing communicative tasks (like debating the quote and guessing the meaning of the idiom) to practice the English language and the different skills.
- Promoting interaction and collaboration in the target language by working on texts (articles or dialogues), images, diagrams, graphs, sound (audio recordings of different medical settings and podcasts) or other multimedia content.
- Using technology (using social media like Facebook, the use of presentation programs such as PowerPoint and Prezi) to work out, edit, and share information.

Implementing tasks through which all the previously mentioned objectives are checked could prove extremely beneficial for students' personal as well as educational growth. And because the acquisition of a foreign language involves communication and social interaction (Miller, 2007), learning ESP with technological resources such as the internet, virtual platforms, multimedia, and audio-video transcripts can contribute to achieving effective results as it enhances the development of the four macro-skills as well as the micro ones such as critical thinking, problem-solving and professional/ interactive skills all of which made possible via the carrying out of interactive activities.

Furthermore, Dudeney and Hockley stress the concept of supporting the teaching of languages via the use of technology and communicative tasks (Dudeney & Hockly, 2007). According to these scholars, the main action of the project is based on developing communicative tasks and activities for learning English for Specific Purposes in different professional degrees through the creation,

management and use of various technological resources (internet, virtual platform, multimedia, and e-dictionaries) as it is described below:

a) Internet (The web): The Internet allows multimedia interaction and contains encyclopaedic reference resources, publications, movies, etc., that ensure learning and entertainment. Using the web, students can easily access all kinds of information, from news reports and medical articles on the subject of medical English to countless resources and texts available at Google. Numerous times when presented with difficult words during the class, mainly when no one knows their meaning, some students use the web to get the meaning, and we usually make jokes about it; it allows for a warmer learning environment and keeps the students engaged.

b) Virtual Platform (blackboard): to manage and organise the subject and its contents Multimedia (video, audio, copyright programs, PowerPoint, etc.): to present ESP content: adverts, presentations, news, videos with text transcription.

c) Authoring software: Hot Potatoes, Quia, etc., that allows teachers' lesson plans or create interactive exercises.

d) Electronic dictionaries (e-dictionary): that usually contain searching tools, pronunciation practice with audio and transcripts of each word, all of which helps to promote learning and makes it accessible at all times and thorough.

e) Conducting project presentations (like explaining an innovative medical procedure, prevention measures against pandemics, etc.) using multimedia, PowerPoint, images, commercial videos, audio, etc. Presenting specific content in PowerPoint format with images, video and audio about a current international medical topic like pandemics, carried out and analysed by groups of Medical students, for instance, can lead to the creation of a favourable pedagogical environment and a motivational collaborative climate while students develop speaking and communicative skills.

The use of interactive tasks and technology in teaching ESP (EMP in our case) enhances, therefore, the acquisition of the foreign language as each of the activities presented promotes the development of different communicative content and endorses constructive learning as well as collaborative learning (Esteban & Martínez, 2014, pp. 342–346). Therefore, ESP courses should allow the creation of possibilities for active student engagement since they focus on analysis and discussion as well as communication skill development. Subsequently, it is the research's objective to establish a set of practices and their practical implementation in EMP courses, starting with needs analysis based on sources such as the opinion of students (questionnaire surveys) and teachers (interviews) etc.

The interactive approach to teaching/learning the language concentrates less on the words, grammar, and sentence models but pays considerable attention to communication, doing things with language elements, to carrying out communicative functions, such as asking and rejecting, agreeing and

denying, simply put, on interacting. Similarly, Frank Heyworth, when discussing “The Common European Framework” in his article “Why the CEF is important”, claims that when learning a language, “The emphasis throughout the CEF is on how languages are used and what learners/users can do with the language – on language being action-based, not knowledge-based” (Heyworth, 2004).

Similarly, Arends highlights in his book titled "learning to teach" such interactive aspects of teaching: presentation, direct instruction, concept teaching, cooperative learning, problem-based instruction, and classroom discussion (Arends, 2011). An interactive approach to teaching presupposes using role plays, solving specific problems (case studies), doing simulations, having discussions, and it is considered similar to co-teaching, in which a teacher and a student are equal partners in the educational process. Therefore, interactive teaching is an adequate didactic means to develop students' skills to produce and present products of their common activity. According to Semenchuk quoting (Chernylevsky, 2002, 53), It also provides comfortable conditions for doing projects, conducting educational processes, and achieving “high results in professional competence and development of student's personality” (Semenchuk, 2015).

On a different note, learning a language, especially in an ESP setting, is intertwined with learning vocabulary, on which the psychologist Zimniaya (Zimnyaya, 1992), cited in (Semenchuk, 2015), wrote that having acquired reproductive skills, which is mainly based on the work of memory, students move on to producing their own patterns of speech, thus involving not only memory but developing their thinking. If we apply this postulate to teaching/learning vocabulary, one can deduce that reproductive activity allows students to memorise new words only, but if students want to have skills in using these words, they need to be preoccupied with creative activities which develop their thinking and promote acquiring new vocabulary. Therefore, according to Semenchuk, interactive activities can enhance the process of acquiring professional terminology and ensure the effective utilisation of lexical competence in constructive communication (Semenchuk, 2015).

Similarly, in an attempt to promote Communication and create activities that would reflect as much as possible the practice of medical professionals, Pavel created a “task-based” syllabus and was interested in testing its outcomes. This type of learning allowed students to improve both their medical knowledge and language skills in practical situations of communication but required, in order to be effective, a balance between formal factors (code complexity), content (cognitive complexity) and the purpose of communication (Pavel, 2014). In her opinion, the challenge for a task-based pedagogy is to choose, sequence and implement tasks in ways that will combine a focus on meaning with a focus on form.

Aside from that, Diana Elena Popa states that activities in a university setting are cognitively demanding, and the context is reduced, which usually makes comprehension and retention of knowledge difficult. Therefore, teachers must offer linguistic and contextual support. Popa also states, “teachers

should aim to turn context-reduced situations into context-embedded situations which will provide students with contextual clues to help build their understanding of language”. Furthermore, instructors should feel challenged with designing and developing experiences that are beneficial for students and promote their critical thinking skills by allowing them to form ideas rather than just recall facts (Popa, 2013).

To sum up, Designing and implementing interactive activities in the teaching and learning process is one of the most demanding tasks. So, the key challenge facing ESP teachers is to refocus their teaching strategies and adopt new approaches, and effectively and efficiently incorporate such activities into the language learning process. To prepare students for the demanding working atmosphere, the teacher needs to maximise the potential of interactive learning by using it effectively, efficiently and creatively and provide models and opportunities for practical work. All the while promoting innovative thinking and brainstorming and supporting collaborative working practices.

### **3.2. The Constructivist Approaches to Interactive Activities**

We live in an era where accessing immediate information offered by technology is compelling, which leads to this immersive experience of building knowledge and combining human divisions that used to be separated, such as learning and teaching or work and games, as Burbules and Rice have reported (Burbules & Rice, 1991, pp. 393–417). Thus, it has become clear that the 21st-century classroom needs students to face real-world problems that engage them in higher-order thinking skills such as creativity, innovation, communication, collaboration, critical thinking and problem-solving (D H Jonassen et al., 1996).

Furthermore, Trujillo Sáez suggested that learning nowadays happens by means of tasks and competencies, promoting cooperative work and the use of ICT (Information and Communication Technology) in the classroom (Trujillo Sáez, 2007, pp. 71–91). Hence the implementation of constructivism and interactive learning approaches in teaching ESP would allow the educational community (teachers, students etc.) to exchange ideas and become more productive when creating knowledge as a team. This implies that students would be actively participating in the classroom with the performance of different communicative skills by means of role-plays, debates, listening tasks, reading comprehension activities and oral presentations, among others. Thus, the implementation of group work learning strategies and ICT have positioned learners as active knowledge builders who are not passive recipients of content anymore but individuals who will get used to solving problems, supporting their arguments with further links and comments, and positively exchanging constructive opinions.

The constructivist approach to teaching/learning any subject (including foreign languages and ESP among them) may be defined as an approach that provides students with opportunities for

“constructing” their own knowledge and skills through practical experience in real-life or modelled activities. In this case, students acquire their knowledge and skills as a by-product of their real-life or modelled activities, thus internalising or appropriating that knowledge and those skills and not just learning them (Tarnopolsky, 2012). Similarly, Wilson defines a constructivist learning environment as “a place where learners may work together and support each other as they use a variety of tools and information resources in their pursuit of learning goals and problem-solving activities” (Wilson, 1996). It is the environment that allows student-oriented activities to take place in order to develop problem-solving, critical thinking and creative skills.

Notwithstanding, the way of achieving students’ constructed usage of language can be seen in professionalising ESP teaching and learning through modelling professional interaction in ESP classrooms. The learning activities that are suggested for implementing such modelled professional interaction are interactive ones in which students would vocally interact with each other in English and on professional issues, use outside sources of professional information in English and prepare different professionally-oriented written papers in English on the basis of the data obtained during their interaction with these professional information sources, and also do project work in English summarising everything that they have learned both professionally and from the point of view of ESP acquisition (Tarnopolsky, 2015).

The constructivist approach, which is based on learning autonomy (Holec, 1981), can be considered quite an efficient one in the teaching and learning of ESP due to reasons such as giving learners opportunities to not only implicitly and subconsciously develop their English professional communication skills but also of acquiring professional knowledge and skills in the process of that communication, avoidance of boring drills or deliberate memorization of new language forms, since learners can acquire or reinforce them implicitly, subconsciously in the process of creative communication on professional matters in modelled professional interactive situations. This makes the ESP teaching/learning process task-based (Skehan, 2002), thus enhancing the learning outcomes due to students’ active involvement in solving creative learning tasks.

This allows for the integration of learning English for professional purposes, i.e., integrating the ESP course with university courses in professional disciplines, such as the medical one. This integration raises the students’ learning motivation because they see the immediate practicality of their English studies for their future professional development and career.

This task-based take on learning keeps students permanently engaged, which is required to achieve the learning outcome. Since these tasks are related to their study subject but in English, it becomes invaluable for furthering, accelerating, and improving ESP acquisition, which should be the result of learners’ experiencing direct participation in professional communication (Tarnopolsky, 2015). Furthermore, the constructivist approach combines methodologies in order to produce a successful and

effective model for developing productive proficiency and carrying out the objectives of a course (Živković, 2016).

Similarly, the constructivist approach allows student-oriented activities to take place in order to develop problem-solving, critical-thinking and creative skills, which aligns with Wilson's definition of a constructivist learning environment: "a place where learners may work together and support each other as they use a variety of tools and information resources in their pursuit of learning goals and problem-solving activities"(Wilson, 1996). In such an environment, students are actively involved in perceiving, analysing and interpreting the world and reflecting on their interpretations.

On a similar note, the constructivist approach views learning as an active process of construction in which students occupy a central position. Such an approach, according to Dudeney and Hockley (2007), can be further developed with technological resources as they are fully adapted to the new educational trends and involve a number of elements, such as interactions with the open and active participation of both teachers and students, the production and organisation of reading and writing content in English whether it's in Blogs, Wikis, Forums, etc., the ability to share experiences and to collect information directly produced by the student, using the Internet in a personal, participative, collaborative and reflective way creating Dynamic learning atmosphere. Lastly, Considering the Web is a useful resource not only for reading, listening or watching content in English but use it to communicate using video and/or other multimedia content (Dudeney & Hockly, 2007).

In the constructivist environment, students are actively involved in perceiving, analysing and interpreting the world and reflecting on their interpretations. When we speak of modern ESP constructivist learning environments, it is worth mentioning that they are technology-based situations in which students are engaged in deep and meaningful learning as an important goal for success in the 21st century (Živković, 2016). And to be prepared for the new role in the modern age, it is essential that teachers maximise the potential of digital learning by promoting information literacy and by using it effectively, efficiently and creatively, and providing models and opportunities for collaborative working practices and practical work.

Technologies are most successful when they are used to engage students in meaningful, relevant and authentic activities with open-ended software and the Internet (D H Jonassen et al., 1996). Jonassen introduced the term 'Mindtools' to promote independent and meaningful learning, support interactive, collaborative, and student-centred classrooms, and engage students in creative and critical thinking tasks while constructing new knowledge(David H Jonassen, 2000). The Internet can enable constructivist innovations in the classroom, thus contributing to the realisation of meaningful, authentic, active, interactive and problem-based learning. Students search for solutions to real-world problems based on a technology framework, which leads to critical and analytical thinking (Živković, 2016).

The challenge for the teacher is to provide a relevant framework for students upon which they construct knowledge and become active participants in the learning process. On the other hand, students in the constructivist environment have a more positive attitude towards learning as they share their experiences with their peers and the teacher, as well as experience increasing discussions in the classroom (Živković, 2016). Students are encouraged to search for solutions to real-world problems, and thus, they are engaged in transformative learning, leading to critical and analytical thinking, which is essential for success in the 21st century.

To conclude, the key challenge facing ESP teachers is to refocus their teaching strategies and adopt new approaches, and effectively and efficiently incorporate technologies into the language learning process. And from the aforementioned, it is clear that constructivist pedagogical principles coupled with appropriate technology integration show the potential for major improvements in learning practices. Together they provide the opportunity to make and remake the concept of ESP learning and have brought new possibilities for learning. In other words, they can allow ESP students to learn to their fullest potential by promoting students' communicative skills and fostering their autonomy and responsibility.

### **3.3. The Challenges of Teaching Medical English**

In ESP (English for Specific Purposes), namely EMP (English for Medical Purposes), there are numerous challenges both teachers and students have to face. If we take into account that the task of the ESP/EMP teacher is to provide balanced practising of all the skills in the teaching process, this tends to be a very demanding task if one considers the huge amount of necessary research and, at the same time very limited duration of lectures and classes. It should be emphasised that designing an academic course is a very dynamic process, primarily due to the development of both medical science and methods of teaching English. Thus, it should be clear that the problems of teaching English for Medical Purposes to university students are unique. In such classes, teachers must deal with a variety of challenges, such as students' low learning motivation towards languages and the intensive curriculum, as well as class heterogeneity. Based on the foregoing and prior research published, we concluded that the challenges presented by Behzad (Nezakatgoo & Behzadpoor, 2017, p. 67-75) best met our vision of the challenges faced by English teachers in Algerian Medical universities. According to the findings, the difficulties may be divided into three major categories: Institution related challenges, Learner related challenges, and Teacher-related challenges. Nevertheless, we took the liberty to adjust the classification via additional adaptations.

#### **3.3.1. Institutional Challenges**

These are considered Institutional obstacles that include problems that are not linked to teachers or students, such as undefined or unachievable goals, time constraints, and other syllabus-related issues.

### 3.3.1.1. Undetermined or Unrealistic Aims

In EMP courses taught to medical universities, the educational objectives are usually not well-defined by the institution. Typically, the university only requires the teaching of the language, and it is improbable that they would elaborate on that with a set of objectives and elements to cover. And regarding curriculum expectations, it is believed the ESP curriculum poses greater expectations on learners of English For Medical Purposes than the General English curriculum due to the fact that learners will be dealing with EMP challenges on top of the usual General English ones, such as large class size and limited resources (Erickson, 2005, p. 31). Therefore, the ESP teachers are not really told what the aim of the course is and what end results are expected, coupled with the fact that it is impractical to expect much growth with only one and a half hours per week to cover both General and Medical English. Thus, it is necessary that, at the beginning of each university course, the institution and the teacher cooperate in formulating actual and realistic aims and tasks so that students get to know, from the start, what variety of the foreign language they are learning, to what extent they are going to master it, and how long it will take them to do so.

### 3.3.1.2. Time Restrictions

We should also consider the time and the amount of workload given to students. The time allocated to EMP courses is usually not enough for EMP students to master the language skills; thus, many students get disappointed and lose interest in foreign language studies. It is impossible in the limited period of learning, 2 hours (or one and half hours) per week for only two semesters, to teach a foreign language, to ensure students' acquisition of various skills such as reading special journals, writing scientific papers, and communicating etc. Time limitations also cause teachers' inability to provide the learners of EMP with evaluation and feedback on an individual level, ineffective teaching, and the inability to carry out needs analysis projects or unproductive incomplete ones. This leads to the insufficient practice of the four major skills, i.e. not enough time to practice the skills to the point where improvement is noticeable. Thus, like most related studies in the literature, it is believed that the amount of time available to teachers and learners is limited and insufficient (Khalili & Tahririan, 2020), and students believe that the number of credits assigned to EMP courses is not enough to reach the goals of ESP courses. So, the authority, in collaboration with teachers, should take the most important parts of the material which meet the learners' needs to be designed in the ESP course.

### 3.3.1.3. Syllabus Related Challenges

In EMP curriculum design, we find ourselves with two options, each with its own set of difficulties. Option one, where The Curriculum of EMP courses is crammed with the systematic study of grammar and the regular carrying out of translation tasks into and out of the mother tongue, where reading and learning technical vocabularies are usually emphasised, but the ability to write and speak

the language is not. Thus, no alignment between the pedagogical syllabus and real-life tasks. Option two is the ESP-only approach to curriculum, where the syllabus is structured exclusively around issues of EMP, which leaves no space for English for General Purposes. The second option does also have a major issue; even though it might be reasonable to expect university students, most of whom have been learning English for at least seven years, to have a good level of language proficiency, the reality is often far more unpleasant. In ESP classes (and also in EMP ones), some students are considered beginners and need much more time before they are ready to tackle complex language elements, let alone technical or medical ones. A study by Dzięcioł-Pędich shows that this arrangement does not reflect the language needs of medical students and that a syllabus framed upon both EMP and EGP would be more beneficial (Dzięcioł-Pędich & Dudzik, 2015, p. 158).

#### **3.3.1.4. Limited Teaching Materials**

Finding the perfect textbook is extremely arduous because the language needs of students enrolled in EMP courses are so narrow and specific that most coursebooks on the market are simply too broad and general. Coupled with the fact that the selection of ESP textbooks available in the market is far from impressive due to the lack of specialised libraries. Even in a scenario in which one could get hold of a good EMP textbook, we face the problem that field-specific knowledge constantly develops and changes. A few-year-old coursebook may already prove outdated. Actually, the progress in science and technology is so enormous that no publisher is to blame for their hesitation since what applies to medical science today will undoubtedly be out of date next year. Leading to the problem of a lack of usable available up-to-date study materials (coursebooks). Because materials are very limited, the teacher has to independently choose and carefully select appropriate materials according to the student's needs and level of knowledge. Additionally, ideally, the course content should be precisely tailored to the specific needs of the target learners. For these reasons, teachers usually decide to produce their own materials. This is an additional inconvenience for teachers as preparing one's own materials is a demanding, time-consuming and uneconomic task that requires "skill, creativity, and, almost invariably, consultation with a medically-trained informant" (Ferguson, 2012, p. 257). Thus, the main consequence of the lack of availability of ready-made materials is that teachers have to spend copious amounts of time elaborating their own, usually almost from scratch (Charles, 2018, 219).

#### **3.3.1.5. Evaluation**

Evaluation is another grey area with regard to the EMP setting since EMP tests do not usually look like language tests but rather like medical knowledge tests which are in English. Where the students are evaluated on their reading or translation proficiency mostly in the form of MCQs (Multiple choice questions), and the other language skills, such as listening, writing, and speaking proficiency, are not evaluated at all. Furthermore, as language teaching and field-specific topics are integrated, teachers may be biased, unintentionally, to evaluate students' language skills through the prism of their profession-

related knowledge (Hutchinson & Waters, 1987). Therefore, it can be very challenging to properly evaluate the language skills of an EMP student since the usual tests do not thoroughly evaluate the students' language knowledge. Thus, evaluating the students is another issue for ESP practitioners due to the unavailability of proper guidelines for evaluation, the large classroom size, and the student's ignorance of the evaluation criteria.

#### **3.3.1.6. Attendance and Classroom Size**

Attendance is yet another delicate problem in EMP classes. Especially if they are considered lectures, students' attendance is not mandatory, so learners tend to skip the classes treating the language classes the same way they would subject classes, hoping to get a passing grade by cramming for exams.

### **3.3.2. Learner-Related Challenges**

These challenges pertain to medical students, and they are related to learners' heterogeneity, lack of motivation, learners' inadequate General English level, students' lack of field-specific knowledge, and learners' emphasis on test results.

#### **3.3.2.1. Learners' Heterogeneity**

Although the problem of teaching heterogeneous groups is by no means restricted to ESP contexts, it can be argued that it is in ESP courses that this situation becomes particularly burdensome. The EMP practitioner faces several issues due to the fact that ESP courses are typically developed for students with a common objective, no matter what their language proficiency is. However, ESP students usually have different general English proficiency levels, creating heterogeneous EMP classes, where some students struggle to catch up in General English classes and find the EMP activities to be overwhelming, while others find the General English activities not challenging enough and feel that they are not making the most of the learning situation (both scenarios should be frustrating). Thus, conducting subject-based activities is nearly impossible when some students lack a solid General English foundation because they would lose interest

#### **3.3.2.2. Lack of Motivation**

Considering that adult learners are usually responsible, especially if they are studying specialised English in their respective fields of study because they usually accept the idea that their own efforts are crucial to progress in learning and are easier to persuade to behave accordingly. They are more willing to cooperate with the teacher and others in their peer group for everyone's benefit. They are more likely to consciously monitor their own progress and try to use available opportunities to their benefit, including classroom activities and self-study. However, one of the current issues discussed by teachers of English for Medical Purposes is the unwillingness of students to accept a language course as being as important as other subject-matter courses. They just want to pass the exam with as little effort as

possible. Thus, teaching foreign languages to university students of non-philological specialities is made complex by the fact that for these students, a foreign language is not a part of the special, professional education, which may result in a lack of motivation. They might think that medicine, pharmacy or dentistry is the best course, and they have no further instrumental motivation to learn the language, whereas the majority of students do not give more importance to learning a language but rather focus on medical studies. In Netiksiene's view, General English students in the English Department typically exhibit higher levels of learning motivation than ESP students (Netikšienė, 2006, p. 82), which might be due to the fact that the General English learners, as Donna Erickson states, are often exposed to a more fun, and relaxed learning context than the ESP learner are (Erickson, 2005 p. 33).

### 3.3.2.3. Learners' Poor General English

One of the major challenges of teaching ESP at the university level is that a considerable number of students have low language proficiency levels. Although medical students have been studying English for many years in schools, they still face problems in communicating in English, or coping with their English in other academic fields, since they did not have many opportunities to use English. Subsequently, they sometimes do not understand the basic sentence structures and find difficulties using or understanding parts of speech. This produces the challenge of building an in-depth syllabus that would include General English and technical English, as stated above. Additionally, a study conducted by Rezaei et al. showed that, mostly, learners have problems with understanding the concepts of syntactic units in reading text (Rezaei et al., 2012, p. 983); for instance, they do not understand what the concept of main/ subordinate clauses or passive/ passive forms is. Thus, learners encounter problems in syntactic units, causing reading and writing difficulties. Furthermore, numerous studies showed that learners lack experience in understanding and using more complex grammatical structures, which are encountered in difficult authentic materials (texts, dialogues, podcasts or videos) and hinder their comprehension, e.g. a medical article in English, encountering problems in reading, vocabulary, writing and grammar due to low language proficiency and the lack of knowledge of basic language use, and even if some learners can communicate in general English quite well but have insufficient medical and technical vocabulary, consequently, learners encounter problems with ESP.

### 3.3.2.4. Students' Lack of Field-Specific Knowledge

Medical Students study foreign languages in the first two years of their academic training, which means that they may be unacquainted with field-specific terminology or certain profession-related topics found in the syllabus of English for medical purposes since they would be expected to study such concepts in later years. Thus, students' lack of field-specific knowledge can greatly affect students' ability to use the language in a meaningful and practical way. This can, in their turn, influence the learners' ability to acquire the language, as this particular kind of knowledge provides the context students need to understand English in the classroom. To encourage students to have a better

understanding of details, Dudley-Evans recommend pre-teaching vocabulary, stressing the familiarity of the subject matter as another key factor influencing students' comprehension skills (Dudley-Evans & St John, 1998), yet it is extremely time-consuming. Additionally, the topics discussed or addressed in the class are often undervalued by first- or second-year students, which may influence their motivation and interest, especially since students do not feel the need to do some of the activities like learning how to write an article's abstract in English.

#### **3.3.2.5. Learners' Focus on Test Results**

It is an unfortunate reality that most students tend to focus primarily on grades and test results, neglecting the lifelong learning objective of the EMP classes, where their main purpose is to pass the exam with good or decent scores. Therefore, instead of learning the language for communicative purposes, the learners prioritised their performances in tests. Since many students are greatly concerned about test results, not so much by language learning, even if they were made aware of the fact that they need the language to acquire knowledge in the field, they still completely shift their attention to obtaining good scores in the end.

#### **3.3.2.6. Learners as Passive Receivers**

Another hindrance is students' deeply rooted beliefs about the roles of teachers and students, which may slow down the process of achieving independent learning. They have the habit of being passive receivers of knowledge, and the Lectures are usually directional, where the teacher is the one who provides the information, and students only ask a few questions here and there. Thus, students need to take responsibility for their own language development, which would, in turn, prove useful when they have to use English in their professional lives (Antic, 2007). Students have different individual needs for their professional lives. As stated before, the majority have learnt to over-rely on teachers in their language-learning careers. That is why it is very challenging to change that paradigm and move towards preparing the students for self-directed learning outside the classroom to acquire the habit of learning continuously.

### **3.3.3. Teacher-Related Challenges**

Regarding teacher-related issues, they comprised unfamiliarity with the genre of medical subjects, instructors' unfamiliarity with psychological issues, teachers' unfamiliarity with assessment methods or material development, and the lack of coordination.

#### **3.3.3.1. Unfamiliarity with the Genre of Medical Subjects**

ESP teachers teaching EMP to medical students are usually not familiar with medical terms, expressions, and genres. They sometimes tend to translate the terms literally, which does not always make sense. Some EMP teachers feel discomfort linked to the fact they are not specialists in medicine.

In previous studies, some teachers expressed their discomfort while teaching EMP. In these studies, teachers believed that only those who are well aware of the genre of medical courses and are proficient in language skills and teaching methods are qualified to teach ESP, some confessed it was difficult for them to teach concepts they do not fully understand (Dzięcioł-Pędich & Dudzik, 2015) stated in (Szymańska-Tworek, 2017, p. 55), and others experienced a feeling of falsehood or duplicity when they taught words they themselves learnt a few days earlier (Szymańska-Tworek, 2017, p. 55). Similarly, according to Belcher, this can also be challenging for the instructor who needs to deal with information they themselves are not thoroughly acquainted with, as well as teach their own students not just the language but some of the concepts they are also not very familiar with (Belcher, 2006, p. 139). Therefore, it stands true that teachers graduating from university are equipped with language proficiency and didactic skills, but the knowledge of the subject matter of the course is something they would have to gain with experience and practice. Thus, a Lack of profession-related knowledge may hinder their language acquisition.

### **3.3.3.2. Teachers' Unfamiliarity with Psychological Issues**

Depending on what side of the coin we are looking at, and as stated before, teaching foreign languages to medical university students is made challenging by the fact that for these learners, a foreign language is not a crucial part of the special, professional education, such manner of viewing things may result in a lack of motivation, so it can be argued that it is the teacher's responsibility to help learners see the value in learning and mastering the language, which might be daunting at times. Another issue would be the fact that medical students usually treat the English classes the same way they would subject classes, so they tend to skip classes and attempt to cram for the English exam the same way they would the other subjects, something that the EMP teacher has to address as well. Oftentimes, the learners' psychological needs and preferences are not considered mainly due to the lack of time, yet teachers do try from time to time to encourage students to be active participants in the class by trying to overcome feelings of shyness, lack of confidence, fear of making mistakes, etc.

### **3.3.3.3. Teachers' Unfamiliarity with Testing Methods or Material Development**

EMP teachers are not entirely familiar with the principles of language testing. EMP tests usually consist of translation tasks, MCQs or text comprehension tests. Such limited methods of assessment techniques reflect the EMP Teacher's lack of training in language testing for ESP classes. Furthermore, ESP practitioners usually lack knowledge of material development and preparation, so they need to take at least a course on material development. They usually copy some passages from Latin medical textbooks or download passages from internet websites, which can be productive but still lack the pedagogical implications to be of value since these materials are sometimes not suitable for teaching languages because they were not developed by experts in textbook development.

#### 3.3.3.4. The Lack of Coordination

One other issue is the lack of coordination and support among ESP teachers due to a certain passivism making the first step toward collaboration. Besides, the cooperation between teachers of the same ESP content usually depends on their personal relationship rather than on the practical need to collaborate. When they are asked for advice, they would provide it and help a colleague, and when requested to share their materials, they usually do, but, in most cases, they do not take the initiative themselves. As Hutchinson and Waters (1987) highlighted, there is little cooperation between teachers of ESP and other colleagues, and recent studies show that creating an atmosphere with a stronger sense of community and broadening its limits outside the teacher's office might promote collaboration as well as have a positive effect on teachers' job satisfaction (Meristo, 2016, p. 163). Moreover, Universities are big institutions, and typically, teachers from other fields may not be personally acquainted, so creating learning and practice communities could aid the teachers in establishing a network of professional relationships, as the importance of cooperation cannot be underestimated (Norton, 2018, p. 106).

The EMP classroom introduced several other challenges for the instructor, such as the unavailability of standardised outlines, lack of the ESP practitioner's freedom/ interest, Lack of authentic material, bad physical classroom conditions, an inappropriate system of conducting needs analysis, and ESP practitioners' Lack of awareness regarding the use of the internet, the need for an update and adjustment of the course content to the learner needs, selection of authentic materials, design of appropriate tasks for various levels of language competence due to the heterogenous class, use of relevant, authentic supplementary materials to keep learners motivated, integration of multimedia and the available Internet-based platform for eLearning (Blackboard) to keep them engaged, as well as attempting to design games and computer-based activities to name a few. Such challenges could have a direct impact on numerous elements, from classroom management, students' motivation, teaching efficiency, and the ability to achieve the desired results, to students' responsive attitude and conducting classroom activities.

#### 3.4. Samples of Interactive activities

Since individuals receive and process information in very different ways, it is important that teachers utilise different strategies and styles; as Brown pointed out, teachers should take advantage of different approaches and techniques and combine them to help learners improve their skills (H. D. Brown, 2000). One of the efficient ones is Learning through performance, which requires active discovery, analysis, interpretation, problem-solving, memory, physical activity and extensive cognitive processing (Mamadalieva, 2019). Coupled with the fact that the implications for teaching are unequivocal: the more meaningful tasks the learners are required to perform, and the deeper they analyse and process the language, the easier information is committed to long-term memory and remembered. It means that for language to be stored in long-term memory, it must be included in various kinds of

exercises and tasks (Donesch-Jezo, 2014, p. 75). Furthermore, the idea behind using the interactive activities is to instruct future medical professionals to actively communicate in English, primarily through specific situations that closely reflect the real world of professional setting (N Milosavljević et al., 2015). Yet, one striking challenge of this issue is what materials in the medical course can be used to emphasise the development of communicative competence and gives priority to the learning of spoken English in medical English course.

Since our study is focused more on medical English courses, we would deal with activities such as taking a medical history, referring a patient to another doctor, explaining a case, giving instructions, calling in specialists, discussing medical reports, debates of medical topics or even quotes, and presentations, all of which are based on learners' brainstorming and interacting orally among themselves on professional matters. Such an interest in implementing these interactive activities stems from the attempt to focus on communication and on tasks which reflect as much as possible the practice of medical professionals and simulates the setting of medical practice. This type of learning allows students to improve both their medical knowledge and language skills in practical situations of communication but requires, in order to be effective, a balance between formal factors (i.e. code complexity), content (cognitive complexity) and the purpose of communication.

In class, students' tasks and activities range from ordinary communication in EMP (which includes situation evaluation and opinion formulation, expressing points of view, and giving basic arguments on particular issues) to more complex simulations and series of exercises and tasks with the emphasis on interactive performance such as role plays in which students get to apply and transfer what they have learned to different medical situations in spoken as well as written English (e.g., memos, email, reports, referrals, etc.). Students are encouraged to use as many auxiliary materials as they need, such as monolingual or bilingual glossaries, dictionaries and the internet, in order to perform their in-class tasks or home assignments.

On a similar note, we can say that the use of interactive activities is almost intertwined with the use of modern multimedia since they help provide interactive cooperation and constant communication of students and allows the teachers to lead students' work aimed at mastering a foreign language. That is why the education of the new generation of learners (generation Z) has never been an easy task, as the so-called "Net generation" or "Digital natives" possess some characteristics such as being digitally literate, connected, experiential (learning better through discovery than being told), immediate, social, have visual-spacial skills, fluent in the digital language of computers, video games and the Internet. These characteristics should be recognised and considered by educators. Which leads to interactive techniques and activities becoming the need of the hour (Petrea, 2014).

Furthermore, students can be asked to produce a conversation between a doctor/nurse and a patient by means of role-play, to perform a general examination, to fill in a case report based on the

information provided by the patient, to write a referral letter, to establish a diagnosis, solve crossword puzzles, try mind mapping etc. all of which would develop the skills needed to understand and produce a range of medical content. Besides, learners can even attempt interacting with foreign-speaking partners through multimedia (chats, emails, video calls, etc.) or watch their videos and vlogs; by doing so, students acquire the experience in cross-cultural competence, which is essential in the modern globalised society. Such an environment is one in which students are challenged without being frustrated and in which they are focused on intentional learning (Jonassen & Reeves, Thomas, 1996). The environment creates engaging and content-relevant experiences by utilising modern technologies and resources to support unique learning goals and knowledge construction (Young, 2003). However, it is worth mentioning that such an environment is very demanding on the ESP/EMP teacher; due to the considerable volume of medical content knowledge that medical students have to acquire and memorise, very little time can be devoted to medical English learning. Therefore, an English language teacher has to find strategies to both motivate the learners and facilitate language acquisition inside and outside the classroom, and if one considers the huge amount of necessary research, and at the same time very limited duration of lectures and classes, where the practitioner needs to provide activities in which balanced practising of all these skills is covered.

According to Pavel, such activities for medical students should contain Language focus (matching, finding the correspondent common term for the medical term etc.), reading comprehension (segments of medical journals such as *The Lancet* or *The New England Journal* with questions demanding deductive reasoning), listening comprehension (suitable for understanding a lecture or a discourse by means of media resources) (Pavel, 2014). In her study, she implemented activities like labelling pictures, matching terms and definitions, categorising diseases and symptoms, gap filling, word searching (including finding synonyms, antonyms etc.), and finding the correspondent medical term for a common word etc.

Teachers might not be able to teach students the thinking process, but they can attempt to increase the awareness of their own inner potential through the practice of the so-called sub-skills. These sub-skills include analytical thinking, problem-solving, deduction, and the use of imagination. In order for these skills to be improved, teachers are expected to adopt the attitudes and approaches of students in various activities in class (O'Dowd, 1996). As Hill pointed out: "the standard classroom" is usually not a very suitable environment for learning languages, so it is the teachers' responsibility to search for various aids and stimuli to improve this situation (Hill, 1990).

Subsequently, by implementing such interactive tasks, learners, as well as teachers, will certainly benefit from a different approach to language pedagogy because it is more motivating, challenging, innovative, appealing and meaningful to students than other traditional grammar-translation-based approaches. So we assembled a list of activities which were implemented with students of pharmacy

over the past four years, they will be further discussed in detail, and the usefulness of these activities will also be addressed in this study via questionnaires and interviews with students to see to what extent were they helpful and whether students prefer them over the old didactical method.

### 3.4.1. Crossword puzzles :

The antiquity of the puzzling character in human beings shows that it is a fundamental attribute of the human mind, coupled with the widespread popularity of puzzle magazines, puzzle sections in newspapers, puzzle books, TV quiz shows, game tournaments in chess, checkers, cards, etc., is a testament that puzzles and games are alive and an integral part of the contemporary human lifestyle. The first crossword puzzle by Arthur Wynne was published in the puzzle pages of Sunday's *New York World* on December 21, 1913; it appeared in the shape of a diamond without any "black" squares and was called a "word cross". That puzzle enjoyed instant success and caused the biggest puzzle craze that America had ever seen. In order to finish these crossword puzzles, the player has to accurately fill in all the blank squares with letters that form words. The words are based on the clues provided, which can be complete sentences, phrases, or words.

So, what are crossword puzzles? According to Augarde (Augarde & Augarde, 1986, p. 52), crossword puzzles usually consist of chequered diagrams (normally rectangular) in which the solver has to write words guessed from clues. The words are separated by black squares or by thick bars between squares. [...] Crosswords are now usually designed so that they look the same when they are turned upside down. Although crossword puzzles have a very short history, there is no doubt that they are the most popular and widespread of all word games. A quick glance at textbooks and workbooks easily attests to the fact that it is the word game favoured by most language teachers. So, they have been recognised as valid pedagogical tools. In fact, the Italian Ministry of Education, in a Memorandum dated July 16, 1999, suggested and encouraged the introduction of crossword puzzles in the Italian school curriculum (Mollica, 2008).

Regarding second-language teaching, Danesi & Mollica (M Danesi & Mollica, 1994) believe that techniques based on puzzles, ones such as crosswords, word searches, scrambled words, simulations, interactive games, board games, etc., have now become intrinsic components of many approaches, and the choice of many teachers, as formats for students to review and reinforce grammar, vocabulary, and communication skills. Puzzle activities have become such common aspects of commercially-available textual materials and the topic of discussion in almost every teacher-training seminar that it would be unreasonable today to think of second-language teaching without them. They are now viewed as highly versatile techniques that serve both specific discrete learning tasks (ones such as reinforcing structural and lexical knowledge) and more interactive ones (like communication and functionality). Since crossword puzzles are usually considered a game, something to be enjoyed rather than slogged through, they tend to be fun and learner-friendly (Childers, 1996).

In a classroom setting, crossword puzzles are usually employed as vocabulary-building tools. Referred to as vocabulary crosswords, which are a bit different from normal crossword puzzles in the sense that they are more simplified and easier to solve, these particular puzzles prompt students to read a series of clues that hint at corresponding answers whose letters must be filled into crisscrossing lines of vertical and horizontal white squares. In addition, vocabulary crosswords often focus on a particular theme or grammar point (Merkel, 2016).

Using crosswords in the ESP class marks a break from the teacher-centred approach, following recent developments in educational psychology, which have given more importance to the role of the learner in the teaching/learning process. Since student-focused approaches to teaching highlight learner-centred techniques and strategies for the efficient learning of specialised vocabularies, such as explicit vocabulary-building activities. Crossword puzzles can be one way for learners to experience such learning, as they are beneficial on a number of different levels: they are entertaining and challenging vocabulary practice tools, they stimulate student motivation and autonomy, and they lead to better vocabulary awareness and retention (Sandiuc & Balagiu, 2020).

Furthermore, although medical students are able to perceive and assimilate a huge amount of material, they cannot fully concentrate during the whole class because, after a while, their attention is scattered, and the material ceases to be absorbed. Activities like a crossword puzzle can help create the necessary atmosphere and focus. Researchers such as J. Harmer, quoted in (Sandiuc & Balagiu, 2020), believe that students should “discover things or research things for themselves” (Harmer, 2001, p. 115), and crossword puzzles are one way for students to experience such learning. In such an atmosphere, the learner takes on more responsibility during the learning process while the teacher plays the role of the guide and facilitator.

Given their popularity, adaptability, availability, as well as their attractiveness to students, crossword puzzles are considered a quick way to address the needs of the learners and produce teaching materials tailored to the classes. They take the form of a useful drill helping learners decode terms and their meanings from the context of the clues, at the same time offering the desire to solve a puzzle while enjoying the satisfaction of completing the task (Sandiuc & Balagiu, 2020). These puzzles can be effectively used to teach vocabulary, orthography and morphology in the ESP classroom. The key to their success is that they launch a motivating challenge for language learners, and thus vocabulary study is made fun and attractive (Bressan, 1970, pp. 93–95).

On a different venue, Crossword puzzles that serve teaching purposes are ones where clues are adjusted according to students' needs and levels. In this case, vocabulary clues may include definitions, synonymous and antonymous phrases, fill-in-the-blank items, bilingual clues, partial answer clues, picture clues, general knowledge clues, etc. (Wolfe, 1972, p. 177). They are usually organised around specific topics or general categories or around the grammatical form (for example, puzzles based on

verbs, adjectives or even adverbs). Recognising the topic or the Grammatical form will make it easier for students to identify terms that normally display some degree of relationship. Thus, educational crosswords usually limit themselves to those terms that are part of a specific word bank, iconic for a specific topic, so that students are able to communicate with a minimum of misunderstanding. For instance, Collar bone, bronchus, jugular, knuckle, skin, and waist are answers that belong to the category topic “Body parts”.

Danesi adds that “puzzles may also serve as a needed change of pace to the daily routine of teaching techniques and can perhaps serve to increase students’ motivation as a result”. Clearly, it is to the learners’ advantage to be exposed to a variety of classroom techniques so that interest is asserted (Marcel Danesi, 1979). Similarly, Myrzakadyrovna asserts that crossword puzzles promote the development of interest in the subject, increase knowledge, and improve skills and abilities; they are associated with recreation and can be less intimidating and more entertaining for students as review tools; they help students expand their register by learning new English vocabulary (whether it is a general term or a technical one) and practising it which commits it to memory. They can also be involved in making differentiations between similar words or phrases, which is very common in medical terminology, making inferences, evaluating choices, and drawing conclusions (Myrzakadyrovna et al., 2017).

Furthermore, the process of filling in a crossword puzzle encourages independence, creativity, and active engagement, because attempting to solve Crossword Puzzles is a much more active type of learning and will engage students with the material more than passive types of review techniques do. They also have the benefit of appealing to different learners of different styles, such as visual learners, who often have strong puzzle-solving skills and feel great satisfaction when they complete one. Auditory learners, on their end, enjoy step-by-step reasoning, so they also benefit from the sequential steps of completing a crossword. Even kinaesthetic learners enjoy the multi-task strategies required to solve a crossword. On top of that, crossword puzzles have the benefit of being customizable to study content (Myrzakadyrovna et al., 2017).

On another note, it is sometimes difficult for students in technical universities not to be overwhelmed and discouraged by the vastness of specialised vocabulary they need to know. The future specialist is faced with a multitude of terms that he needs to acquire, and the medical field is a perfect example of that. In such settings, after students learn new words, they tend to forget them as time passes. So, one way to help them retain new words is to expose them to those words repeatedly. Given the nature of crossword puzzles, students can practice more on new words they have just learned from the textbook; they can also use them to review for the exam. In similar venues, Hutch and Brown state that learners need to take five steps in order to enrich their vocabulary: 1. encounter new words, 2. understand the word form, 3. understand the word meaning, 4. consolidate word form and meaning in memory, 5.

use the word (Hatch & Brown, 1995). This can be achieved through crossword puzzles since learners can encounter new terms and phrases, get a clear image of the word form, its spelling, meaning, and even pronunciation and then encounter it for a second or a third time when trying to solve the puzzle. Finally, all these steps lead to the consolidation of the terms in memory and their actual usage in speaking or writing assignments.

It is clear by now that crosswords are a good form of language practice as they offer an alternative to more traditional ways of practising and revising vocabulary in a challenging, competitive and fun environment that increases students' motivation (Bressan, 1970, pp. 93–95). This aligns with Franklin's claims (Franklin et al., 2003), stating that these puzzles can increase students' motivation and interest in the topic; when they like the activity, they tend to be more active in learning and pay more attention to the material. On top of that, these puzzles provide a practice of a low-stress activity in which the solver has opportunities to learn actively through trial and error while thinking critically and choosing any number of routes to work toward an answer. It is in coming up with the solution path that the learner is forced to explore alternative and innovative ways to use the structures to access the end state. Therefore, it can be argued that puzzle solving is an effective means for channelling the student's innate tendency to be active and creative towards some specific learning goal, which results in higher retention and learning achievement.

Crosswords can be used to teach terminology, definitions, spelling, pairing key concepts, inference making and morphology knowledge. Since students need to spell items correctly to complete the puzzle, they gain greater retention and memorization of vocabulary (Moore & Dettlaff, 2005). Therefore, one can use crossword puzzles to make specific medical terminology stand out. Also, in practice, these terms can serve as a trigger for students to search for a set of associated words or collocations. Thus, when designing crossword puzzles to teach medical English, terms are chosen according to certain relevant criteria. They are part of the usual terminology related to a particular topic from the curriculum; they are frequent in the sense that they are also found in the semantic fields of other medical topics; they offer the flexibility of exploitation in varied lexical settings or contexts; they are organised according to several grammatical classes to offer syntactic diversity, etc.

As stated in another study by Orawiwatnakul (Orawiwatnakul, 2013), the effectiveness of crossword puzzles has been proved in many former studies. For example, Tabtimsai (2003) employed crossword puzzles as an “after-reading” task to enhance students' vocabulary growth. In another study, it was found that crossword puzzles could increase motivation and students' interest in the topic (Franklin et al., 2003). They have also been utilised as a self-learning tool to help pharmacology students remember drug names as well as assist sociology students in learning sociological concepts and terminology in a stimulating yet relaxing way (Childers, 1996). In another study, Mollica's puzzle focused on the effects of visuals on learning, where students had to identify a word associated with a

pictorial clue and then place the word corresponding to the clue (in text form) in the puzzle instead of reading a clue and fill in an answer (Mollica, 2008). All of this aligns with Lin and Dunphy's claims stating that crosswords improve "spelling, reasoning, making inferences, evaluating choices, and drawing conclusions. Further, the exercise may enhance an individual's ability to memorise words" (Lin & Dunphy, 2013, p. 88). They can be designed to cover any specific topic, allowing the ESP teacher to be presented with a plethora of options to conceive his/her crossword puzzles based on specific glossaries or lists of technical or specialised terms and phrases related to a particular text used in class (offering the context for the terms and facilitating students' understanding).

Furthermore, Rodgers underlined five characteristics of puzzle techniques that are reflective of current-day practices in second-language teaching, which explain why they are easily insertable into the frameworks of most contemporary proficiency-oriented approaches to second-language teaching: 1. They are competitive. 2. They are rule-governed (i.e., they have a limited number of specific and clearly-defined rules). 3. They are goal-defined. 4. They have closure (i.e., there is a specific point at which a puzzle is solved or a game is finished). 5. They are engaging in that they constantly seem to challenge the participants (Rodgers, 1981) And regarding Designing a crossword, Gaffney states that it includes three steps: coming up with a theme (although this is optional in basic puzzles), filling in the grid with answers, and writing the clues; thus, making solving crossword puzzles a very attractive activity for revising vocabulary, in which the students are given the meaning of medical words, and their task is to provide these words. There are several online programmes (e.g., Hot Potatoes) with the help of which teachers can easily arrange crossword puzzles for their students with the words they want them to revise. A computer program such as Crossfire can also help immensely with filling in the clues, but the lion's share of a puzzle's success still leans heavily on humans for theme creation and clue writing (Gaffney, 2006).

According to Orawiwatnakul, the use of crossword puzzles was most likely to enhance the students' vocabulary learning in the three proficiency groups (upper-intermediate, intermediate, lower intermediate). So, it may be concluded that the use of crosswords is suitable for students of all language mastery levels (Orawiwatnakul, 2013). Myrzakadyrovna and his colleagues add that crossword puzzles can be introduced in different forms: mystery tasks, new vocabulary, a retelling of a situation, problem-solving, judgement decisions, etc. and at different stages of the lesson to ensure students' knowledge, and repetition of the material. They believe that Crossword puzzles in the classroom can be used as: 1. Check: they can be a great way to test the studied material, whether grammar (grammar crossword puzzles) or vocabulary (thematic crosswords), which helps to evaluate the knowledge of the student and the assimilated material to them. 2. Award: a puzzle game aimed at the consolidation of the new material that has been taught 3. Homework: assignments must be interesting, creative and fun, where students can express themselves, which would allow them to practice the language outside the university classes (Myrzakadyrovna et al., 2017). Moreover, they can be used as materials for exam preparation

since they should yield more advantages when students work together in class than when they work separately at home, where students find it more pleasurable to work in groups and more efficient as a tool for revision. So, it unfolds in terms of a group-based, interactive format that focuses on language use and meaning negotiation (M Danesi & Mollica, 1994).

Before selecting or preparing the specific language-teaching puzzles, the teacher should always keep in mind the age, learning styles, and previous training of the students. Such preparation can be made easy via the use of puzzle creation software and websites (which are abundant and easy to use) so teachers can create curriculum-specific crosswords with little trouble, and vocabulary teaching, therefore, happens intentionally as the teacher targets specific items whose importance is emphasised.

On another note, Danesi stresses that Language-teaching puzzles should be used judiciously. They should be used to motivate students and to challenge them, never be used as time-fillers (M Danesi & Mollica, 1994). So, the learners should be made to understand that they are just as much a part of the course as other kinds of exercises, drills, activities, etc. The teacher should also keep in mind that the overuse of language-teaching puzzles is not desirable. To maintain interest, the teacher should always diversify his teaching strategies, i.e., the language-teaching puzzles with other kinds of techniques.

To sum up, Atkinson suggested that Using puzzles is considered a tool that allows language teachers to add colour to their classroom activities and to make them lively by providing challenge and entertainment at the same time (Dwight Atkinson, 2003). Furthermore, Crossword puzzles represent a less threatening way to practice vocabulary or even test it; they can be designed to cover any specific topic and can be modified in order to suit the classroom purpose. The key to the success of these activities is the fact that they launch a motivating challenge for language learners, and thus technical language study is made fun and attractive. Also, this strategy offers students the opportunity to take charge of their own learning by improving language mastery in a relaxed environment where both entertainment and enjoyment are present. Thus, the crossword puzzles in the classroom are the updating and consolidation of knowledge, drawing attention to the technical material, and intellectually demanding exercises in an entertaining way; they train visual memory and activate the mental activity of the student, which promotes long-term learning.

### **3.4.2. Discussions and Conversations Via the Use of Technology**

According to O'Dowd, Medical English teaching should not only focus on vocabulary acquisition and text analysis but also on developing communication skills, problem-solving, as well as decision-making. ESP teachers should recognise the necessity of implementing and developing the so-called higher-order thinking skills in their students so that they would be able to satisfy both professional and social requirements (O'Dowd, 1996). Teachers cannot teach students the thinking process, but they can increase the awareness of their own inner potential through the practice of the so-called sub-skills. These

sub-skills include analytical thinking, problem-solving, deduction, and the use of imagination. In order for these skills to be improved, teachers are expected to adopt the attitudes and approaches of students in various activities in class ones, like brainstorming professional issues in the target language; discussions of some professional issues conducted in the target language (O’ Dowd, 1996).

According to Cashin, ‘discussion’ could be considered an activity which involves written or oral expression of different points of view in a given situation (Cashin, 2011). Similarly, Brookfield and Preskill (Brookfield & Preskill, 2012, p. 6) define it as ‘an alternately serious and playful effort by a group of two or more to share views and engage in mutual and reciprocal critique’. Antic adds that discussions are moderated by the teacher, which aim is to reach a consensus, and where the role of the moderator is to formalize the reached consensus (Antić, 2009).

Studies established by Applebee et al. showed that proper discussions could assist learners in reaching a critically informed understanding of the topic being taught, improve their self-awareness and their capacity for self-critique, allow them to appreciate diversity, and perform informed actions (Applebee et al., 2003), because, unlike lectures, discussions are not controlled by one individual’s presentation, rather the teacher encourages students to interact with each other, creating relatively long sequences of one student comment followed by another, with little or no teacher intervention. (Gall & Gillett, 1980). In such an environment, the lecturer, as the discussion leader, should seek to maintain a balance between controlling the group and letting students air their views with no restrictions.

Furthermore, when designing a course, it is important to bear in mind that the ultimate objective is to assist students in learning as efficiently as possible. Modern methodology puts learner autonomy as one of its basic postulates because students should be able to continue their learning even after the course itself has finished. The purpose is to enable the students to become more effective and independent learners of English. In reference to the effective teaching methods used at university for the large class environment, Carpenter (2006) claims that discussion is the most preferred teaching method among university students due to their strong interest in being active learners, engaging in discussion rather than sitting passively in class and merely listening to a lecture. In such an environment, the teacher encourages students to interact with each other creating relatively long sequences of one student comment followed by another, with little or no teacher intervention. (Gall & Gillett, 1980) .

Correspondingly, Nystrand, M. (2006) states that discussion is an effective way to facilitate learning (Nystrand, 2006). It can offer the lecturer an opportunity to check students’ understanding of the material and their comprehension of ideas thoroughly through expressing their own viewpoints and questions (Nystrand, 2006). And as Brookfield & Preskill point out, interactions among second language learners would empower them to recognise structural forms, practise the target language, and reflect on the structural features (Brookfield & Preskill, 2012). Sybing (2015) also reports that discussions provide students with a platform to participate in their learning process. When students are actively involved in

using the relevant material, learning will be more interesting for them, and students will be more motivated (Sybing, 2015). Respectively, Barkley (2010) postulates that proper discussion may result in a number of pedagogical learning outcomes: an increased curiosity about the subject area, more positive perceptions about the value of the subject, extended time spent reading materials related to the subject as well as enhancing the conception of connecting to other individuals (Barkley, 2010). Another important characteristic of discussion is its emphasis on speaking, nonverbal, and listening processes; it engages modalities (speaking, observing, listening) through Pre and post-reading/listening discussions as well as pre/post-video watching discussions.

Moreover, in ESP classes, discussions could be among the common strategies which would be used by lecturers to stimulate active learning (Kim, 2004) As McKeachie et al. claim that if the objectives of a course are to promote long-term retention of information, to motivate students toward further learning, to allow students to apply information in new settings, or to develop students' thinking skills, which is exactly what Medical courses aim towards, then a discussion is preferable to a lecture (McKeachie & Svinicki, 2006). Also, a discussion could provide students with a platform to contribute to their own learning and would offer the lecturer an opportunity to check students' understanding of the material (Craven & Hogan, 2001). It is relatively acceptable among university academics who use discussions to promote active learning and long-term retention of information (Bonwell & Eison, 1991).

Furthermore, Teachers who have been trained in discussion say it is one of the most rewarding aspects of the method, the fact that it enables them to find out how students are organising the curriculum in their heads. It helps teachers realise that the "sea of faces" in the classroom are unique individuals, each interpreting issues, problems, and subject matter content in his/her own way (Schmuck & Schmuck, 1975, p. 6) which aligns with Antic's claims that teachers have the responsibility to create the environment for students to practice their skills, provide timely and constructive feedback, and demonstrate the significance of a variety of communication opportunities (Antić, 2009).

Moreover, discussions and debates could be used to practice negotiating meaning and paraphrasing, which are essential strategies not only in foreign language learning but also in Medical professional-patient communication (be it a doctor, pharmacist, dentist, or nurse). In English as a foreign language context, students apply these strategies to avoid communication breakdowns. These strategies are also applied in the medical context, where medical professionals often paraphrase or negotiate meaning to make sure that patients do not misunderstand them or vice versa and to show patients that they are listening. Such abilities to communicate precisely, negotiate meaning, and paraphrase are of paramount importance because they represent means for professional improvement and interaction with patients, colleagues and experts in the field, which, in turn, helps build the qualities of a good medical professional (Antić, 2009).

On another note, ESP teachers, in general, and EMP specifically, should navigate discussions wisely by starting the participation aspect in class discussion as a voluntary matter to avoid the embarrassment of shy or introverted participants, which can be achieved by creating a supportive climate (Rotenberg, 2016). Thus, it is preferable to create a confident atmosphere in order to improve students' language skills; for this reason, we started by eliciting students to share ideas, opinions and experiences with each other about the material presented, whether it is a passage about client/pharmacists - patient/doctor interactions or audios about conversations of either medical staffs or videos about different other topics. For that reason, when planning the semester, the EMP teacher should remember that there probably is a struggle with an institutional culture that discourages active participation. So, he/she ought to address it carefully; schedule topics and discussions, keeping in mind that we are reorienting behaviour patterns and that this will take more than one class. Worth to mention that if the teacher seeks to encourage true discussion, he/she cannot do it by having a discussion here and a discussion there- it has to be a regular and substantial part of the course.

In our study, we attempted to implement discussions via the use of technology in the form of pictures of idioms or quotes by famous writers or psychologists or even medical videos. In such activities, students were asked to pay attention to videos of 2-5 minutes and then were asked to discuss topics presented in those videos, topics such as red flags and customers, generic vs brand drugs or ethical and unethical etc. We faced some challenges at first, like the same handful of students voicing their opinions where the others sat by idly, but it was a matter of time before they understood that there is no right or wrong answer, and they were more willing to voice their thought, which helped the teachers identify areas of weakness to address in class. On some occasions, we even discussed some of the topics addressed in other subject matter; as Gall and Gillett stress, ".....that discussion is a highly versatile strategy that can be used not only to help students develop problem-solving skills and to share opinions but also to attain subject matter mastery." (Gall & Gillett, 1980).

As a transition into the discussion, it is usually better to have a short introduction by the instructor explaining where the assignment fits in with the overall scheme of the course and making some general opening remarks about it, but the shorter, the better. William M. Welty, in his article, recommended allotting some time at the beginning of a class to go over previously unanswered ambiguities from previous discussions; he also recommended setting some time at the end of the lecture to say a few things about the next topic of discussion, with some added emphasis on one kind of preparation (Welty, 1989). It is also useful to allocate enough time for individual reflection before group discussions take place. Individual reflection, as McKeachie et al. (2006) suggest, may increase the diversity of opinions among the group and decrease the tendency for the group takes a single track of thought in relation to the question forwarded by the lecturer.

Thoughts differ on this, but in our case, we believe that the better prepared the participants are, the better the discussion; therefore, we prioritised easing our way into the day's discussion by talking informally with the class about random matters and events of the week that might relate in some way to the course, which tends to loosen the tension, before we get to the business of the day- discussing the assignment. Similarly, Han (2007) emphasises that a sufficient knowledge base established prior to discussion tasks is essential to learner participation; when students gain confidence in their knowledge, then they are more motivated to participate freely in oral discussion (Han, 2007). Thus, class discussions may effectively assist in second language teaching and learning both by presenting significant, relevant and interesting topics to incorporate the students (C. A. Stanley & Porter, 2002) and by offering a wide range of opportunities for students to interact and reach a useful negotiation of meaning (Kim, 2004). Left to note that the larger the class, the more likely the teacher is going to have to force participation, and the earlier you start this in the semester, the easier it is for all concerned (Welty, 1989).

Another variety of such interactive activity can take the form of workshops with small group work that is based on the skilfulness of each individual student, which might be considered one of the important components of ESP teaching; such workshops can easily be established if there are practical sessions included in the curriculum (in the form of tutorial sessions also known as TDs *Travaux dirigés*). The objectives of teaching in small groups are encouraging students to think and discuss openly, participate actively, and develop communication skills consisting of listening, explaining, asking and answering questions (O'Dowd, 2007). Research on the efficiency of group discussion methods has shown that team learning and student-led discussions produce favourable student performance outcomes and foster greater participation, self-confidence and leadership ability (Perkins & Saris, 2001)

In order to encourage teachers to hold discussions in ESP classes, the foreign language-teaching methodologists have worked out the following discussion techniques: 1-divide the class into small groups of four to six people each; give each group a different discussion topic; 2-allow the groups to discuss their topics for at least 10 minutes, help them elect a spokesman who will report on the groups' collective thoughts to the entire class; 3- call on the spokesman of one of the groups, give him/her time (five minutes or so) to make a presentation, question him/her or another member of their group on viewpoints expressed; 4-follow the same procedure with the remaining groups until all groups have given their presentation (Dobson, 1981, pp. 62–63) These techniques are one we envisage to implement in the future if we could launch tutorial sessions (TDs).

The ability to take part in a conversation is “believed to be a part of learner’s communicative competence, the ultimate goal of second language learning” (Sze, 1995, p. 229), where classrooms to become extensions of the outside world, allowing students to use language spontaneously and communicatively. Therefore, the teacher should create a classroom environment where students can practice “real-life communication” (Kayi, 2006), arrange authentic activities and meaningful tasks that

promote speaking, “stimulate the students to talk about their perspective backgrounds, adding variety and interest to the conversation session” (Dobson, 1981; Kayi, 2006). Thus, teaching conversational skills through discussions, in the frame of teaching speaking, can improve learners’ mastery, allows the establishment of a rapport with students, stimulate their critical thinking and assists them in articulating ideas clearly (McKeatchie & Svinicki, 2006).

The discussion method, as shown by the findings so far, assists students in improving their language and linguistic skills, developing their cognitive abilities, enhancing their personal growth and creating the academic atmosphere to manage their learning. The use of the discussion method also leads to the accomplishment of many other objectives, among which are providing the lecturer with feedback about students’ learning and meeting higher-order cognitive goals, such as application, analysis, synthesis, and evaluation which help students develop interest and values and change attitudes (Cashin & McKnight, 1986). It may also assist in fostering intellectual growth, individual expression and character development by offering students opportunities to exchange thoughts and views with each other and heightening language proficiency through constant reinforcement and use.

Additionally, the purpose of using discussion can be summed up in the following points: First is subject matter mastery (relating to medical subject mastery). Secondly, in issue-oriented discussions, where the focus is on students' opinions toward public issues, the most basic purpose of this type of discussion is to increase students' awareness of their own opinions and the opinions of others. Other purposes are to help students analyse and evaluate opinions and to modify their own opinions in a way consistent with their analysis and evaluation. Some teachers use issue-oriented discussion to help their students reach a consensus opinion on a matter. The next purpose is problem-solving discussion since the teacher can use discussion to help students solve simple problems, medical problems or even attempt to solve global ones. The next purpose is irrespectiveness, given that it helps students in improving their discussion skills, as Gage and Berliner (1975) observed: The ability to listen to others, to evaluate their arguments, to formulate one's own views in the heat of give-and-take, to resist the influence on one's reasoning of personal likes and dislikes for others, to continue to focus on the problem at hand despite emotional arguments and influences- these skills require practice in the discussion, (Gage et al., 1975, p. 470). Finally, the other purpose of discussion can simply be to motivate students (the very process of talking and sharing knowledge with their peers may motivate students to learn more).

In ESP classes, students may actively participate in expressing, structuring, and explaining the meaning, which could be an important element for directing them towards improving their language fluency. Therefore, opportunities for language learners to join extended interaction in a real context are necessary for the development of second-language communicative competency (Kim, 2004). Left to mention that discussions could also include some signs of limitation, such as that it may get off track or that only a few students may dominate it during the whole session (Howard, 2015). Also, a discussion

could be more time-consuming than lecturing and not well suited to cover a significant amount of content. Effective discussion requires more forethought than lectures, and in the discussion, the lecturer has less control than in lecturing (Cashin, 2011).

To conclude, communication in various forms is becoming more important in the evolving world of medical studies. Interpersonal communication skills are essential for medical students to master. Whether counselling patients, communicating with physicians or interfacing with associates or pharmacists, medical professionals use their interpersonal communication skills daily. (Antić, 2009). EMP teachers have a wonderful opportunity to strategically incorporate communications training into the syllabus, and the outcome can not only positively impact language learning but also impact the medical field altogether.

### 3.4.3. Role-plays and Simulations

Van Ments (1999) defines roleplay as: "... one particular type of simulation that focuses attention on the interaction of people with one another. It emphasises the functions performed by different people under various circumstances. The idea of role-play, in its simplest form, is that of asking someone to imagine that they are either themselves or another person in a particular situation. They are then asked to behave exactly as they feel that person would. As a result of doing this, they, or the rest of the class, or both, will learn something about the person and/or situation. In essence, each player acts as part of the social environment of the others and provides a framework in which they can test out their repertoire of behaviours or study the interacting behaviour of the group." (Van Ments, 1999). It is also defined as an experiential learning technique with learners acting out roles in case scenarios to provide targeted practice and feedback to train skills (Kiger, 2004).ie. Role-play is a teaching strategy that has been shown to promote active learning (Van Ments, 1999).

These definitions undoubtedly display that role-play is a form of simulation and acknowledges the importance of the social context of learning. Similarly, Jones (Jones, 1982) underlines this notion in role-play for learning second languages: "In order for a simulation to occur, the participants must accept the duties and responsibilities of their roles and functions, and do the best they can in the situation in which they find themselves".(Jones, 1982)

Role-play can be fully scripted, which means all students involved act from verbatim scripts, or partially scripted, meaning students get certain prompts such as an opening line. And in some cases, such activities can include the use of role cards as a way of inserting new information into a role-play (Nestel & Tierney, 2007). Nestel and Tierney claim that support for the inclusion of this form of simulation is evident in educational theory. Role-play engages Kolb and Fry's four domains of "learning environments" (Kolb & Fry, 1974, pp. 33–57). These include allowing a student to experience a diverse

array of communication styles, reflect on their effectiveness, and subsequently incorporate that into future practice (Nestel & Tierney, 2007).

According to Bell (Bell, 2001), high-level engagement is a precursor to active learning, which should be preferable to passive learning, and one of the most engaging class activities is Role-play, used as a training tool in education to impart knowledge, attitudes and skills to students. It provides an essence of the social environment to the learners and formulates a framework for their future working (Van Ments, 1999). They are basically created and implemented while adhering to the principles of Knowles' adult learning, which focuses on learners' need to know, self-direction, diverse experiences, and a problem-centred approach. Engaging students in role-play not only promotes active learning but can also be used to deliver components of the curriculum of both basic and clinical subjects of a medical program (Knowles et al., 2005).

It is accepted worldwide that role-plays generate a lot of interest among learners and have a better attention span as compared to didactic teaching. Students welcome role-playing because this activity brings variations, movement, and, most likely, simulated life experience into the classroom or training session (Land, 1987). According to Joyner & Young, there are 12 tips that will assist educators in running effective role-play sessions with all students engaged in active learning: 1-Be prepared. 2-Clarify the learning objectives. 3- Create challenging cases. 4-Package the role play. 5-Allow adequate time. 6-Involve all students. 7- Define the ground rules. 8-Keep observers busy. 9- Use a structured assessment form. 10- Ensure the debrief and feedback to all participants. 11- Encourage reflection. 12- Maintain your sense of humour (Joyner & Young, 2006).

According to Ur (Ur, 1999), in simulations, the individual participants speak and react as themselves, but the group role, situation and task they are given is an imaginary one without the need for presentation but rather going for teamwork, while participants in role plays are given a situation plus a problem or a task, as in simulations, but they are also allotted individual roles, that they would be playing. In Role plays, every learner acts out the roles typical for those professional situations (for instance, a general practitioner and a patient in a consultation session). While acting out roles, the learner will attempt to solve some extra-linguistic professional problems with the purpose of achieving an extra-linguistic professional goal. That goal can be either explicitly set in the instruction (use non-technical terms when communicating with your patient) or formulated by the learners in the process of doing a role-play or a simulation. As stated by Tarnopolsky & Kozhushko, role plays and simulations are one of the simpler forms of modelling professional oral interaction in professional, communicative situations (Tarnopolsky & Kozhushko, 2003).

On another scale, Medical education follows the clinical drive toward patient-centred care and, therefore, puts a strong emphasis on the development of empathy by medical students. Simulated patient/doctor role-plays have been demonstrated to improve patient care by developing student

knowledge of medical conditions and communication skills, with which comes an element of improved empathy (McIlvried et al., 2008, pp. 739–744); role-plays can also be identified as an effective mode of instruction in medical education which increases the cementing bonds between students and teachers. They are also predominantly used in teaching sensitive subjects such as drug and alcohol use, drug therapy problems, medication errors, domestic violence, sexual health and other interactions with physicians (Frith, 1996). Therefore, they can be used to enhance cognition, psychomotor skills, and affective domains in learners, the power of role-play to engage emotions is its power as a teaching aid (Maguire & Pitceathly, 2002).

In Role plays, students reproduce dialogues which are likely to occur in everyday speech or professional context. Medical role plays can contain immensely specific vocabulary essential for Medical students to master. Through thorough preparation and rehearsals, we can make students use the technical language precisely and accurately, focusing on the meaning and pronunciation of medical terminology. Such activities are usually based on the model of doctor/patient dialogue or Pharmacist/client Dialogue in the form of a consultation model (History taking, Physical examination, Diagnosis and Treatment, Drug recommendations for a mild disease etc.). It can be noted that the students in the second year do not have clinical experience; therefore, the dialogues are not too technical, especially in the case of Doctor/Nurse or Pharmacist /Doctor dialogues, but this sort of exercise can be very popular and can prove to be an efficient linguistic work. Since they can be followed by activities where students are asked to write case reports, information leaflets, referral letters etc. which was the case with Pavel's study (Pavel, 2014). On a similar note, Rivers (1996) states that students can and should perform their studying activities in role-playing, simulation games, and small-group discussions. In our courses, these were either, Doctor-patient, Doctor-Pharmacist-Doctor, Doctor-Staff or Pharmacist-Client interactions, where students get to practice terms and expressions previously studied as well as practising the use of tenses and mastering the transition from using technical terms to using laymen ones (for patients to understand). In the case of our study (pharmacy students), Role-plays between Pharmacists and patients could revolve around educating people on medication: how to take it, what to expect, and side effects and drug interactions. Students are also taught how to take a mini-history and assess the patient by interview and observation and apply their critical thinking skills to differentiate self-treatment from a medical referral, depending on how the patient presents. This is a useful strategy to teach students while on rotation so that they become accustomed to asking open-ended questions and engaging the patient in a conversation about their therapy.

According to Srnka, students need to be aware of other communication strategies that can help make the pharmacist-patient encounter more meaningful. These include active listening (focusing on the patient), eye contact (being attentive but not staring), being aware of your own body language (facing the patient and giving them your undivided attention), recognizing and interpreting nonverbal cues from the patient (comparing their nonverbal behaviours to their verbal communication), and being aware of

barriers that prevent a good exchange between the pharmacist and patient (lack of privacy, interruptions, noise, etc.) (Srnlka & Ryan, 1993).

Like most educational methods, role-play on its own probably contributes only a little to the development of language skills. However, as part of a broader ESP programme containing a range of methodologies and other interactive activities to address knowledge acquisition, attitude and skills development, role-play can prove to be beneficial. And regarding guidelines for effective role-play, they include adequate preparation, alignment of roles and tasks with a level of practice, structured feedback guidelines, sufficient time for preparation and acknowledgement of the importance of social interactions for learning (Nestel & Tierney, 2007).

#### **3.4.4. Use of Information and Communication Technology ICT**

According to Husaj, Technology is an ill-defined concept that encompasses a wide range of tools, artefacts, and practices, from multimedia computers to the Internet, from videotapes to online chat rooms, from web pages to interactive audio conferencing (Husaj, 2014). And anyone involved in education is very much aware of the challenges one has to face and cope with when teaching today's generations of students, who often perceive information technology as an integral part of their lives because technology is so firmly fixed in modern society that the ignorance of its presence in the classroom only means students will be unprepared to face realities at the next level of learning or in their future careers. Thus, in order to keep today's students engaged and motivated to learn, involving technology in language classes is no longer an option.

Similarly, in a recent article, Nik Peachey was wondering: "How can we as teachers compete with a computer or mobile screen to get the students' attention?" (Peachey, 2016). He goes on to add that it is not much about competing but rather about utilising technology to its fullest potential. In a comprehensive 2012 report by the British National Endowment for Science, Technology and the Arts, the authors state that progressive thinking that is taken into account about technology use in the classroom means using it to support teaching and learning activities that teachers already know are effective (Zheng & Wang, 2016). The use of various digital technologies increases new learning opportunities and contributes to innovation and creativity in the classroom, often encouraging and maximising students' active participation and motivation, and hence the effectiveness of the teaching process itself.

English for specific purposes (ESP) has also been transformed by technology, especially by the use of technology (mainly computers) in classroom tasks. Using technology in such classes enriched teaching content and made the best use of class time and broke the "teacher-centred" teaching pattern, and fundamentally improved class efficiency towards "student-centred" (Husaj, 2014). Thus allowing the teacher to coordinate the context surrounding language learning in order for students to improve

their language skills (Day & Lloyd, 2007). Using technologies in the ESP classroom enables students to be active and collaborative, which contributes to improving learning achievements and increasing learning outcomes (Živković, 2016). Researches also indicate that electronic devices in the classroom have repeatedly been shown to enhance engagement between teachers and students (Zheng & Wang, 2016). Therefore, in order to effectively engage these modern students, so-called “digital natives”, ESP teachers should integrate digital teaching strategies. The ultimate goal is to improve the quality of learning experiences, as well as to produce a highly social and authentic, supportive and productive learning environment that allows students the construction of relevant knowledge.

Thousands of students and instructors around the world today make use of Online Management Systems like Blackboard, WebCT, Online Learning, Moodle, and Nicenet in teaching all kinds of courses, including English as a Foreign Language (EFL) and ESP (Khan, 2019). Jonassen introduced the term ‘Mindtools’ and claims that they promote independent and meaningful learning, support interactive, collaborative, and student-centred classrooms, and engage students in creative and critical thinking while constructing new knowledge (David H Jonassen, 2000). Furthermore, the E-learning environment is becoming a bank utilising these carefully selected links, tips and teacher’s adapted materials during lessons, which helps students in self-studies at home (Drozdová, 2019).

Notwithstanding, the lack of change and reform in the conventional approaches to English language education is perhaps one of the reasons for the lack of interest among Algerian students in learning English in ESP classes (and in EMP ones). Materials used by English language teachers and students are mostly confined to the blackboard, the course book or the handouts. This is why the use of technologies such as computers, vlogs, and e-mails might increase Algerian students’ motivation to learn the language, which aligns with Mayora's claims, stating that in order to improve EMP instruction, “one important alternative is to take advantage of the continuing advances in multimedia technology and to make an effort to integrate this technology with in-class instruction” (Mayora, 2006, p. 14).

Furthermore, some technology tools enable teachers to differentiate instruction, adapt classroom activities and homework assignments, and provide innovative and exciting ways for students to practice essential skills, thus enhancing the language learning experience. Distance learning programs can enable language educators to expand language-learning opportunities to all students, regardless of where they live, the human and material resources available to them, or their language background and needs. One of the tools we found ourselves using during the pandemic was the application called Zoom; it allowed us to sustain the weekly classes even though COVID-19 and other Zoom functionalities such as whiteboarding, enabling or disabling recording, room polling, screen sharing and many other features.

According to Živković, the use of ICT is the best way to acquire and create new knowledge; it activates constructivist innovations, contributes to the realisation of active learning and fosters autonomous and collaborative learning by encouraging students to take responsibility and control over

their learning process (Živković, 2016). In the following section, we will be listing some of the major technological tools that we recommend using to teach ESP (more specifically EMP):

#### 3.4.4.1. The Internet (Web 2.0)

Traditional didactic teaching and textbooks may not suit all students since learning preferences are different among individuals. The new generation of medical students is more proficient with the use of technology. Hence, educators need to come up with strategies to assist self-learning (G. Kennedy et al., 2008, pp. 6–10). In this context, the internet can be a useful educational technology that can cater to learners with auditory, visual or mixed learning preferences. Web 2.0 is the most recent internet-based technology and is currently used as a pedagogical tool to improve language learning and teaching. The Internet is regarded as a pedagogical device to develop language teaching and the learning process whose role in education should not be viewed as an add-on but rather as an instructional tool for providing a richer and more exciting learning environment. Studies have shown that Web 2.0 technologies, especially wikis, provide a great opportunity for collaborative writing activities (Cress & Kimmerle, 2008). Moreover, social networking sites have proven their usefulness in improving learners' writing and reading skills as they help them use the language they have learned through writing or reading comments and messages (Sarica & Cavus, 2009). It can enable constructivist innovations in the classroom, thus contributing to the realisation of meaningful, authentic, active, interactive and problem-based learning.

Furthermore, the Internet enables multimedia interaction and contains encyclopaedic reference resources, publications, movies, etc., that ensure learning and entertainment. Using the web, students can easily access all kinds of information: from news reports and medical articles on the subject to countless resources and texts available at Google to work out the English language. The web offers some language teaching sites such as EFL / TESOL with discussion forums or interactive exercises on language, etc. (Esteban & Martínez, 2014). It is also an excellent source for providing authentic materials in accordance with students' needs (Živković, 2016). "Internet-generated materials can be flexibly arrayed to engage students with topics and cognitive tasks relevant to students' professional futures" (Kimball, 1998). If used appropriately, this technology could add relevance and meaning to ESP learning because it has the potential to increase students' motivation for learning.

The resources offered by different websites on the Internet are endless, enabling students to practice vocabulary by performing various interactive tasks which allow students to find out their results and achievements immediately and to work individually at their own time and pace. The teachers themselves can creatively design interactive tasks for their students. Furthermore, educational resources such as articles, books as well as images can be digitized and distributed via the Internet. The usefulness and flexibility of social software that enables groups of people to collaborate via the Internet have added

dimensions to online learning, allowing educators to form, distribute and share knowledge (Beldarrain, 2006).

Internet media, moreover, allows for the ideal application of the multiple perspectives' principle: hyperlinked texts scaled in difficulty from introductory intermediate to advanced levels; raw data compilations for reference; photographs, diagrams, charts and other graphic representations to supplement readings and discussions; audio-visual material. Additionally, e-mail facilitates formal, informal and ad hoc consultation between instructor and learner and among learners at various stages of a topical project (Kimball, 1998). Numerous forms of Internet-based communication tools are available with the advent of the Internet and mobile technologies. New technologies give rise to academic developments, and adopting them is required for suitable educational use. Instructors are becoming encouraged to prepare their learning resources and activities for flexible as well as collaborative environments. The advent of the Internet has offered new ways of education for educators in order to expand collaboration (Beldarrain, 2006).

It seems that with the abundance of infinite Internet information and easy access to countless sources, the teacher has no problem finding suitable teaching materials (Drozdová, 2019). Many studies in the field of medical English suggested using the Internet, in particular, to enhance medical students' English language proficiency in many ways (Kimball, 1998). Needs analysis studies revealed that medical students prefer using the Internet or TV, and DVDs, in their English learning (Hwang & Lin, 2010). Not only most useful professional/ medical links should be found in e-learning courses, but also tips and links for practising the use of English, watching films including medical dramas, listening, reading and all other sorts of inspirational miscellaneous materials helping the young audio-visual generation to boost their English and make them love and enjoy the language (Drozdová, 2019).

#### 3.4.4.2. Mobiles

Although some ESP teaching experts argue that the use of smartphones in classrooms can be disruptive, we still believe that if they are used correctly, mobile phones can be friends in the classroom rather than foes. All in all, modern technologies can be considered as the infrastructure of any distance, electronic, or mLearning. In particular, as Godwin-Jones (2011) stated, the rise of smartphone ownership affords learners virtually limitless opportunities to study the language anywhere: "Clearly having such powerful devices available anytime, anyplace provides tremendous opportunities for educational use" (Godwin-Jones, 2011, p. 3). Research on Mobile-Assisted Language Learning (MALL) suggests that the use of technology to study the language and its vocabulary is an effective approach for foreign language students (McLean et al., 2013). Since mobile-based activities afford students flexibility and ubiquity, i.e., more opportunities to study the language anywhere, thus giving them more control over their own learning (Ballance, 2012).

Moreover, this newly developed technology offers numerous practical uses in language learning, such as ubiquity, availability, and affordability (Prensky, 2005). In addition, MALL not only serves as a primary source of language education for students but also supports the retention and utilisation of newly-acquired skills whenever they are required (Tabatabaei & Goojani, 2012).

To sum up, learning Medical English and Medical vocabulary via MALL should be an interesting approach to teaching EMP since language learners have favourable views towards the incorporation of Mobile-Assisted Language Learning (MALL) in the EFL classroom, where programs such as Anki, Word Engine, and VocabTutor have been shown to empirically improve learners' ability to acquire new vocabulary (Dizon, 2016). To conclude, it is essential for teachers to constantly provide guidance throughout the learning process in order for students to effectively leverage the advantages of mobile-based environments.

#### 3.4.4.3. Computers

Computers have evolved a lot lately and, as a consequence, they have come to have numerous applications in all fields of activity. Schools and colleges are no exceptions since they use computers frequently in the curriculum of certain subjects such as English, making them a constant source of information and communication; on top of that, they have brought a great contribution to the evolution of modern teaching, allowing students to be all the time in contact with the most recent communicative tools (ANDREI, 2009).

Furthermore, Computer Assisted Language Learning (CALL) is an instructional/educational approach that incorporates the use of technology into language learning. CALL allows for greater learner independence and student choice in terms of pace, content, interest, learning style and medium (Petrea, 2014). It is succinctly defined in a seminal work by Levy as “the search for and study of applications of the computer in language teaching and learning” (M. Levy, 1997, p. 1). Moreover, Beatty offers the following characterization: “a definition of CALL that accommodates its changing nature is any process in which a learner uses a computer and, as a result, improves his or her language” (Beatty, 2013, p. 7). Other benefits of adding a computer component to language instruction include: multimodal practice with feedback, individualization in a large class, pair and small group work on projects, either collaboratively or competitively, the fun factor, variety in the resources available and learning styles used, exploratory learning with large amounts of language data, real-life skill-building in computer use (Husaj, 2014).

According to Pirasteh, CALL programs/materials include CALL-specific software: applications designed to develop and facilitate language learning, such as web-based interactive language learning exercises/quizzes. Generic software: applications designed for general purposes, such as word processors (Word), presentation software (PowerPoint), and spreadsheet (Excel), that can be used to

support language learning. Web-based learning programs: online dictionaries, online encyclopaedias, news/magazine sites, e-texts, web-quests, web publishing, blog, wiki, etc. Computer-mediated communication (CMC) programs: synchronous - online chat; asynchronous - email, discussion forum, message board (Pirasteh, 2014). We will discuss next some of those CALL programs/materials:

- PowerPoint: because the PowerPoint templates are minimalist, they force teachers and learners to keep their exchange simple, rapid, focused and comprehensible. The pre-emptive focus on form is one example of a situation when PowerPoint may be used by modelling chunks of grammar and vocabulary, and the pattern and pace of teacher-student interaction increases (Petrea, 2014). To illustrate how PowerPoint introduces adjectives impressively through font size, colour and animation that can further be used to practice degrees of comparison or by aiming the projector at the whiteboard and sharing exercises that contain blanks for students to fill in with their answers or correct errors (Petrea, 2014). It is something we implemented in our case, and we believe it's very rewarding having the students attempt to correct errors or solve exercises in the form of class discussions. In our study, PowerPoint also proved to be valuable when attempting to stir discussions, like in the case of presenting an image associated with an idiom or a quote and asking students to discuss it, having a visual clearly helped and oriented students by giving them an incentive to participate in the discussion.

- Podcasts: they are digital audio or video files that can be accessed and downloaded through the Internet, and students may broadcast their own podcasts, or others' podcasts may be integrated into the classroom. Teachers can create and upload podcasts that include class lectures, materials and presentations, which students can download outside of the classroom for reference and review, with the aim of identifying main ideas, listening for details or giving opinions.

Podcasts allow students to access information outside of the classroom, enhancing their comprehension of content since learners get to work at their own pace. Podcasts can also provide a means of pronunciation practice, as students may record and listen to themselves speak and try to make improvements. Student-generated podcasts are an effective way of engaging students in literacy activities as they develop a script that will eventually be recorded. It also provides students with an authentic activity publishing to a real audience, which is a motivating factor (Petrea, 2014). Due to its value, we will be addressing podcasts and audio-recording in more detail in a different section.

- E-mail: E-mail is a form of asynchronous communication, i.e. do not happen in 'real time'. It seems to be the most important, unique method for communication and developing relationships since the telephone (Suler, 2005). Pedagogical benefits of e-mail are: extending language learning time and place beyond the classroom, offering real-life communication and asynchronous interaction in the target language, promoting autonomous learning and learner collaboration, and providing possibilities to increase the amount of time that learners spend reading and writing in a communicative context. A number of suggestions for using e-mail are offered: group e-mail exchanges, e-mail interaction within

the class, e-mail interaction between classes, and one-to-one e-mail interaction (Pirasteh, 2014). What is paramount in the e-mail learning experience is the learner's reflection on language and making use of various resources such as dictionaries and grammar books. Another valuable quality of e-mail communication is learners' collaboration. Collaborative learning provides opportunities for learners and teachers to communicate, discuss and collaborate online. It helps to bring together groups of learners for a learning event, i.e. create learning communities; it also develops their skills of negotiating, planning, and sharing information (Kavaliauskienė & Vaičiūnienė, 2006).

- **Blogs:** Blogs, or weblogs, consist of a series of entries written by an individual or a group and published on a website. Blogs are interactive in that readers may respond and comment to blog entries. For English language learners, blogs are an excellent venue for the development of writing. As students are more motivated to write because they are publishing for an authentic audience, they may also receive feedback from the teacher and peers ([www.edublogs.org](http://www.edublogs.org)) (Petrea, 2014). Regarding the pedagogical value of blogs, Churchill, cited by Hung, stated that “they serve as one form of e-portfolio that enables students to publish their own writing, discuss group assignments; peer review each other’s work, collaborate on projects and manage their digital portfolios (Hung, 2011, p. 2).

- **Video blogs “Vlogs”:** Audio blogs and video blogs or vlogs enhance student learning, self-presentation, information exchange and social networking. Huang and Hung found that “EFL students generally perceived the implementation of electronic-speaking portfolios in a favourable manner because they helped identify weaker areas in speaking, offered additional oral practice opportunities, alleviated speaking anxiety, archived learning progress and reinforced peer bonding” (Hung, 2011, p. 3). Students can watch vlogs of other pharmacists/ doctors who are native speakers of English and comment on them, discuss them or summarise what has been mentioned in them; in more advanced classes, students can make their own vlogs and then reflect on their own clips in class discussion, one of the examples we used were vlogs of pharmacy students or medical students discussing their choice and why they have chosen that field, coupled with the benefits of studying pharmacy/ medicine, which tends to be insightful for students and stirs discussions. The benefits that arose from the vlogging practice can be summed up in visual representation (delivery, pronunciation, volume and facial expression), Relief from time constraints, Self-evaluation, Professional development, Wider audiences, Peer learning, Technical capability (adding hyperlinks, customizing vlogs, and reuploading clips) (Petrea, 2014).

- **Dictionaries:** Electronic dictionaries have become more and more attractive, accepted and popular to ESP learners at different levels. It is a portable electronic device that serves as the digital form of any kind of dictionary. Available in a number of forms (dedicated handheld devices, apps on mobiles, DVDs and online products). As technology has advanced, the number of features that are available in electronic dictionaries has also increased. Many of them are text-to-speech and speech-to-text capabilities, interactive vocabulary games, vocabulary journals, speech features, and reference

books (Zheng & Wang, 2016); they can even have sound and video clips to help learners recognise a word when it's spoken and put it into context.

As for teachers, helping students tap into electronic dictionaries effectively is a good way to help them become independent, lifelong language learners. Midlane claims that the use of electronic dictionaries might be considered an autonomous approach to English language learning (Midlane, 2005). Furthermore, consulting dictionaries for new words improves vocabulary acquisition (Hulstijn et al., 1996). Yet teachers should give training or instructions on how to correctly use electronic dictionaries (Stirling, 2005); they should teach their students the different ways of using a dictionary and help students realise that dictionaries can become their study companions anywhere they go.

- **Hot Potatoes:** Hot Potatoes v.6.3 software program has been developed by the Research and Development team at the University of Victoria, Humanities Computing and Media Center as a pedagogical tool that allows teachers to create their own educational content in professionally sound ways for a range of purposes (Poghosyan, 2015). It is a kind of fast edit software tool that includes six applications named J-Quiz, J-Cloze, J-Cross, J-Mix, J-Match, and the Masher. With the help of these applications, the ESP teacher can create interactive multiple-choice, short-answer, jumbled-sentence, crossword, matching/ ordering and gap-fill exercises for the World Wide Web. One of the advantageous aspects of using it in teaching ESP is its easiness, quick functionality and offline capability. In this sense, the program provides a great deal of support in putting together different assets: texts, audio and video files, multimedia, images, mp3-s, animations and building up effective learning objects and introducing them in meaningful lessons for the class (Poghosyan, 2015). Hot Potatoes can be effectively used in various academic situations and in the course of ESP study (thus EMP classes), as well as for the purpose of developing learners' receptive and productive language skills (Poghosyan, 2015).

- **Interactive Whiteboard (IWB):** the interactive whiteboard is the centre of focus in a classroom. Words can be introduced using graphics and images so that instead of the teacher laboriously explaining what certain words mean, the meanings can be depicted clearly with the use of images and graphics. It has gained significance ever since the spread of the covid-19 and the need for online teaching and Zoom conferences. Furthermore, the Interactive Whiteboard allows the display of Word-processing documents, spreadsheets, digital images, and diagrams. And according to Levy, the use of a great variety of materials and activities via the Interactive Whiteboard (IWB) leads to high levels of students' concentration, motivation, interactivity, and participation (P. Levy, 2002). Thus, an effective presentation of information, which aids memory and provokes thought, is achieved (Akbaş & Pektaş, 2011).

- **Electronic Corpora:** it is a large collection of authentic texts; a corpus is a targeted representation, usually available in an electronic format. Skilled use of corpora can expose students to vocabularies specific to their fields, helping ESP learners to learn to use technical words successfully (Fuentes, 2015). Working with a corpus is more useful for learning vocabulary than working with a

dictionary. Yoon (2008) opined that corpora help students make fewer writing mistakes, enhancing not only their lexico-grammatical perception but their language awareness as well (Yoon, 2008). Thus, as an EMP teacher using these online Corpora to teach Medical Vocabulary might prove fruitful.

- Edmodo (2018): one of the most useful tools available today is Edmodo; it is a private micro-blogging service available at [www.edmodo.com](http://www.edmodo.com), which provides a free and secure learning platform. The Edmodo interface is similar to other social media apps students already know; it is very much like Facebook, though it is much more private and safer for a learning environment because it permits only teachers to create and manage accounts and only students who have a code to register in a group. The free app is accessible on any mobile device with internet capabilities, and it provides a simple way for teachers and students in a virtual class to connect and collaborate (Khan, 2019). Using this platform, teachers can send out quizzes and assignments, offer feedback, and receive completed assignments. They can also award grades, store and share content as files or links, maintain a class calendar, conduct polls, and send notes and text (SMS) alerts to individual students or to the entire class. Edmodo was noted by the British Council as one of the best innovative trends for ESP learners in 2012 and 2017. Edmodo allows teachers to plan lessons and students to submit assignments; teachers and students use it to safely connect online, collaborate, post ideas, and send notes and messages (Lazar, 2015). It is considered an effective tool for raising the level of ESP learners' involvement in classroom activities (Sanders, 2012), which should be the case with EMP students as well.

- Other tools: ESP teachers have always faced the challenge of learning, integrating and exploiting several important pedagogical software tools, yet if the selected objectives are to encourage students to express their opinions and foster critical thinking, then teachers might think of other ways of exploiting technology. These objectives can be met through Web-based learning systems which upgrade student-to-student as well as teacher-to-student communication by letting students engage in threaded discussions on forums; these threaded discussions enable peer communication, help correction and learning, can be monitored by teachers to advance a discussion or reign dead-end digressions or inappropriate exchanges between students (Petrea, 2014). On a similar note, other tools such as NewReader from Hyperbole and Text Tanglers from Research Design Associates can create a variety of text reconstruction activities for a plain-text word-processed document, greatly expanding any classroom reading that the teacher has prepared, like Crossword and word search puzzles which are other examples of activities that take a great deal of time to prepare by hand, but very little time to do on the computer (Husaj, 2014).

Furthermore, as the main advantages of technology use, Warschauer and Meskill stress the opportunity for authentic and meaningful interaction within and outside of the classroom, as well as the ability to access online environments of international communication, i.e. cross-cultural communication, which is increasingly required for academic, vocational and personal success (M Warschauer & Meskill, 2000). Besides, online technologies work well with the new language teaching approaches, in which

learners are viewed as active agents participating in their own learning process, which aligns with Wilson's claims stating that: "This technology (such as the computer-Internet combination) allows learners to do multiple language tasks, simultaneously integrating all the basic language skills-reading, writing, listening, and speaking. When used, it is an invaluable asset in the arsenal of language teaching and learning tools. Therefore, we must open the minds of educators and motivate the learners by breaking down the walls of technical bias, unlocking the doors, and allowing the spider to cast her electronic World Wide Web of English around our students in and out of the classroom "(Wilson, 1996), and we believe this to be valid for Medical students as well.

Similarly, using modern multimedia helps provide interactive cooperation and constant communication of students and allows the teachers to lead students' work aimed at mastering a foreign language, leading to the development of linguistic skills, increased motivation, student-centred learning, active processing and engagement in the learning process (Azadovna, 2020). One other strategy of incorporating modern technology in the teaching of EMP is to use popular recent medical television series such as House MD, Grey's Anatomy or Nurse Jackie, from which we design gap-filling exercises (using the English subtitles from which we erase keywords and sentences related to the medical theme we study) and "differential diagnosis" activities. The fact that such teaching aids are extremely motivating and the efficiency has already been proven by previous studies (Faure, 2016).

Furthermore, the present generation of students, being digital natives, will, without a doubt, have a lot of benefits to reap from the use of eLearning tools in classrooms. They believe that it saves time and effort; therefore, its use should motivate them to learn according to their objectives. That's why many ESP learners feel comfortable with searching the web and using e-books and other beneficial software programs, believing that technology helps to conserve time and effort (Dashtestani & Stojkovic, 2016). And since ESP is learner-centred, there is a need to ensure that the chosen eLearning tools are the ones that are suggested and encouraged by students, and in the case of out-of-class assignments, technology can also be harnessed in order to reduce teacher-directed learning, motivating learners to study and work on their language skills even outside the class, making them more flexible, active, autonomous, interactive and involved communicators. On the other hand, it is also important that the eLearning tools should be those that instructors are comfortable with so that they may use them to their full potential.

Additionally, technology continues to grow in importance as a tool that assists teachers of foreign languages in facilitating and mediating language learning for their students (Husaj, 2014). The instant feedback offered by software tools on different exercises is usually perceived as helpful, and learners can make choices as to how many times they repeat an exercise and assess themselves. Such growth in importance is also due to the current generation's qualities. As representatives of the "Net Generation", learners today have high expectations when it comes to technology. So, a blended-type ESP course can

undoubtedly help them develop their professional activity competence, which consists of cognitive competence (theoretical and practical knowledge of the industry); personal competence (communication abilities and social skills); and technologically-professional competence (creative and constructive problem-solving, communication skills, cooperation) (Poghosyan, 2015).

Consequently, the necessity for teachers to search for suitable online materials, adapt them and prepare their own ones is becoming more and more obvious; nevertheless, it is usually extremely time-consuming and fiddly work (Drozdová, 2019), thus making it one more challenge that the ESP teacher has to deal with if he/she wants to keep learners interested in the presented work. Furthermore, the ESP teacher should be aware of the instructional materials that modern technology has made available and try to include them in the daily teaching, such as using software to build puzzles, select clips from tv shows, or even build games, offer a great variety in building and selecting activities that may increase students' ability to acquire the language in a proficient way. Moreover, the increasing influence of technological advances in education demands the use of meaningful, authentic activities to give the learning situation a purpose and meaning (Butler-Pascoe & Wiburg, 2003).

To conclude, it is believed that setting objectives before selecting the technology safeguards the objectives (Petrea, 2014) because the effects of any technology on learning outcomes lie in its uses. A specific technology may hold great educational potential, but until it is used properly, it may not have any positive impact at all on learning (Husaj, 2014). Additionally, discovering teaching and learning tools that save time and contribute to learner achievement can help motivate teachers to learn more about effective uses of technology (Zheng & Wang, 2016). Still, we should bear in mind that language teachers are not IT specialists; their main targets should be of selecting web resources and improving them if possible in order to make students develop their language skills in a dynamic environment.

### **3.4.5. Project Presentations**

Twenty-first-century learners are aspiring to a type of education that addresses their curiosity, promotes their creativity, and provides them with inquiry-based approaches that answer their questions and lead to unique discoveries. Project-based learning (PBL) is a good way to tick all of the previous boxes; it is a process of learning that enables students to give meaning to real-life situations. PBL is a systematic teaching method that engages students in learning knowledge and skills through an extended inquiry process structured around complex, authentic questions and carefully designed products and tasks' (Markham et al., 2003). This creative method enhances and updates teaching and learning languages for specific purposes and develops new study skills for learners by promoting self-directed, autonomous, active learning, out-of-class learning and by stimulating students' critical and creative thinking (Liuolienė & Metiūnienė, 2013). Project-based learning also emphasises authentic learning tasks grounded in the personal interests of learners (Grant, 2009).

Giving a presentation is considered to be a powerful tool which supports learners' autonomy because it motivates them to use the target language actively as they become an active part of the educational process. And by choosing the topic of a presentation, learners negotiate the meaning, which leads to tailoring the content of the course to their needs. Also, they can see whether their performance was informative and interesting to others in the group (Zrníková & Bujalková, 2018). Moreover, PBL promotes autonomy and self-directed learning as well as "hands-on" experience (Shaalán, 2020). These findings also come in line with Grant (Grant, 2009), who stated that incorporating project-based learning activities in learning helps students to understand concepts fully, connect ideas, apply their learning to real situations, deeply analyse concepts, and arrange their thoughts.

Students usually enjoy project presentations because they imply creativity and freedom. In the context of EMP, and as stated before, project-based learning functions as a bridge between using English in class and using English in real-life situations outside the class (Larsen & Booth, 1997). Asking learners to make a presentation about a particular pharmaceutical product, Disease, or their current research is always a highly focused activity, where the teacher can both give directions at the preparation stage (useful vocabulary and grammar, steps of presenting material) and feedback on the performance (discussing language mistakes, presentation construction). Furthermore, the teacher can get benefit from teaching methods, viewing it as both a teaching and learning process, where some interesting information about different medical processes can be acquired.

A PBL approach requires a cooperative learning environment, with a change in the role of both the teacher and the students. Instead of being dominant and controlling, teachers guide, coach, and mentor their students and teach them how to ask questions, collect data, debate, discuss, take notes, write reports, think critically, and solve problems. Students show great enthusiasm regarding sharing their knowledge and learning to work independently. However, with the technological and scientific demands of the current century, innovative strategies represented in PBL techniques should be integrated into the instruction of the ESP course (Shaalán, 2020). Thus, Project-based teaching can be further improved by having students use PowerPoint, recordings as well as videos; according to Allen, Kate & Marquez, "Visual aids impact and add interest to a presentation. They can create excitement. Visual aids enable students to use more than one sense at the same time. One picture can elicit unlimited words" (K. Allen & Marquez, 2011, p. 5). Different visuals bring variation in the classroom as they help to draw the attention of the learners toward the topics (Macwan, 2015).

Furthermore, from the linguistic viewpoint, medical terminology and pronunciation, academic syntactic and grammatical structures, as well as idiomatic polite forms, are being practised in this kind of teaching task. Intentional use of para-lingual means, such as speech rate, intonation, stress or emphasis on key information marked by a pause, allows the audience to make connections and follow the context and thus attract their attention and interest in the subject matter (Zrníková & Bujalková,

2018). Additionally, giving a presentation requires pairwork and teamwork, creating beneficial forms of student-to-student interaction, which usually leads to promoting cooperation, improving communication and developing those qualities that will make it easier for future doctors to participate in coordinating treatment and collaborating with colleagues.

Additionally, working on projects requires the use of multiple intelligences. Group work is also integral to projects, and through mutual cooperation, various strengths of individuals promote the quality and success of the group as a whole (Lawrence, 1997, pp. 1–9). Another advantage is shared learning, where the students have an opportunity to learn from one another. Project presentations also develop the computer and linguistic skills of ESP learners and enable innovations in the classroom, thus contributing to the realisation of meaningful, authentic, active, interactive and problem-based learning. Students search for solutions to real-world problems based on a technology framework, which leads to critical and analytical thinking, allowing for enhanced identification of students' needs and the development of responsibility and interpersonal skills (Antić & Milosavljević, 2014).

In Project Based Learning, students concentrate on an EMP topic requiring specific related vocabulary, which will be inevitably used when presenting the topic. That usually helps enhance their knowledge of professional terminology, specific chunks of vocabulary, correct pronunciation and the use of grammar in exchanging situations typical for their profession. Presentations usually occur in formal situations, so the use of appropriate and accurate language and polite phrases when presenting the text needs to be consistent with non-verbal communication, which respects the target culture or international conventions (Zrníková & Bujalková, 2018). Also, effective integration of PBL techniques in the instruction of EMP vocabulary learning creates an atmosphere of cooperation and creativity among the students that stimulates them to work together to reach one final result for each project they share.

Furthermore, each project should cover a specific topic related to the students' field of study (medical field in our case). The students are required to work together on their projects, and the teacher's role is to guide, coach, and mentor them. He/She guides learners to ask questions, collect data, debate, discuss, take notes, write reports, think critically, and solve problems. One of the examples is when the students are asked to prepare case studies concerning some professional issues or a presentation of a disease or a medical procedure and describe it thoroughly to their classmates. Useful phrases are divided into several parts: opening part – introduction (I'm...; I'm going to talk about...; I'd like to give you some background information..., etc.), organising the presentation – describing the disease or the procedure (discovered in..., the onset is characterised by ..., the signs and symptoms are..., treatment and preventive measures..., etc.) and closing part – summarising (To sum it up..., If you have any questions..., etc.). The teacher can enrich these parts with more phrases and ask students to use grammar structures viewed in the topic (connectors, Passive voice, modals, etc.). Visual aids are always welcome as students also

practise how to work with slides. After the presentations, all students discuss their weak and strong points and make recommendations for improvement.

Additionally, techniques used in the classroom to distribute the work, divide the students into groups, select the materials, make discoveries and solve problems contribute to the actual learning process and add more positive attributes to the students' characters in the classroom (Shaalan, 2020). And presentations on professional issues delivered in the target language call for more practice in productive skills on the part of students and include such tasks as summarising data, fact-checking and small-group discussion and debate related to implications of data under review, encouraging deeper processing of concepts and contextualised problem-solving (Kimball, 1998).

To conclude, opportunities for active investigations created by the implementation of Project Based Learning enable students to learn concepts, apply information, and collaborate with teachers and colleagues in a variety of ways. Such collaboration between students and teachers enables the sharing and distribution of knowledge between members of the learning community, which leads to proficiency and mastery of the language (Antić & Milosavljević, 2014). And considering the fact that English is the lingua franca of medicine, proficiency in English will enable students, and future doctors, to establish contact and participate in scientific exchanges with colleagues worldwide, to become equal members of the global medical community, which will promote their professional development, and presenting projects in class is a perfect simulation of what awaits our future Doctors aiming for international exposure; especially since the ultimate goal of today's EMP students is to acquire the ability to successfully communicate with others (professionals) in a meaningful and appropriate way. As stated earlier, EMP courses should prepare students to use a language to communicate effectively in real-life situations and cooperate with colleagues in professional fields; project presentation is a great way to practice that (Živković, 2016).

#### **3.4.6. Translation as an Interactive Activity**

Although translation activities are steadily regaining a reputation as a valuable and practical activity to teach English as a foreign language, it remains a challenge for ESP practitioners to find fruitful and creative methods of integrating Translation activities into their teaching. Such activities can have a significant impact on the learning process since it is established that well-implemented translation activities can help raise awareness of cultural and intercultural issues, practice pragmatic aspects of communication, increase motivation and enhance the overall learning experience (Kic-Drgas, 2014).

Using Translation to teach English as a foreign language was a key element of the Grammar Translation Method. Activities were about translating either classical literature or historic texts word for word. Such use of Translation began first with the study of Greek and Latin, and with time it overlapped into general foreign language teaching for some time. So, the opposition to the use of Translation in

foreign-language classes developed as part of a reaction against the use of the grammar-translation method in teaching modern foreign languages. Its main criticisms were that it was not concerned with oral communication skills, it lacked interaction, being a teacher-centred approach, and thus did not encourage creativity and spontaneity (Sapargul & Sartor, 2010, p. 27). Therefore, the focus on language teaching switched to L2 language use in the classroom. This focus on using the target language sometimes reached the extreme of prohibiting the students' and teachers' use of the L1 during class. Unable to use L1 meant that using Translation in language classes would be impossible, especially since Translation was considered an artificial and restrictive exercise, counterproductive, forcing dependence on L1, purposeless and with no application in the real world, frustrating and demotivating (seemingly designed to elicit mistakes rather than encourage learning) and generally not suited for the average learner (Carreres, 2006). Yet despite this marginalisation, many language teachers have been quietly using the mother tongue for clarification and Translation as a supplemental teaching method.

Contrary to such claims, contemporary researchers point out certain aspects regarding the efficiency of translation-based activities in developing primarily communicative skills, as Ana Fernández-Guerra suggests: as a communicative act, TILT [translation in language teaching] can expose FL students to various text types, registers, styles, contexts, etc. that resemble the way languages are used in real-life for communicative purposes (Fernández Guerra, 2014, p. 155). Attitudes towards the use of Translation in FL teaching and learning have now primarily changed, and Translation is once again considered a useful pedagogical tool that can imaginatively and profitably be included in communicative and eclectic teaching methodologies. Indeed, far from being a hindrance for the FL student, Translation is now seen as a widely employed mechanism, as an essential part of the learning process and even as a learner's favourite strategy. Consequently, Current debates no longer focus on whether or not Translation has a place in English language teaching. Instead, the issue is how pedagogical Translation should be incorporated into the syllabus. Thus, Translation is now a feature of many communicative classrooms and a successful aid to the learning of languages, although the approach to using them has changed as Alan Duff states that teachers and students now use Translation to learn rather than learn Translation (Duff, 1984). Additionally, Radmila Popovic concludes: "if a strong case for translation in the language classroom is to be made, at least three things ought to be demonstrated: that criticisms against it are not valid, that learners need it, and that it promotes their learning" (Popovic, 2001).

Regarding the definition of Translation, Kic-Drgas states that: "... Translation requires more than exchanging terms or phrases between languages, adhering to grammatical rules, and choosing the appropriate register. It is a meaning-focused activity concerned with mental processes of analysis and synthesis, communicative language use, and the reproduction of structured discourse (Kic-Drgas, 2014). Marinov Sanja observes that "Translation is an activity or a strategy naturally employed by both language teachers and learners. Accordingly, despite some possible limitations, its potential should be

studied and exploited since it could help language learners gain a deeper understanding of what they do when they move between the two languages and thus indicate the areas that might need improvement” (Marinov, 2016, p. 227). However, the fact that Translation, as a science uniting theory and practice, undergoes continuous changes makes it more complicated to constitute a certain and stable definition of its interests.

#### 3.4.6.1. Benefits of Using Translation in the Teaching of Medical English

Many ESP teachers and theorists now see the validity and value of translation activities in communicative classrooms, mainly if designed well. These benefits can be stated as follow :

- Translation activities enhance English language skills. Bagheri and Fazel found that translation assists students in acquiring writing skills, facilitate their comprehension, helps them develop and express ideas in another language, and increases their motivation to learn English (Bagheri & Fazel, 2011).

- Translation activities are highly communicative activities as long as the content being communicated is relevant, and teachers exploit all possibilities for communication during the activity. Zohrevandi held that “translation now deals with communicative needs and purposes for stretches of written or oral discourse [...] what Dell Hymes calls communicative competence” (Zohrevandi, 1994, p. 182).

- The act of translating is a real-life, natural activity and is increasingly necessary in the global environment. This is even more significant with the growing importance of online information. Grego asserts that: “...translation can safely be called a ‘phenomenon’, something that manifests itself naturally in the world and which everybody has more or less experienced; to specify what else this phenomenon is also possible, and it has been done - as seen - by many in the course of history; to explain its true nature univocally and universally appears a still unsolved and much harder task” (Grego, 2010, p. 24).

- Teachers can focus translation activities on highly specific learning aims, such as the practice of particular vocabulary, grammar points, styles and registers, word order, idioms and figurative language, etc.

- Discussion of differences and similarities between the languages during the translation process helps learners understand the interaction of the two languages.

- Translation activities, if appropriately organised, can be used for various purposes, as David Atkinson proposes: cooperation among learners, reinforcement of recently explained items of grammar or vocabulary, checking for sense, and development of learning strategies (David Atkinson, 1987, pp. 243–245).

- The ability to translate a passage of a text or any other material gives students a feeling of achievement like no other. Learners see it as evidence of their mastery of the language, and when

learners feel empowered, there are no limits to what they can accomplish. Thus, it removes the negative attitudes of students and reduces their anxiety about learning a foreign language (Stibbard, 1998).

- The use of authentic materials in interactive translation activities is a learner-centred approach that promotes learners' problem-solving strategies, improves their analytical skills and strengthens their grammatical and lexical competence and autonomy (Mahmoud, 2006), which are also central qualities in ESP. For instance, V. Leonardi maintains that Translation is a handy tool for learning syntax, lexis, grammar and cultural matters in both the source language and the target language and points out that “while translating, students are encouraged to notice differences in structures and vocabulary, and they have to develop methods and strategies to deal with them” (Leonardi, 2009).

- According to Guy Cook, using Translation is a natural means of teaching a new language. It can be used to aid learning, practise what has been learned, diagnose problems, and test proficiency. And can assist students in maximising their confidence and accuracy and helps them with memorising vocabulary and understanding the structure of foreign language (Cook, 2010, p. 49).

- Finally, for many learners, tackling translation problems is intellectually stimulating, aesthetically satisfying and highly motivating.

#### **3.4.6.2. The Impact of Translation on the other Language Skills in ESP**

The use of Translation as a teaching tool in ESP classes can be a practical and comprehensive approach to language teaching in that it can involve the use of all four language skills traditionally employed to test learners' competence and performance. At the same time, translation activities can be used to focus on and practise only one or two language skills. Regarding reading as a skill, before most translation activities, the source text should be read carefully and analysed in detail. Such translation activities allow the inclusion of pre-reading and critical reading tasks, where students get acquainted with skimming and scanning techniques. Moreover, there is always the possibility for a post-reading activity, which can help introduce and understand new vocabulary, especially collocations. Concerning writing, students get to see and evaluate similarities and differences between different writing styles in different languages, and their writing skills can be enhanced by practising summarising the text in their own words. A contrastive analysis through translation activities will enable students to assess and make the differences between writing styles, structures, and forms in different languages. Vis-à-vis listening and speaking, Translation encompasses interaction amongst the students or with the teacher to discuss rights and wrongs as well as difficulties related to the translation task. Carrying out conversations on translation problems will help students strengthen their language skills, coupled with some audio-visual materials and some post-activity discussions, and this can help students enhance both their listening and speaking skills.

Concerning the impact of Translation on grammar, authentic texts are characterised by numerous examples of grammatical structures, where students get to improve their grammatical knowledge. This is highly relevant with particularly challenging elements of English grammar that have no or different correspondents in L1: the progressive, present perfect, modal verbs, the pronoun *it*, specific word order, conditional rules, collocations, tag questions, and phrasal verbs. In such cases, the teachers explain that learners are required to rely on understanding the meaning and not on a verbatim translation in order to convey a message correctly, which can promote the proper use of those in the learners' oral and written output. Such impact is further stressed by Petrocchi (Petrocchi, 2006, p. 3) "By starting from grammar, students can reach a higher level of translation and, vice-versa, by translating they acquire more competence in the knowledge of grammatical structures". An example of such use was the reinforcement of the grammar rules; regarding "Adjectives", we used the following example in class: "L'observation microscopique a été effectuée sur les crèmes fraîchement préparées, elle a ensuite été répétée après 24 heures". This should translate to "The microscopic observation was carried out on freshly prepared creams; it was then repeated after 24 hours." students usually miss position the adjectives or put them in the plural, and others use the pronoun "She" instead of "It". Thus, translations can be used to reinforce and consolidate grammar at the end of a class or immediately after the grammatical issue is explained or encountered. Regarding vocabulary, Translation also helps many elements of vocabulary, such as false friends, homonymy, synonymy, and polysemy, since translation activities in EMP courses can help revise and consolidate the specialised lexis and work as a drill to remember both meaning and spelling at the end of a particularly terminology-rich class. Thus, the use of Translation in language courses, more specifically in medical English teaching, should prove to be a comprehensive tool in that it embraces all four traditional language skills, as well as grammatical, lexical and cultural ones. And in carrying out the translation task itself, generally in pairs or small groups, students reflect on translation problems concerning specialised lexis and grammar and suggest possible solutions with the help of the teacher, who acts both as informant and facilitator.

#### 3.4.6.3. Samples of Translation Activities

Translation activities are planned for the EMP class after consideration of some factors. So as to make them into a successful technique of language learning, the teacher should consider, among other aspects, the learners' level of English, their level of medical knowledge, and their motivation to learn. Regarding the utility of translation activities, Chirobocea states: "such activities may prove very useful as they will have a set of common phrases specific to that domain and to which they can always refer, as well as skills for further learning. They will be provided with a basic foundation, the tools needed to face new linguistic challenges in their future professional life" (Chirobocea, 2018a). Yet Translation has its drawbacks, especially if not paired with engaging, conversation-building exercises. But when done correctly, Translation can perfectly complement language lessons. Hence the offering of a few

suggestions for types of translation activities and ways in which they can be useful in EMP classes. The following are translation activities we believe can promote language learning:

**Gist translation:** The teacher presents the learners with a medical text in English, and then the learners are told to express what they understood using either their native language or second language. These activities are simple and suit beginners or can be used as warm-up activities.

**Flashcards of False and True Friends:** In this activity, students will be asked to compare words that are shared in L1 and L2, learning to identify the terms that have similar meanings and those that mean something entirely different. This activity works well with languages that share roots, like in our case French and English, because our learners already pursue their medical studies in French, so they are well acquainted with the language. This activity is helpful in teaching new vocabulary since it gives a chance to introduce the concept of culture-bound words, subject-specific and non-subject-specific terms, collocations, false friends and other common mistakes (sensible in French vs sensible and sensitive in English).

**Translating idiomatic expressions:** Translation exercises in the ESP class can also concern working with photographs and pictures as stimulating material. We give students some idioms, proverbs, metaphors or even advertisements slogans. In this activity, we can push learners to use online translation tools and dictionaries like Google Translate (to allow learners to use technology from computers to smartphones) to see how mangled the Translation and expressions become, which can also prove to be helpful in demonstrating the dangers inherent in dictionary use and the pitfalls of too close a translation. While this is not necessarily a practical exercise for Translation, it is a hands-on lesson in some of the drawbacks of online translators and will give students a genuine appreciation of how tricky it really is.

**Translate the following Ward round entry, case report, or prescription:** The case reports or the medical prescriptions are given in English so that the task is easier for learners. Such activities will help students familiarise themselves with the clinical acronyms and how they differ from their original language of instruction, which is, in this case, French, for example, od: Omni die (once daily); bd: Bis die (Two times a day); CI: Contraindication; om: Omni mane (in the morning); on: Omni nocte (at night); PO: Per os (by mouth). Working with stimulating material (Ward round entry, case report, or prescription) is motivating and inspires students to think outside the box.

**Role plays:** In these activities, three students take part in a simulation in which one student is the Doctor and speaks English, another is a patient and doesn't speak English, and a third is a mediator between the two and attempts to translate, such collaborative activities promote interaction amongst students, which allows them to learn the new language easier and faster. In this sense, using such translation activities can be considered a social strategy, where learners are acting the scene and thus exposed to the language in its natural context. All of this allows the use of communication as a powerful

tool to learn the target language collectively in a friendly classroom environment, in which learners may help each other in learning the target language (Donato & MacCormick, 1994).

**Video Subtitle Translation:** Working with videos can be fun and also gives students innumerable ways of cross-referencing information acquired in the classroom, from vocabulary to grammar to listening to speaking. Kic-Drgas affirms that the Translation of stimulating materials involving multi-modal texts (for instance, photographs and other visual representations of reality) inspires learners' creativity (Kic-Drgas, 2014, p. 260). On the other hand, subtitling can help to raise awareness of cultural and intercultural issues and pragmatic aspects of communication, increasing motivation and enhancing the overall learning experience (McLoughlin & Lertola, 2014). There are a couple of interesting ways of implementing Translation in such a context: the first is by showing a video without subtitles. Then, lead a round of questions about who is speaking. What are they talking about? and essential vocabulary. After that, Show the video again, pausing after each speech, and have students offer a translation of the speech and note it on the board. Once you've translated the entire video, we assign students to play the roles. Another way would be to present YouTube educational videos or clips from medical tv shows, with a transcript (a written form of the audio), then ask students about what the video was about to follow that with the main task, which is translating the summary they had written about the material presented to them. An excellent example of that was the use of a YouTube video addressing the differences between brand drugs and generic drugs.

Students benefit from these activities in various ways. Initially, they improve their ability to formulate a strategy, and they work on refining the skills associated with dictionary usage. Learners can gain useful vocabulary and phrases within a contextual framework with examples provided by either the teacher or other classmates. Additionally, learners get to practice their production (speaking skills) in a conversational format. Lastly, students will be introduced to L1/ L2 and English cultural differences by the teacher's assessment of their previous discussions and presentations. Furthermore, according to Kic-Drga, translation activities can enrich ESP classes and broaden students' horizons given they are adequately prepared for the task, which can be achieved by implementing pre-translation exercises and supplemented by necessary comments on equivalence, differences and similarities between languages (Kic-Drgas, 2014). Furthermore, our own experience in the EMP class has only emphasised the validity of the theories stated above and proved that many elements specific to the medical text, such as specialised terminology, word order, grammar and style, could be better understood and further consolidated by learners through Translation.

Thus, it is clear by now that Translation is neither old nor obsolete but a valid teaching method that helps learners by consolidating complex grammar issues, clarifying confusing aspects, enriching vocabulary and generally improving their knowledge of English. Furthermore, it is important to clarify that incorporating translation activities in the ESP course design is not meant for the training of

professional translators but is rather a language learning device, thus as an ESP practitioner, one doesn't need to be an expert in translation to use it in the classroom, as noted by Witte: "It is not essential to be an expert in translation and translation theory to use translation in class" (Witte et al., 2009). Furthermore, the use of Translation in class as a teaching aid is not to be confused with the Grammar-Translation method of the early 20th century, i.e. reducing translation practice to a solitary, time-consuming and unrewarding activity based on demotivating texts, because through translation activities, students will realise the differences in structures, learn vocabulary and differentiate between confusing words, as well as learn the appropriate strategies to overcome language barriers and acquire the necessary vocabulary related to their speciality.

The integration of Translation in EMP classes offers both students and teachers many opportunities, from versatile development of language skills through the use of specialised vocabulary in a particular context to the widening of the subject-content knowledge on the basis of authentic texts. Furthermore, Translation activities encourage students to discern the variances in both structure and vocabulary, to strengthen their grammatical competence and comprehension ability, to mould their own method of thinking and to rectify common mistakes that could otherwise go about unnoticed, thereby helping them enhance language skills, during the process of Translation. Thus, the ultimate language teaching combines a variety of methods rather than relying on just one, so used in tandem with other activities that are more communicative in nature, Translation can be a powerful tool in building students' language skills.

### **3.4.7. Podcasts and Other Audio Recordings of Real-Life Conversations**

Although once labelled a passive skill, listening is an active, creative and demanding process of selecting and interpreting information from auditory and visual clues. There are various ways of developing listening skills in a foreign language, either through listening activities in class, individual listening practice outside classes or using multi-media in one's spare time. In this regard, Pavel states that such listening activities have many advantages, such as variety and diversity, contextualisation, access to new information, relation to the exterior world and stimuli for the development of written and oral skills (Pavel, 2014).

According to Rivers (1983), teaching listening skills is one of the most difficult tasks for any English language teacher because successful listening skills are acquired over time and with lots of practice. There are no rules in grammar teaching, and listening skills are difficult to quantify. He adds a rule of thumb in giving listening practice which is not too much but often (Rivers, 1983)

In light of the above, two simultaneous and complementary approaches to processing a listening material arise Bottom-Up and Top-Down Processing; in the former, the listener focuses on individual words and phrases and achieves understanding by combining the details together to build up the whole

content. Top-down processing, however, emphasises the value of the listener's background knowledge that assists him in interpreting what is heard and expecting what will come next (Harmer, 2001), using strategies like listening for the main idea, predicting, drawing inferences and summarising. It is therefore important to train learners to be flexible listeners, to know when, for example, it is appropriate to listen for specific information and when it is appropriate to engage in more global or 'gist' listening to get a general idea of what a text is all about (Balaban, 2016). That's why it is valuable to set listening activities that would induce the interaction between top-down and bottom-up processing. Similarly, Saricoban sets a list of useful listening sub-skills which incorporates predicting, guessing unknown words or phrases, identifying relevant points, retaining relevant points, recognizing discourse markers, cohesive devices, understanding different intonation patterns and uses of stress, and understanding inferred information (Saricoban, 1999).

Regarding the use of listening activities, according to Galina Kavaliauskiene, there are two distinct ways to use listening for pedagogical purposes; the first one is Collective listening to records in class, which differs from individual listening in many aspects, such as students work in pairs or small groups, listening themes are brainstormed, essential vocabulary is generated, students do various exercises before the listening procedure, e.g. matching vocabulary items with their definitions, predicting the contents or the details of the recorded material, etc., followed by checking learners' comprehension after the listening procedure has been accomplished. Contrarily to corporate listening activity, listening autonomously in one's spare time ensures independence of the learner's judgment of one's performance and helps develop a critical approach to the evaluation of success or failure in the activity. Also, there is an opportunity to improve listening skills by reading transcripts as a follow-up exercise (Kavaliauskiene, 2008).

Therefore, it can be affirmed that collective listening activities can bring variation to the class by making it interesting and enjoyable. A lengthy class becomes really tough and tedious if it is not interesting, and learners lose their attention due to boredom. The lecture-based class (which is usually the case of medical English classes) becomes monotonous for the learners, whereas introducing some audio activities can take away the monotony and help the students replenish, as they make learning more attractive and attentive. According to Alvyda L. and Regina M. (Liuolienė & Metiūnienė, 2013, p. 53), Modern teachers of ESP approach the challenges of teaching new ESP vocabulary using creative and innovative methods in the context of ICT, such as Authentic audio, where students are being involved in close-to-real communication, based on the materials from authentic texts for listening.

The audio clips used in these activities help students learn the correct pronunciation because the speakers of the conversations are mostly native speakers. These clips aid learners in knowing a variety of accents of the English language. Also, they can learn different styles of speaking. By listening to the conversations of native speakers, they can improve their listening skills, which is not always possible

by listening only to the class lecturers (Macwan, 2015). These types of audio provide them with extensive language exposure, which is very important for learning the language.

Furthermore, a novel approach to teaching listening skills in a foreign language has recently emerged due to hi-tech developments and audio publishing online. It is known as ‘podcasting’, which has recently become very popular because it offers language learners extra listening practice both inside and outside of the classroom. The term ‘podcast’ was coined in 2004, and it means the publishing of audio via the Internet; these audio recordings are designed to be downloaded and listened to on a smartphone, an iPod, or a personal computer.

According to P. Constantine (2007), a podcast is the name of a digital recording of a radio broadcast or similar program. They can be listened to at the convenience of the listener. Learners can listen over and over to any material that is of interest to them. They can be as short as two to three minutes and as long as an hour (Constantine, 2007). Moreover, Podcasts provide an exciting way for students and educators to explore and discover educational content; teachers can create and upload podcasts that include class lectures, materials and presentations, which students can download outside of the classroom for reference and review. Podcasts can also provide a means of pronunciation practice, as students may record and listen to themselves speak and try to make improvements. It also provides students with an authentic activity publishing to a real audience, which is a motivating factor. Phillips states that podcasting can be effective in fostering independent, autonomous learning, and students’ participation in producing their own learning material positively affects vocabulary acquisition (Phillips, 2017).

Therefore, it can be stated that podcasts and audio recordings are becoming increasingly popular in educational contexts because they are great learning tools in the sense that they give students the advantage to access them by devices of their choice (smartphones, tablets, and computers) and to listen to them anywhere outside the class, in the street, on public transport, etc. which could possibly enhance student comprehension of content. So, they allow teachers to expand the confines of their classrooms and enable students to practice listening in a self-directed manner and at their own pace, consequently offering learners extensive language exposure, which is very important for learning the language and helping them to perform a more active role in their own learning experience.

Other advantages of listening to podcasts, stated by Galina, are the ability to enhance the range and register of English language listening practice material available for the students to use in a variety of ways; they also provide increased connectivity between different elements of the course, enhance the scope for discussion activity in the classroom, give the language teacher a wealth of materials for teaching listening skills and provides a means for students to get access to ‘authentic’ listening sources about almost any subject that may interest them which is likely to increase their intrinsic motivation (Kavaliauskiene, 2008).

Similarly, the vast majority of research on using podcasts for vocabulary acquisition has found that they increased students' motivation and helped create a positive attitude towards learning. A number of studies have also demonstrated podcasts' effectiveness in learning new vocabulary. Mashhadi et al. (2016) found that integrating podcasts into vocabulary teaching and learning produced better results than the conventional methods (Mashhadi & Jalilifar, 2016). This aligns with Thorne and Payne's work (2005), where they recognise podcasts not only as excellent means for distributing audio but also suggest that podcasting has the potential "to foster a more seamless integration of in-class and out-of-class activity and materials" (Thorne & Payne, 2005, p. 386), they also suggest that podcasts can be used to provide learners with samples of real speech and other authentic materials. Moreover, numerous other studies on podcasts, like the one of O'Brien et al., have confirmed that podcasts significantly support language learning not just in listening and speaking but also in other language skills and areas such as vocabulary, grammar and even pronunciation (O'BRIEN et al., 2007).

Regarding Students' perspective on podcasts, in Laing and Wootton's study, students reported a range of reasons for using podcasts, including picking up missing information, revisiting complex material, working through the material at one's own pace, and catching up on a lecture that was missed. Examination revision, however, was the most frequently reported reason for using podcasts (Laing & Wootton, 2007), which concurs with O'Bryan & Hegelheimer's claims that podcasts may be a useful way of providing students with increased opportunities to familiarise themselves with lecture materials: "podcasts can help to arouse interest or curiosity in a new topic, explain connections between new and previous material, help to serve as advanced organisers before presenting a new topic, explain nuances and intricacies of a difficult concept and bring in other people's viewpoints" (O'BRIEN et al., 2007, p. 165).

In similar venues, P. Constantine discusses how to maximise learning from podcasts: 1- learners can benefit from global listening, even if they only listen for three to five minutes a day; 2- students will be exposed to the new language; 3- the intermediate learner has a need for authentic texts and to be exposed to a variety of voices. Podcasts are not just intended for listening. Often there is a transcript provided along with worksheets. A number of websites interact with the students and ask them to write in with questions or comments (Constantine, 2007). Similarly, Kavaliauskiene enumerates a set of tips for good practice in teaching/learning skills of listening: First, individual online listening to podcasts at one's own pace and at a convenient time, which motivates learners to improve skills of listening without being intimidated by possible failure. Second, raising learners' awareness of suitable individual ways of perfecting the skill of listening promotes language learning. Third, the novelty and diversity of outside-class listening motivate learners to perfect their skills without being observed by peers or teachers. Fourth, harmonising online listening with classroom audition activities in teaching/learning English should benefit all learners. Fifth, learners become aware that listening skills can be improved through a

lot of practice of their own choice. Finally, self-evaluating one's achievements and publishing a self-evaluation report in individual weblogs encourage learners to keep improving (Kavaliauskiene, 2008).

So, it is clear by now that podcasts have been incorporated into curriculums in a variety of ways to meet a range of learning objectives. The most commonly reported use of podcasts involves the recording of face-to-face lectures, using podcasts to record tutorials and deliver short recordings or "episodes" of core or supplementary material, to provide glossaries of key terms, as a feedback mechanism for lecturers and communicating with individuals and groups on assessment tasks (Laing & Wootton, 2007; Lightbody et al., 2007; Maag, 2006; Tynan & Colbran, 2006). By the same token, O'Brien & Hegelheimer state that podcasts can be integrated using one of three ways: they can 1- summarise a concept covered in class and provide examples to help students generalise to other contexts strategies learned in class, 2- act as a bridge between classes, building on concepts discussed in class but also helping to prepare students for the next class, or 3- introduce new material that will be referenced in the next class (O'BRIEN et al., 2007).

Going back to the advantages of using podcasts in regard to teaching English to medical students. Gerasymchuk states the following benefits: increasing motivation for language learning; answering the necessity to be involved in real-life situations, showing and highlighting interactions between medical personnel, exploring the relations between physicians and patients; encountering authentic multi-level materials that present a variety of English language (podcasters' intonations, dialects, individual sense of humour, manner of speech, grammar constructions); the opportunity to connect with foreign experience, the chance to receive and exchange knowledge, skills, achievements and innovative methods in the professional sphere (Gerasymchuk, 2016). According to Sandra, many of the major medical journals and professional societies are already beginning to produce regular podcasts. There are specific podcast search engines, such as Podcast Alley (<http://podcastalley.com/>) or Digital Podcast (<http://www.digitalpodcast.com/>) (Sandars, 2009).

Furthermore, when it comes to the activities related to audio recordings and podcasts, the time prior to a listening session is quite momentous and should be replenished with a pre-listening activity to abolish students' anxiety. Language teachers should create a low-stress listening atmosphere which will allow listeners to concentrate thoroughly on listening items (Balaban, 2016). Pre-listening activities can be word association tasks since they help determine what prior knowledge students have about the topic before they listen to the passage. They usually respond to a keyword or phrase, which can incite a brief discussion. Another possible pre-listening task could be dissecting the framework of the questions, whether they are direct questions or MCQ or cloze ones; by reading the questions, students may build up their own expectations about the coming information and also by trying to find answers to these questions, they can attempt their inference, predication, and calling up prior knowledge. Post-listening activities, on the other hand, are ones like gap filling (cloze tasks), summary writing, answering

questions, true or false, multiple choice questions, matching exercises or class discussions on benefits or failures of listening, which enables each learner to evaluate their ability to understand authentic recordings.

Additionally, in the era of communicative language teaching and learning, the primary concern is given to the development of a learner's ability to actively negotiate meaning in the target language. It is through processes involved in two-way communication that the rules and structures of the target language become incorporated into the learner's L2 system. The depth of instructional experiences, moreover, increases when involvement with another is part of the process (Pica & Doughty, 2007; Stevick, 2009) cited in Keihaniyan (Keihaniyan, 2013). Hence the reason behind the use of audio-recorded authentic dialogue to initiate interactive tasks like discussions, where teachers can take advantage of podcasts as a basis for comprehension exercises, as a way of generating conversation based on students' reactions to podcasts, and as a technique of providing each and every student diverse listening materials (Kavaliauskiene, 2008).

Worth to mention that many audio materials suitable for medical staff interactions and learning vocabulary can be found online. And according to Krashen, listening to authentic audio materials has the potential to enhance speaking skills. While listening to authentic audio, students get a better idea about how language is used in their profession in real life, outside the classroom. Moreover, spoken language provides a means of interaction for the learner when it comes to discussions. Listening exercises also help to draw a learner's attention to new forms in the language, i.e., vocabulary, tone and interaction patterns. Thus, listening comprehension provides the right conditions for language acquisition and the development of other language skills (Krashen, 1989). Similarly, Stanley (2006) suggests that podcasts could be used as a supplement to textbook materials, a source for authentic (or semi-authentic) listening materials, a way for students to gain information on specific aspects of the language such as idiomatic expressions or grammatical constructions and, with student-produced podcasts, as a way for students to communicate with each other in other countries (G. Stanley, 2006).

The audios and podcasts used in our study(teaching) were usually conversations between customer-pharmacists, Doctor-patient or medical staff interactions, and since we aimed at teaching the culture in the process, Students could listen to an explanation of the meaning of the idiom or slang term, as well as an example in context, with a transcript. We selected different fragments from MedicalEnglish (a website with medical audio content) based on a short sequence (2-5 minutes). In addition to audio clarity and intellectual accuracy, the website has the advantage of providing an accessible transcript on the Internet. This helped students learn listening strategies in class, such as paying attention to word stress and using context clues, salient and paying attention to content words.

We made sure that the students get a written transcript of the audio recordings because the audio materials that are accompanied by written forms allow students to understand better as well as practice

their reading skills and can serve as advance organisers that support and scaffold meaning as it occurs through the aural channel, thus the presence of text can diminish the decoding load placed upon the learner by the unrefined audio signal of authentic materials (Jung, 2011 pp. 208-209). Similarly, Keihaniyan states that the synchronised display of text along with the aural text assists the learner in distinguishing phonetic groupings and boundaries (Keihaniyan, 2013).

On a different note, the major impediment is that such in-class listening activities could be done only a few times per semester because they are time-consuming, which is not very practical given the limited contact hours (1,5 hours per week). With the expressed need of students for more audio input to practise their listening skills, we elaborated a set of listening activities as homework, like the case of the study established by Pavel where the students had to watch an episode of Dr House serial (very popular among students) and then re-create it in the classroom, by means of role-playing. They also had to come up with different solutions or with differential diagnoses and bring arguments for their choices (Pavel, 2014) or listen to some podcasts and either give a summary or discuss them in class, which aligns with Jeremy Harmer's (2001) claims: "However good a teacher may be, students will never learn a language – or anything else – unless they aim to learn outside as well as during the class time. This is because language is too complex and varied "... Students need to develop their own learning strategies so that as far as possible they become autonomous learners" (Harmer, 2001). That is why we attempted another possible use of audio, which was via the incorporation of Audio-books, where students can be given short audiobooks, and asked as homework to summarise them or start class discussions about them. This allows teaching hours to be utilised for problem-solving interactions.

Finally, the consensus is that podcasting and listening activities should be used to complement, rather than replace, traditional teaching for a richer learning experience as a supplementary learning tool (Walmsley et al., 2009). Similarly, they add relevant information to what was covered in class and thereby are a tool that provides more information and can serve in a preparatory fashion. Therefore, students leave the course with a toolbox full of various strategies that they can choose from while continuing their coursework at the university (O'BRIEN et al., 2007).

#### **3.4.8. Visual Aids**

The importance and usefulness of using visual learning aid in the classrooms are becoming commonplace in education; besides, language learning becomes fun, interactive and an activity to look forward to if visual aids like clips, episodes, documentaries, and films are part of the language learning process (Macwan, 2015). The role the medium has come to play in the lives of contemporary people is extensive. Language students come to the learning process well-versed in film, YouTube content, television, and their conventions. They come literate and psychologically prepared to attend to and react to videos using skills and strategies for understanding that they have developed over their lifetime. Furthermore, it is important to note that videos provide visual stimuli such as the environment, body

language, and other extralinguistic features like moods and feelings, which can lead to and generate prediction, speculation and a chance to activate background knowledge and experiences when viewing a visual scene, while also allowing the learner to notice stress patterns, contextual clues and speech rhythm in second language discourse through the use of authentic language and speed of speech in various situations.

Since videos are filled with valuable extralinguistic clues, research shows that exposure to such visual stimuli increases students' comprehension and retention of lexical items and makes it easier for the students to understand the abstract concepts in the language (Snyder & Colon, 1988) and that visual exposure, when coupled with an audio component, significantly increases students' comprehension of a video text (Baltova, 1994). Additionally, visual aids refresh the mental state and invite concentration, stimulate student interaction and communication with other classmates, promote cross-cultural awareness and are adaptable for use with students at any English language proficiency level; they can also prove to be effective in terms of saving time and triggering the willingness of ESP students. They provide the learners with hooks on which to hang meaning and make sense of the aural stream.

According to Tomalin's (1981) research, language teachers like video because it motivates learners, brings the real world into the classroom, contextualises language naturally and enables learners to experience authentic language, which encourages students to understand the relationship between learning and practising. Students like it because "video presentations are interesting, challenging, and stimulating to watch" (Stempleski & Tomalin, 1995, p. 12). One personal experience was when trying to explain the concept of rhetorical questions to my students; it was extremely beneficial that I could play them a video of 30 seconds of Hamsterviel from the Disney Tv show Lilo & Stitch. Everyone had a laugh, but most of them felt confident enough to give examples and interact with each other's answers, and mostly, they would remember what the rhetorical question was for the rest of the year. Therefore, videos are more motivating since they can create a more realistic language learning environment and stimulate EFL learners' interest in English learning and enhance their comprehensive linguistic competence as well as inspire self-confidence; as a result, students exposed to them report feeling fewer inhibitions about using their second language (Terrell, 1993).

Correspondingly, Arthur (1999) claims that: "Video can give students realistic models to imitate for role-play; can increase awareness of other cultures by teaching appropriateness and suitability; can strengthen audio/visual, linguistic perceptions simultaneously; can widen the classroom repertoire and range of activities; can help utilise the latest technology to facilitate language learning; can teach direct observation of the paralinguistic features found in association with the target language; can be used to help when training students in ESP related scenarios and language; can offer a visual reinforcement of the target language and can lower anxiety when practising the skill of listening." (Arthur, 1999).

On a similar note, Weyers states that authentic television programmes are a valuable tool that provides high levels of input and results in improving students' output (Weyers, 1999) which aligns with the findings of Suley's study: "The video materials taken from movies, flight simulations, or real flight experiences increased students' motivation to learn aviation English". since they provide the students with an interesting and motivating learning atmosphere, "The teachers observe that while watching an authentic flight video, students' enthusiasm to express themselves in English as a real pilot is evoked by the authentic aviation English that they are exposed to." (Seçer et al., 2015).

We should stress that the use of visuals in class should not just be a passive activity. The teacher should involve the students and push them to make use of all four skills. Two minutes of presenting video material being that a section from a film or an episode of a medical drama, or even a YouTube video made by a medical professional, can provide an hour of classroom work or discussion, or it can be used as an introduction to other activities and exercises (Bajrami & Ismaili, 2016). According to Borbála Nagy (Nagy, 2010, p. 70): "Authentic medical dramas can be of great help for language teachers in this respect since medical dramas have the advantage that they can be recorded and replayed; therefore, they are ideal for learners of Medical English."

On the other hand, visual aids can act as 'vehicles' that can be used to enrich and enhance the act of reading (Bellver, 1989) So, a visual cue may be accompanied by a written cue to focus on a lexical item being furnished since if they contain subtitles, it would allow students to better understand as well as practice their reading skill. In a different type of study involving subtitling in films, Danan (1992) investigated that a grouping of video input and bilingual verbal input aided vocabulary acquisition and reading comprehension (Danan, 1992). In this way, the presence of text can diminish the decoding load placed upon the learner. What individuals say is what gets subtitled, so the text resembles more oral communication, which represents a rare opportunity for language learners to experience approximations of oral language in both aural and written form.

Regarding the other skills, movies, YouTube videos, clips, short films, and episodes are best used in Note Taking-Note making practices where the learners get the opportunity to watch, listen, think, analyse and write the language. The use of movie extracts or other kinds of animation provides either a background or specific examples which might provide a focus for learning activities. They help in learning listening and will lead to discussions which will provide the learners with the opportunity to speak to develop their speaking skills, leading to a range of communication activities led by the teacher (Macwan, 2015).

Regarding Grammar, a great majority of ESP students learn the language and its grammar for their vocational purposes. So as to make them attain more success in their academic, vocational and personal life, we can teach grammar in context and with videos (Warschauer & Meskill, 2000) And when it comes to vocabulary acquisition Moreover, Yeh and Wang (2003) examined the use of three types of vocabulary annotations on vocabulary learning, including text annotation only, text plus picture,

and text plus picture and sound. The results of their study showed that text plus picture was reported to be the most influential type of vocabulary annotation (Yeh & Wang, 2003).

Mathew & Alidmat stated that using audio-visual aids in language teaching is helpful for both the teachers and the students. Both parties claimed that it makes the class interesting and effective (Mathew & Alidmat, 2013, pp. 89–90). It also helps in assisting students to learn at their own pace and consequently makes the learning process meaningful stimulating, and stress-free is in no doubt (Ossai-Ugbah et al., 2012, p. 222). Khalili states in his work that: “Finally, classes may not be enjoyable enough for both students and teachers. Here, some short and to-the-point videos created by medical professionals can lighten the atmosphere and provide an interactive and interesting approach to learning that is digested easier....” pages 385-386 (Khalili & Tahririan, 2020).

Similarly, the use of videos as warm-up activity turns the traditional English lesson, centred on teachers’ introduction and explanation, into an interactive learning event, centred on students’ activity and participation. Educators can use these tools in a variety of instructional and teaching settings- in the classroom, as a way of presenting content, initiating discussion, providing illustrations for a certain topic and content, self-study and evaluation situations. In order to maximise the benefits of utilising audio-visual materials in teaching English and to reinforce the positive effect of video use on students’ motivation and participation, we should carefully select and prepare the video materials for the classroom, where the choice of topics should be based on the students’ interests and their level of English proficiency, as well as cultural aspects, one can go the extent of selecting material from British and American drama, tv shows that are of medical background. With the inclusion of pre-, while-, and post-video activities.

According to Wottipong, at the beginning of the class, the researcher outlines the objectives of the lesson and the topic of the visual presentation, then asks the students about their background knowledge and related vocabulary, and that would be the Pre-listening, during which teachers can inform the students that they would be asked to comment on the content. Regarding while-listening, the students are presented with the entire learning material and instructed to take notes or write down keywords. Then, the material can be presented again, accompanied by an exercise to be completed by the students. Lastly, Post-listening can include the students given the opportunity to discuss the material presented and to express their ideas or opinions about it (Woottipong, 2014).

According to Zhu, it is also possible to state the advantages of videos by using the terms diversity, facilities and creativity. They can be useful particularly to create and stimulate learners’ curiosity as well as arouse interest. Regarding diversity, videos appeal to different senses via: ‘sound, colour and shape ‘(Zhu, 2012, p. 136). At the same time, such variety is of great significance in terms of addressing different learners and learning styles. Besides image and sound, the video also offers facilities (Pujolá,

2002, p. 235), which are play controls, transcripts, subtitles and captions. Things can be very handy when teaching learning a foreign language.

In our case, we attempted to make use of such a tool; based on short sequences (of 3 to 5 minutes), students were asked to do a variety of tasks and exercises (Word Association, gap filling, matching exercises, open questions, true/false questions) or sometimes even free discussions. Such activities could be done only a few times per semester. This is why one of the extra tasks consisted of doing this kind of activities as homework. For example, Rebecca (Franklin-Landi, 2017) used the medical TV series *Grey's Anatomy* in an attempt to implement specialised audio-visual fiction or what she called 'Fiction À Substrat Professionnel' (FASP). In our study, students had to watch an episode of a medical TV show like *Dr House* or *The good Dr.* (these two TV shows are very popular among students) and then discuss it in the classroom, share any new expressions or words that have been learned, and compare the similarities and differences between their medical settings and the one in our country. The task also requires students to demonstrate proper use of hospital lexis (describing the scene and equipment), the doctor's bedside manner and humour-based complementary therapies for terminally-ill pediatric patients. For example, to find a video neither too long nor too short, preferably with English subtitles, an article of the appropriate level and satisfactory content etc. for each topic.

When teachers bring video materials into their English classrooms or set them as homework, students can directly acquire a great amount of cultural background information and emotional attitudes about the learning materials. Therefore, they could employ their autonomy in language learning. While viewing the video materials, students can put themselves in the vivid atmosphere created by the video materials and understand the pragmatics of the language used by the characters. Compared with traditional English teaching, such courses truly put into practice student-centred teaching strategies. Therefore, Video materials and films can help to understand another culture and mentality; they show the students how people behave in the culture whose language they are learning by bringing into the classroom various communicative situations.

There are lists of worthy sources, which include medical video libraries for free; like medical videos, there are medical applications that can be of great help, so the only thing learners need to make use of them is a good level of English. Some top medical apps worth considering are UpToDate, Epocrates, PEPID, Medscape, MedPage Today, 3D4Medical, Visual DX, BMJ Best Practice, and AHRQ ePSS. (Khalili & Tahririan, 2020). In other words, the use of visuals overall can help learners to predict information, infer ideas and analyse the world that is brought into the classroom via the use of video instruction. In a teaching or testing situation, video can help enhance clarity and give meaning to an auditory text; it can create a solid link between the materials being learned and the practical application of it in a testing situation; the video can act as a stimulus or catalyst to help integrate materials

or aspects of the language; videos can help manipulate language and at the same time be open to a variety of interpretations.

### 3.4.9. Flashcards Using Quizlet and other Tools

When considering intentional learning techniques, the use of flashcards has been identified in a number of studies over the last decade as being most effective because it enables learners to memorise large numbers of words in a short time, and it can strengthen learners' vocabulary retrieval skills (McLean et al., 2013), which aligns with Milliner's claims suggesting that language learners can achieve a very high return on their investment of time if they engage in deliberate vocabulary learning using flashcards (Milliner, 2013). According to Chien, Flashcards are sets of cards that bear information, usually having words on one side and pictures or definitions on the other side. They are excellent English teaching tools when teachers are introducing new vocabulary words and drill practice (very common in medical English, hence the stress of such a technique) (Chien, 2015).

Results of Stutz's (Stutz, 1992) study also support that flashcards are fast and fun to use and that they are effective since they have multi-sensory appeal and occupy only a short time within the lesson. Similarly, Stroud also states that flashcards increase students' engagement compared to more traditional methods, such as textbooks (Stroud, 2014).

The use of these flashcards can help create schemata in the learner's memory, even though Oxford and Crookall (1990) state that flashcards use has a rather limited value in vocabulary acquisition due to their decontextualised nature. Nevertheless, Oxford and Crookall add that if they are created by students, the words can be used in a meaningful context; images and visual support can be added, and the act of creating itself might benefit learners (Oxford & Crookall, 1990).

Factoring in the fact that recent times have brought about a technological revolution in every aspect of our lives, technology should be incorporated into language teaching, including adult education, thus enabling students to use a wider variety of tools that aid language acquisition while promoting autonomous learning. This compels us to use a number of online programs (apps and websites) that have flashcards set building as features, ones like Quizlet, Study Stack and Flashcard Exchange (currently Cram.com). Starting with Quizlet, one of the most widely used flashcard systems available, while teachers and students can use the software on a PC, it also offers a free mobile app. Quizlet offers three learning activities: 1- Learn (read the definition and type in the word); 2- Speller (read the definition, listen to the sound clip, and type in the word); and 3- Test: a) Written Question (reading the definition and type in the word), b) Multiple-Choice Question (read the sentence and choose the best answer), c) True and False Question (read the word and check its definition). It also provides two games: 1- Scatter (match words with definitions) and 2- Space Race (speedy spelling). All of the modes can be monitored by the teacher and are very useful in including students in the interactive activity, thus in the learning

process (Anjaniputra & Salsabila, 2018). In other words, Quizlet is a sophisticated tool specifically designed for learning vocabulary by means of flashcard sets using a variety of game-like learning tools. Found in 2005, It comes with an array of features that can help teachers organise their classes. It promotes autonomy, collaborative learning, drilling, and repetition, as well as other enjoyable fun ways of learning (Anjaniputra & Salsabila, 2018). Quizlet also fosters cooperation among learners through collaboration in the creation of different study sets with the vocabulary covered throughout the course.

Regarding Study Stack, it offers eight games: 1- Matching (Match words and their definitions); 2- Hangman (Use letters to spell the word); 3- Crossword (Read the definitions and type in the words); 4- Unscramble (put letters into the correct word); 5- Chopped (Read the definition and spell the words by putting parts of the words); 6- Fill in the blank (Read the definition and type in the word); 7- Quiz: a) read the definition and choose the correct answer from the four choices, b) read the word and choose the correct answer from the four definitions; and 8- Test: a) read the definition and choose the corresponding word, b) read the definition and type in the word (Chien, 2015). Lastly, we have Flashcard Exchange, which provides two exercises: 1- Memorize (read the definition and click the See Answer button. Read the answer and decide if it is “Choose I Was Wrong” or “I Got it Right”); 2- Test (read the word and type in its definition) (Chien, 2015). Also, it is highly recommended that before getting to use these programmes, students should receive a brief explanation and demonstration of their features to increase familiarity.

Furthermore, these online flashcards allow students to add pictures which provide an instantiation (McLean et al., 2013); they also permit learners to share or download cards more easily and use hyperlinks, which allow a word to be clicked in order to receive further information or a definition (Spiri, 2008). They also give students instant feedback as well as data-driven reports on their progress, for example, test or quiz score histories, study frequencies and comparisons with classmates, which can help students, teachers and researchers alike when evaluating learning performances (Spiri, 2008). Additionally, online programs also use this data to generate new activities, such as adaptive flashcard sequencing, which encourages students to overcome their weaknesses (McLean et al., 2013; Nakata, 2011). They can also provide user-friendly videos to facilitate users logging in, making flashcards, playing online games, etc. Similarly, Altiner looked at the usefulness of computer-based flashcards in her study involving university ESL students in the U.S., where she found that the software had a positive impact on the learners’ L2 vocabulary (Altiner, 2011). Chien also pointed out that students find online vocabulary websites motivating and helpful tools for vocabulary acquisition and feel that by using them, their vocabulary knowledge improves (Chien, 2015).

Regarding the online tools that have flashcards set building as features, Quizlet is reportedly much easier to work with compared to the other two and provides visual material for learning. Furthermore, when talking about Quizlet, students recognised the possibility of collaborating with other students in the creation of flashcard sets, which is in line with Burston’s (2014) view, who describes technology as

a means to support and create collaborative and learner-centred learning environments via the use of a learning tool that is interactive, contains visual elements and offers various options for self-study (Burston, 2014). Quizlet not only allows students to create and modify their vocabulary sets but also offers various options for self-study and provides feedback on performance (Dashtestani, 2016). Korkealehto and Siklander also reported that students believed Quizlet enhanced their written and oral language skills (Korkealehto & Siklander, 2018), and Milliner adds that the use of Quizlet increases students' TOEIC scores (The Test of English for International Communication) and breadth of receptive vocabulary knowledge (Milliner, 2013).

Research has also demonstrated that Quizlet contributes to widening students' receptive vocabulary knowledge (Milliner, 2013). Besides, students can produce the term in written or spoken form, which might enhance their controlled productive vocabulary knowledge as well. Quizlet has also been proven to aid teachers in overcoming students' low participation and lack of attention. As it was observed, the merits of Quizlet are concerned with the provision of enjoyable learning, generating learner autonomy, persistence, focus, and attention, as well as engagement. Short attention span and low focus are changed into persistence and engagement in learning (Anjaniputra & Salsabila, 2018).

Another use for Quizlet is via Mobiles; studies have shown that the use of the Quizlet application in Mobile Assisted Language Learning has a similarly positive impact in improving students' vocabulary acquisition while fostering students' autonomy and motivation (Kassem, 2018). Using such applications on mobile devices also provides students with the opportunity to create a collaborative and learner-centred environment anywhere, anytime (Burston, 2014). Azabdaftari and Mozaheb's study of mobile-based flashcards showed the convenience of the flashcards in allowing the students to study anytime and anywhere, as well as the entertainment factor of using the cards (Azabdaftari & Mozaheb, 2012). As students appear to be very comfortable using their smartphones as study devices, therefore, Quizlet activities could be undertaken in regular classrooms on students' personal mobile devices. This was further supported by Dizon's study, where learners viewed Quizlet as a useful and easy-to-use method for studying vocabulary and indicated that they would like to continue using it in the future, and they stated that they preferred using their smartphones, illustrating the shift towards mobile technology (Dizon, 2016).

To sum up, These results are in congruence with numerous other studies showing that the use of the Quizlet has a similarly positive impact in improving students' vocabulary acquisition while fostering students' autonomy and motivation (Kassem, 2018). Yet like any other educational tool, Quizlet has some drawbacks; Quizlet's disadvantages could be summed up in spaced repetition failure, negligence, and social distraction. However, students still clearly favour a learning tool that is interactive, contains visual elements and offers various options for self-study; Quizlet is a great example of that. These beneficial facets have encouraged both teachers and researchers to provide learners with language learning resources that are no longer dependent upon educational environments or that put time and

place constrictions on learners. Thus, the motivation behind the use of flashcards is to find an effective vocabulary learning technique that can be used for the classroom as well as for individual practice outside class in the current era of digital development.

#### 3.4.10. Writing, Reading, and Storytelling

Medical English learning should be more than just the four macro-skills; it should target other linguistic and non-linguistic skills like the extension of students' language use and subsequent optimisation of their oral/written communication, motivation and involvement. Storytelling is considered to be a great way to achieve that. It is an archetypal way of teaching and learning in various fields, as it enhances communication and the transfer of knowledge (Barker & Gower, 2010). Language teachers use it for the ability to improve oral communication, develop listening comprehension and expand language patterns while raising the students' interest in a specific topic (Pop, 2020).

Furthermore, Gerasymchuk claims that storytelling by itself is a theory of learning that takes precedence over the traditional teaching of English to students of medicine with regard to their motivation, interest and class participation. It helps students of medicine learn and remember more medical English compared to the traditional reading, translating and analysing of medical texts and the memorization of terminology. Learning will be more meaningful, challenging and stimulating if teachers and learners use storytelling for reflective learning (Gerasymchuk, 2016).

Storytelling activities target mainly narrative competence, a competence focused on speaking with correct modulation (pace, volume, tone), maintaining rapport (being calm, gentle, and brief, using repetitions, explanations, and breaks as needed), checking to understand, and highlighting in a similar manner to what students will do when talking to future patients. Besides narrative competence, storytelling activities target and develop collaboration, creativity, and flexibility, which are non-linguistic, life-long skills. Thus, Storytelling's objectives are the gradual formation of narrative competence with its sub-skills of listening, reflecting, and transmitting gleaned knowledge to peers (Pop, 2020). However, storytelling students learn to speak convincingly in front of others, modulating their voice, and even opting for the audience. Such activities help with public speaking and allow the student to become a more confident storyteller after previous preparation in writing. Learners also can focus on the linguistic (i.e. omitting medical jargon or explaining medical terms) and communicative aspects of the activity (adapting to the audience, synthesizing and sharing their learning moments) (Pop, 2020).

One of the ways in which storytelling can be practised in the EMP setting is by having the teacher gather cases written in English and use medical terminology related to every disease case. The cases can include infectious diseases, degenerative diseases, metabolic disorders, hormonal diseases and mental disorders. Then the teacher orally narrates the cases or plays a recording of the narration, with the students listening in a relaxed manner. Before delivering the stories, the teacher hands out lists of new

words and terms. Students are then asked to guess the meaning of words from the context of the story. Each case presents a problem and the situation involved. The students do not have the main text of the cases but are allowed to take notes while listening. They are told to think about the stories and report back next session and discuss problems and important points with fellow members of their group, and during these sessions, the teacher acts as a mentor to support his students in solving the problems (Gerasymchuk, 2016). This way of implementing Storytelling helps learners improve their listening skills as well as their critical thinking and logical reasoning.

Regarding forming narrative competence through storytelling in Medical English, the usual activities might include: giving bad news, virtual poster presentations, quizzes, and survey writing on local health aspects (i.e. a report on the local population's knowledge and awareness of health parameters such as blood pressure, glycaemia, etc.). Moreover, in Anisoara's study, they used a set of innovative activities to practise storytelling; these activities were as follows: 1. Images: used as a warm-up story-telling activity entitled A doctor's story - Medicine past & present – whereby students are presented with two pictures of past and present practitioners and get to embody their Role and tell the class more about it. 2. VoiceThread (VT): storytelling on topics such as Lessons learnt from movies and literature about doctors, patients and challenging conditions, my hospital experience as a patient, how to improve a patient's life, Private versus public medical practices. 3. Stories of illness: A week in the life of a hospital: stressing on the accuracy, describing and employing specific vocabulary, as well as cohesion. The oral narration stage required students to be good observers, synthesizers and then fine transmitters of an oral message to peers, which further refined their narrative skills in terms of public speaking and communication. 4. Listen to the patient; he might be telling you the diagnosis: this stresses the importance of listening to the patient's history, aimed to develop the students' narrative competence by practising attentive listening to a patient's story, debriefing and stimulating reflection, also starting from a real hospital context (Pop, 2020). The topics addressed in these storytelling activities were about the idealism and pride of being a doctor, the disappointment and frustrations caused by the lack of proper equipment, the physicians' burnout and agitation around emergency or lost causes, the apprehension of doing the first injection, the excitement of the first history taking and interacting with angry relatives (Pop, 2020). The implementation of such activities by Anisoara inspired the implementation of some of them in our own teaching materials.

Within this context, the added value of the digital component in digital storytelling should not be underestimated. Multimodality inherent in digital stories proposes a more effective and appealing way of communication and, pedagogically speaking, it can bridge the gap between what students can and what they would like to say in the target language. Pictures and music, which are associated with digital stories, assist learning and act as a mnemonic strategy by engaging the listeners' minds and involving them emotionally (Pop, 2020). Moreover, research has shown that storytelling in its classical and digital form can be applied successfully in EFL classes of all ages and levels of education. It has been associated

with greater flexibility, motivation and creativity, and it has enhanced young learners' recall and adult learners' oral production, proficiency, critical thinking, and motivation (Pop, 2020). And regarding English for Specific Purposes (ESP), storytelling was largely associated with significant improvement of communication in Academic English, productive linguistic and non-linguistic skills, learner autonomy in English for Science as well as research, organisation, interpersonal, problem-solving and critical thinking skills in Technical English (Pop, 2020).

Furthermore, narrative learning and literary pedagogy (i.e. the use of fictional accounts) should be central to medical education (Pop, 2020) because when students tell stories, they create or re-create reality, and the act of creation has great potential to increase their own understanding, confidence and awareness. However, the teacher can still attempt to use authentic materials; journals such as *The Annals of Internal Medicine – Story Slam* provide platforms for interactive group debriefing where doctors can “tell their stories”, voicing their concerns or regret for a patient who passed away or reflecting on potential mistakes and fears, which can prove to be a great source for authentic storytelling materials to use in the EMP classes.

Storytelling activities contribute to the development of students' linguistic and communicative skills (pace, tone, volume, validation and teach-back strategies, etc.) as well as their narrative competence, measured as the ability to listen, reflect, make sense of professional experiences, and communicate these experiences to peers (Pop, 2020). Anisoara's study showed that when narrative competence is initiated and developed during Medical English classes through digital storytelling, it transcends the language learning and communication scope, helping students to go from cure to care: listen empathetically, share personal experiences and be more aware of the role which the narrative competence will play in their future medical practice (Pop, 2020), which aligns with the new trends in medicine stating that the patient is at the heart of the healthcare provision.

Regarding writing, English is becoming the official language of expert writing, so the development of writing skills should by no means be neglected. Because although technology has affected learning in all domains, students still need to practice conventional writing (Hyland, 2006). And regarding the challenge of EMP writing, Hyland (2006) maintains that EMP learners need to improve their writing skills since, as modern academics, medical professionals need to send Emails, write their own CVs, and even submit articles to reputable English journals. In addition, they need to write social and business letters, e-mails, medical reports, and notes of meetings. Thus, Practice should be provided in note-taking and note-making, writing referral letters and case studies, completing a range of medical documents, and even on how to write specialised medical articles (Antić & Milosavljević, 2014).

Furthermore, Tarnopolsky addresses Academic writing and writing activities by stating that writing academic papers in English (such as essays, reports, memos, articles, business letters, etc.) on the basis of the information that students have discussed orally or found during their information search

in previous Project work (when students do profession-oriented learning projects) usually engages learners in the learning process leading them to improve their writing skills (Tarnopolsky, 2015). Additionally, one good example of a distinctive feature of the academic style is using a more formal alternative when choosing a verb, noun, or other parts of speech. For instance, the choice between a phrasal verb and a single verb. In everyday spoken English, phrasal verbs are frequently used; however, in academic discourse, the preferred choice is the single verb (wherever possible). Students should be aware of these stylistic differences between informal and formal language. An exercise in which students choose a verb which increases the formality of sentences to substitute for a verb + preposition is an effective way of raising students' awareness of the features of academic style, e.g., to pick up = to catch a disease, look after = attend to, go down with = to have a disease, etc. Or rewriting a sentence using phrasal verbs instead of single verbs or vice versa, e.g., Trying to adopt a routine for taking medication (get into); Contact your GP if anything happens (get in touch with); You need to reduce the workload of your heart (cut down).

Another example of modern academic writing is e-mail writing; a good example to practice that would be in activities where students' imagination and motivation are stimulated, an activity we used was: A fellow doctor emails you about some issues he has been having while working abroad, mainly stressing over too much work and the rapid change of technology he witnessed, coupled with his reluctance to talk to his colleagues or family about his issues to not sound weak. The students are later asked to reply to the e-mail, attempting to help their fellow doctor. The utility of such a task was maintained by a study established by Kavaliauskienė & Vaičiūnienė, where students proved to be more motivated and displayed a positive attitude towards writing, as well as learnt to work collaboratively and improved their communication skills due to the implementation of e-mail writing tasks, which helped them activate common expressions and promoted the learning of language structures (Kavaliauskienė & Vaičiūnienė, 2006). Other samples of activities regarding writing could include listening to audio about a medical case and attempting to either write a case report or just finish an already given one. Or giving learners brief case notes and asking them to expand them and then discuss them.

Regarding writing business letters, CVs, and cover letters, teachers should explain their structure to the students and use the analysis of a sample as a tool to clarify any doubts. Students are also given a tip sheet, which helps them write the body paragraphs. The teacher should explain the importance of avoiding contractions, ambiguity and passive voice and that the writing here should be as prompt as possible and focus only on the most relevant points. Activities here might include arranging job interviews, where one group of students plays the role of candidates and the others act as interviewers, which helps learners practise not only writing but speaking and communication skills as well.

Using Blogs to teach writing is also another interesting tool; since blogs or weblogs consist of a series of entries written by an individual or a group and published on a website, they tend to be

interactive in that readers may respond and comment to blog entries. Blog authors, commonly known as “bloggers,” may then respond in turn to reader comments or create new entries that address the commentary. For English language learners, blogs are an excellent venue for the development of writing. As students are more motivated to write because they are publishing for an authentic audience, they may also receive feedback from the teacher and peers ([www.edublogs.org](http://www.edublogs.org)) (Petrea, 2014). Referring to the pedagogical value of blogs, Churchill, cited by Hung, stated, “they serve as one form of e-portfolio that enables students to publish their own writing, discuss group assignments, peer review each other’s work, collaborate on projects and manage their digital portfolios (Hung, 2011, p. 2).

In our study, we were more interested in Medical blogging due to its relevance to our students’ field. Medblogging has the potential to convey a provider's sense of caring and knowledge about medicine. Its post contains discussion about clinical cases, information about diseases and treatments, images & videos relating to clinical trials, news, and information on current research or trials regarding a particular treatment or disease. Medical Blogs can be considered a very useful and good source of information to find information about the trends and debates in a specific field of medicine (Prasad & Kumar, 2012). Sharing practical knowledge and skills and the huge influence the latest communication and information technologies are having on the way other people think can be major motivations for students to learn blogging. Medblogs could be about Information therapy, patient education, patient guides in hospitalization, patient discharge information, insurance, diseases caused by climate change, common diseases, as well as doctors' time schedules (Prasad & Kumar, 2012).

Our aim is to foster this habit of using blogs so that future medical professionals can use it once they graduate and start practising because blogging has the potential to increase their online visibility since it conveys a provider’s sense of caring and knowledge when patients get to read blogs about previous work and cases treated.

Additionally, academic writing on medical issues is mostly oriented towards the product (result) (Prudnikova, 2019), so the structure of medical research writing corresponds to the IMRAD system (Introduction, Materials and Methods, Results and Conclusions/Discussion), which consistently reveals progress and the results of work, answering the main questions and objectifying matter presentation (Antic, 2007). We believe that it is part of the EMP practitioner’s role to explain and implement tasks for learners to practice such writing style; however, due to time restraints, we were unable to attempt that through practice in our study.

Finally, according to Arani, the most difficult task is to teach the proper style of Academic English writing because Medical terminology is not the only difficulty of Academic writing; the grammar aspect is also very difficult, which usually demands a high level of linguistics proficiency from the EMP teachers (Arani, 2014). Writing on medical issues is a very specific work. Its characteristic is the clearness of statements: explicit text, the unambiguity of the formulation of goals, objectives, materials,

methods and the results of the presentation (Prudnikova, 2019). Which can prove challenging to teach, especially in classes where English is a foreign language.

On a different note, we should stress that the language of medicine and healthcare is unique, where the primary characteristic is the extensive use of words related to the subject matter. Medical language is a technical and academic language with widespread usage of abbreviations, acronyms, jargon and colloquialisms, it provides precise information, and it is objective and concise. And medical students need to be able to understand a range of medical texts, including hospital documents, textbooks, reference materials and articles (Antić & Milosavljević, 2014). It is why reading activities are valuable because basic readings help students become comfortable with inputting ideas and conversing about medical topics in English.

Course progression on medical topics can be rendered in ways that easily move from reading texts to conversations about the ideas in texts to conceptual applications of ideas (and recycling of the lexicon and grammar) within diagnostic and counselling scenarios, which was the case with texts addressing the use of Brand Drugs vs the use of Generic ones, where after the reading session students were asked about their opinion on the matter and what they would do if a patient declines using a Generic. Thus, this stage calls for more practice in productive skills on the part of students and might include other tasks such as summarising data, fact-checking and small-group discussion and debate related to implications of data under review; that is why such conversations are useful for language practice. This stage, again, follows essential socio-constructivist principles encouraging deeper processing of concepts and contextualised problem-solving. The final stage encompasses in-depth reading and discussion of a case study, leading to multiple drafts of a case analysis composed by each student (Kimball, 1998).

In our courses, students were also given activities where they had to read prescriptions made by English speaking Doctors and Check their validity; these activities were follow-up ones to sessions where students had to learn most of the Prescription Acronyms and Abbreviations, ones like Pc: Post Cibum (after meals). Ac: Ante Cibum (before meals). CI: Contraindication. PRN: Pro re nata (as needed). Stat.: Statim (Immediately). PO: Per os (by mouth). od: omni die (once daily). bd: Bis die (Two times a day). Tds: Ter die sumendus (three times a day). qds: Quater die sumendus (four times a day). on: omni nocte (at night). om: omni mane (in the morning). The activities included dialogues for students to read; these dialogues contained other language aspects like technical and clinical terms, such as Ward Rounds, Phlebotomist, Placebo effect, Referral Letters etc.,

Other examples of reading comprehension activities are ones used by Pavel, where they chose the text analysis of sections from medical journals such as The New England or The Lancet Journal; such exercises can elicit the use of critical thinking skills. While some of the questions they used referred directly to various passages for particular details, most questions involved the use of deductive reasoning, conclusion-making, logical inference, sequential analysis, style, object and so on. This type

of activity can be particularly helpful for the practice of academic writing in the medical field, as medical students are usually interested in their future contribution to medical conferences, research projects etc. (Pavel, 2014). Another example would be introducing case studies as reading material; the structure of the case study can be used to both stir discussions for communicative purposes and increases the medical knowledge of learners. It includes presenting signs and symptoms, conducting examinations, investigations or interventions, presenting diagnosis, treatment, and evaluation. A similar activity would be giving learners case notes about a patient who was admitted to the hospital and asking them to present the case and attempt to make a diagnosis.

Furthermore, The ESP teacher can use the Internet since it contains authentic materials in the sense that many texts are designed for native English speakers. Hence, the possibility of further developing reading skills (students that navigate the Internet usually unconsciously interact with a great deal of information, thus anticipating meaning, practising skimming or guessing the main ideas from the context, etc.) and writing skills (by providing a variety of opportunities to engender a meaningful communication). The abundant videos, job interviews, phone calls and other recordings available online may be of great help in the practice of reading and listening skills (ANDREI, 2009). Therefore, instead of considering using the Internet as hazard or distraction, language teachers often integrate technology-supported production in order to stay attuned to the 21st students' needs and to reach an authentic audience outside the class. Online reading, writing or Digital storytelling represents a few modalities of integrating technology and giving students a voice.

The importance of these activities is determined by the intensification of English language use as the lingua franca of modern medical research and actual medical practice under the conditions of an intercultural, multilingual environment. Such activities can provide the necessary content, develop critical thinking and reflective learning and improve organisational skills (a great amount of information is classified into sections and organised). They also enhance communicative skills as they present real-life situations, and they encourage cooperative learning and teamwork.

#### **3.4.11. Activities to Teach Vocabulary and Medical Terminology**

Vocabulary is an integral part of ESP, and it is very important for learners to build a consistent body of terms that are specific to and frequently occur in their area of study. It is the basis they will require for their future careers and from which they can continue to build. Averil Coxhead offers two reasons why vocabulary acquisition in ESP is central: First of all, teachers and learners need to know that precious classroom time is directly related to their language needs. They should be reading material that contains key ideas and the language of their field and writing using those ideas and language. [...] Secondly, understanding and using this special purpose vocabulary shows that these learners belong to a particular group (Coxhead, 2013, p. 116). Vocabulary also helps learners access resources that would otherwise be inaccessible due to the language barrier: reading journals in English, accessing English-

written websites or applications on the internet, communicating with peers from other countries and exchanging ideas in their field of knowledge by using English.

Moreover, Chen notes ESP vocabulary teaching and learning is at the core of an effective ESP learning program (H. C. Chen, 1994). In various versions and views of ESP course plans, vocabulary teaching programs are needed to expand learners' potential in extracting meaning and developing the knowledge of the jargon of the genre (Riahipour & Saba, 2012). Thus, ESP vocabulary learning is vital to the acquisition of language proficiency and professional competence; showing how words combine together and behave both semantically and grammatically and indicating which words should be used in a particular context is an integral part of the syllabi of all ESP courses. Thus, vocabulary mastery holds a special status in the teaching of specialised languages, as it represents a crucial element in the learners' professional development (Sandiuc & Balagiu, 2020). However, motivating students to learn vocabulary can be a daunting task in this day and age. Because learning vocabulary has traditionally been perceived as boring since it is a long process that requires time and patience, two values that are no longer valued in today's era of speed. Coupled with the fact that teaching communicative skills to students may go through tough processes of forgetting the vocabularies needed in certain situations and using them in their inappropriate contexts, which raises the issue that learning vocabulary cannot be done through rote learning.

Therefore, learning vocabulary can be a daunting task if students are not provided with strategies that enable them to use these terms and construct a network of interrelated vocabularies. That is why vocabulary teaching methods and techniques require desirable and radical changes in view of the demanding job market in the globalised world. Additionally, the specificity of the ESP lexis demands a more focused teaching approach that implies engaging students in vocabulary activities aimed at the targeted vocabulary. Educators should also focus more closely on the reasoned exploitation of new vocabulary learning strategies in devising their teaching strategy of how to reach the specific needs of the learners, to stimulate practice or reactivate the specialised vocabulary, strategies such as games and other fun activities (which will be discussed in detail further later), as an approach to better commit information to the memory of the learners, in a challenging way (Sandiuc & Balagiu, 2020). Using such strategies, activities, tools and games for effective vocabulary teaching helps students actively enlarge their knowledge of specialised vocabulary while making the learning process more appealing (Sandiuc, 2019). That is why more and more research studies argue that vocabulary retention can be achieved more easily if vocabulary practice implies educational games such as puzzles, board games, card games or adapted TV games (Williams, 2007).

For students majoring in medicine, like others in similar fields, knowledge of technical terms is critical to accomplish specific goals in language use (Nation, 2001). Mastery of medical terminology enables students to understand lectures in English, cope with specialised materials written in English,

and use English to present their ideas and opinions in both written and spoken forms in their future employment (Hwang & Lin, 2010). These students must learn the specialist's vocabulary because it is necessary for the development of other skills which are required in their professional setting. They need to learn what most technical terms mean, how they are used and how they are pronounced. Keeping in mind that the choice of words in communication depends on the style and register used in a specific context; for example, doctors use different registers when talking to a patient than when talking to a member of medical staff (a nurse or another doctor); therefore, they are required to know not only the technical terms but also their non-technical equivalents or the lay terms. Because when speaking to his/her English-speaking patient, a doctor will opt for “breastbone” instead of “sternum”, “knee-cap” for “patella”, “collarbone” for “clavicle” and “shoulder-blade” for “scapula”. Likewise, if the patient presents with varicella, the doctor will talk about “chickenpox”.

Furthermore, students in the fields of medicine, dentistry and pharmacy study physiology and the anatomy of the human body thoroughly in the first four semesters after entering university, sharing somewhat similar syllabi, where they encounter heavy loads of medical terminology (which are terms of various origins Latin, Greek, French as well as English). This medical terminology is one of the most challenging lexis representing a closed code. i.e., it is considered a specific and unique terminology used for the purpose of efficient communication in the healthcare field (Yang, 2005). Similarly, Dzugaeva & Sadullaev (Dzugaeva & Sadullaev, 2019) state that Medical terminology is a language used to precisely describe the human body, including its components, conditions affecting it, and procedures performed upon it, notable aspects of Medical Vocabulary (terminology) include:

1. The large number of terms of Latin origin (tumour- Lat. Tumere= to swell), Greek origin (anorexia-Gr. An= without+ orexis= appetite) or even combinations like cardiovascular (Gr. cardia = heart + Lat. Vasculum= a vessel).
2. The extensive use of acronyms and abbreviations: Ab(antibody), AIDS (acquired immunodeficiency syndrome), BP (blood pressure), etc.
3. The Greek and Latin terms have regular morphology, with the same suffixes and prefixes used quite consistently for a particular meaning (which enforces the use of structural teaching of vocabulary).

It is difficult to learn technical words, especially medical terms, because they are low-frequency words which are not encountered very often. So, EMP courses should play an essential role in developing students' familiarity with medicine-specific lexical items.

Regarding vocabulary acquisition, it arguably takes place in different ways, yet two main approaches stand out: incidental vocabulary acquisition, which takes place, from context, through unintentional exposure to written or oral materials, i.e., learners' acquisition of the meanings of words through engaging them in other tasks such as comprehension of reading and listening passages (Yoshii

& Flaitz, 2002); and intentional vocabulary acquisition, that is the deliberate learning of new words by means of various techniques meant to commit the lexical information in the memory of the learner. So, as opposed to an indirect vocabulary teaching approach, in which vocabulary acquisition happens as a result of communicative activities, such as listening to stories, reading passages, performing dialogues and group work, a direct vocabulary teaching approach or "intentional vocabulary instruction" (Hatch & Brown, 1995) will focus on explicit vocabulary exercises such as matching words with various types of definition, studying vocabulary in context, split information activities focusing on vocabulary, etc.(Coady & Huckin, 1997).

Regarding structural teaching of medical vocabulary, decomposing an unfamiliar word into its structural components and inferring its meaning from the components is called structural analysis. Nation mentioned that learning affixes could successfully teach students ESP vocabulary through structural analysis(Nation, 2001). By becoming familiar with a few roots, affixes, and suffixes, students can determine the meaning of many words, even if they are unfamiliar. In addition, teaching the word formation of medical vocabulary can help learners memorise and recognise it in an effective manner. Wu, for example, insists that understanding word formation is fundamental for ESP learners (therefore EMP learners), and it should actually be taught because it helps them recognise and memorise vocabulary more effectively (Wu, 2014).

Note that in medical disciplines, a high percentage of terms are of Greek and Latin origin, and when forming or understanding a word root, one requires a basic understanding of the terms and the source language. The study of such origin is called etymology, and since the other subjects lack adequate time to address the etymology of medical terms, it should be the responsibility of the ESP practitioner to address that point in his course. Seeing as unless students have sufficient knowledge of etymology, their predictive abilities and their understanding of medical word meanings may be hindered (DŽUGANOVÁ, 2013). And because a lot of the medical language is anatomical terminology, concerning itself with the names of various parts of the body, it could prove to be extremely useful to teach EMP students the meaning of the most common roots and affixes.

Furthermore, Vocabulary learning strategies can support all aspects of language learning. As a result, teachers should encourage students to use different techniques to learn general English as well as technical words by exploring any or a combination of vocabulary teaching and learning strategies (knowing word parts, knowing the origin of words, using structural analysis, using context clues, learning word families, playing word games, using flashcards and knowing learning lexical relationships). And in our case, EMP students should be familiar with various kinds of vocabulary learning strategies, both in initially finding the meaning or in storing the vocabulary in their long-term memory. Additionally, it is better for students to not only enhance their vocabulary mastery but also to practice vocabulary in daily communication in both written and spoken language. In that regard, Nation

(2001) was among the first researchers who developed vocabulary learning strategies, and he believes that since "learners differ greatly in the skill with which they use strategies, it is important to make training in strategy use a planned part of a vocabulary development program" (Nation, 2001).

In order to develop a faculty to learn new vocabulary for both general English and technical terminology in learning EMP, students should become aware of the significance of language learning strategies and be trained to use them appropriately. Therefore, teachers of EMP should put a lot of effort toward helping their students apply these strategies to learn vocabulary related to the medical field. In other words, students should be made aware of the importance of vocabulary learning strategies and be trained to use them appropriately.

Moreover, Teachers are suggested to use planned vocabulary presentations as varied as possible (Pinter, 2017). Thus, in presenting one planned vocabulary item, the teacher should combine more than one technique or strategy instead of employing one single technique. On that note, some of the possible vocabulary learning strategies that can be used in teaching EMP vocabulary are the following: synonyms/ antonyms, learning words by categories, by topic, by word families and also vocabulary cards. Structural (Morphological) analysis of word structure is also practical for both direct (used in class) and indirect (used in independent work) strategies of vocabulary learning. And since an essential step in being independent is to recognise one's own style of learning, Graves recommends helping students develop a personal plan of vocabulary acquisition, mainly because most vocabulary learning will occur outside of the classroom (Graves, 1987). Doing a variety of classroom vocabulary exercises will expose students to possible strategies which they may discover feel right for them since the goal of strategy training is to promote learner autonomy, i.e., get them to practice effective strategies and take charge of their own learning (Kalajahi et al., 2012).

After a presentation of the strategy, learners should be provided with plenty of opportunities to practice the newly gained language. Therefore, the teacher should supplement conventional emphasis on the memorisation of technical terms ( medical terms in our case) by introducing frequent occasions for students to engage in the lexicon and become familiar with the conceptual constructs to be inferred from the lexicon and related grammar (Kimball, 1998). Keeping in mind that one of the robust findings in memory research in general and second language vocabulary learning research, in particular, is that spaced repetition results in more secure learning than massed repetition (Baddeley, 1990); thus, simple exposure to technical words is not enough. The practice activities for revision, consolidation and reinforcement are the ones that make the difference, as the learners see, hear and are required to use the terminology in various contexts. There are generally a set of medical vocabulary-related tasks involved in most textbooks, ones such as identifying the type of highlighted words in the text (noun, adjective, etc.), writing the (noun, verb, adjective, etc.) form of the words, guessing the meaning from the context, matching words with correct meanings, completing sentences or texts with new terms, making

collocations, giving definitions, making mental maps, matching words with pictures, using words to describe photos, completing a crossword, word building, and using synonyms/antonyms (Khamitova et al., 2019).

Regarding strategies to teach medical terminology, it has recently become compulsory for academicians to reconsider their teaching strategies due to the changing times. The main pedagogical vocabulary teaching themes that emerge are: build a large sight vocabulary, integrate new words with the old, provide a number of encounters with words, promote a deep level of processing, facilitate imaging and concreteness, use a variety of techniques, and encourage independent learner strategies. (Schmitt & McCarthy, 1997). Additionally, as stated in the study by Ismatullayeva (Ismatullayeva, 2020), Thornbury claims that it is necessary to integrate new vocabulary into existing knowledge in the mental lexicon (Thornbury, 2002), which is done through types of activities where students make judgments about words, e.g., matching, comparing etc. This mechanical practice is then followed by more open and communicative activities "where learners are required to incorporate the newly studied words into some kind of speaking or writing activity." This is often provided by various pair-work or group-work activities.

Some of the practical examples of innovative activities to teach medical terminology were presented in a study established by Pavel, whereby in her study, she used a set of activities with vocabulary and Language focus. A wide range of exercises were used, such as labelling pictures, matching (e.g., terms and definitions), categorising (e.g. diseases, symptoms), gap filling, mind mapping, word searching (including finding synonyms, antonyms etc.), finding the correspondent medical term (technical term) for a common word (non-technical term) etc. (Pavel, 2014). Other activities focused on vocabulary building and recycling by combining the common everyday word or phrase with the corresponding medical terminology (chickenpox - varicella; measles - rubeola; mumps – epidemic parotitis etc.). She also included some exercises on idiomatic expressions related to health and body parts (e.g., to have a sweet tooth, fit as a fiddle, up and about) (Pavel, 2014). Other standard exercises might include word maps, hangman, puzzles, matching games (match with definition, match with an image, match with the characteristics), multiple-choice, Scrabble, Bingo, fill-in gaps, cloze exercises, and identifying terms in texts. As they provide yet another encounter with the target words, they have the advantage of being fun, competitive, and consequently memorable (Schmitt & McCarthy, 1997).

In another study, and in order to support students' learning of ESP lexis, Janulevičienė and Kavaliauskienė introduced different techniques that aid vocabulary retention and recycling: contextualised vocabulary practice, designing crossword puzzles, matching exercises, personalised writing using a pre-taught lexis, followed by peer-discussion enhancing oral skills, designing BINGO game cards, using a monolingual dictionary, recording presentations on individual or group project

work, followed by detailed analysis of the recordings, which proved to be highly effective for fostering oral skills (Janulevičienė & Kavaliauskienė, 2002). Another study achieved by Mustafa Naci Kayaoğlu et al. titled “A small scale experimental study: Using animations to learn vocabulary” supports the advantageous use of interactive activities for each vocabulary. The findings of that study show that although there is no statistically significant difference between the post-tests of each group, there was an increase in the post-test scores of the animation group as compared to the pre-test scores. This increase suggests that using multimedia such as animations contributes to students’ better achievement in vocabulary learning. Besides, the teachers’ observations and students’ opinions indicate that there were relatively positive attitudes towards using such kinds of animations in vocabulary learning. As indicated in students’ self-reports, the animation-based technique allowed the students to use both aural and visual channels while dealing with the task. At the end of the animation application, students wanted to see such kinds of activities more often since these tasks have a way of attracting students’ attention and motivating them to learn (Kayaoğlu et al., 2011).

Therefore, EMP lecturers ought to experiment with different approaches in the teaching of medical vocabulary and choose any combination that proves to be effective in their classrooms. This process would ensure that learner needs are more effectively catered for in specific situations; since studies have shown that engaging students in game-based activities increases their involvement and leads to better language acquisition. Learners who associate studying with playing games and having fun are more relaxed yet more involved and competitive. Thus, language games can prove to be a handy instrument in teaching vocabulary effectively in EMP. These games can be used as warm-up activities or time fillers, as review exercises or even as an assessment tool. They are fun activities aimed at improving students' vocabulary mastery, spelling skills, inference making and morphology knowledge, such as the alphabet and spelling games, fun matching activities, concentration and memory games, vocabulary review games like anagrams and crosswords, etc. (Sandiuc, 2019)

The following is a collection of interactive activities that are aimed at improving student's vocabulary, proposed by a set of researchers in various articles (Abduramanova, 2020; Anuthama, 2010; Ismatullayeva, 2020; Janulevičienė & Kavaliauskienė, 2002; Innovative Techniques of Teaching Vocabulary at the Intermediate Level in the Second Language Classroom, 2000; Sandiuc, 2019):

**1. Using word games:** There are a lot of advantages to using games. Games can lower anxiety, thus making the acquisition of input more likely. On top of serving as a form of entertainment, word-based games such as (analogy, scrabble, Anagrams, A-to-Z Games, The Jeopardy Game, Crossword Puzzles, Categories Games, Matching activities, Taboo Games (hot-seat games) and lexical relationships) may be utilised in teaching EMP vocabulary on top of offering an entertaining way to review medical terminology. These activities and games might include: Students doing puzzles in class in pairs, as a race with other students, or at home as homework. The teacher can also design games that

demand the student's cooperation (in groups) to find answers or solve puzzles, such as matching diseases with the organs or the body parts they affect, completing the blanks by using suitable words or answering multiple choices questions after seeing pictures or circuit symbols. Some of the word games used in teaching medical terms are:

**a. Matching activities:** match the word to its definition or to its equivalent in learners' mother tongue; match the term with opposites/synonyms; match the term to the picture/symbol /diagram /abbreviation; match collocations (two words that go together). An example of an exercise that combines the teaching of medical collocations and medical abbreviations is the one in which the students are to match the parts of lexical collocations accompanied by their abbreviations, e.g., (o/e) on examination. (ECG) electrocardiogram. (MRI) magnetic resonance imaging.

**b. Scatter Sheets:** It is a memory activity that can be used for medical vocabulary review at the end of a lesson. Students are given a worksheet comprising scattered technical terms; after scanning the terms, they turn the page and try to solve a fill-in exercise, where they have to use the words from the previous page.

**c. Categorisation of words:** (putting the lexical items into different categories), multiple choice (learners are proposed to choose the correct term), completion tasks, often known as gap-filling exercises, and the creation tasks (the students should be encouraged to use the new words sentences or a story, in writing, speaking or in both forms).

**d. Word Clouds:** In order to heighten students' awareness of medical collocations and improve their ability to use set structures in medical communication, word clouds can prove to be efficient. They can be very handy when it comes to medical items like body parts or common diseases and disorders, or even signs and symptoms.

**2. Using demonstrations, Illustrations and showing pictures:** There are plenty of medical terms that can be introduced by using illustrations or photographs. They are excellent means of making the meaning of unknown difficult words clear. It provides the learners with a real experience and sense. Pictures are one of the most valuable aids; they bring "images of reality into the unnatural world of the language classroom" (Hill, 1990). Pictures also function as a fun element in the class. So, they can be motivating and attention-grabbing. Some activities might even include pictures of idiomatic expressions, where students are asked to guess the idioms and their meanings. Using demonstrations Illustrations also includes the use of realia, visual aids, posters, flashcards, wall charts, magazine pictures, board drawings, stick figures, photographs and demonstrations. They can function to help learners remember technical vocabulary better since our memory for objects and pictures is very reliable, and visual techniques can act as cues for remembering words (Takač, 2008).

**3. Word flashcards:** They are a trending tool in medical studies and memorisation in general and are considered excellent memory aids. Students also can make some word- cards in an easy, exciting and portable manner. On a closer look, we have one-side-only cards, both-sided flashcards and sets of pairs (antonyms or synonyms, a picture and the corresponding word or phrase) or groups of cards connected, e.g., by their meaning. Being flexible in their use, these cards offer teachers and their students a large number of possibilities to apply them in a number of activities and games (asking each other questions and exchanging them while searching for a set). On top of that, they might be helpful in the individual practice of vocabulary, e.g., looking at a picture or a written term and guessing the meaning written on the other side. Depending on how they are used, they can support the development of both productive and receptive vocabulary knowledge. While seeing the English word and remembering its meaning represents receptive knowledge, the task of recalling the English word based on its L1 or L2 cognate or definition requires productive knowledge.

**4. Role-plays:** The language applied in this activity is varied according to the student's status, attitudes, mood, and different situations. Blachowicz (Blachowicz & Fisher, 2005) states that "Teachers can introduce some of the words which provide both definitional and contextual information about the words to be learned by making up a dialogue for students so that students can understand a further meaning and usage of the words.". For instance, clinical narratives can be used as a script for role-plays. They were supplemented by Kimball (Kimball, 1998), accommodating the mix of technical terminology ('myocardial infarction', 'angina pectoris') with less specialised, natural language and, more importantly, demonstrating how medical concepts can be contextualised for language learners in a problem-set which simulates real-world clinical thinking.

**5. Using video:** According to Kang and Dennis, vocabulary should not be learnt in isolation but in context and with visual clues to help students understand them (Kang & Dennis, 1995). Computers and the use of multimedia can provide a rich, contextual environment for such learning. Teachers can introduce videos and short films of educational value, especially in the medical field, where they could be about a medical procedure or about concepts such as placebo effect and nocebo effect or brand and generic drugs, in which students are confronted with a couple of new terms that would be later explained, and students can hence link the meaning to the visuals seen. Another activity would be to provide learners with a list of target vocabulary words and select a video segment that contains a series of actions or visual detail, then ask them to construct a paragraph that incorporates as many of the words as possible. The teacher can also show a short film without sound and ask students to discuss what dialogue they would expect to hear.

**6. Using mobile phones:** also referred to as mLearning, using mobile phones to teach and learn vocabulary started to appear in the literature only recently. For example, Browne and Culligan allowed learners to access vocabulary flashcards on their mobile phones, which proved to be beneficial due to

the fact that learners were able to study when and where that suited them (Browne & Culligan, 2008). The learners' feedback was positive, as they found the method both fun and valuable. They used their mobile phones outside the classroom to learn new vocabulary essential to their studies, specifically medical and health-related terms.

**7. Mnemonic devices:** Mnemonic devices are aids to memory. They may be verbal, visual or a combination of both. Advocates of mnemonic devices believe that they are so efficient in storing words that the mind is then freer to deal with comprehension (Cohen, 1987). Some examples of the mnemonics used in class are: On Saturday, And Sunday, Cold Ovens Make Pastry (to remember the order of adjectives) and NICER DRUMS (to remember the different body systems). Students can be asked to solve activities using Mnemonic; a good example of that would be the use of the previously mentioned expression to solve an activity about the order of adjectives.

**8. Pictorial schemata:** Creating grids or diagrams is another semantic strategy. These visual devices help students distinguish the differences between similar words and set up memory traces of the specific occurrence. Scales or clines, Venn diagrams, and tree diagrams are especially interesting for group work when teachers present words for these pictorial schemata in scrambled order. Students are then asked to unscramble the words by putting them in logical order.

**9. Collocations and lexical phrases activities:** Since collocational relationships, words that commonly go together appear to have very 'powerful and long-lasting' links in the lexicon (Aitchison, 2012), providing opportunities to practise collocations is a worthwhile activity. This is obviously fertile ground to expand learners' understanding of vocabulary. As a group activity, index cards can be used for matching halves of collocations. There are even computer programs and games which provide practice collocating (Fox, 1984).

**10. Translation Activities:** A traditional activity that has been found effective in building vocabulary in linguistically homogeneous advanced classes. This activity does not have to be a dry, non-interactive exercise. There is, for instance, Oral translation, which can be a very flexible exercise. It can be used to practise communicative strategies consciously, to make students devote attention to vocabulary, and to encourage them to extend their vocabulary into new areas, for example, synonymic sets, collocations, and idioms. Heltai's (Heltai, 1989) oral translation activities involve such communicative activities as pair work, information gaps, and group discussion while summarising and paraphrasing the text to be translated. In a similar way, having students read and discuss or retell a selection is another common technique that quite naturally results in students' repeating vocabulary and chunking words (V. G. Allen & Allen, 1985)

Translation as a home assignment can also prove to be helpful in demonstrating the dangers inherent in dictionary use and the pitfalls of too close a translation. Since certain aspects of the foreign language,

both grammatical and lexical (for example, the use of the definite article), tend to escape the attention of learners if a translation is never used. It could be done as oral or written work, individual or pair work, followed by discussion in class (Heltai, 1989). The translation is also helpful in teaching new vocabulary since it gives a chance to introduce the concept of false friends and common mistakes (sensible in French vs sensible and sensitive in English). Where we give sentences or even prescriptions to students to translate, and they come up with observations on cultural issues while translating texts or prescriptions.

**11. Dictionary-related activities:** A dictionary is an essential tool in the teaching and learning of medical vocabulary. Teachers should encourage students to search for words in dictionaries (mainly electronic ones). Gonzalez (Gonzalez & Gonzales, 1999) found that even though dictionary work was viewed as laborious, it was necessary and that ESL college students need to be taught practical use of the dictionary. Key skills involved in effective dictionary use are the following: Recognising features of the dictionary –layout Understanding the way dictionary entries are coded –Cross-checking–Using synonyms, antonyms and other information to narrow the choice of best word for the meaning intended. – Inferring the spelling of an unfamiliar word from only having heard it.

The activities which could be said to constitute implicit dictionary-skills training are as follows: students are asked to fill in the blanks in a number of sentences by choosing the appropriate word in multiple-choice exercises. Second, one word is given in boldface and students are required to fill in the blanks in some sentences with the appropriate form of the already given word. Third, there is one cloze passage in each unit which the students are asked to fill in with the words given. Finally, there is a list of new specialised vocabulary not previously seen in the reading texts or exercises for which the students are asked to find French equivalents. Thus, their usefulness depends on learners being able to access the information they contain both speedily and accurately. Training learners in effective dictionary use is significant since many learners may not be familiar with dictionary conventions, even in their own language. Such training also provides them with the means to continue vocabulary acquisition long after their course of formal study has been completed.

**12. The Internet and ICT:** The online environment is always up-to-date. It is fast and provides countless contexts for technical words, correlations, and explanations, as well as links to more resources. It is a reasonably uncharted world favoured by the learners because of the independence it offers, and it is favoured by the teachers because of the multitude of resources they can use to create EMP materials and techniques since the Internet can be a source for meaningful vocabulary activities for the classroom and for the independent learner (where some of my students had the habit of playing vocabulary games on websites like *Anglais facile*). This is in line with Tahririan, Khalili, and Bagheri (2015), who examined the effectiveness of multimedia software in ESP vocabulary instruction. In their study, to present new medical terms, they used two multimedia software programs instead of traditional methods and found that it was an effective way to enhance ESP students' learning and engagement. Besides,

working on terminology in context, instead of long boring lists of terms out of context, can boost learning (Tahririan et al., 2015).

These and many other activities may be used to expose students to new vocabulary as well as to reactivate vocabulary in the iterative process words need to go through in order for long-term retention to take place. With regard to the relationship between ESP content and the students' training courses, the more students are required to use the specialised vocabulary they had already learned in their ESP course in their training sessions, the more motivated they become to learn them and use them as the need arises, which can be achieved through the contextualisation of vocabulary exercises (Akbari, 2017).

Furthermore, alphabet and spelling games raise morphology awareness in students as an indicator of not only vocabulary development but also of enhanced reading comprehension and writing skills. Matching activities and flashcard games provide students with the opportunity to store, organise or retrieve information in accordance with the lesson's topic. Concentration and memory games, Roleplays, as well as the more complex review games are especially beneficial to learners in the sense that they encourage interaction and competitive cooperation, along with spontaneity and creativity. In addition, games done in groups and the learning-by-doing approach lead to higher levels of active engagement on the part of the learner, a process that naturally leads to higher levels of information retention (Sandiuc, 2019).

Nowadays, teaching ESP vocabulary in a medical setting requires a combination of methodologies with activities to draw learners' attention and make these often-boring vocabulary memorising drills more enjoyable, which is precisely what teachers need when presenting new language – to catch their learners' full attention, to raise their interest in the presented subject and hence also motivate them to learn the introduced vocabulary. With EMP, most of these aspects are particularly important, as specialised words carry specialised meanings, and accuracy is crucial in the health care field; otherwise, the consequences of misunderstanding may be very serious, more so with medical terminology.

The conclusion is that Different types of instructional modes, approaches, vocabulary-building activities and skills proved to be effective in developing students' vocabulary. Teaching vocabulary in context, combining vocabulary with reading and writing activities, and providing the students with different lexical information about the words under study enhanced students' vocabulary. Moreover, good command of English, as well as fluency, are acquired by vocabulary building, which, in turn, is accomplished by exposing the learners to a carefully selected corpus of authentic materials, carefully chosen games, and real-life role-plays where context-appropriate language is used, and where focus on lexis and chunks of language, rather than words is preferred (Chirobocea, 2018b). Since it is of extreme importance to encourage learners' active participation in vocabulary learning and cooperation with their peers and the teacher (Taka, 2008, p. 23).

### 3.4.12. Debate the Idiom or the Quote

It is clear that an idiom is a phrase or an expression in which the entire meaning is different from the usual meanings of the individual words that constitute it. Thus, an idiom cannot be fully understood through the meanings of the individual words that are contained within it. So, the meaning of the whole idiom has little, often nothing, to do with the meanings of the words taken one by one. These idioms are often used in writing or speech to make the expression more colourful; they are fun to work with because they are part of everyday vocabulary, and students enjoy working with figurative meanings. They also enjoy learning about the origins of idiomatic expressions, some of which can be very old. Additionally, idioms are considered a part of the language's culture, and Language and culture should not be separated. Thus, even when teaching Medical English, there is always room for the teaching of culture and cultural aspects of language.

For learners, the comprehension of idioms can be facilitated via contextual support, be it a text, an image or facial expressions in video clips. Students enjoy the challenge of interpreting idioms according to the context and finding their French or Arabic equivalents. To help students, the teacher can divide idioms into several categories that will be useful in each situation. Teaching idioms by topic can make it easier for students to remember; it is also essential to give students instructions and assist them in understanding and learning idioms successfully.

Some idiom-related tasks that might stimulate interaction include: matching medical idioms with their corresponding definitions, substituting for the underlined phrase an idiom with the same meaning, solving quizzes, making dialogues using idioms, etc. Therefore, learners are guided to engage in various classroom interaction patterns such as Student-to-student, Student-to-teacher, Teacher-students, and Whole-class discussion. Thus, promoting Communicative language teaching CLT, proposes that learners achieve more by participating in meaningful communication in the course of learning.

Furthermore, interaction in the classroom can be established and stimulated if the teacher creates “friendly relationships and a supportive atmosphere, in which students feel free to communicate using the target language” (Seifu & Gebru, 2012). Such a friendly environment helps students learn the language in a meaningful and appropriate way which aligns with the student-oriented approach to foreign language teaching. And since our aim was to create an environment where students get to express their ideas and practice the language as often as possible, we used these idioms, coupled with quotes, to create debates and discussions among learners.

Debates are another form of promoting the Communicative language teaching approach CLT; they are conversational techniques performed in conversation groups to improve learners' conversational skills, as well as language mastery. So, in choosing topics for debates in English, the teacher should find a subject that has elements of controversy yet does not arouse uncontrollable

passions, for example, Animal testing, Peer pressure harmful or beneficial, Human cloning, Branded medicines or generic drugs, Animal experimentation etc., and Idioms also fit right into this box, since they can provide ambiguity and controversy. Group discussion, debating quotes and other trending topics can be used in the English classroom to improve students' listening and speaking abilities. Students should be managers of their own learning, and they should be encouraged to negotiate the meaning, interact with others in the group, and use effective and active learning strategies that will reinforce the value of student-to-student interaction. Additionally, according to Dobson, for a debate to be successful, a format should be followed, and it should have some of the following steps: start by describing the debate topic, then ask which students would like to be "pro" and which "con"; after that, select an equal number of students to speak on each of the two debate teams (two to four people on each team), give the students time to prepare their arguments; they can speak from notes, but they should not read their presentations; set a three-minute time limit for each student's presentation (Dobson, 1981).

In our study, we started the debates by providing students with quotes at the end of each session and asking them for their opinion on the quote or what would the quote mean, or sometimes deliver it as homework for the next session's worm-up activity since Kay (1995) defines 'warm up' as the first stage of a lesson plan: "It is an effective way to help the students begin to think in English and to review previously introduced material. Different types of warm-ups help provide variety and interest in the lesson" (Kay, 1995). Other times, we would include idiomatic expressions related to health and body parts as a warm-up activity (e.g. to have a sweet tooth, fit as a fiddle, hit the books, have a change of heart). One of the most memorable quotes that motivated almost all students to share their thoughts and opinions on the matter (while practising the language) was the one by Jordan B Peterson from his book *Twelve rules for life: An Antidote to Chaos*: "Compare yourself to who you were yesterday, not to who someone else is today." (Peterson et al., 2018), we almost always had long debates and even disputes over whether it is beneficial to compare oneself to other people or not. It is an activity that pushes learners to interact, communicate, try and use arguments to convince their counterparts and, most of all, brainstorm and do more creative thinking. This aligns with what Zorica Antic stated: Good material contains interesting texts, thought-provoking activities and enables students to use the knowledge and skills they possess (Antic, 2007).

Furthermore, activities that would stimulate oral discussion tend to be very complicated areas for students because they are extremely unpredictable; students never know what direction an oral discussion will take. Therefore, it is advisable to first introduce learners to expressions which would be useful, ones related to agreeing, disagreeing, expressing an opinion, persuading, stating a criticism, giving an example, introducing, giving a reason, and commenting (Tomlins, 1993; Price, 1977). These activities are also aimed at evaluating student motivation, originality and creative skills, teamwork and collaboration, communication skills, critical thinking skills, as well as overall attitudes towards learning. "learning to think critically and to analyse and synthesize information in order to solve technical, social,

economic, political and scientific problems; are crucial for successful and fulfilling participation” (Dunlap & Grabinger, 1996). Additionally, these discussions grant teachers the ability to avoid monotony by bringing short fragments of literary works such as idioms and quotes; ESP teachers can propose different communication/writing activities since cognitively demanding problem-solving tasks tend to develop students’ higher-order thinking skills.

Finally, such activities have the potential to allow students to learn the socio-cultural characteristics of a foreign society, for example, topics about racism, animal testing, standards of life, the effects of inflation and unemployment, the death penalty, Euthanasia, Medical Termination of Pregnancy (MTP), etc. Such topics are essential for those who major in Medical Studies, which proves to be very engaging. Moreover, getting students to share their opinion and knowledge and communicate in meaningful professional situations with background noise due to multiple conversations going on at the same time, in a manner that is often the case in healthcare, could represent a great tool for simulation and a solution towards involvement and relevance in class communication.

### 3.5. Games

Nowadays, most learners want education to be smooth, funny, interesting and enjoyable so it can be easy to memorise and apply in real life. Thus, it is highly imperative to maintain a vivid atmosphere during classes to offer students the possibility to unleash their imagination and express themselves freely. If students are amused, angered, intrigued or surprised, the content is clearly meaningful to them. Thus, the meaning of the language they listen to, read, speak and write will be more vividly experienced and, therefore, better remembered (Khudoyberdievna, 2017). There are several interactive strategies used to reach such outcomes, like drama, role-play, visual aids, Computer Assisted Language Learning (CALL), and so on. Games, however, are another useful strategy to promote students' language proficiency (Richard-Amanto, 2003); they are fun activities that promote interaction, creativity, independence and higher-order thinking, learning, and problem-solving strategies. According to researchers, the impact of games on the language learning process is efficient in terms of developing vocabulary and speaking skills, improving foreign language acquisition, boosting motivation as well as the engagement of students and creating opportunities to apply acquired knowledge in practice. Besides, implementing games in a class environment enhances critical and logical thinking, problem-solving, and teamwork skills (Fahrutdinov et al., 2017).

Furthermore, Games are employed in a targeted way in order to proceduralise foreign languages, where their entertainment aspect is a positive side effect, an advantage over standard exercises. Since using games while teaching foreign languages provides an opportunity for intensive language practice, offers a context in which language is used meaningfully, and is an effective way to urge students to participate actively in the classroom. The high amount of repetition achieved via the game approach surpasses, by far, anything that can be achieved with written exercises, and on top of that, the repetition

is oral in nature, and students have fun while playing. Thus, games not only embrace repetition but also, due to group dynamics and social interaction, shape the learning process with fun and effectiveness (Macedonia, 2005). In other words, games are considered a welcome break from the usual routine of the language class; they can encourage, entertain, teach, and promote fluency. Thus game-based learning can create a meaningful context for the language learning process where learners use the target language to convince and negotiate their way to reach the desired results.

Over the past decade, educators have reported using games as instructional tools in a variety of disciplines. Games that are adapted and used for educational purposes aim to have players achieve a specific learning outcome as the goal of the game. These games are activities that provide students with the opportunity to reinforce the previous knowledge by repeating it in a more comfortable environment and suggest to students a fun and relaxing learning atmosphere. Well-chosen games are invaluable as they give students a break and, at the same time, allow them to practice language skills. Thus, they let students practice language before they must use it in the “real world.” So games ( or even video games) are another avenue for “experimentation in a safe, virtual environment” (Kirriemuir, 2002). Hadfield confirms that “games provide as much concentrated practice as a traditional drill, and more importantly, they provide an opportunity for real communication, albeit within artificially defined limits, and thus constitute a bridge between the classroom and the real world.” (J. Hadfield, 1990). Besides, educational material (Games) that is fun is also intrinsically motivating and should thus pave the way to successful learning. (Brown 2007), this aligns with Wright, Betteridge and Buckby's (1984) claims, stating that in order to make students interact, share knowledge, and provide their ideas, teachers can generate a different environment through the use of games to facilitate the process of learning languages more interestingly for students (Wright, Betteridge, and Buckby 1984).

Moreover, Game-based learning has become a popular term in teaching methodology in the education of late. It is generating considerable interest in terms of complementing traditional teaching techniques, providing diversity in teaching methods, and enlivening teaching topics. Games are also good for students as they increase their motivation, develop creative thinking and allow practising the language in a fun and relaxed way, incorporating challenges into the learning process, focusing on the task given and avoiding failure (Fahrudinov et al., 2017). As stated by Richard: “Games can lower anxiety, thus making the acquisition of input more likely” (Richard-Amanto 2003). Additionally, the use of games in second-language classrooms has now become an intrinsic component of many approaches and the choice of many teachers as a format for students to review and reinforce grammar, vocabulary, and communication skills. Additionally, games can be used together with other kinds of practice devices for reinforcement, review, thinking, control, and communication in the classroom. All these techniques really aim to do is to achieve the same kinds of exercise and practice goals that more traditional drills and activities do. But, they inject so much fun into the process that they end up

invariably fostering a positive attitude, in teachers and students alike, to the learning tasks at hand, which is the primary condition for learning to occur (M Danesi & Mollica, 1994).

Furthermore, according to Danesi Cognitively, game-playing invariably involves the deployment of problem-solving strategies. The end-state of any game constitutes a problem that the student must attempt to solve within the format of the game. Thus, learners are encouraged to combine knowledge from different areas to choose a solution or to make a decision; they can test how the outcome of the game changes based on their decisions and actions, and learners are further encouraged to contact other team members and discuss and negotiate subsequent steps, consequently improving, among other things, their social skills. This forces the learner to go from a random, experiential form of thinking to a more organised and representational one shaped by the structural elements of the game format. Also, language-teaching games are useful primarily as review, recall, reinforcement, control, and occasionally as expansion techniques (M Danesi & Mollica, 1994).

Games can not only aid the teacher in constructing a meaningful context in which the language learning is useful and expressive but can also be applied as a diagnostic tool for the teacher, who can note areas of difficulty and take appropriate remedial actions. However, not all games are suitable for the classroom environment or the students' levels. It can be hard to decide which game is right, and that is the responsibility of the teacher (Bendo 2020). According to Frydrychova Klimova, the organisation of such activities places great demands upon teachers who must prepare the content of the game and materials needed for its completion, explain the rules of the game to students clearly and in detail and set the time (Klimova 2015:1159). Thus, playing games while teaching English requires a lot of effort on the teacher's side, even more so since the teacher has to find proper games to utilise in the classroom.

On a different note, the implementation of games, however, has been perceived as a pastime rather than a serious way of instruction. In response to that, different authors have suggested the important role that games can bring as the medium of instruction at the time of facilitating language learning. According to Byrne, "Games as a form of play governed by rules. They should be enjoyed and fun. They are not just a diversion, a break from routine activities, but a way of getting the learner to use the language in the course of the game." (Byrne, 1995). Additionally, Hadfield affirms: "games should be regarded an integral part of the language syllabus, not an amusing activity for Friday afternoon or for the end of the term" (C. Hadfield & Hadfield, 1990, p. 5). i.e. Games should be used as part of the lesson plans in order to better transmit the new skills to the students and make them active participants; that is why games are considered a good tool for reluctant and shy students since they get a chance to express themselves in front of others. Thus, a game should not be regarded as a marginal activity filling in odd moments when the teacher and the class have nothing better to do. Since many experienced textbook and methodology manuals writers have argued that games are not just time-filling activities but have great educational value. W.R. Lee says: "A game should not be considered as insignificant or as an

activity to fill in the free time when both the teacher and the students have nothing to do”. He holds that most language games make learners use the language instead of thinking about learning the correct forms and that games should be treated as central, not peripheral, to the foreign language teaching program (Lee, 1979). Thus, games should present a core element of teaching a subject in a foreign language (L. S. Kim, 1995); they ought to be at the heart of teaching foreign languages and should be used at all the stages of the lesson, provided that they are suitable and carefully chosen. Games also lend themselves well to revision exercises helping learners recall material in a pleasant, entertaining way.

Additionally, Hadfield (J. Hadfield, 1990) proposed games as a system that contains three main aspects. Firstly, games must follow a specific purpose; secondly, as a means of entertainment; and lastly, games are directed by rules which help to define the game and the number of players, provides the sequence of the game, and makes it organised. Considering these characteristics, teachers can blend them into specific language purposes and bring them to class as the medium of instruction. Besides, the application of games can generate an engaging and different environment in which students interact, share knowledge, and provide their ideas (Wright et al., 1984).

Regarding ESP classes (and in our case, EMP ones), Games are still engaging activities that encourage creativity in ESP classes and support teachers’ efforts to increase student motivation and engagement in class (Ferčec et al., 2019). Even though such classes are accessible at higher education levels which some people might view as not appropriate for games yet Davis points out that in response to different styles of learning, the use of games in the classroom can be an effective tool, especially at the college level (Davis et al., 2009), since playing a game is not only a fun activity but it is also considered an educative tool for learning and improving certain skills. Furthermore, as most university students belong to the so-called Generation Z, who are digital natives, started to use the Internet, digital technology and social media at an early age and own mobile phones, laptops, and/or tablet computers, it has become quite common to use these tools in educational contexts as well so as to not lose learners’ attention and maintain their interest. Moreover, there exist a variety of abilities that learners could cultivate via different games played in ESP classes, such as creativity, good sportsmanship and teamwork (Bendo, 2020). However, games ought to be used as a supplement to traditional methods, not as a replacement (Moore & Dettlaff, 2005), which is in line with Danesi and Mollica’s statement that games are useful primarily as complementary activities that can be used in tandem with other techniques within broader methodological and curricular frameworks (M Danesi & Mollica, 1994).

Regarding Games’ definition, they are fun activities that promote interaction, thinking, learning, and problem-solving strategies. They provide a constructivist classroom environment where students and their learning are central. “Learning through performance requires active discovery, analysis, interpretation, problem-solving, memory, and physical activity and extensive cognitive processing” (Uberman, 1998, p. 16). According to Zimmerman, a “game is a voluntary interactive activity, in which

one or more players follow rules that constrain their behaviour, enacting an artificial conflict that ends in a quantifiable outcome” (Zimmerman, 2004, p. 160). Furthermore, Gibbs (1987 mentioned in (Bush, 2015)) described a game as “An activity carried out by cooperating or competing decision makers, seeking to achieve, within a set of rules, their objectives.” And for Wittgenstein, “A language game is a philosophical concept, referring to simple examples of language use and the actions into which the language is woven... a word or even a sentence has meaning only as a result of the ‘rule’ of the ‘game’ being played” (Wittgenstein, 1968).

Additionally, El Shamy defines games as “a competitive activity played according to rules within a given context, where players meet a challenge to achieve an objective and win” (El-Shamy, 2001, p. 15). And Jill Hadfield defined them as "an activity with rules, a goal and an element of fun." (J. Hadfield, 1990) He also clarifies that there are two kinds of games: competitive games and cooperative games. Juul further (2003) states that a game is a rule-based formal system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels attached to the outcome, and the consequences of the activity are optional and negotiable. Juul proposed six parameters: 1) Rules: games are rule-based, and they have to be clear, few, and well-explained so that no difficulty is faced. 2) Outcome: games have variable, quantifiable outcomes. 3) Value: the different potential outcomes of the game are assigned different values, some being positive and some being negative. 4) Effort: the player invests effort in order to influence the outcome. 5) Players attachment: the players are attached to the outcomes of the game in the sense that a player will be the winner and happy if a positive outcome happens and a loser and unhappy if a negative outcome happens 6) Negotiable consequences: the same game can be played with or without real-life consequences (Juul, 2010).

Furthermore, Educational games are the ones that are specifically constructed to educate and transmit certain knowledge to the participants. They are constructed to provide students with a simple and easy environment to learn about certain subjects, foster students’ will for continuous learning, or assist them in practising and improving their skills (Bendo 2020). Tyson (2000) further defines a good educational game as something enjoyable for all participants, competitive but friendly, keeping participants involved with the English language, helping students focus on the use of the language, and of course, allowing students to learn (Tyson, 2000) suggesting that a game should involve "friendly" competition, keep all of the students involved and interested, and give students a chance to learn, practice, or review specific language material. Moreover, Nguyen and Nga (2003) (Huyen & Nga, 2003) reported that learners like the relaxed atmosphere, friendly competition and the motivation brought by the games to the classroom, and they could learn the material quickly in a non-stressful environment, so learners liked game-oriented activities and were greatly motivated. This promotes the CLT approach, which paves the way for successful teaching and learning and improves learners’ “Communicative Competence” by putting them as part of the lessons themselves. Thus, language games help to gain more

input, enhance students' skills, enhance language knowledge, build collaborative learning and psychologically and socially help students participate in the classroom.

Thus, an educational game is a game designed and used for the purposes of teaching and learning, where we combine the elements of fun and education to increase students' motivation and engagement, promote problem-solving ability, and achieve better learning results. Educational games are learner-centred activities that can be used at any stage of the class, be it to warm up the class before it begins, to give students a break or to keep them engaged or interested during the lesson, or as a recap exercise at the end of class. Furthermore, there exists a large body of literature devoted to investigating game-based learning and various engaging activities that are occasionally used in class, and research has confirmed that they are likely to improve the motivation and concentration of students, increase their interest in subject matter, cause their attention and active participation, and eventually contribute to innovation and creativity in the classroom (Ferčec et al., 2019). Thus, games help learners actively recycle and revise grammar and vocabulary previously learned, improve their communicative skills and bring energy into classes.

Nowadays, many researchers have been conducted in order to work out the best and the most effective ways of using games in teaching because language games should be designed in different levels as well as topics that suit different students' levels so that students with different language proficiency levels can enjoy and gain the best results from them. In addition, "games have a special role in building students' self-confidence" and "they can reduce the gap between quicker and slower learners" (Fuszard, 2001), i.e., students of different language mastery, which is the usual case of EMP class. Therefore, we can say that games give learners the opportunity to practice the language in a variety of language areas, such as spelling, grammar and vocabulary (Riahipour & Saba, 2012). Furthermore, successful communication in an occupational environment is due to considerable attention being placed on ESP. In this respect, game pedagogy can be really effective in teaching ESP terms to EFL learners (Riahipour & Saba, 2012).

Teachers may resort to well-known games and board games, adapting them to the topic and aims of the lesson, or they may create on-purpose games adapted to their students' needs. Such games can be used as warm-up activities or time fillers, as review exercises or even as assessment tools, such as spelling games, fun matching activities, concentration and memory games, vocabulary review games, etc. These activities advocate for a change in the teaching techniques, which could provide some variety and turn standard textbook activities into playful tasks meant to revive the ESP classroom and improve learners' vocabulary and fluency, and help them maintain focus in a pleasant learning atmosphere that is bound to stimulate creativity and self-expression (Bressan, 1970). Besides, students draw their own meaning from these experiences while learning from their mistakes and from each other, as well as build upon their previous knowledge and use their new knowledge in a situation separate from the activity

in which they learned it. Additionally, the teacher is now able to make observations on each student and see what areas the class or individuals are struggling with or excelling at as well as the social dynamics of the group. "The learning process should be interesting, easy, and it should be fun to learn. It also should fit with an everyday task and the working environment in order to achieve optimum results" (Pivec & Dziabenko, 2004).

Research has shown that using games in ESP classrooms is one of the most effective methods of teaching languages. Some games require the players to engage in physical activity or complete a mental challenge. As Martinson and Chu state, "Games are effective tools for learning because they offer students a hypothetical environment in which they can explore alternative decisions without the risk of failure. Thought and action are combined into purposeful behaviour to accomplish a goal. Playing games teaches us how to strategise, to consider alternatives, and to think flexibly" (Martinson & Chu, 2008, p. 478). Thus, games provide a constructivist classroom environment where students and their learning are central (Mamadaliyeva, 2019). Richard-Amato asserts that they, "add diversion to the regular classroom activities," break the ice, "[but also] they are used to introduce new ideas" (Richard-Amato, 2003). Furthermore, the goal of the foreign language learner is to speak proficiently and independently in various situations. The interactivity amongst the students created due to the use of games promotes a community of learners engaged in spontaneous discussion about the material, which usually leads to improving pronunciation, increasing participation, and aiding in comprehension, all while the students are thinking quickly on their feet as stated by Foreman "Learning through performance requires active discovery, analysis, interpretation, problem-solving, memory, and physical activity and extensive cognitive processing" (Foreman, 2003). Thus, the primary advantage of using games in language teaching is the opportunity for practice, and we know that with practice comes progress, with progress, comes motivation, and with motivation comes more learning (Gaudart, 1999). Since Teacher-centred classrooms do not allow learners the time necessary for practising their foreign language structures, we resort to games, where learners fully use the language that they have learned, participating in the communicative process throughout the game.

Most researchers agree that special emphasis should be placed on how games and engaging activities are to be tailored to specific language learning contexts and students' needs or adapted to suit the content of the curriculum, complementing at the same time regular classroom activities, enhancing the existing lesson materials, enriching paper-based activities, boosting learner autonomy, and adding an element of surprise. They can be planned so as to introduce a new lesson, apply what was learnt in the last lesson, practice vocabulary or grammatical structures or encourage students to communicate in a foreign language (Ferčec et al., 2019); they can also be structured so that they allow multiple correct answers, to improve participation, self-esteem, and vocabulary usage and allow the learners to see that there are many ways to solve the same problem.

Additionally, teaching EMP is partially centred around teaching vocabulary, and a growing number of research studies argue that vocabulary retention can be achieved more easily if vocabulary practice involves educational games such as puzzles, board games, card games or adapted TV games. (Williams, 2007). Such games encourage, entertain, teach, promote fluency, and help students see beauty in a foreign language and also encourage many learners to sustain their interest. According to Uberman (1998), “Games also lend themselves well to revision exercises helping learners recall material in a pleasant, entertaining way” (Uberman, 1998, p. 3). The author calls most of her activities, including dictation and publishable essays, games because the author brings them into her classroom as a fun part, and the winner receives some rewards as a result of their victory/success. Good ESL teachers always attempt to find a better way to teach students and make their students’ learning a lifelong experience. Browne and Culligan claim that interactive vocabulary-learning games can induce automaticity, making use of the spaced repetition system, such that whether a learner reviews new target words with the flashcards or the games, whenever they correctly recognise the meaning of a word, it will be automatically forwarded to the next stage of the spaced repetition process (Browne & Culligan, 2008).

The variety and intensity that games offer may lower anxiety (Richard-Amanto, 2003) and encourage shy students to take part (Uberman, 1998), especially when games are played in small groups. Language games help the learners not only to attain collaboration skills but also to develop language skills. They provide the context for learning and make it interesting for learners, so it is an effective way to improve students' social skills along with language skills, as highlighted by Wright, Betteridge, and Buckby in their book that games can be found to give practice in all the skills, in all the stages of the teaching and learning and for many types of communication (Wright et al., 1984).

In brief, educational games are not just activities mainly aimed at breaking the ice or killing time during a class. A well-designed educational language game is rule-governed, has specific pedagogical goals, and enhances language acquisition. Language games can help teachers introduce new concepts, vocabulary, and grammar points. To some extent, they not only can enhance students’ affective and cognitive development but also can improve class dynamics (J. Hadfield, 1990; Uberman, 1998) by providing students with opportunities to use English in communication, increasing their ability to use language, as students get more chances to speak English with a situated purpose, connecting them to the actual usage of language outside the class (L. S. Kim, 1995). Thus, by playing different roles while playing games, students learn and obtain both fundamental knowledge and practical experience and soft skills that are needed in the modern work industry (Pivec & Dziabenko, 2004).

Games are learner-centred and are carefully guided by the teacher who establishes the rules, according to Casanave: “Games, for instance, are played according to rules, conventions, and strategies (...). There are various ways to compete in different kinds of games (...). In some games, it may be possible to invent and modify rules, whereas, in others, it is necessary to follow externally imposed

rules, with whatever flexibility that may be needed to fit within those strict guidelines. In all cases (...) a range of rules and conventions guides the players, and helps them decide whether to follow or flout the rules or indeed whether to play at all” (Casanave, 2005, p. 4). Moreover, in language teaching, according to Warschauer and Healey, games have often been utilised to increase motivation and authentic communicative practices since games have been conceptualised as an enjoyable factor in language learning. These understandings are partly compatible with communicative and socio-cognitive approaches to language and language learning, i.e. the prioritisation of negotiation and communicative ability (Mark Warschauer & Healey, 1998). Grigoriu adds: “When using communicative activities, it is important to strive for a classroom in which students feel comfortable and confident, feel free to take risks, and have sufficient opportunities to speak” (Grigoriu, 2000, p. 145) and games seem to be the perfect tool to do that. Thus, we can say that games are communicative activities that may supplement any lesson. In addition, Harmer believes that “games which are designed to provoke communication between students frequently depend on an information gap so that one student has to talk to a partner in order to solve a puzzle, draw a picture, put things in the right order, or find similarities and differences between pictures” (Harmer, 2001, p. 272).

Furthermore, using games for educational purposes is related to the constructivist learning theory. This learning theory promotes the ideas of learning in a significant context alongside social interaction and collaboration. In such an approach, the instructor’s role is a significant factor in empowering groups to construct knowledge in a collaborative manner (Hämäläinen and Oksanen 2014). The instructors engage higher education students in the process of formulating hypotheses, interpreting context, providing explanations, and describing observations by designing and implementing a collaborative and interactive Game-based learning environment, one that promotes soft skills acquisition and an interdisciplinary approach to learning and is based on collaborative learning theory (Pivec & Dziabenko, 2004). Thus, Games provide a constructivist classroom environment where students and their learning are central. Games help students sustain their interest and motivation in learning languages; they also are a good way to promote ESP learners’ interaction and improve their acquisition. Games not only offer learners a highly motivating and relaxing class but, most importantly, meaningful practice for all language skills.

Another substantial impact that emerged is the effectiveness of games not only in the cognitive domain but also in the affective and behavioural domains (Tseklevs et al., 2014). Behavioural objectives for higher education students refer to the enhancement of social, emotional, and collaborative skills, helping students to foster strong relationships with peers, empowering them to collaborate and work in groups more efficiently, become organised, adapt to new tasks, and resolve emerging conflicts (Ranchhod et al., 2014) (Vos & Brennan, 2010). Thus, the pedagogical shift from lecture-centred to student-centred environments and the increasing use of games as innovative learning technologies calls

for a transformation in higher education. In this respect, games are expected to play a significant role in the learning process.

Regarding the Classification of games, it is a rather broad and flexible area which focuses on some specific criteria referring to the features and functions of a game. It is difficult to categorise games because categories often overlap. Scholars classify games according to different criteria, such as functions, student levels, and learning styles. Toth distinguishes between two kinds of games competitive and cooperative games (Toth, 1995). Hadfield proposes two ways of classifying ESL games. The first is dividing games into competitive games and cooperative games. In the former type of games, participants try to reach the goal of a game first. In the latter type of games, participants work together to reach a common goal. Hadfield also mentions linguistic games and communicative games. Linguistic games focus on accuracy, such as the correct usage of every single word, whereas communicative games focus on fluency and give priority to successful communication rather than the correctness of language (J. Hadfield, 1999). If games are focused on a particular language skill, we may divide them into listening and speaking games (receptive and productive games), which may also involve some reading and writing, respectively. Depending on the technique used, we can have information gap, guessing, searching, matching, exchanging, collecting, combining, arranging, card games, board games, puzzles, and role-playing. Students can play games in pairs, in groups, or with the whole class, and through the games, students can learn how to cooperate with their partners or team members (J. Hadfield, 1999).

Additionally, Games are already integrated into educational systems to achieve a variety of learning outcomes (Connolly et al., 2012), and in recent years, digital or web-based games have also increasingly supported learning, especially since young language learners nowadays are getting a lot of things done through technology and learning a new language should not be the exception. Students usually experience more anxiety and boredom during conventional courses, which act as an impediment to acquiring substantial language and problem-solving skills. The real benefit of online games is not only making students more enthusiastic about taking part in such activities but rather increasing their confidence in every kind of English interaction and also promoting their English ability. Any type of communication in the target language or with the target culture will ultimately improve the learners' confidence, motivation, and ability.

Yip and Kwan (2006), in their study entitled "Online vocabulary games as a tool for teaching and learning English vocabulary", found that games in general and online ones in specific are effective educational aids which result in learners' increased motivation and improved performance during the process of vocabulary learning (Yip & Kwan, 2006). Their key findings were: students and teachers view online games as effective vocabulary learning tools; students prefer online games as an educational aid when compared with traditional learning lessons; games increase students' interest and guarantee

the learning's effectiveness. Teachers think that their role as a researcher and a facilitator has grown more prominent after employing information communication technology (ICT) tools (Yip & Kwan, 2006). Further Data revealed students' preference towards active, collaborative and technology-rich learning via digital games that bring added value to the educational process. The participants in Dudzinski et al. respond positively towards a serious web-based game, describing the experience as interesting, stimulating and helpful, as well as a valuable addition to their pharmacy curriculum (Dudzinski et al., 2013). Overall, digital games urge students to interact not only with the game but with their instructors and co-players as well.

In summary, syllabus designers can provide programs to insert games in all EFL classes, as well as ESP courses. And modern English teachers must gather up-to-date information about the internet and websites that provide vocabulary games, hence providing the learners with such information. However, planning the class to achieve final objectives is really important since playing games and controlling class time takes too much time, and following the exact lesson plan might be neglected. Furthermore, using computer games in an English for Specific Purposes (ESP) classroom offers a variety of knowledge presentations and creates opportunities to apply the knowledge within a virtual world, thus supporting and facilitating the learning process. It is becoming a new form of interactive content worthy of exploration (Pivec & Dziabenko, 2004) because the use of computers games creates an environment of enjoyment and fun while learners are acquiring a newly learned vocabulary and the interactive exercises allow processing of the new words at a deeper level (Browne & Culligan, 2008)

Regarding the characteristics, stages and forms of such activities, Moustakas and Tsakiris argue that a game is an activity that can achieve its goal either virtually or experientially and that such activities share the following features: they are non-typical and free, dynamic and flexible, they stimulate one's imagination, they are based on flexible rules, and they contribute to the development of communication skills (Loukas & Ioannis, 2018, p. 646). Gaudart further states that games have five parts. The first step requires teachers to teach relevant structures, which the learners will need during the game. Second, learners are introduced to the game, rules are explained, and a demonstration of the game is carried out. During the third part, learners play the game while the teacher monitors the learners and takes note of particular problems that they may have. The fourth part requires the teacher to debrief the learners. In the final stage, the teacher, having noted language difficulties that his or her learners may be having, prepares other games or tasks to help the learners overcome the problems (Gaudart, 1999).

Additionally, regarding the forms, Hadfield stated that games could take one of the following forms: a. Information gap: Students ask their partners to get missing information to complete the task or card they have or together solve a problem. b. Guessing games: The player with the information deliberately withholds it while others guess what it may be. c. Search games: Players must obtain all or a large amount of the information available to fill in a questionnaire or to solve a problem. d. Exchanging

games: Players have certain articles or ideas they wish to exchange for others. The aim of the game is to make an exchange that is satisfactory to both sides. e. Collecting games: Players need to collect cards in order to complete a set. f. Arranging games: Players must acquire information and act on it in order to arrange themselves in groups (J. Hadfield, 1999, p. 8).

In order for the game to be effective and achieve its goal, it should be specifically designed and chosen with the right properties; regarding these properties and factors, there are four main points: students' English proficiency, students' characteristics, students' learning styles, and the feasibility of the game (Carrier, 1990). First, ESL teachers should take the level of students into account when they design games for a class. Second, different students have different features in terms of motivation and attitude. Third, different students have different learning styles, and different learning styles have different impacts on the effectiveness of a game in different ways (Vernon, 2008). Additionally, Tyson states that games should meet some criteria in order to achieve their purposes. Some of these criteria are as follows: A game must be more than just fun; it should involve "friendly" competition and keep all of the students involved and interested, it also should encourage students to focus on the use of language rather than on the language itself, and A game should give students a chance to learn, practice, or review specific language material" (Tyson 2000:13). Vernon (Vernon, 2008) further maintains that there are four basic ways people process information, accordingly, four learning styles (i.e., auditory learning style, visual learning style, tactile learning style, and kinaesthetic learning styles). Auditory learners "enjoy verbal games in a group setting;" visual learners prefer a quiet approach; tactile learners "benefit most from hands-on instruction," and kinaesthetic learners like to involve their whole bodies (Vernon, 2008). Fourth, for adults who need conversation skills for work, business, or travel, it is better to choose games that focus on real communication to give them authentic experiences. Finally, the feasibility of a game in the classroom setting affects the effectiveness of a game to the greatest extent.

We have selected some examples of games used to teach English in different contexts, but mostly in ESP classes, we have ubiquitous traditional pencil and paper games a staple in many classes; they take on a variety of forms such as arranging games, quizzes, matching or labelling, information gap games, experiments, crosswords; and other pair work drills, and group work games. Board games, such as print-and-play, Snakes and Ladders, and Tsuru. And technology-mediated games in the form of apps, software, or websites, such as Hot Potato, online puzzles, and Jenga.

The following sections include a description of each of the games, taking into consideration the design, the contents included, the mechanics of the game and the experience in the classroom.

**Relay Word Building:** in order to review the previously taught terms, the class can be divided into teams. Each team is given a sheet of paper and pencils. Affixes or roots were written on the board, and the students were asked to write the correct item within a specific time limit (Riahipour & Saba,

2012). Such a game is really beneficial when reviewing the lectures on medical terminology, where students have to master derivation as a form of word creation.

**Crossword Puzzles:** the class was divided into teams. Each team receives a crossword puzzle containing English definitions of affixes, roots or medical terms. The students were encouraged to solve the puzzle within a specific time limit, and each puzzle could focus on one organ of the body. (Riahipour & Saba, 2012)

**Guessing Game:** The class is divided into four teams. Each team receives a card containing definitions of medical terms in English. The next group had to ask up to 10 questions and attempt to discover the term in question. Receiving yes/no answers would be the only guidance available. The teacher's interference is minimal, and the members of the team would have to try to convey the definition to the other group and help them discover the term (Riahipour & Saba, 2012).

**Board Race:** used for revising vocabulary and grammar, it is a great way of testing what students already know about the subject. The class is split into teams, and each of them is given a coloured marker. A medical topic is written at the top of the board. The students must write as many words as required related to the topic (Bendo, 2020).

**Call My Bluff / Two Truths and A Lie:** this is an icebreaker between students if they do not know one another. It is good for practising the speaking skill. In this game, the teacher can write three symptoms, two of which should be lies. Students are allowed to ask questions about each statement and then guess the truth. Then, students are paired and practice the game with their partners (Bendo, 2020). It is a very interesting way of helping students understand concepts such as symptoms and signs.

**Word Jumble Race:** This game motivates students to work in a team. It fits all age groups and is recommended when practising tenses, word order, reading, writing skills and grammar. Sentences are written in different colours. Then these sentences are cut up into a handful of words. These words are then given to several teams to properly be arranged and read correctly (Bendo, 2020).

**Hangman:** A word is thought, and students are required to guess it by saying the letters. Letters are written on the board using dashes, and when the letter said by the student does not appear in the word, it is written off to the side, and the image of a hanging man is drawn. It continues until the students guess the correct word (they win), or if the diagram is completed, they lose (Bendo, 2020).

**Pictionary:** It helps students practise vocabulary skills and memorization ability. A bunch of words are prepared and put in a bag. First, the class is divided into two teams, and the board is divided into two parts. A leader from each team is required to choose a word from the bag and draw the word as an image on the board; the winning team is the one who shouts out the correct answers (Bendo, 2020).

**The Mime:** It is an excellent game to make students of any age practice tenses and verbs as well as their speaking skills. It is suitable for many language points. The teacher writes out some medical procedures and puts them in a bag. A student from each team is required to select a word from the bag. Then they are asked to mime the action, and the team should guess the correct word (Bendo, 2020).

**Hot Seat:** It is a game that helps students build up their vocabulary and fosters competition in the class. It also helps to practice their speaking and listening skills, and it is suitable for any learner's level. The class is split into two teams, and one student from each team is asked to sit on the 'hot seat' facing the classroom with the board behind their backs. The team then helps its members guess the word that is written on the board. The word must be described, and the time is limited (Bendo, 2020).

**Where Shall I Go?:** uses prepositions of movement. It is beneficial for practising speaking and listening skill. One student in each pair will be blindfolded while the others guide them. The class should be arranged into a maze, and students should be paired outside the class. The guiding student must use directions such as step over, go up etc., in order to lead their partner to the end of the maze (Bendo, 2020).

**What's My Problem?:** helps to practice speaking, listening skills and giving advice. On a post-it, notes on the back of each student are written down problems and then students are mingled and must ask for advice from others to find solutions for their problems. They ought to be able to find their problems based on the advice they receive from their peers (Bendo, 2020).

**Cloze games:** Along the line of teaching students to learn to use Medical English effectively, reading comprehension and vocabulary skills play a significant part. Cloze games help students to develop the sense of word definitions in a meaningful context as well as a vivid imagination.

**Memory games:** they are great fun. Students receive paragraphs of a story, a case report or referral letters, read them and try to memorise as many items as they can so that, after giving the cards back, they would retell what they remembered to their colleagues. In the end, students can attempt to come up with a diagnosis.

**Wisdom roulette:** The roulette is a board-game thought as a review activity, prioritising those aspects that need to be checked again, or as well as an assessment method, where students are asked questions about topics explained in the different units or during the session. Thus, their command of the subject and their attention are evaluated. The whole session can become a review lesson without causing boredom and without the typical pressure. One of the main advantages of the use of board games is immediate feedback since all the students benefit from the corrections and explanations provided by the teacher after each question is answered.

**UniGame:** It can be classified as a role-playing game that fosters participation in problem-solving, effective communication, teamwork, and project management, as well as other soft skills such

as social skills, responsibility, creativity, micro-entrepreneurship, corporate culture, etc. The game is based on a constructivist learning approach and collaborative learning.

These games can be used as practical support for the theoretical sessions and can also work as an evaluation tool not only for the students but also for the teacher. They are used to practise language rather than learning about it would, they further offer students the chance to learn about group dynamics, reinforce the four language skills, encourage culturally and pragmatically appropriate language production, and provide innovative learner-friendly experiences tied to language practice, and these Action-oriented games promote fruitful interactions and meaningful feedback, which leads to collaborative construction of knowledge

According to Ersoz: "Games are highly motivating because they are amusing and interesting. They can be used to give practice in all language skills and be used to practice many types of communication."(Ersoz, 2000). First of all, educational games generate relaxation and fun for students, thus helping them learn the language use and retain new words more easily. Second, they usually contain friendly competition and keep learners interested, thus motivating learners of English to get involved and participate actively in the learning activities. Furthermore, vocabulary games bring real-world context into the classroom and enhance students' use of English in a flexible, communicative way (Khudoyberdievna, 2017).

According to Chen, the benefit of using games in learning classrooms can be summed up in nine main points, which are the following: 1. Games are learner-centred (the student is always the focus). 2. Games promote communicative competence. 3. Games create a meaningful context for language use. 4. Games increase learning motivation 5. Games reduce learning anxiety and encourage shy students to participate. 6. Games integrate various linguistic skills, allowing learners to practice those skills at the same time (speaking, writing, listening and reading). 7. Games encourage creativity and spontaneous usage of the language. 8. Games construct a cooperative learning environment. 9. Games foster participatory attitudes of the students and lend themselves well to revision exercises helping learners recall material in a pleasant, entertaining way. (I.-J. Chen, 2005). Most of these points are similar to those stated by Annayeva: the advantages of using grammar games are 1. Games can lower anxiety and thus help learners remember things faster and better, making the acquisition of input more likely. 2. Games are highly motivating and entertaining, and they can give shy students more opportunities to express their opinions and feelings. 3. They also enable learners to acquire new experiences within the foreign language that are not always possible during a typical lesson. 4. Games add diversion to the regular classroom activities; they are a welcome break from the usual routine of language, break the ice and introduce new ideas. 5. learners remember things faster and better due to the fun and relaxed atmosphere created by using games. 6. Grammar games are a good way of practising the language, for they provide a model of how learners will use real-life language in the future, thus, helping them focus

on the use of language, not on language forms so that they apply the rules unconsciously. 7. Grammar games encourage, entertain, teach, and promote fluency (Annayeva, 2019).

On a similar note, Malarcher and Lengeling state that games' benefits can be divided into **Affective benefits:** since they affect university students' attitudes, motivation, emotional involvement, self-efficacy and satisfaction by lowering affective filter, encouraging creative and spontaneous use of language, and promoting communicative competence. **Cognitive benefits:** reinforces -reviews, and extends -focuses on grammar communicatively, allowing knowledge acquisition, conceptual application, content understanding, and action-directed learning. **Class Dynamics benefits:** student-centred -teacher acts as a facilitator -builds class cohesion-fosters whole class participation -promotes healthy competition and the development of social and soft skills, emotional skills, the empowerment of collaboration with peers, and the promotion of interaction and feedback. **Adaptability benefits:** easily adjusted for age, level, and interests -utilises all four skills-requires minimum preparation after development (Lengeling & Malarcher, 1997).

The pedagogical shift from a teacher-focused and lecture-based classroom to a student-centred one causes a progression in students' emotions from uncertainty and nervousness to satisfaction and excitement within the gaming experience. And a growing body of literature supports the positive attitude shown by students towards games, as they consider them essential instructional tools that provide motivation and engagement in an active learning environment. Since students tend to be relaxed and detached from the work or attention, they usually have to pay during the class. However, this doesn't mean that games require no special concentration. On the contrary, they provide an interactive way of drilling newly presented language or repeating the same language with different partners. The Intention of games is to provide learners with the possibility to acquire skills and competencies later required in the business world. By means of educational games, learners should be able to apply factual knowledge, learn on demand, and gain experiences in the virtual world that can later shape their behavioural patterns and directly influence their reflection, etc. Learners are encouraged to combine knowledge from different areas to choose a solution or to make a decision at a certain point; they can test how the outcome of the game changes based on their decisions and actions and are encouraged to contact other team members and discuss and negotiate subsequent steps, thus improving, among other things, their social skills (Pivec & Dziabenko, 2004).

There are several factors teachers have to consider and be careful about when selecting games, e.g., which game or activity should be used and when, how it could relate to the syllabus, textbook, topic, or context, and to what extent it is beneficial for students. As there is an abundance of games that can be used in ESP classes, it is important to stress that most of them, though sometimes (slightly) modified, can be used in ESP classes of any type and at any level (Ferčec et al., 2019).

Furthermore, Educational games are still learning activities, so they should have a clearly defined beginning and end, with goals and expected outcomes set in advance coupled with detailed written instructions given for pre-, in-, and post-game processes. During the pre-game phase, a teacher can explain the rules and give examples; these rules have to be easy to learn so that everyone understands how to play; they have to be clear from the beginning in order to anticipate any ambiguous situation during the game. Moreover, the time devoted to the game is also important; it should be limited to somewhere around 10 to 30 minutes so that the presentation stage of the lesson would not be affected. The post-game session could be used for students to give feedback to each other as well as receive one from the teacher. Meaningful feedback is a key factor in students achieving their objectives, as well as in being encouraged to reflect on misunderstandings. Real-time feedback in games enables students to clearly define the objectives and expectations in the interactive environment, leading to a reduction in anxiety and uncertainty, thus encouraging better performance.

The use of games has to be extremely cautioned and constantly reviewed. A certain game which works well with a particular group may not work well with another group. According to Carrier (Carrier, 1990), teachers should first make sure that the game fits the students' language level and the purposes of the class. Such considerations might include whether students are old or young, serious-minded or light-hearted, and highly motivated to learn or not, their interests, the level of their language proficiency, the number of participants in the group, the characteristics of the group as a whole, the ability to meet the technical requirements, the need for additional material that needs to be prepared in advance, the time that can be devoted to the activity in question, etc. They should also consider when the game should be used (Carrier, 1990). Other reservations might include the importance of keeping the game as dynamic as possible in order to avoid boredom or loss of interest. Avoiding a slow, boring lesson by using a variety of games. Instructors should be equipped with knowledge and experience and are able to provide guidance to students as regards the proper way of playing games.

Vernon (2008) identified three major problems in relation to ESL games: 1) problems with planning a lesson, such as lack of time or new ideas; 2) problems with materials, such as difficulty in finding or adapting materials; and 3) problems with classroom management, for example, when students are uncooperative or inattentive, or they are of mixed levels, also problems with students' different learning styles and preferences (Vernon, 2008). Additionally, the challenges ESP teachers encounter in preparing and implementing games are primarily connected with students (large and mixed-ability classes, different proficiency levels and students' willingness to communicate), then with teachers (time-consuming preparation, not enough time to use these activities more frequently, lack of resources) and higher education institutions (problems with equipment and inadequate classrooms). Some of these challenges turn into drawbacks of using games in ESP classes (Ferčec et al., 2019). Thus, when facing students with different backgrounds, learning styles, needs, and expectations, teachers should be aware of taking learners' individual variations into account and be more flexible in their use of communicative

games in order to maximise the educational effect, because a game should be played as long as it draws the students' attention and as long as the grammar or vocabulary structures comprised in the game are retained.

In conclusion, games prove to be a useful tool employed regularly in language teaching; not only do they offer learners highly motivating and relaxing classes, but most importantly, meaningful practice of all language skills. Thus, motivating learners, promoting learners' interaction, improving their acquisition and increasing their achievement. Consequently, the beneficial contribution of game-based learning is broadly identified by the majority of previous reviewers, especially regarding cognitive outcomes, where results indicate that games can be as effective as traditional learning modes, revealing their effectiveness in promoting knowledge acquisition (Clark et al., 2016), as well as content understanding and concept learning (Connolly et al., 2012).

Games are considered motivating because they usually involve friendly competition and create a cooperative learning environment, so students have an opportunity to work together. They improve students' communicative skills and provide learners with a chance to use the target language. Therefore, games bring real-world context into the classroom, enhance students' use of English in a flexible, communicative way and encourage language production and social interaction in a playful, non-threatening way. Moreover, learning a language through interactive games and activities grants students responsibility and the opportunity of being active physically and mentally, all the while incorporating logical reasoning, communication, kinaesthetic, visual stimulation and spatial relations. Games are advantageous because they provide choices for the classroom. They allow teachers to add variety and flexibility to the teaching menus, reduce anxiety, increase positive feelings and improve self-confidence because learners are not afraid of punishment or criticism while practising the target language freely (Sugar & Sugar, 2002). Thus, through in-game activities and extended discussion, instructors promote students' interactions and help them overcome the lack of understanding of the content curriculum and achieve better learning outcomes. The literature also stresses the role of emotional development, which facilitates the improvement of learning outcomes.

However, to get the best out of games, it is better to consider the number of students, their proficiency levels, cultural context, timing, learning topics, and classroom settings. As well as give a brief explanation to the students of the activities' advantages, such as this game is good for your listening skills, and so forth. As Annayeva states that if games are to bring desired results, they must correspond to either students' levels, their age, the length of the class, or the materials that are to be introduced or practised (Annayeva, 2019).

To sum up, Kim noted that whatever game/activity is incorporated in the classroom does not matter much as long as both the students and the teacher feel comfortable and have fun with it (L. S. Kim, 1995). Therefore, teachers should always bear in mind the fact that games are ways of associating

fun and encouragement with learning. They can be used in all areas to enhance different skills, and it is up to them to choose when to use a certain game and for what purpose – be it to practice structures or simply to change the monotony of the class. Furthermore, Studies related to game-based teaching highlight its main advantages, such as boosting college students’ motivation and engagement, competitiveness, the practice of language skills, problem-solving skills, teamwork skills and cooperativeness, logical and creative thinking, helping them be absorbed in learning English, feel less stressed, improve their learning strategies, and gain confidence in using English for communication in situations close to real life and overcome some psychological barriers and express themselves.

### 3.6. Grammar-related Activities

Thornbury asserts that “In fact, no other issue has so preoccupied theorists and practitioners as the grammar debate, and the history of language teaching is essentially the history of the claims and counterclaims for and against the teaching of grammar.” (Thornbury, 2002), and it is our solid belief that teaching Grammar is an integral part of Teaching ESP. Additionally, rote learning is not the only way when it comes to acquiring grammar; a growing number of teachers believe that there are more effective and fun ways to teach grammar, and games are among them, as Michael swan pointed out at a seminar in Sofia in April 2012, ‘Grammar doesn’t have to be grey!’ (Angelova Raynova & Dimitrova Trendafilova, 2013). Moreover, regarding teachers of grammar, they have a proclivity to teach it using games, and although some teachers use games to pass the time, anecdotal evidence indicates that many teachers feel they are effective learning tools (Bush 2015). Such educational games can be described as “an instructional method requiring the learner to participate in a competitive activity with present rules” (Fitzgerald, 1997), and an educational game for teaching grammar is defined as “An interactive competitive classroom activity designed to practice or elicit production of specific grammatical patterns.” (Bush, 2015).

However, as previously mentioned, teachers may value games but not use them. This is often because of classroom management concerns, strict test-based curriculums, administrators who do not allow such activities, or other reasons. (Bush, 2015). The redeeming point is that university students are fine with studying grammar, and in our case, Medical students, who are traditionally known for being high achievers, are used to grammar activities in high school, and grammar-focused work is part of their expectations for enhancing their English skills and enriching their medical English vocabulary. In rare cases, some students even prompt the lecturer to provide more activities for practising contextualised grammar. Yet we need to keep in mind that during EMP (ESP) classes, grammar cannot be viewed as an ultimate goal; it should be used as the instrument of cognition or a system of scaffolding (i.e., supporting teaching, which is based on the contextual explanation, situational transparency and clarification of difficult phenomena in the format of case studies) (Prudnikova, 2019).

Furthermore, English for Medical Purposes is highly context-based, and terminology is naturally put in a suitable context because it does not represent knowledge in itself. The same applies to grammar, which is usually one of the problematic areas in ESP teaching. Thus, grammar should not be taught explicitly but rather within the medical context because medical students are usually familiar with basic grammatical rules but often fail to use them correctly. Such a Contextual approach to grammar teaching enhances all the aspects of EMP necessary in actual professional life and helps to comprehend research papers, learn the structure of an annotation, and select variants of proper assignments for the development of EMP competence (Prudnikova, 2019). Therefore, together with the primary focus on specific terminology, we can try to revise and recycle the grammar they learned in a meaningful, fun, relaxed, and appropriate context, the same as was done by Angelova and Dimitrova (Angelova Raynova & Dimitrova Trendafilova, 2013).

Additionally, when developing an EMP syllabus, some of the key issues to address are what topics to include; which grammar items to recycle and reinforce, which approach should be implemented to teach grammar, how to select a natural context for grammar consolidation; in what way can we provide access to different types of discourse, and how to make these context pertinent to the different areas of health care (Angelova Raynova & Dimitrova Trendafilova, 2013). Regarding which approach should be implemented to teach grammar structures in an ESP educational environment, this depends on a number of factors such as the age of students, previous language learning experiences, personal learning style, type of grammar item to be taught, time available for its internalisation, etc. (Angelova Raynova & Dimitrova Trendafilova, 2013). Some of the common approaches to teaching Grammar are the deductive and the inductive approach, where a deductive approach to grammar teaching usually starts with the presentation of a rule, then gives some examples that demonstrate how this rule is applied, and an inductive approach to grammar teaching would start with some examples from which students infer the rule; some methodologists prefer the term discovery learning (Angelova Raynova & Dimitrova Trendafilova, 2013); both approaches are adaptable to the use of interactive games. Also, sometimes marrying a task-based approach with the traditional grammar syllabus seems to be the best solution when teaching Grammar to medical students (Angelova Raynova & Dimitrova Trendafilova, 2013). In this way, the teachers can avoid monotony and boredom, which might otherwise occur in their lessons. Moreover, the greater variety of activities the students perform, the more confident they will be in the use of specialist terminology in authentic occupational situations. Moreover, It became common that when teachers have to explain a difficult aspect of grammar, they can use game playing instead of traditional teaching, where teachers help learners comprehend particular forms of grammar by engaging them in specific games that fulfil the criteria of conventional teaching that includes memorizing rules, repetitive drills and so on (J. Hadfield, 1990). Yet, the major issue is how to choose the right game; it is important not to use a "time filler" grammar game that does not have any linguistic purpose but to have a fun game that is educationally sound (Levoshich, 2020).

In their study, Angelova and Dimitrova (Angelova Raynova & Dimitrova Trendafilova, 2013) used grammar activities for two purposes the first was for accuracy and the other for fluency. In their grammar practices for accuracy, which are very common in less advanced groups, the teacher raises students' awareness of grammar, and these practices are usually coupled with supplementary activities; such activities require more time for students to get used to the grammar forms. The second purpose was to use grammar for fluency, where the focus is on students using English to express themselves. The spoken production can be on a sentence level or longer narratives and descriptions. Students write reports and essays on given topics where they can use the language, grammar and vocabulary to express their thoughts and ideas in a cohesive and coherent way. A good example of such activities would be asking Pharmacy students to describe the medications given in a table (Acetaminophen, Diclofenac, Ibuprofen.) by using the proper comparative and superlative degrees by comparing how expensive, effective and reliable drugs are. Then we can follow with a brief written expression of the learner's own opinion of the drugs mentioned and their effects. Another example would be comparing men and women in terms of who makes better doctors, and students are allowed to practice comparative and superlative degrees of adjectives.

Supplementary material can be either listened to or read, allowing awareness raising of grammar in a natural context. Thus, students are offered texts for listening or reading that provide the so-called 'roughly-tuned input'. Usually, the reading comprehension tasks focus first on fluency and then on the accuracy, especially when we notice that some students have problems with a given grammar point. Students first react to the text on a conceptual level, and then we focus their attention on the way language works and the way it is used in a specific area. So, they observe the text in detail and draw conclusions on how the Grammar topic is implemented (like how adjectives are used). Since the class is mixed levels, for some, it is just recycling grammar while using it naturally, but for others, there is a greater need for more practice (Angelova Raynova & Dimitrova Trendafilova, 2013). In other cases, after examining several separate sentences or a whole text that is saturated with examples of how a given grammar point is used, students understand how the grammar item works. They highlight the grammatical forms in context, and the respective rules are elicited, usually from more advanced students.

The purpose of using such engaging activities in ESP classes is to help warm up the class, lay the foundation for the introduction of a new topic, keep students engaged and interested, thus helping them acquire knowledge, to teach new vocabulary and rules of grammar, or even to revise the vocabulary and grammar taught, such activities lend themselves well to the practice of patterns or as a recap. Furthermore, according to Anna, the benefits of teaching grammar with games are 1-Encouraging cooperative learning during the lesson, where knowing the language is not the main factor that leads to winning, but actually, strategy and creativity play important roles. 2- Engaging oral interaction, since grammar activities are mostly interactive and encourage learners to pay attention to meaning and form as they communicate. 3- Involving self and peer correction, which are often more effective than teacher

correction. Thus, most of the game rules urge learners to monitor their own as well as their peers' language production. 4- Providing practice, where learners get plenty of practice in the target structures. During a game, learners are focused on the activity and end up absorbing the grammar structures subconsciously. Grammar games are aimed at acquiring grammar structures and, at the same time, activating vocabulary and listening comprehension. 5- Personalising because there is plenty of room for learners to establish good relationships with their classmates by sharing their experiences, values and beliefs. 6- Enhancing the enjoyment of learning a foreign language by giving a sense of challenge and creativity to lessons and motivating learners of all ages (Levoshich, 2020).

There is a great variety of grammar games. For the purpose of revising and consolidating grammar in the context of teaching English for medical specialities, we have adopted some of the activities used by previous studies (Angelova Raynova & Dimitrova Trendafilova, 2013; Levoshich, 2020). The following are some examples of these activities, which are useful for warming up, learning or revising grammar topics and for learners of all levels adapted from other studies (Levoshich, 2020):

**1. Twenty Questions:** this is a yes/no grammar game. It encourages learners to practice asking questions. One student is the question master. His task is to pick a word based on an assigned category (Body part, Mild disease, Dosage form or a medical term) and write it down. The rest of the class has the opportunity to collectively ask 20 questions in an attempt to guess the word. They get points for asking grammatically correct questions that receive a yes answer, and the student with the highest points collected wins the game. This activity is great in practical tutorials/ sessions (TDs) where the student's number is around twenty, thus a question per student.

**2. "Stand up if you've ever <...>"** is a game to practice the "have you ever" construction. We adapted this game to "**Raise a hand if you ever<...>**". where the teacher names different situations and scenarios and asks learners to raise their hands if they have ever done that (e.g., "Raise your if you've ever had a pet, read an English book, talked to a foreigner, done a Ted Talk"). If any learner is the only person raising a hand for one of the examples, he gets the point.

**3. Discuss and comment on the videos/ audios:** as mentioned in previous sections, We play a video or audio of a dialogue at the pharmacy or at the hospital, in which a grammar topic is implemented, like, for example, the use of pain killers and how one is more efficient than the others or comparison between generic and brand drugs, then we ask students which of the medications is more efficient/the most efficient, introducing thus the notion of comparative and superlative adjectives, or understanding the use of adverbs regarding the frequency or intensity. As a follow-up activity, we can provide students with a handout containing some examples. Then we ask them to read the sentences describing pain and drugs that go with it and say which is the typical grammar item revised: The Brand drug is the strongest painkiller available (superlative form of adjectives). These laxatives are milder than the other ones (a comparative form of the adjective). I have been using these painkillers for weeks now (the present

perfect). I had consulted a Dr prior to using these psychedelics (past perfect) etc. Another follow-up activity for medical students would be asking students about their opinions regarding Which hospital job is the most difficult physically? Which hospital job seems to be the easiest and most pleasant? Which hospital job is mentally the hardest? Which hospital job is most rewarding? Which hospital job would you like to do the most? Which hospital job should be better paid?

**4. Using visual representations, graphs, diagrams and pictures:** We can provide the students with pictures of two prescriptions, one of the Algerian doctors and another from any other English-speaking country and ask them to compare. While comparing prescription forms used in different English-speaking countries, students are encouraged to take an attitude of enquiry and analyse what the trends are, and they come up with observations on cultural issues while using comparative and superlative forms of adjectives. For instance, the patient details precede those belonging to the doctor.

Similarly, students of pharmacy can perform an activity in which they are trying to interpret and discuss graphs/charts comparing several future job prospects, thus comparing and contrasting the numerous positions available. Such activities allow learners to generate their own language when comparing and contrasting differences in incomes for pharmaceutical specialists. In addition, due to the natural use of English, such activities develop students' observation skills, their abilities to concentrate and brainstorm, and to use logical thinking and summarise. Typically, it is advisable to add questions to provide both guidance and support for learners, especially if the class is of different proficiency levels. The questions suggested below provide a scaffolding that supports the learners' interpretation of the graph: Which professions are compared in the graph? What job has the highest income? Why do, in your opinion, Quality Control Managers earn more than Pharmacists? Which of those professions attracts you most?



Figure 3: Chart of Pharmacy Jobs and Salary

On another note, according to Donesch (Donesch-Jezo, 2014), one of the effective techniques of word presentation is using visual representations such as pictures, drawings and charts. These may be

helpful when introducing, for example, body systems, body parts, and office or ward equipment. Furthermore, labelling the pictures with medical words allows students to have more active involvement than the verbal presentation performed by a teacher. In the task, the students are asked to label the picture with the names of the parts of the digestive system using” Liver, tongue, salivary glands, duodenum, gallbladder, stomach, bile duct, oesophagus, pancreas, colon, diaphragm, pancreatic duct, pylorus, oral cavity, small intestine, large intestine, jejunum, ileum, anus, pharynx, transverse colon, descending colon, ascending colon, cecum sigmoid colon, rectum, appendix.

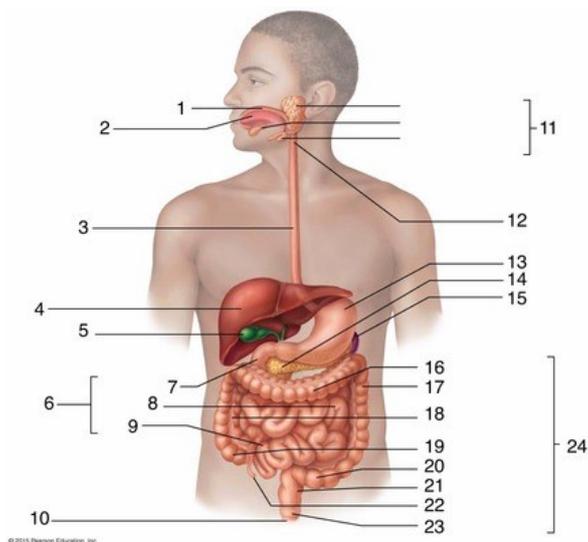


Figure 4: Labeling the digestive system

Then on the basis of the labelled picture and as a part of a follow-up activity, the students are asked to describe the localization of organs such as the stomach, the liver or the pancreas, which is a good practice for learning prepositions. Another activity would be asking the learners to provide some of the non-technical equivalents of these medical terms, for instance: Umbilicus: belly button; Intestine: Gut/bowel; Abdomen: Tummy/Belly; Pharynx: Gullet. All while explaining that if a patient is complaining of this or that organ, they are more likely to use the laymen's term (the non-technical term) over the technical one and that students need to know both variants.

**5. Missing links:** On the one hand, collocations may cause difficulties in their learning because of their unpredictability, but on the other hand, collocational associations help the learner in creating the semantic area of a word and thus help them memorise it easier and better (Donesch-Jezo, 2014). An example we used in class was: to use one word to link the four sets. Games like “missing links” promote discovery-based learning by encouraging the students to discover linguistic “facts” by themselves, where they learn four concepts using only one word; for example, with “muscle”, they learn the term cardiac muscle, skeletal muscle, muscle fatigue and muscle spasm.

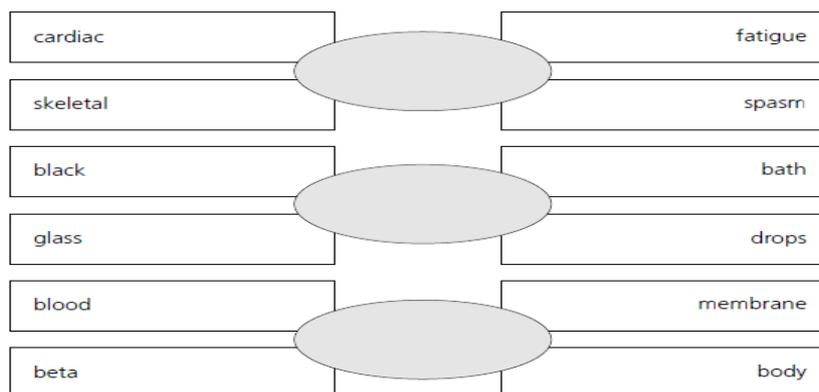


Figure 5: Chart of Missing links

**6. Word building Games:** A type of exercise which combines the knowledge of lexis, affixes (prefixes and suffixes), and grammar of the word is so-called “word building”. Students’ task is to make a suitable form, derived from the already given word, to fill the blank in the sentence, e.g., The surgeons operated to repair the patient’s \_\_\_\_\_ heart valve. (defect) / The lab made an \_\_\_\_\_ of the blood sample (analyse). These word-building activities can be set in a more interactive way, where one student states the sentence with the keyword as a verb and the other student has to change that work into a noun; for example, The lab analysed the blood sample. - The lab made an analysis of the blood sample.

Additionally, in learning medical vocabulary, it is very important to know how suffixes and prefixes work. A useful exercise showing their function is to ask the students to match prefixes and suffixes with parts of the body they pertain to and then to give definitions of the new terms containing these affixes, e.g., Arthro- Joint thus, Arthritis is the inflammation of the joints. Itis – inflammation, thus Gastroenteritis meaning the inflammation of the stomach and the intestine. algia - pain Myalgia is « pain in the muscles » caused by any possible reason.

Another variant of a word building or a word derivation exercise is an exercise in which students complete grids or “spidergrams” of word families which show the derived parts of speech (a verb, a noun and an adjective), e.g., verb (diagnose, treat, operate) noun (diagnosis, treatment, operation) adjective (diagnostic, treatable/untreatable, operative, operable/inoperable). As a follow-up activity, the students may be asked to fill in the slots in sentences with an appropriate word chosen from the completed grid: My \_\_\_\_\_ was that the patient had a heart condition (diagnosis). The \_\_\_\_\_ was performed immediately (operation). The patient’s condition was \_\_\_\_\_ (untreatable).

**7. Word-matching and Gap-filling activities:** these are great activities designed for teaching Grammatical notions as well as collocations and lexical associations; they can be helpful in consolidating the word. For instance, when introducing the notion of parts of speech, students can practice them using these interactive activities where the noun “pain” can be given with a list of adjectives with which it does and does not co-occur, and students’ task is to circle the correct collocations and then check the answers in a dictionary or against a key. Example: The patient is complaining of a/an (decent, chronic, itching, throbbing, scalding, limited, difficult, and mild) pain. The

task which may follow this exercise is to ask students to brainstorm other words they know which are related to the theme of “pain” and to draw a “spidergram” made of these words (Donesch-Jezo, 2014).

Gap-filling activities are another type of word association practice. In such an activity, the students are asked to choose all possible words from a list, which contains nouns, adjectives, verbs and adverbs. In these activities, students not only learn new words but also learn what role they play in a sentence. Consent, intake, bedridden, mildly, tender, probed, admitted, loosely.

1. She was advised to reduce her ..... of sugar.
2. He gave his ..... for his wife’s surgery.
3. The bandage was .....tied around her wrist.
4. She is ..... and has to be looked after by a nurse.
5. Her shoulders are still ..... sunburnt.
6. He was ..... This morning.
7. The surgeon ..... with a scalpel.
8. This is a ..... Antiseptic solution.

**8. Multiple choice games:** Multiple choice exercises with given several possibilities are also very common types of exercises that help with teaching grammar. A good example of such use would be with Tag questions, e.g., We ought to leave, ....., a) shall we? b) oughtn’t we? c) should we? d) shouldn’t we?

As a follow-up activity, the students’ task could be either to explain their choice and why the other choices are incorrect or to use them in sentences invented by them. A similar type of exercise may take the form of choosing the “odd one out”, in which the students must eliminate the question which is in some way different from the others, e.g., were you always this smart? - You think I was born yesterday? - Where do you live? - How could I be so stupid? where students select a question that is not the rhetorical one; in this set, it was Where do you live?

**9. Mind Map Game:** The “Mind – map” is a technique where students familiarised themselves with words and collocations; it helps the students to put words into different groups (Harmer, 1991), which can be useful in teaching adjectives and collocations, e.g., by choosing words from a given list to complete each sentence, e.g:1.- pulsating, smooth, scalding, stiff, double, tender. -The pain was \_\_\_\_, \_\_\_\_, \_\_\_\_ (pulsating, scalding, tender). 2- sprained, dilated, swollen, strong, intense, dislocated. -Her ankle is \_\_, \_\_, \_ (sprained, swollen, dislocated).

In conclusion, these interactive activities should aim at developing not only grammar but also other language skills. We can further make the majority of the above-mentioned activities more productive by asking the students to incorporate the newly studied words into writing or speaking activity, which include the completion and creation of sentences and texts. Like: · Use the words from

the grid or list to make sentences of your own. · Use the given words to write true sentences about yourself. · Complete the doctor-patient interview with the doctor's questions · Give the patient proper medical advice (where the situation is described). We can even attempt to make the activities more challenging through discussions and debates around general themes, introducing medical terminology with emphasis on pronunciation, simulating communication with the patient in a simple manner (Questions and answers, or advice) focusing mainly on linguistic correctness, and other tasks where students learn to read and understand a medical text in English, to search for information( mainly client related), know which information to prioritise and present to colleagues, taking a medical history, or even perform a general examination.

We strongly advise introducing a variety of lexical tasks to break the classroom routine and to introduce each time some elements of novelty and authenticity, which will increase students' interest and motivation, yet difficulty for non-native teachers of English as materials developers arises from the need to provide a natural context, usually with some support, both verbal and non-verbal. Taking everything into account, using grammar games is an interesting and fun way of learning grammar. They have a lot of advantages and bring a fresh breath to a traditional lesson. They are also very effective because learners train target grammar structures in the process of real communication. Grammar games not only activate and motivate learners but also teach them to enjoy the language and its grammar (Levoshich, 2020).

### **3.7. Why Implement Interactive Activities**

It goes without saying that students learn more efficiently and achieve higher academic results when they are motivated and actively engaged in the activity through discussions, question-driven inquiries, comparing and contrasting multiple theories, analysing and critically evaluating information, gaining awareness about different perspectives or opposing arguments, dialogue and argumentation (Kolesnikov et al., 2012). That is why the ESP course should seek the implementation of numerous opportunities for our students to become active learners so that they are prepared to face the outer world and the growing demands of the market; as Kelly states that teaching a foreign language at a tertiary level has to be sensitive and responsive to the changing contexts in society and the labour market (Kelly, 2013). Such responsiveness, or adaptation, as contended by Kelly, may include new materials that “address themes of current concern”, better fitting methods which have more focus on group work or independent learning, more use of technological tools, new organisational arrangements with more engagement of students as well as better “involvement of employers and other stakeholders in course development” (Kelly, 2013, pp. 15–16). Therefore, Kelly's observations regarding ESP courses include variability and diversity in terms of content and methodology as predetermined by their purpose to serve the particular needs of students opting for perfection in their different study fields and specific subject domains.

Furthermore, learning a language is also a process where students need to develop critical reasoning and inquiry skills that will enable them to participate effectively and safely in the wider communicative practices to which they have increasing access. Such development can be accomplished via the implementation of what is called interactive tasks and activities. These tasks are essential for knowledge construction and human development generally, mainly because interactive activities of different kinds ensure the “learning by doing” principle and are crucial in triggering the speaking mechanism of the learners when they start producing their own pieces of speech, packed with the active vocabulary previously learnt (Semenchuk, 2015). Moreover, interactive exercises and tasks influence the effectiveness of lexical and communicative competence formation (Semenchuk 2015) since interactive performance in class will enhance the process of presenting, understanding meaning, memorising and properly using technical terms in oral and written communication (Semenchuk, 2015).

They also help the teacher precisely diagnose students’ needs, frame their learning tasks and assess their progress and learning outcomes; they also happen to empower students and groom them for lifelong learning. In these interactive activities, Teachers are not using questions solely for the purpose of testing students’ knowledge but also to enable them to reflect, develop and extend their thinking (Bezukladnikov & Kruze, 2009). They help teachers move students from simple responses to engage in more developed and complex thinking, which helps them apply what they are aware of, bridge learning from different situations and areas, think more actively in lessons and learn from each other’s answers. Similarly, Bezukladnikov and Kruze believe that using these interactive techniques would aid in attaining learning outcomes that are aimed at developing students’ ability: To assess, analyse, synthesize and evaluate information fairly and objectively; To work effectively, both individually and with others, on complex problems that require holistic problem-solving approaches; To formulate and evaluate alternative solutions to complex problems and recommend and defend best alternatives; To communicate clearly and effectively with different types of audiences using appropriate oral, visual, electronic and written techniques; To exercise life-long learning skills developed before graduation (Bezukladnikov et al., 2013). Additionally, Case (2008) set out the following major reasons why fun activities should also be introduced to an adult class. In his opinion, fun activities like games allow adults to gain learning experiences in a more energetic way: more drilling/controlled practices, better memory, and class spirit, and realise their performance via game points, a natural way of learning, competition, and motivation. Case also emphasised that most students, regardless of their ages, like such interactive activities and games (Case, 2008). Such activities are believed to make Teaching: Collective, when participants address learning tasks together; Reciprocal, when participants listen to each other, share ideas and consider alternative viewpoints; Cumulative, when participants build on answers and other oral contributions and chain them into coherent lines of thinking and understanding; Supportive, when students express their ideas freely, without fear of embarrassment over wrong answers and they help each other to reach common understandings; Purposeful, when classroom talk, though open and

dialogic, is also planned and structured with specific learning goals in view (Sannikova & Bezukladnikov, 2011).

On another point, Garcia Esteban (2014) states that coupling technology and interactive activities can promote the acquisition of ESP with the use of multimedia tools, platforms, internet, as it facilitates the practice of the four language skills (speaking, writing, listening and reading) autonomously and collaboratively (Esteban & Martínez, 2014), Garcia also mentions that Multimedia presentations on content related to the students' field of study (in our case medical videos, articles, pictures), also favours the practice and the acquisition of the English language as it integrates oral and listening activities by including links to audios or videos in English existing in different collaborative media like YouTube, websites, professional blogs, etc. (Esteban & Martínez, 2014) and allows students to read and discuss different current texts of interest and elaborate with written or oral comments, which also implies peer listening and writing. Thus Garcia Esteban views technology and other tools (interactive activities via videos, PowerPoint presentations, pictures and games), as facilitators and contributors to the development of cooperative learning and social constructivism, with a methodology focused on students' interaction and collaboration (Esteban & Martínez, 2014). because, through technology, students can engage in various tasks that help their acquisition of new content. Additionally, in medical courses, multimedia software, medical videos, and certain applications are invaluable sources that can be integrated into EMP courses in order to have more enjoyable and fruitful classes. We strongly advise introducing a variety of lexical tasks to break the classroom routine and to introduce each time some elements of novelty, which will increase students' interest and motivation. Moreover, the greater variety of activities the students perform, the more confident they will be in the use of specialist terminology in authentic occupational situations. Additionally, interactive activities would facilitate the acquisition of English by using the internet and different media tools such as Web 2.0 (Blogs, Wikis, Blackboard, etc.), enhance the technical integration of the four language skills (listening, writing, speaking and reading), allow the practice of the language and the different skills by developing communicative tasks, promote interaction and collaboration in the target language by working on texts, images, sound or other multimedia content, permit the use of technology to work out, edit, publish and share information (Esteban & Martínez, 2014).

Other researchers single out plenty of other activities, such as working in pairs or small groups of three or four students, presentations and disputes, professionally oriented role plays and case studies, etc. No doubt, all these activities proved to be useful and must be practised in the classroom as they promote communication which in its turn enhances learning vocabulary as the major building material of any language. In medical education, knowledge alone is not enough to bring about a better healthcare delivery system. And although 'learners' often like formal lectures, the unidirectional transfer of knowledge is not an effective way to increase competence for a better doctor-patient relationship. The contemporary teaching methodologies which emphasise 'interactivity', like role-plays, simulations,

projects, interactive activities and games, have been shown to be a more effective basis for increasing competence in health care provision. Every little effort that students have made, contributing besides the above-illustrated assignments to debates, quizzes, polls and peer communication, counts in their learning process and creates a more faithful image of what students can do with the language. Such a learning-oriented and formative approach to teaching EMP is likely to enhance fluency, confidence and accuracy in both writing and speaking EMP communication, integration of other academic and professional skills and sub-skills that ensure task veracity. So, it can be stated that there is a necessity to apply interactive forms of work to increase students' motivation to study and develop their ability to acquire medical terminology in the EMP course because not only do they enhance vocabulary acquisition by learners but also develop their memory, teach them to be tolerant when interacting with each other, create a proper learning environment and evoke students' interest in studying, allowing them to make proper decisions in close-to-real life situations. Another reason why we believe implementing interactive activities in the ESP courses is a necessity is because students' autonomy is a major factor in the learning process, especially when we have classes with a wide range of English mastery, so for students with less mastery of language to catch up to students who are fluent in English, they need to work harder in their free time since one or two courses a week are not enough to establish that significant of an improvement.

However, such an approach is not without its own drawbacks and problems, and the first one is stated by Clark claiming that researchers should use their observation and analyse results to understand the efficiency of interactive activities that allow independent, cooperative and collaborative learning to focus on the learner as the protagonists of their process and results (Clark, 1994; Madoz, 2009). These claims are further supported by Mustafa Naci et al., stating that interactive activities are very useful in addressing more senses than simply using paper-based texts; nevertheless, they can prove to be a bit distractive if teachers do not pay attention to the proficiency level of students and the content presented. And whether multimedia applications should be integrated into language classes as an alternative way or as an additional way, and which use would contribute positively to the atmosphere of class and the motivation of students (Kayaoğlu et al., 2011). Moreover, according to Semenchuk, gaining knowledge and acquiring proper skills can be feasible if scholars and teachers of ESP use modern methodological approaches to teach specialised vocabulary and also develop their own appropriate ways of teaching terminology. Therefore, it is evident that scholars and teachers must find the most effective ways to make students use their vocabulary load, to develop their language potential in close-to-real communication, which is or might be typical to the future professional activity of ESP learners (Semenchuk, 2015). This is solidified by Soraya García claiming that at the end of the course, there should be room for careful reflections that would allow instructors to revise their sessions and innovate depending on the circumstances, the content, the students and the tools given (Esteban & Martínez, 2014). something that can be very taxing on the part of the teachers. Another problem is that in tertiary education levels, chiefly medical universities, both learners and teachers are accustomed to a high degree

of teacher control. Therefore, it is difficult for them to imagine what a class may look like without it. Teachers may find it challenging to motivate the learners to work independently, not to mention young people do not feel truly responsible for their own learning. Students may have deeply rooted beliefs about the roles of teachers and students, which may slow down the process of achieving independent learning. It is crucial to show students the range of autonomous options and raise their awareness of the different learning strategies that are open to them, and what better way to do that than to introduce engaging tasks and interactive activities, which would allow students need to take responsibility for their own language development, and in turn prove useful when the students have to use English in their professional lives. Others mention that such interactive activities are time-consuming, limited in the skills they practice, it usually takes more time for the activity than foreseen, or that not all students are engaged equally, or even the students sometimes do not do them seriously enough, and the atmosphere is too relaxed, they lack interest and motivation, it may become difficult to switch to a “less engaging” activity, groups are too large, and finally maybe problems with the internet access and cables (Ferčec et al., 2019). Therefore, in designing the course, a number of different approaches are needed and are best combined in an eclectic manner in order to bring about positive results and avoid as best the limits of each method. Teachers need to be able to use approaches and methods flexibly and creatively based on their own judgment and experience. The teacher has the responsibility of negotiating a plan of work with the learners on a regular basis because it is a dynamic process. This calls for personal sensitivity from the teacher, flexibility in terms of teaching style and mastery of a wide range of methodological alternatives (Nunan, 1988).

All in all, it is evident that ESP courses provide opportunities not only for the acquisition of subject-related vocabulary development of receptive and productive skills but also for the development of learners’ transversal skills, which is of utmost importance while preparing students for efficient work in the global market. Additionally, researchers suggest the use of different types of activities, and that teachers analyse their strong points, emphasise the positive effects they bring for students in the process of language learning, and that interactive activities are most effective if learning objectives are defined and the cases are challenging where students learn to negotiate and collaborate, to arrive at particular solutions and express them, to support their opinion with sound arguments on the speciality related topics and, even gain more insights into the subject matter of their relevant study fields. Thus, the interactive approach would allow the designing and modelling of the learning environment in a way that would enable learners to reflect on what they have learnt and what they have seen or done and take on a genuine interest in acquiring interpersonal and communicational skills that will contribute to their ability to network and collaborate in their future professions. And regarding the selection of the interactive activities and the extra materials for medical students, teachers need to make sure that they serve both the students’ immediate academic needs as well as their long-term needs as professionals and reconceptualise the link between the language practised in the classroom and the one used in the real

world, that is, the needs that students have at the time of the course and those in their future professional setting (Donesch-Jezo, 2014). Therefore, the task of the teacher is to bring the workplace as much as possible in the lectures through the use of authentic language material (whether medical or general English ones) (Stein, 1995).

All of this indicated the following common fundamental outcomes: students value English and are interested in improving their language skills (some more than others), students welcome the use of technology and interactive activities from videos to games to role-plays, students believe that they should study general English in the first year than have medical English classes in the following ones, and lastly, students felt that their needs were not fully being met by their existing curriculum and the methods of instruction. Such findings align with the study by Petra Zrníková (Zrníková, 2015); they state that the goal of the EMP course should be realistic and adequately difficult with a balance between General English (giving instructions, advice, reasoning) and medical English, coupled with the implementation of ICT on top of the traditional methods to ensure a wide scale of teaching techniques.

### **3.8. Needs Analysis For medical English students**

Needs analysis can be used for a range of purposes. It can be helpful in determining whether a program should be implemented by finding out if it matches the goals and objectives of the learners for learning a language and, at the same time, used as part of a program making it more oriented towards the needs of the learners. It can also help in evaluating an existing program and, if found deficient, can help in establishing the need and selecting what kind of change may appropriately match the needs of the learners and simultaneously be acceptable to teachers (Boroujeni & Fard, 2013).

Furthermore, the basic needs of medical students include understanding medical texts and practising and improving their speaking skills with an emphasis on acquiring medical terminology through role play, pairwork and teamwork, and projects. In addition, practising writing skills in terms of presenting case reports and study cases and completing medical documentation is also beneficial. Additionally, medical students should be able to follow relevant literature, write research papers, translate and do other academic activities, as well as participate in student exchanges and international student congresses (Nataša Milosavljević, 2008). Keeping in mind that medical students usually have a strong motivation to learn Medical English, which influences their willingness to succeed in language learning. They are aware of the fact that the language they learn will be a helpful instrument in getting status and a better job and that once they master the medical language, they will be able to participate actively in the exchange of scientific knowledge in the international arena, which is one of the requirements for being promoted in their present or future work. They know that the better their Medical English, the easier the contact with foreign patients, colleagues, and the literature will be.

The basic insight into the trends of using needs analysis is to offer course design, content and materials by being responsive to target language learners' own agenda. Therefore, it is necessary to first determine what is specifically appropriate, available and applicable for the target situation and target language learners in terms of their needs. In discovering their needs, needs analysis is regarded as an integral part of decision-making processes in EMP. Without conducting a needs analysis process, using a medical English course book might not be enough for a medical student studying in an EFL context like Algeria.

Additionally, several authors insist on collecting useful information about the needs of the learners from varied sources such as the learners, people working or studying in the field, ex-students and documents relevant to the field, clients, administrators, employers, colleagues and ESP research in the field. This would lead to a very informative database of learners, sponsors, subject specialists and above all, ESP practitioners' views and opinions of the English language, a feedback materialization (Petrea, 2014).

For a comprehensive needs analysis, there are many data-gathering instruments and sources from which data can be collected in the related literature, including "questionnaires, analysis of authentic spoken and written texts, discussions, structured interviews, observations and assessments including formal or informal judgements of learners' performance or progress" and from "the learners, people working or studying in the field, ex-students, documents relevant to the field, clients, employers, colleagues, ESP research field" (T Dudley-Evans & St John, 1998, p. 132).

When designing a syllabus, some of the key issues to address are what topics to include; what conceptual sequence to offer (our learners are 2nd-year University students); which grammar items to recycle and reinforce; how to select a natural context for consolidation of grammar; in what way to provide access to different types of discourse, etc. Unfortunately, due to the study having other objectives (mainly just the assessment of pharmacy students' English Language Needs and their intake on the use of interactive activities and games to learn the language), we were unable to address the suggestion of syllabus albite having elaborated and implemented one. So as to lead an effective needs analysis process, it is also important to note that it should be an ongoing process in that it should be employed not only to design a course but also to improve an ongoing ESP course (Basturkmen, 2010; T Dudley-Evans & St John, 1998). Therefore, some relevant, authentic supplementary materials can be exploited to teach ESP to medical students, like medical articles, recorded lectures and podcasts, online videos, interesting infographics, and applications that can be integrated into the ESP courses to enrich them.

Needs analysis of Medical students in previous studies like the one by Kayaoglu (Kayaoglu & Akbaş, 2016) covered five different parts focusing on medical students' purposes of learning English,

the significance of learning English, their preference for the learning environment, language learning needs of major language skills (reading, writing, speaking, listening), their preferred interactive tasks.

### 3.9. Sample of the Activities Used in Class

Considering that the acquisition of a foreign language is heavily reliant on communication and social interaction, our study explores the use of different interactive activities such as Videos (Consultations, Medical cases, vlogs, and clips from popular medical drama tv shows.), internet (online dictionaries, YouTube, Quizlet, etc.) Project (presentation of medical reports, innovations in the medical field etc.) Role-plays and storytelling, Discussions and debates, Podcasts and even Games (Crossword puzzles) to teach Medical English to second-year pharmacy students.

Consequently, the main objective was to prepare students for the examination of the patient, for writing a case report and for oral communication in English. In other words, we tried to create some real-life situations where English was used, focusing on “a special set of vocabulary” which constitutes the medical jargon.

Following in the footsteps of Pavel (Pavel, 2014), In order to achieve the course’s objectives, we focused on: developing language skills through discussions and debates around general themes, easily accessible, introducing medical terminology with emphasis on pronunciation by underlining the differences between French and English terms and expressions, simulating communication with the patient in a simple manner (Q and A, History of the presented complaint, giving advice) focusing on linguistic correctness, students being able to read and understand a medical text in English, to search, prioritise and present information, performing a general examination, taking a medical history etc.

The presence on the market of teaching methods that have been proven, teamwork, access to authentic documents such as brochures for patients, medical questionnaires, records and information sheets used in English-speaking hospitals, teamwork, websites, TV shows or movies for medical purposes represent good resources for designing a course.

In this section, we will be presenting some of the interactive tasks and activities we were able to implement, noting that alternating between the simple tasks and the complex ones was a good teaching strategy as it kept the students motivated, despite their mastery discrepancy. A strategy which also proved to be motivating and productive was that of using visual aids, as they produce associations with the extra-linguistic reality. And taking into the characteristics of generation Z (anyone born after 1997, mainly university students now), one being reliant on technology since they are digital natives (tech-savvy), another would be their competitive spirit, which is why we believe that games suit their learning style. Another attribute would be their flexibility and adaptability hence the constant switch between activities. Visual aids should prove very useful in grabbing their attention and maintaining their focus, coupled with arranging activities, doing crossword puzzles, mind maps, labelling pictures etc.

Regarding the use of technical terms and lay terms used in real-life communication, we set role-plays or played videos or audios of doctors-nurses- patients dialogues. They are all involved in different types of interactions, which imply the use of specific terminology, according to the purpose (taking a medical history, referring a patient to another doctor, explaining a case, giving instructions, calling in specialists etc.). Students were asked to imagine such situations (or were given a case), and they had different tasks to accomplish: to produce a conversation between a doctor/nurse and a patient by means of role-playing, to perform a general examination, to fill in a case report based on the information provided by the patient, to write a referral letter, to establish a diagnosis etc. adopted from (Pavel, 2014). Or simple activities, such as giving clues provided in the form of dashes given for letters and additionally one or two letters, e.g., knee cap - \_\_ tl \_\_\_\_ (patella). collar bone - \_\_\_\_ v \_\_\_\_ (clavicle). pass water - u \_\_ n \_\_\_\_ (urinate)

Thus, we tried to review, explore and implement various creative ways of teaching EMP, which tend to bring variety to adult teaching, much of them being based on modern IC technologies. All of these attempts to implement such interactive activities were made possible thanks to the needs analysis established during the study.

This pilot study has reported on the effect of the importance of implementing modern technologies in the ESP instructional environment. It presents a challenge to both students and the teacher. The challenge for the teacher is to provide a relevant framework for students upon which they construct knowledge and become active participants in the learning process. On the other hand, students in the constructivist environment have a more positive attitude towards learning as they share their experiences with their peers and the teacher, as well as experience increasing discussions in the classroom. Students are encouraged to search for solutions to real-world problems, and thus, they are engaged in transformative learning, leading to critical and analytical thinking, which is essential for success in the 21st century. Piaget (1968) emphasises the active role of the individual in the learning process, establishing a constructivist dialogue in the ESP digital classroom; students are inspired to become active, creative and motivated in their activities. In accordance with this, Bruner's (1986) concept of "learning by doing" involves students' active participation within the classroom context. "Learning becomes a continuous, life-long process which results from acting in situations" (Brown et al., 1989).

There is no single approach for all pedagogical situations; there is no curriculum and set of activities that are applicable in all contexts. Therefore, it is of crucial importance in ESP teaching to determine the unique features of teaching and learning and apply them in the development of the curriculum, syllabus and assessment (Hutchinson & Waters, 1987).

We attempted via the Medical English courses to focus on major language skills and give priority to communication skills. As well as raise students' awareness about the importance of each language skill and seek the integration of all skills in the syllabus. This teaching process was based on the analysis

of students' needs, which also determined the design and delivery of the courses. When creating the syllabus, I also collaborated with health professionals and with my students for the choice of field-oriented content in the teaching materials and for the selection of appropriate classroom activities. It is a long and ongoing process, not yet finalized, and hopefully, it will continually improve.

In his analysis of the current issues for language policy in Higher Education, Kelly (2013) states that teaching a foreign language at the tertiary level has to be sensitive and responsive to the changing contexts in society and the labour market. Such responsiveness, or adaptation, as contended by Kelly, may include new materials that “address themes of current concern”, better fitting methods which have more focus on group work or independent learning, more use of technological tools, new organisational arrangements with more engagement of students as well as better “involvement of employers and other stakeholders in course development” (Kelly, 2013, pp. 15–16). These observations of Kelly’s especially pertain to ESP courses, the fundamental features of which are variability and diversity in terms of content and methodology as predetermined by their purpose to serve the particular needs of students opting for perfection in their different study fields and specific subject domains (Kelly, 2013).

To summarise, from the above mentioned, it is our belief that there is no single methodology for ESP teaching and learning. Furthermore, constructivists combine methodologies in order to produce a successful and effective model for developing productive proficiency and carrying out the objectives of a course. ESP courses concentrate on empowering students to use English to communicate effectively with professionals and preparing them for lifelong learning.

### **Conclusion**

The third chapter was devoted to the challenges found in the literature regarding teaching Medical English; it also introduced teaching English through interactive and constructivist approaches. This chapter also explored in depth a set of suggested interactive activities and games that the researcher deemed beneficial to the teaching of both General English and Medical English and emphasised the practical utility of using Games to learn English. Finally, it concluded with the practical application of needs analysis with medical students, in addition to illustrations of Interactive activities and games used in our Medical English classes.

**CHAPTER FOUR:  
METHODOLOGY,  
ANALYSIS, AND  
DISCUSSIONS**

## Introductions

The next chapter will explain the methodology adopted by the researcher and the design of the current study in terms of thoroughly explaining the case study and laying out detailed descriptions of the setting (learning context, time allocation, and class size), the participants and their profiles (second-year pharmacy students), research instruments (qualitative and quantitative data collection tools), the nature of the study, the ethical considerations, and data analysis procedures. This chapter also displays the core purpose of our study and concludes with detailed discussions of the results of the multiple-choice questions cemented by the ones of the Likert questions.

### 4.1. Our case study

The Faculty of Medicine is one of the six (06) teaching and research entities of the Djillali Liabes University of Sidi Bel Abbes. The faculty was established in 1981 as an institute with a staff of 04 teachers and 51 students. In 1985, it was attached as an annexe to the INESSM of Oran until 1989, when it became an institute of medical sciences. In 1993, a new organisation was introduced, followed by the construction of the Faculty of Medicine (BOUGUENOUS, 2019). The faculty of Medicine consists of three medical departments, namely: The Department of Medicine, the Department of Pharmacy and the one of Dental Medicine. In this faculty, English is taught in all three departments as of the time of writing this thesis, yet English is regarded as a cross-curricular subject (*matière transversale*) where teachers are mainly free to teach whatever they judge relevant. It is up to them to opt for the convenient syllabus and the appropriate methodology applied in the teaching process. This asserts the fact that decision-makers, in general, and curriculum developers, in particular, give no particular attention to teaching English, let alone English for Specific purposes.

Additionally, the Medical Faculty of Taleb Mourad is a French medium university, and all medical students (medicine, pharmacy as well as dentistry) have an English module in the first two years of study (although the students of medicine have it as a compulsory course for only those scoring under B2 in the placement test); therefore, not all medical students undergo English classes. The preliminary assumption of this study was that English is important for students' academic studies as well as their professional careers, and the identification of their needs by various parties would provide valuable data for the development of an English course, one that would match their specific English language needs. Hence the attempt to examine the needs of medical students as well as their perceptions towards the implementation of interactive activities in the classroom. The ultimate goal of the study is to improve the quality of learning experiences, as well as to produce a highly social and authentic, supportive and productive learning atmosphere that allows students the construction of relevant knowledge. Thus, help

students carry out efficient, professional communication at the workplace, having acquired work-related language and communication skills and having gained an understanding of the key principles and ideas of the professional field. Assuming that language learning, especially learning a language for specific or occupational purposes, is a lifelong learning endeavour, the ESP courses are aimed at fostering the development of learner autonomy, enabling students to take control over their learning and learn to learn throughout their lives.

We started teaching English to pharmacy students in the winter of the year 2017. Before launching the programme, we made sure to do a brief needs analysis where we interviewed some of the students, graduates and practising Pharmacists and also the administration (mainly the head of the department at the time). In the first two years (2017-2019), we mainly taught Medical English complying with the demands of the teachers and stockholders at the time (the head of the department of pharmacy), where they made it clear that they would prefer having the students study only Medical English. However, the main impediment consisted of the level differences in language proficiency; there were significant variations in the language levels; most of the students could recognise meaning but not produce it, they lacked fluency, and they had problems pronouncing different terms. Some of the students struggled to catch up and found even the basic medical notions to be overwhelming, whereas some were very proficient in the language and found the medical material interesting and engaging (as an example, some students took 20 in their English Baccalaureate exam where some students did not get the average mark of 10). This created some sort of a dilemma, where a portion of our students seemed lost and could not keep up.

Additionally, it felt wrong to test students on language aspects they were not taught during the academic year. So, we had to switch to teaching general English in one term and teaching medical English in the second one, thus giving students with low levels of proficiency a chance and some time to cope with the language and attempt to improve before tackling medical English. Something we have been doing for four years now. And In order to design the syllabi, we cooperated with Practicing Pharmacists, residents and some of the students. Their feedback helped us come up with a number of typical situations characterising language usage, coupled with some research to come up with engaging examples and activities.

In our study, with mainly classroom observation over the past six years, we were able to affirm that the heterogeneity was not an exception and that Pharmacy students will always have different levels of language mastery, and since they are at different levels of language proficiency, students are at different stages of language acquisition, and understandably, they have different needs. Accordingly, as a part of a needs analysis process using introspection, interviews, observations and questionnaires and other means, our study aims to investigate the academic English language needs of second-year pharmacy students who are attending English courses at the Faculty of Medicine Taleb Mourad at

Djillali Liabes University. to determine their academic, vocational and social English needs in order to improve the current syllabus, materials and language instruction.

The structured questionnaire contained 60 items, with 40 multiple-choice questions and 20 Likert questions. The 40 MCQs covered five different parts focusing on: 1- Students' Purposes of language and General preferences. 2- Expectations and needs. 3- Improvement of the previous program. 4- Cognitive enhancement, Personal growth, and Management of learning. 5- Preferred Interactive Tasks. The Likert section was divided into only two sections, one addressing English needs and the other regarding games and interactive activities. The questionnaire was administered to 77 students at the Faculty of Medicine Taleb Mourad at Djillali Liabes University, yet only 64 students submitted their answers. Descriptive statistics was employed in order to analyse the data.

#### **4.1.1. The Department of Pharmacy as a Sample**

We selected the Department of Pharmacy as a model of study for very valid reasons, another study had already been established at the Department of Dental Medicine by Bouguenous (BOUGUENOUS, 2019), and the Department of Medicine had had some problems with the implementation of English in the syllabus, where it only started in 2020 and then got cancelled due to the pandemic and reintroduced again early 2021, so due to unavailability of English courses when establishing this study we opted for the pharmacy department, where English had been taught there since the academic year 2016-2017. The Department of Pharmacy generally receives students from scientific and mathematic streams holding their Baccalaureate diploma (BAC) with an honourable mention. Those students go through a curriculum of six (06) years to have a degree of Doctorate of Pharmacy or PharmD, which allows them to practice Pharmacy either in a hospital or clinical setting, in the industry or as a medical representative or even open a privately owned pharmacy; some of the students might opt for residency which allows them to further their studies and practice in a hospital setting for 4 to 5 years, to later hold a position at the hospital as a specialist and then potentially be hired by the university as a subject teacher or lecturer, all of these stages are usually coupled with some laboratory work and research.

As for the subjects taught in the department of Pharmacy, they are known to differ, changing from one year to the other; some are essential with high coefficients, such as Galenic, Toxicology, and Pharmacology, and are assigned high values by the students and others are secondary with low coefficients, such as Anatomy, Physiology, and French. Worth mentioning that in the first two years, pharmacy students mainly study fundamental subjects such as analytical chemistry, mineral chemistry, Genetics, Botanic etc., and tend to study pharmaceutical subjects starting the third year, such as pharmacology, Pharmacognosy and Phytochemistry, and Industrial Pharmacy.

#### 4.1.2. The Learning Context

We first started conducting this study back in 2017. There was no officially developed curriculum to follow or even a clear syllabus to rely on. As future ESP practitioners, we were free to take the initiative to set our own syllabus and teach what we judged relevant to the students. Keeping in mind that we conducted a needs analysis back in early 2017, but it was never official, mainly some interviews with students and practising Pharmacy doctors, as well as a personal interview with subject teachers and stockholders. At the time, it was the department's wish to teach mainly medical English, and hence we proceeded to teach Medical English to second-year pharmacy students, yet after two years of implementing that, we noticed that there was a huge disparity midst the learners and that a considerable number of second-year pharmacy students lacked the basics regarding the English language and English grammar, hence the need to implement some grammar courses, and ever since late 2018 we have been introducing Grammar courses in the form of General English for one term and study Medical English for the second.

Regarding the English proficiency exam, non was given, so students did not undergo any placement test before attending the mandatory English class. Setting such a test would mean separating the class into groups, and we believe their schedule is not suited to have multiple lectures of English in one week. However, we did our best to keep the class engaging and insightful for both advanced students as well as beginners. As for the English syllabus during the Academic year, the first term English course consists of general English, where students learn basic grammar and work on improving reading and speaking skills, and the second term introduces English for Medical and Academic Purposes.

In General English, we introduced courses like an overview of why study English, as well as introduced the parts of speech (nouns, verbs, adjectives, adverbs, prepositions, etc.), Tenses and how they are relevant in the medical field, questions (Open-ended questions “wh”, and close-ended questions Yes/No questions, rhetorical questions and Tag questions), Cognates and French false friends. Then in the second term, we focused mainly on teaching students Medical English, and the courses were: Etymology of pharmacy (the origin of the term and the history of pharmacy), Organs and Body parts (a bit of biology and anatomy), Common and Mild diseases in English, Medical terminology (history, characteristics of the medical terminology, and the structure of medical terms). We also ensured that with every class, students were given Idioms or quotes to debate in an attempt to teach not only the language but also the culture, as well as new terms, whether they were lay terms or medical ones. So, by adjusting the context of the learning to something within the field of their interest, the students were more motivated to learn, acquire and use language.

Something we also noticed throughout the years was the fact that the young generation is predominantly exposed (and very permeable) to the English language, not much of a difference at school, but in their real world, whether it is the internet, the television, videogames or even radio

podcasts; English has become such a popular means of communication that sometimes it is difficult for students to find Arabic equivalents of some English terms. Thus, each year, we found ourselves with a class that is more in harmony with English as a language and are more familiar with the culture surrounding the language.

#### **4.1.2.1. Time Allocation**

Allocating time is very important to the teaching of ESP. It is important in the sense that the designing of any language course or syllabus is based on how many hours are allocated to achieve the stated goals and realise effective teaching. The allocated time to the English session was not more than one hour and a half per week for a total of thirty-three lectures during the whole academic year, amounting to an hourly volume of around 50 hours which is by no means sufficient to ensure the required proficiency and enable learners to use English fluently in their field of study, yet we tried to invest in those hours to the best of our ability, trying to motivate students to get some work done outside the class to alleviate the pressure that was on the lecture. And also considering implementing practical tutorials/ sessions (TDs) starting next year with the Pharmacy department's permission, that is.

What makes the situation even more challenging is the fact that the English module session is usually scheduled late in the afternoon when learners are usually exhausted and unable to concentrate. Another challenging matter is the usual absence of more than half of the class. It is usually the case with most subjects they study because the students are not sanctioned for their absenteeism, exacerbated by the fact that pharmacy students have the habit of cramming for exams and being able to get passing grades, so there is no incentive for them to attend most subjects. Yet the major issue faced here is that the course is about learning a language which is something they cannot cram for; that is why we tried to the best of our abilities to motivate students to attend.

#### **4.1.2.2. Class and Group Size**

The number of second-year students changed drastically in the past four years, from 260 students in 2016/2017 to 220 students the year after, to 155, then to 110, and now the class has a number of 77 students. Due to the number of students in the previous years, Lectures were mostly the only viable option, but since the number of students has dwindled in the past few years, we are considering the implementation of workshops in the form of practical tutorials/ sessions (TDs), where each group contains 16 to 20 students tops, which is great for classroom management and for achieving course objectives. Less crowded classes make it easy for ESP teachers to look after students' individual learning needs and control their language acquisition progress. Besides, it positively affects the quality of the suggested input and the number of learning activities and tasks since students would feel more involved in the learning process and could develop more skills and competencies. Even in current settings, we attempted to establish an EMP course that is based on a communicative and task-based approach and

focuses on grammar in a technical context in the form of lectures coupled with tasks at the end of every lecture.

#### 4.1.3. The Study Sample

English courses are of recent implementation within Taleb Mourad's faculty; the pharmacy department witnessed its first English course during the academic year 2014-2015, just to be interrupted shortly after and then reintroduced in the academic year 2016-2017; same goes for the dentistry department whereas the medicine department only got its English courses introduced in the academic year 2019-2020 just to be interrupted by the COVID-19 pandemic. However, they have been reintroduced in the academic year 2020-2021

Our target population is comprised of the current second-year pharmacy students, yet if we consider the Informal interviews, we can expand that population to Pharmacy graduates and English language teachers of the Health Sciences Colleges, practising Pharmacists, and other healthcare professionals. The initiative behind choosing these targeted populations was drawn from the work of several scholars (Dudley-Evans & St John, 1998; M. H. Long, 2010; Richards, 2001) who stress the importance of employing multiple sources of information in identifying needs for ESP courses since according to Long 'triangulation of sources offers an important means of validating findings' (M. H. Long, 2010, p. 63). The participants' selection was dictated by the purpose of the study and the research questions since the aim was to investigate the language needs of health professionals, mainly Pharmacists (and precisely second-year pharmacy students), and select appropriate interactive activities that would suit their needs, a detailed description of the demographic characteristics of the questionnaire participants is provided in the following sections.

To this end, an online questionnaire was given to the second-year pharmacy students; the questionnaire contained 61 items, with 40 multiple-choice questions and 20 Likert questions. The questionnaire was designed for the purpose of gaining insight into the language learners' needs, their views regarding the current course and their opinions on the use of interactive activities and games. It was constructed based, in part, on information gained from informal interviews, on questionnaires used in previous needs analysis conducted in medical contexts and on the literature on ESP and EMP (Boroujeni & Fard, 2013; Hwang & Lin, 2010; Kayaoğlu & Akbaş, 2016; Khalili & Tahririan, 2020; Mohammed Abbas Hamza, 2019; Ronald Mackay, 1978; Syakur et al., 2020; Zmíková, 2015). In the questionnaire, there were four types of questions for demographic information, Likert-scale, ranking and multiple response questions. The 40 MCQs covered five different parts focusing on: 1- Students' Purposes of language and General preferences. 2- Expectations and needs. 3- Improvement of the previous program. 4- Cognitive enhancement, Personal growth and Management of learning. 5- Preferred Interactive Tasks. The Likert section was divided into only two sections, one addressing English needs and the other regarding games and interactive activities. The questionnaire was

administered to 75 students at the Faculty of Medicine Taleb Mourad at Djillali Liabes University, yet only 64 students submitted their answers. Descriptive statistics was employed in order to analyse the data.

#### 4.1.4. Target Students' Profile

The students are second-year Pharmacy students whose age varies from 18 to 25. They are students from scientific and mathematic streams holding their Baccalaureate diploma (BAC) with an honourable mention. Those students go through a curriculum of six (06) years to have a degree of Doctorate of Pharmacy or PharmD, and the medium of study is French, which is considered their second language. Additionally, these students have seven years of English background, where four years were required in Middle school and three more in high school, yet during those years, students were mainly taught through traditional methods where Grammar is the main focus taught through drills and memorisation; thus, most students are usually surprised when they learn that Language learning is based on mainly four skills and not just on Grammar, reading and writing. Worth mentioning that they usually have no encounter with English at university outside the English course, i.e. no Practical work or workshops are done in English. And they only studied English for their second year.

Learners are described as highly motivated learners, driven and cooperative, attentive and quiet during class. They have different levels of English proficiency that are reflected through voluntary reading or sharing opinions and examples, where high achieving students are the ones that usually volunteer for the task. This discrepancy in students' levels caused major issues in the early years of implementing the syllabus and still does to some extent.

## 4.2. The Purpose of the Study

The aim of this study is to investigate the academic and professional English language needs of second-year pharmacy students at the Medical Faculty of Taleb Mourad, University of Djillali Liabes. The results of such a needs analysis could serve as a pre-established scaffold coupled with the use of efficient means for course design should lead to a better environment for teaching and learning EMP (and ESP in general). Once the needs are identified, it would be feasible to implement communicative collaborative and interactive activities within a pre-established English Medical course that would meet those needs, as indicated in the following research questions:

1. What do both medical students and academicians in an EFL context perceive as learners' academic English needs?
2. Which interactive activities best promote language learning in English for medical purposes classes (i.e., Pharmacy classes)? How should they be used?

3. Why do most medical graduates of the University of Djillali Liabes, Sidi Bel Abbes, lack proficiency when communicating in English? Furthermore, how to overcome this deficit?

Additionally, another purpose of our study from the start was to engrain the desire to learn the English language and make sure that learners grasp the notion that mastering a language can be further achieved by being autonomous and setting the improvement of the language as a lifelong goal. However, such an aim cannot be achieved if we do not make sure to provide the best environment for the learner to learn the language and to improve as well as be able to use the skills learnt in their life and future career.

Taking into account that regardless of the university, departments or future profession, Algerian students, especially medical ones, are studying mainly General English, which usually leads to students' disinterest in the learning process because in such a take to language teaching, students' individual differences, needs, lacks, wants interests and goals are mostly neglected by the establishments being it administration stockholder or teachers. In light of that, we wanted to make sure that students' individual differences, needs, lacks, wants, interests and goals are not neglected, so the aim of this study is to investigate and pinpoint the academic English language needs of pharmacy students studying at Taleb Mourad's faculty; we also aimed at selecting a number of interactive activities like games (Crossword puzzles), discussions, Role-plays, Storytelling, using audio-visual materials from vlogs, to podcasts. To get the learners invested in the learning process, to motivate them and assert the validity of their use.

Additionally, as a part of a needs analysis process, this study aims to investigate second-year pharmacy students who are attending English courses at the Faculty of Medicine at Djillali Liabes University. as well as how these students would perceive the implementation of modern technologies and interactive activities like games in the EMP learning environment. It might be a step toward solving the problems of many medical learners and teachers in EMP courses. Furthermore, the results of the study could probably affect ESP teachers, syllabus designers, and learners' perspectives on implementing interactive activities like games in ESP curricula. In addition to focusing on the needs of students, the present study also aims at discovering students' perspectives. It was important to find out what determines the students' choice of an ESP course. It was assumed that motivation leads to the more active involvement of students in the learning process. Thus, the use of the Likert questions, since it is a rating scale that, helps us gauge the attitudes or opinions of our learners.

### **4.3. Nature of the study**

The present work is a study based on three main elements, which are: the choice of the method, population and sampling and data-gathering tools. All of these elements serve to better understand the situation of teaching English to pharmacy students in the medical faculty of Sidi Bel Abbes University. Thus, the current study is a descriptive case study in nature since it describes the academic language

needs of students at a specific department of pharmacy, Faculty of Medicine Taleb Mourad at Djillali Liabes University. To this end, it employs both quantitative and qualitative methods since the data is collected via both structured questionnaires, as well as personalized interviews. The study questionnaires were established and formulated after an in-depth study of previous studies with similar interests such as those in the previous studies by some scholars (Boroujeni & Fard, 2013; Hwang & Lin, 2010; Kayaoğlu & Akbaş, 2016; Khalili & Tahririan, 2020; Mohammed Abbas Hamza, 2019; Ronald Mackay, 1978; Syakur et al., 2020; Zrníková, 2015).

#### **4.4. Setting and Participants**

Two groups of participants: The EMP teachers and enrolled second-year pharmacy students, have been included in this study because we felt that all parties might have different but valuable opinions of students' language needs. For the first participant group, content instructors and specialising doctors were ultimately grouped under the heading of "academicians". Academicians' opinions are very important in that they may be more aware of the students' target English language needs, as they may have had foreign language problems during their own professional lives. Undoubtedly, students themselves are important sources of information about their needs, as they are the ones who need English and experience the learning process. It is assumed in this study that any differences between the perceptions of the parties may have an impact on the teaching and learning process of the English language. In this study, questionnaires were administered to students enrolled in the second year of pharmacy studies at the faculty. A total of 77 currently enrolled students were administered questionnaires, and 64 answered the questionnaire. The rationale behind this is to investigate all students' language learning needs and expectations and to investigate their satisfaction with their present situations.

#### **4.5. Data Collection Instruments and Procedure**

The choice of the appropriate method for any kind of research depends largely on many factors, such as the nature of the problem, the type of needed data, the objective of the research work and the population (Turney & Robb, 1971), and recognising that all methods have their strengths as well as their limitations (Johnson and Turner, 2003), we decided to adopt the quantitative data collection method coupled with the qualitative one, a mixed-methods approach for conducting the study. So, the mixed-method approach was used to collect the required data using questionnaires and face-to-face interviews.

Thus, the necessary data during the needs analysis process was collected via questionnaires used to gauge students' perceptions. This method of data gathering is the most common method used for collecting research data as it constitutes the basis of every survey-based statistical measurement (Brancato et al., 2006). Brown states: "Questionnaires are any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their

answers or selecting from among existing answers” (J. D. Brown, 2001, p. 6). These questionnaires are regarded as a cost and time-efficient way of collecting information from large groups of participants, and they also enable comparisons of the perceptions of various groups (Dornyei, 2003). Regarding interviews, Brown (J. D. Brown, 2001) also adds that individual interviews enable researchers to obtain personal responses and points of view face-to-face. However, we followed the footsteps of Basim M. Abubaker Faraj (Faraj, 2015) since, in their study, they conducted more Informal interviews. On the whole, a combination of both quantitative and qualitative approaches was mainly followed in this research; while the former defines, the latter describes.

The questionnaire was a Google form designed in Google drive and made available online; Students were asked to fill in the questionnaire. As for ethical matters, it is important to mention that the study was on a voluntary basis, and it was not compulsory for them to complete the survey, but highly appreciated, and the participants were informed about the purpose of the study and process before the data collection process started.

So as to ensure the validity of the research, a comprehensive literature review was conducted before preparing the data collection instrument. Thus, the questionnaire was prepared after conducting a literature review on the related topic, coupled with some informal interviews with students and academicians. Thus, the questionnaire items used in our study were adopted from various studies (Boroujeni & Fard, 2013; Franklin-Landi, 2017; Hwang, 2011; Hwang & Lin, 2010; Kayaoğlu & Akbaş, 2016; Khalili & Tahririan, 2020; Mohammed Abbas Hamza, 2019; Syakur et al., 2020; Zrníková, 2015). The students’ questionnaires in such studies are usually aimed at gathering information related to the present and future domains of language use and, thus, reasons for studying English, The students’ attitude towards the place and role of English in the curriculum, Learning preferences in terms of language skills, The importance of particular language skills, Preferred learning styles and strategies, Patterns of a learner to learner interaction, role relationship, Preference for teaching activities language difficulties, the efficacy of ESP courses.

Regarding interviews, Richards (Richards, 2001) writes that interviews can be used before creating a questionnaire to get an idea of what topics and issues can be focused on. For this purpose, at the initial stage of designing the questionnaire for the study, informal interviews with students, doctors, and English language and content-area instructors were held. These interviews were considered ‘informal’ because they were not taped and transcribed. Rather, during the talks, we took notes for our own use. The semi-structured interview was guided by a list of questions that were based on the three research questions. Then, the questionnaire was distributed to some Pharmacy students for a pilot test for its face validity. After the pilot questionnaire was revised, the final questionnaire was administered to 77 pharmacy students (in their second year).

Concerning the purpose of the questionnaire, it was to gather information related to the present needs of Pharmacy students at the Faculty of Medicine Taleb Mourad at Djillali Liabes University, as well as investigate the reasons for studying English, the student's attitude towards the place and role of English in the curriculum, Learning preferences in terms of language skills, The importance of particular language skills, Preferred learning styles and strategies, Feedback on the previously employed syllabus, as well as probable changes, Preference for the EMP technology-supported and interactive learning environment from interactive activities to games, their way of implementation and last but not least students' opinion on the benefit of those activities.

The questionnaire itself consisted of four main sections and five parts in total. The first section gathers demographic information about the students, their gender, age, and the class they currently are attending at Djillali Liabes university. The second section consists of multiple-response questions (40 questions). The third section comprises a five-level Likert scale, "Strongly disagree", "Disagree", "Partially agree", "Agree", and "Strongly agree" it tries to elicit the students' general perceptions about their course (20 questions). And the last section had one open-ended question so that the participants could declare their own ideas on all of the different issues. Additionally, the "other" option was included in some of the multiple-response questions.

To this end, an online questionnaire using Google forms was given to second-year pharmacy students. The questionnaire contained 61 items, with 40 multiple-choice questions and 20 Likert questions. The questionnaire was designed for the purpose of gaining insight into the language learners' needs. It was constructed based, in part, on information gained from informal interviews, on questionnaires used in previous needs analysis conducted in medical contexts and on the literature on ESP and EMP (Boroujeni & Fard, 2013; Hwang & Lin, 2010; Kayaoğlu & Akbaş, 2016; Khalili & Tahririan, 2020; Mohammed Abbas Hamza, 2019; Ronald Mackay, 1978; Syakur et al., 2020; Zrníková, 2015). In the questionnaire, there were four types of questions for demographic information, Likert-scale, ranking and multiple response questions. The 40 MCQs covered five different parts focusing on: 1- Students' Purposes of language and General preferences. 2- Expectations and needs. 3- Improvement of the previous program. 4- Cognitive enhancement, Personal growth, and Management of learning. 5- Preferred Interactive Tasks. The Likert scale section was very helpful in identifying the perceptions and attitudes of students, and it was divided into only two sections, one addressing English needs and the other regarding games and interactive activities. The Likert scale questions consisted of five options: Strongly Agree, Agree, Partially Agree, Disagree, and Strongly Disagree.

The questionnaire was administered to 77 students at the Faculty of Medicine Taleb Mourad at Djillali Liabes University, yet only 64 students submitted their answers. Descriptive statistics was employed in order to analyse the data. Worth mentioning that there was a first section that shed light on the students' background information referring to their age and gender.

The number of questions might sound a bit excessive, but we tried our best to lower the number of questions as much as possible; the main issue was that the questionnaire had too many objectives hence the need for that many questions. The open question gave students the opportunity to express their thoughts and feelings about the course as well as any problems or suggestions they might have. Left to note that the questionnaires were translated into French, and prior to their administration, they were checked by experienced teachers to check their relevance and content validity. But since we used an online platform, Google Forms, it was too crowded to put both languages in, so we opted for just one, which was English. In order to ensure the accuracy of the responses, students were given sufficient time to answer during a period of 6 months, during which students were told they could change their answers at any given time. Also, the respondents were told that their responses were confidential and were encouraged to give complete and objective answers.

Finally, informal interviews were again used during the data analysis phase in order to gain some possible insights into the students' responses to the questionnaires. The results of the study are reported in the form of descriptive statistics, namely by displaying statistical data and an explanation of these data.

#### **4.6. Data Analysis Procedure**

The research process relies on an important stage, generally called data analysis, which is the process of evaluating data using analytical reasoning to examine each component of the data provided. Data from various sources were gathered, reviewed, and then analysed to achieve the required results. Overall, Data analysis focuses on deriving a conclusion based solely on what has been already known by the researcher. As far as the present investigation is concerned, data were analysed for the two different types of questions Likert Scale and multiple-choice questions. At the same time, a wide range of statistical techniques was followed to ensure careful analysis and obtain reliable findings. Among these techniques, percentages of multiple-choice questions were carefully calculated through descriptive statistics.

In line with the purpose of the study, the data were analysed quantitatively; descriptive statistics were mainly conducted. Because of the nature of the questionnaire items, Data was analysed using frequency and percentages, and mean, and standard deviation was employed for the rest of the questionnaire. In the analysis of the questionnaires, SPSS was used, and one-way-ANOVA was applied to calculate and analyse mean and standard deviations. Variables were coded according to the Likert scale as follows: Strongly agree= 5; Agree= 4; Neutral = 3, Disagree= 2, and Strongly disagree= 1. Furthermore, the data were analysed using the Statistical Packages for Social Sciences (SPSS) program, using the following statistical methods based on the nature of the study and the researcher's objectives:

- Used frequencies and percentages to describe the characteristics of the study community members.

- Arithmetic averages and standard deviations are used to show how different the responses are in relation to the dimensions in the questionnaire used in the study.

-We selected a percentage of values that determine data type 95.

- The Cronbach alpha coefficient has also been used to investigate the correlation between single-dimensional questions in order to determine whether the tool used in the questionnaire study is valid in terms of measuring what is intended for its study.

Regarding gender, 79.7% of the participants were females, that is 51 participants, and 20.3% were males, that is 13 participants; such a disparity is very common in the medical field, where most students are females. And about the age, 45.3% (29 students) were 19 years old, 21.9% (14) were 20 years old, 14,1% (9) were 18 years old, 4.7% (3) were 24 years old, 3.1% (2) were 25 years old, and only one student was 21 years old (1.6%). So, we can state that participants were between the age of 18 and 25, and most students were 19 and 20 years old. Left to note that in order to make the work less cumbersome, we attempted to interpret each section instead of interpreting each question individually.

In order to explore students' Purposes for learning the English language, as well as their General preferences, items 1-9 of the first section were established. Items from 10 to 17 addressed Students' expectations of the class and their language needs, and the ones from 18 to 24 were about the Improvement of the Syllabus. Items from 25 to 29 covered Cognitive enhancement, Personal growth, and Management of Learning, and from 30 to 40 were about students' Preferred Interactive Tasks

The questionnaire addressed learners' reasons for learning the language, as well as their preferences regarding English language learning, their preferred learning environment, tools and curricula. Whether those classes are related to course hours, materials, or language instruction, as well as their language needs. The questionnaire also allowed us to determine what our students consider adequate for their medical English classes, materials, language instruction, etc. It was also about the improvement of the Syllabus at hand, helping us assess the state in which the Syllabus is on and where to go from here. Additionally, some elements covered Cognitive enhancement, Personal growth, and Management of learning because we believe that language learning is a life-long endeavour and that teaching the language should also be about teaching critical thinking and brainstorming. And the last section of the MCQ was interactive activities and games and getting to know which ones our learners prefer. Furthermore, Likert Questions helped in consolidating the results found in previous questions (such as students' views on extending the English medical course beyond the second year), as well as allowed us to directly address some themes, such as students' opinions on the current course, on the

impact of Interactive activities and games on their language learning etc. Some significant differences obtained from the study are also revealed.

#### 4.6.1. Students’ Purposes of Language Learning and General Preferences

As stated above, the first section will address some major points, starting with the learners’ reasons for learning the language, as well as their preferences regarding English language learning, their preferred learning environment, tools and curricula.

Table 1. Why study English

I am studying English to:	Frequency	Valid Percent	Cumulative Percent
Interact with people and be able to communicate with foreigners	13	20.3	20.3
Study from medical resources (websites, textbooks, etc.).	10	15.6	35.9
Perform academic work like writing medical reports/papers and Correspond with Foreign professionals in my field	9	14.1	50.0
Attend academic conferences, seminars, meetings with professionals in English etc.	8	12.5	62.5
Achieve a sufficient score in language proficiency exams, like TOEFL or IELTS.	8	12.5	75.0
Pursue a degree or work abroad, or improve job opportunities and get a better job.	15	23.4	98.4
To get the grade “Course requirement”.	1	1.6	100.0
Total	64	100.0	

So, Concerning the reasons for studying English, the participants were not unanimous in their choices. Almost one-fifth of them (23.4%) said it was to pursue a degree or work abroad, and one-fourth (20.3%) said it was to interact with people and be able to communicate with foreigners;

these two options added up to almost half of the participants, about 15.6% said to study from medical resources (websites, textbooks, etc.) and 14.1% said to Perform academic work like writing medical reports/papers and Correspond with Foreign professionals in their field or patients. The other two reasons were both to attend academic conferences,

I am studying English to:  
64 responses

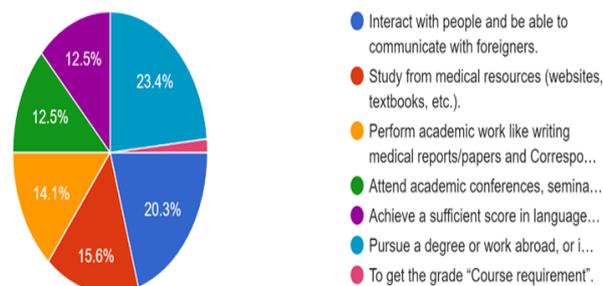


Figure 6. Why study English

professionals in their field or patients. The other two reasons were both to attend academic conferences,

seminars, and meetings with professionals and Achieve a sufficient score in language proficiency exams, like TOEFL or IELTS sitting at 12.5%. Only one student at 1.6% said to get the grade “Course requirement”.

These results are a bit similar to the study by Kayaoğlu & Akbaş (Kayaoğlu & Akbaş, 2016), where students selected Interact with people as their major reason for learning English. However, it is worth mentioning that in that study, pursuing a degree or working abroad was not an option, but the other results almost matched. Furthermore, these results were different from the study by Boroujeni & Fard (Boroujeni & Fard, 2013), where most participants attributed the reasons for learning English to higher education and success in future professions, and only 3% picked to speak to foreigners; these results could be due to the fact that the study was in Iran, where students do not interact with foreigners as much, and mainly study English to get better job offers or be part of the well-education community. Moreover, In the study by Franklin-Landi (Franklin-Landi, 2017), most participants selected to read medical journals, followed by talking and treating foreign patients, then attending international conferences, and less selected was the “personal life “ option. These results could be attributed to the fact that most medical students in France have to read a lot of medical-related materials, most of which are in English, hence the choice. In the study by (Syakur et al., 2020) however, the most common answer was to communicate with regard to health issues , followed by grammar and understanding reading and less common were both to understand and maintain a conversation and writing reports or articles in English.

The study that was most relevant to ours was the one by Bouguenous (BOUGUENOUS, 2019), conducted at the same university just a few years prior; most participants selected studying English for academic reasons, then personal interest, and then future work. These results are different from ours even though we share the same setting, yet the six years gap between the two studies might have impacted the results since we are now receiving the so-called Generation Z, students who are known to be digital natives hence the predominance of pursuing a degree abroad and interacting with people, this was cemented further by students statement saying they are already in contact with foreigners and that they use English when communicating with them.

Table 2. Language Skills Preferences

Which skill do u want to develop more:	Frequency	Valid Percent	Cumulative Percent
Listening	1	1.6	1.6
Speaking	43	67.2	68.8
writing	3	4.7	73.4
Translating	3	4.7	78.1
Grammar	1	1.6	79.7

Vocabulary	13	20.3	100.0
Total	64	100.0	

When asked How significant are language skills, it is safe to say that most students value speaking more, with an overwhelming 67.2% (more than two-thirds), trailed by Vocabulary with 20.3%. Then we had translation and writing with 4.7% each, and one student said grammar and one said listening, while no one had selected reading.

These results are different from the ones by Chia et al. (1999), where medical students consider reading the most important skill, followed by listening, writing and speaking. (Chia et al., 1999). Yet our results are comparable to the study by all of Boroujeni & Fard, Faraj, and Kayaoğlu & Akbaş (Boroujeni & Fard, 2013; Faraj, 2015; Kayaoğlu & Akbaş, 2016) where their findings indicated that speaking is the most important skill for the participants and is followed by listening, reading and writing, respectively; the only difference is that in the study by Boroujeni & Fard (Boroujeni & Fard, 2013) very few selected vocabulary( around 3%)whereas in our study more than one fourth (20.3%) did, this could be because our learners believe that if they know more words they can use the language more fluently. Regarding the study by Franklin-Landi (Franklin-Landi, 2017), the results are similar, where the majority of participants selected oral interaction( speaking), yet it was followed by reading and then listening, and this could be attributed to the fact that French medical students value reading more( since they are required to read a lot of medical-related materials most of which are in English). Worth mentioning that we had a bit of a discrepancy with the study by Syakur et al. (Syakur et al., 2020), where speaking was the common option but second was grammar, followed by reading then, listening and lastly, writing. However, interestingly enough, in the study by Bougeunous (BOUGUENOUS, 2019), one that shares similar settings, the participants selected listening followed by reading, then writing and then speaking, almost the opposite of the results we had.

In conclusion, these results clearly align with the previous question, where participants undoubtedly showed that they are learning the language to either interact with others or travel abroad for a degree or a job, hence the overwhelming interest in speaking skills. And it was followed by vocabulary in our case (it was not an option in the other studies) because learners believe if they know more words, they can interact more easily. Furthermore, in many studies like the one by Chia et al.

How significant are each of the following language skills (which one do u want to develop more):  
64 responses

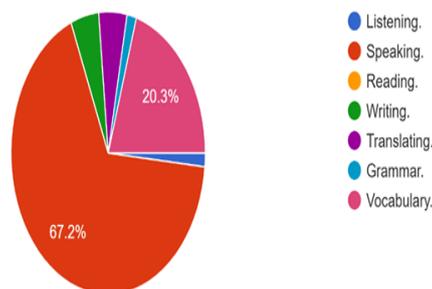


Figure 7. Language Skills Preferences

(1999), it was also revealed that limited vocabulary was one of the most problematic areas for medical students (Chia et al., 1999).

Table 3. Learning style preference

What is your preferred learning style:	Frequency	Valid Percent	Cumulative Percent
A Lecture with a few interactive activities.	8	12.5	12.5
A traditional Lecture with the teacher doing most of the talking (as the information provider).	7	10.9	23.4
A tutorial session (TDs) with activities, pair/group work and projects.	13	20.3	43.8
Lectures with activities, group work and projects, where the teacher is a facilitator and guide.	29	45.3	89.1
Traditional Lectures and tutorial sessions (TDs).	7	10.9	100.0
Total	64	100.0	

Regarding students' preferred learning style, almost half the participants (45.3%) said it was Lectures with activities, group work and projects where the teacher is a facilitator and guide. Around one-fourth (20.3%) said it was A tutorial session (TDs) with activities, pair/group work and projects. 12.5% for A Lecture with a few

What's your preferred learning style:  
64 responses

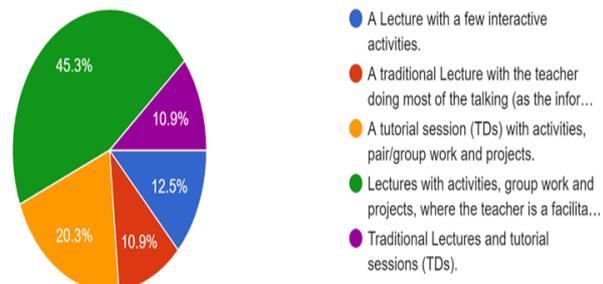


Figure 8. Learning style preference

interactive activities. And only 10.9% selected either Traditional Lectures and tutorial sessions (TDs) or traditional lectures. Furthermore, we found very few studies that address such points, and in the ones that did (Boroujeni & Fard, 2013), the results were somewhat similar. Though in her study, participants had only two choices where the majority selected class activities, group work and projects, and only 1/7 of the participants selected traditional teaching settings. Nevertheless, in our study, we provided seven elements so that the learners have a variety of options to select from. These results showcase the fact that learners are hungry to be more active participants in the learning/teaching process, something that we believe the medical students in Algeria lack, having most subject lectures be traditional ones where the lecturer provides the information and teacher talking time dominates students' one.

Table 4. Learning environment preference

Which learning environment do you prefer for English courses:	Frequency	Valid Percent	Cumulative Percent
Traditional classroom in an amphitheatre (Face to face teaching).	37	57.8	57.8
Online Synchronous distance learning using zoom	3	4.7	62.5
Blended learning (a mix between the two)	19	29.7	92.2
Other (specify)	5	7.8	100.0
Total	64	100.0	

The learning environment was another theme in the Pie chart, so when asked about their preferred learning environment, almost two-thirds of the participants (57.8%) said it was a Traditional classroom in an amphitheatre (Face to face teaching). And about one-third (29.7%) Blended learning, and 7.8% selected other, whereas only

4.7% said they preferred Online Synchronous distance learning using zoom. These results are similar to the ones in the study by Kayaoğlu & Akbaş (Kayaoğlu & Akbaş, 2016), where participants selected “Traditional” as the most preferred, then “Blended”, then “Online”. These findings suggest that they seem to be negative or have some concerns about online or virtual learning environments.

Due to the COVID pandemic, we have conducted blended classes for two years, where students study one month in a traditional setting and another online via ZOOM, so the learners had already established an idea and opinion about the online classes, and it was a major concern with the other subject teachers. Some of the concerns raised by the learners (and some teachers) were the absence of human interaction (e.g., where the teacher cannot gauge whether the learners understood or not), the online courses lack the proper environment where some learners could not get into the study mood or focus at home (too much background noise).

Which learning environment do you prefer for English courses:

64 responses

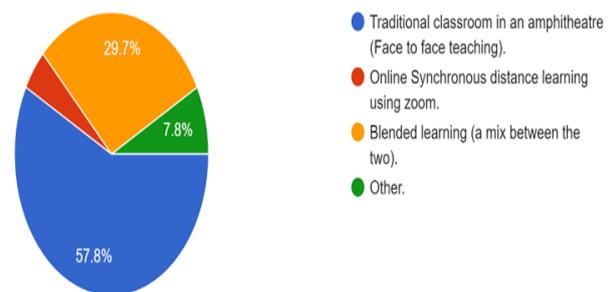


Figure 9. Learning environment preference

Table 5. Learning tools preferences

I like studying using:	Frequency	Valid Percent	Cumulative Percent
Whiteboard and traditional chalk explanations	20	31.3	31.3
Using PowerPoint presentations	2	3.1	34.4
Using computer tools like videos and the Internet	28	43.8	78.1
Using applications on my mobile phone	12	18.8	96.9
Other (specify)	2	3.1	100.0
Total	64	100.0	

Regarding study tools, almost half the participants (43.8%) picked Using computer tools like videos and the Internet as the most preferred tool, followed by almost a third (31.3%) selecting Whiteboard and traditional chalk explanations. And 18.8% Using applications on my mobile phone, both Using PowerPoint Presentations and

I like studying using:  
64 responses

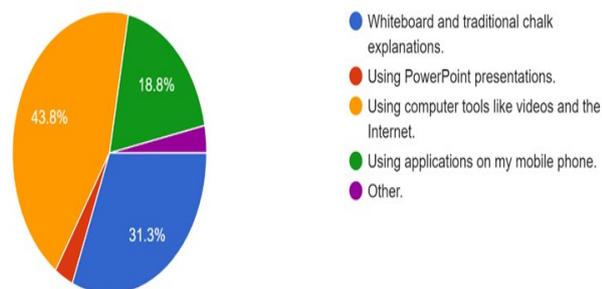


Figure 10. Learning tools preferences

Other got 3,1% of students votes. So regarding the use of a computer, it was the favoured option because, as stated previously, we are dealing with Generation Z, the digital native, so any option that includes the use of technology would be favoured by them hence also the minor preference vis-à-vis the use of mobile phones, those significant results regarding the use of mobiles to learn can be affirmed through the study of Alkhezzi & Al-Dousari (Alkhezzi & Al-Dousari, 2016) showing that learners generally have a positive attitude toward mLearning, stating that the use of mobile phones for language teaching and learning can be more effective than traditional methods of learning. What was a surprise, however, was the number of students selecting Whiteboard and traditional chalk explanations. We believe that so many students selected that choice because it is the method they study within some of the other subjects, and probably learners grew accustomed to it; hence they might feel more comfortable in it even if it might not be as fruitful.

Table 6. Learning preferences

I like learning English:	Frequency	Valid Percent	Cumulative Percent
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Individually at home as homework.	19	29.7	29.7
In pairs.	10	15.6	45.3
In small groups "in workshops".	16	25.0	70.3
In big groups "tutorial session TDs."	11	17.2	87.5
With the whole class "Lecture".	8	12.5	100.0
Total	64	100.0	

Vis-à-vis their learning style, their preferences were almost split even, where 29.7% said they liked learning individually at home. 25% of them like learning in small groups. 17.2% in tutorial session TDs. 15.6% in pairs and only 12.5% with the whole class in lectures. The results are a bit similar to the study by Franklin-

In the English course, I like learning:  
64 réponses

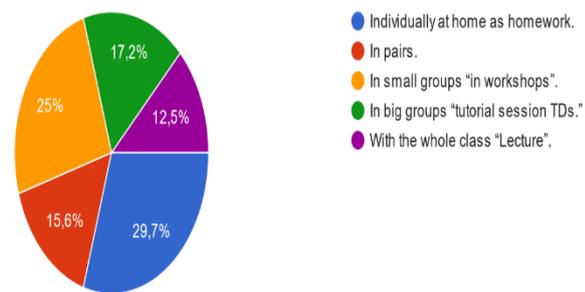


Figure 11. Learning preferences

Landi (Franklin-Landi, 2017), where most participants selected “in groups” ( studying medical vocabulary or oral groups), followed by using new technology and traditional lectures; it is worth mentioning that the student didn’t have individually or in pairs as an option. Our results are somewhat similar to the ones in the study by Boroujeni & Fard (Boroujeni & Fard, 2013), where The majority of respondents indicated that learning individually and learning in small groups in an English course would help them more with their English language skills than learning with the whole class.

However, our results were similar to the one in the by (BOUGUENOUS, 2019) ( the study that shares the same settings), where most participants selected small groups followed by individuals and then, lastly, pairs. These results could indicate that learners might feel shy about practising and using the language in front of a wide audience and that the smaller the audience, the better it is for them. Something we attempted to implement by having the learners do non-mandatory homework, where they write essays or prepare a talk about idiomatic expressions or quotes given at the end of each class. These results could also be due to the size of the classes being usually too big (40 students), and the students wanted more individual attention from the teachers.

Table 7. Learning skills preferences

In the English course, I like learning:	Frequency	Valid Percent	Cumulative Percent
By listening and taking notes.	18	28.1	28.1
By repeating what I hear.	7	10.9	39.1
By reading and making notes.	12	18.8	57.8
By memory and copying from the board	6	9.4	67.2
By problem-solving and interacting with classmates.	21	32.8	100.0
Total	64	100.0	

When asked how they liked to learn the Language, 32.8% of the participants said via problem-solving and interacting with classmates, followed by 28.1% said via listening and taking notes. And reading and making notes was at 18,8%, repeating what I hear at 10,9%, and memory and copying from the board were at 9.4%. These results indicate that our learners prefer interacting with each other and learning the language in a dynamic setting, away from the traditional memorising methods.

In the English course, I like learning:  
64 responses

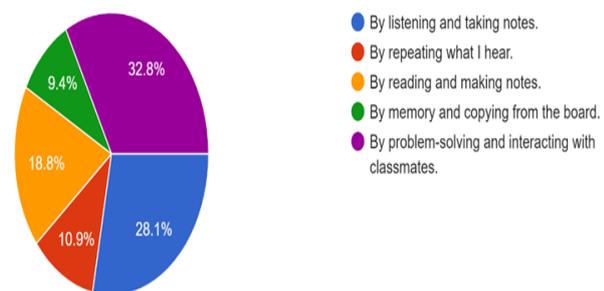


Figure 12. Learning skills preferences

Table 8. Learning sources preferences

I like learning from:	Frequency	Valid Percent	Cumulative Percent
Television, YouTube, vlogs, podcasts, and songs.	37	57.8	57.8
The Internet, blogs and social media	11	17.2	75.0
Written materials like books and textbooks.	11	17.2	92.2
The blackboard/whiteboard.	5	7.8	100.0
Total	64	100.0	

Regarding their learning sources, 57,8% said they learned from Tv, YouTube podcasts and songs, followed by 17,2% for both “from the internet, blogs and social media” and “written materials (books)”, and only 7.8% went for “the whiteboard”. This question was an attempt to gauge what type of learners we were dealing with. Are they visual

I like learning from:  
64 responses

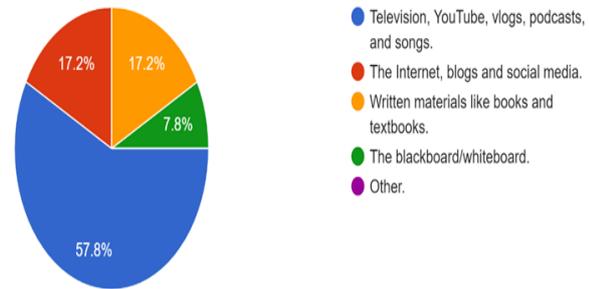


Figure 13. Learning sources preferences

learners, auditory learners, kinesthetic learners, or reading/writing learners? The results indicate that they are visual and auditory learners. Our results are somewhat similar to the ones in the study by Hwang and Lin, where the majority of respondents claimed that they liked learning from television/video/DVD/films (40.8%), radio (37.0%) and the internet (33.8%)(Hwang & Lin, 2010). These results indicate that we need to integrate some audio-visual materials to both improve the students’ listening comprehension and make the classes more enjoyable.

Table 9. English curricula preference

Which English curriculum is the best one for you:	Frequency	Valid Percent	Cumulative Percent
General English, no need for English for Medical Purposes.	2	3.1	3.1
No need for general English, only English for Medical Purposes.	10	15.6	18.8
General English along with English for Medical purposes in one year (EMP).	12	18.8	37.5
General English in one-year, medical English in the other ones.	19	29.7	67.2
English classes should continue for more than two years.	21	32.8	100.0
Total	64	100.0	

The last question in this section addressed their preferred curricula. Almost one-third of the participants (32,8%) said they liked English to be taught for more than two years, and another 29,7% said that they preferred General English in one year and medical English in the other ones. Less than one-fourth (18,8%) selected General English along with English for Medical purposes in one year (EMP) (which is the way they are currently studying English).

Which of the following English curricula do you perceive is the best one for you:  
64 responses

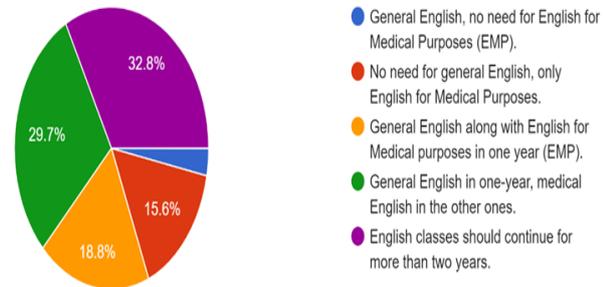


Figure 14. English curricula preference

Another 15.6% went for No need for general English, only English for Medical Purposes (something that we attempted to implement a few years back, and we found it to be very challenging and less fruitful), and only 3,1% went for General English, no need for English for Medical Purposes (EMP).

These results are similar to the study by (Hwang, 2011), where the best pattern of curriculum design for English courses was general English in the freshman year, followed by medical English in the second and third years. However, a bit different from the study by Hwang & Lin (Hwang & Lin, 2010), where most participants went for three years of English, in which the first two were about reading and listening, and the third was about conversation; very few selected only two years. These findings are congruent with the previous finding that materials in an English course should be relevant to the medical field, and probably points out that medical students feel that medical English is very important, also the fact that one year is not enough to get the tangible improvement an ESP teacher would like to have, making it very challenging to squeeze everything in one academic year.

**Interpretation:**

Table 10. Descriptive Statistics of Students’ Purposes of Language learning and General Preferences

Questions	Maximum	Mean	Std. Deviation	Variance
Why study English	7	3.58	1.917	3.676
Language Skills Preferences	7	3.30	2.083	4.339
Learning style preference	5	3.31	1.194	1.425
Learning environment preference	4	1.88	1.091	1.190

Learning tools preferences	5	2.59	1.205	1.451
Learning preferences	4	1.75	1.008	1.016
Learning skills preferences	5	3.08	1.636	2.676
Learning sources preferences	5	2.67	1.392	1.938
English curricula preference	5	3.73	1.172	1.373

As stated before, this section addressed some major points, starting with the learners' reasons for learning the language, as well as their preferences regarding English language learning, their preferred learning environment, tools and curricula. The results of the learners' responses indicate that the main reason they are learning the language is to pursue a degree or work abroad, or improve job opportunities and get a better job as well as to better interact with friends from other countries; these results were further reinforced by the results of the second questions, where most learners selected speaking as their most significant skill to develop, followed by vocabulary since it is assumed that learners believe if they know more words they can interact more easily and speak more freely. Regarding the learning style preference, The results indicate that learners prefer to be more active participants in the learning process, even though it is an environment that medical students in Algeria are not very familiar with, where subject lectures are traditional ones, in which the lecturer provides the information, with passive learners and teacher talking time dominates students one, these results align with the one of the following question, where most participants were in favour of attending traditional classes instead of online ones since the experience they had due to COVID-19 was not a pleasant one, and so many students complained from the lack of human interaction which led to problems understanding course content. The next question addressed the Learning tools preferences; most participants selected using computer tools like videos and the Internet, reflecting one of the characteristics of Generation Z being digital natives and internet savvies, yet it was tailed by Whiteboard and traditional chalk explanations, a method they are familiar with in other subject classes, and probably grew accustomed to and feel more comfortable with.

The following question addressed Learning preferences, and most participants selected either learning individually at home as homework or in small groups "in workshops". These results could indicate that learners might feel shy about practising and using the language in front of a wide audience and that the smaller the audience, the better it is for them. Also, their tendencies to prefer working individually at home could be put to good use by decreasing the workload the students have to do in class and setting that as homework activities, something we attempted to implement by having the learners do non-mandatory homework, where they write essays or prepare a talk about idiomatic expressions or quotes given at the end of each class. Vis-à-vis Learning skills preferences, most participants selected either problem-solving and interacting with classmates or listening and taking

notes; this indicates that our learners prefer learning through interaction and brainstorming in a dynamic setting, away from the traditional memorising methods. This aligns with the results of the following question, where most participants selected Television, YouTube, vlogs, podcasts, and songs as their learning sources, showcasing the learners' tendency to learn better from leisure activities, mostly ones that are dynamic. The last question in this section addressed English curricula preferences, where most learners either selected English classes that should continue for more than two years or General English for one-year and medical English in the other ones. These findings are congruent with the previous finding that materials in an English course should be relevant to the medical field but at the same time address general English notions and the fact that one year is not enough for the students to have a tangible improvement in the language.

#### 4.6.2. Students' Expectations of the Class and Their Language Needs

The second section addressed students' expectations of the EMP classes, what kind of problems and challenges they experience in those classes, whether they are related to course hours, materials, or the language instruction, as well as their language needs.

Table 11. Reasons for improving reading skills

I want to improve my reading skills to:	Frequency	Valid Percent	Cumulative Percent
Read technical articles, books and journals in the medical field.	25	39.1	39.1
Read instructions for assignments and class-related projects.	3	4.7	43.8
Read laboratory instructions, manuals and Medical Reports.	9	14.1	57.8
Read study notes of the courses, as well as texts for English tests.	3	4.7	62.5
Read blogs, articles and posts on the Net, as well as general books, newspapers and Magazines.	24	37.5	100.0
Total	64	100.0	

The first question in this section addressed the reasons for improving the learners' reading skills. More than a third (39.1%) said it was to read technical articles, books and journals in the medical field. Almost the same percentage (37.5%) said to Read blogs, articles and posts on the Net, as well as general books, newspapers and Magazines. The third most selected option, with 14.1%, was to Read laboratory

instructions, manuals and Medical Reports. Both read instructions of assignments and projects class-related and read study notes of the courses, as well as texts at English tests, sat at 4.7%. These results were a bit different from the ones in the study by Hwang & Lin (Hwang & Lin, 2010), where most students selected to read English newspapers and magazines, followed by reading English textbooks and lecture handouts and finally reading English medical journals.

I want to improve my reading skills to:  
64 responses

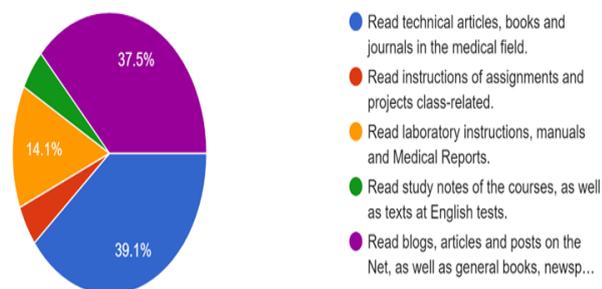


Figure 15. Reasons for improving reading skills

But our results are in line with the ones of Kayaoğlu & Akbaş (Kayaoğlu & Akbaş, 2016) aside from reading blogs and posts on the net since it was not an option. Furthermore, The results were relative to the study by (BOUGUENOUS, 2019), a study that shares the same setting as ours, where most participants selected Reading medical journals and articles, then newspapers and magazines, followed by reading English textbooks and lecture handouts, then reading medical prescriptions with stories and novels and lastly reading graphs charts and tables. These results reflect that our learners want to improve their reading skills to benefit from the academic materials available so that they can learn more about their field, as well as improve their reading to get better outcomes out of their leisure activities that include reading, i.e. be able to understand posts and blogs better and maybe read books and newspapers.

Table 12. Reasons for improving writing skills

I want to improve my writing skills to:	Frequency	Valid Percent	Cumulative Percent
Answer questions in a written form, in an exam or in classwork.	8	12.5	12.5
Write projects or Papers for Oral Presentation, as well as Lab reports.	19	29.7	42.2
Write articles and research papers for international journals.	24	37.5	79.7
Take notes from written sources like Textbooks, Handouts or during class.	3	4.7	84.4
Write formal letters (motivation letters) and e-mails.	10	15.6	100.0

Total	64	100.0	
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Regarding the reasons for improving writing skills, more than a third (37.5%) said it was to write articles and research papers for international journals. Followed by writing projects or Papers for Oral Presentation, as well as Lab reports with 29.7%. To write formal letters and e-mails was 3<sup>rd</sup> with 15.6%, followed by Answer questions in a written form, in an exam or in classwork with 12.5%. And Take notes from written sources like textbooks, handouts

I want to improve my writing skills to:  
64 responses

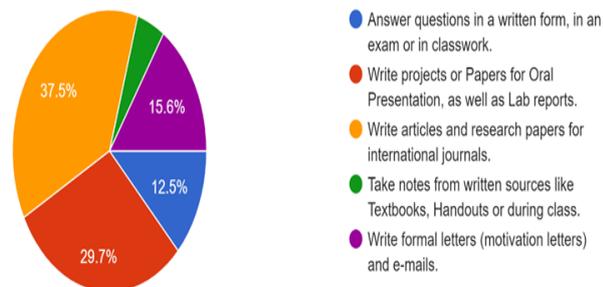


Figure 16. Reasons for improving writing skills

or during class with 4.7%. These results were similar to the ones by Kayaoğlu & Akbaş (Kayaoğlu & Akbaş, 2016), where the first choice was writing articles, followed by writing projects, followed by lab reports and assignments, and less significant results were the ones of writing a prescription and answering exam questions; worth mentioning that in their study they did not set “write formal letters and E-mails” as an option. Additionally, in the study by Hwang & Lin (Hwang & Lin, 2010), most participants selected writing for practical purposes, followed by writing medical reports, then writing course assignments and last research papers. However, the results of the study by Bouguenous (BOUGUENOUS, 2019) were a bit different since most participants selected writing replies or emails to English-speaking friends, followed by writing research papers, then followed by both writing medical reports and taking notes in class and last was to write an essay. These results indicate that learners might feel that they do not need writing skills that much, but if they wanted to improve it, it would be for academic purposes like writing articles or projects or even emails and motivation letters, and not so much for practical ones such as taking notes in class or answering questions in the exam.

Table 13. Reasons for improving listening skills

I want to improve my Listening skills to:	Frequency	Valid Percent	Cumulative Percent
Understand lectures, class presentations and conversations with students, colleagues, and patients.	7	10.9	10.9
Understand foreign people (friends, colleagues or patients).	10	15.6	26.6
Understand instructions in real medical situations (hospitals) or during exams.	12	18.8	45.3

Understand medical audio & video sources, like online lectures and documentaries.	16	25.0	70.3
Understand daily English, speeches, mass media, YouTube, movies and podcasts.	19	29.7	100.0
Total	64	100.0	

Concerning the reasons for improving listening skills, almost a third of the participants (29.7%) said it was to understand daily English, speeches, mass media, YouTube, movies and podcasts. The next 25% of them said it was to understand medical audio & video sources, like online lectures and documentaries. Almost one-fifth (18.8%) said it was to understand instructions in real medical situations (hospitals) or during exams.

Another 15.6% said to Understand foreign people (friends, colleagues or patients). And only 10.9% said it was to understand lectures, class presentations and conversations of students, colleagues, and patients. In the study by Kayaoğlu & Akbaş (Kayaoğlu & Akbaş, 2016), the predominant reasons for improving listening were to

I want to improve my Listening skills to:  
64 responses

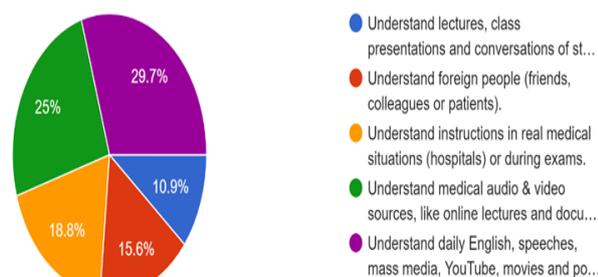


Figure 17. Reasons for improving listening skills

listen to medical audio & video sources and to listen to medical conversations, followed by oral presentations and other audio resources, then listening to lectures; these results are a bit different from ours where our participant clearly showed their tendencies to improve listening for daily purposes and equally for medical ones. In the study by Hwang & Lin (Hwang & Lin, 2010), most participants went for either understanding conversations or understanding TV programs, fewer participants went for understanding the medical conversations and very few selected having note-taking skills.

Furthermore, our results were a bit comparable to the study by Bouguenous (BOUGUENOUS, 2019), where the first choice was to understand a conversation, then phone calls, then understanding the radio and TV, followed by discussions on medical issues and understanding presentations in seminars, and last was to understand foreigners. The results indicate that the learners are interested in improving their listening skills to be able to understand better the English of daily life from the mass media to YouTube and all the way to movies and podcasts, but there seems to be another reason equally important which was to understand medical audio & video sources, like online lectures, and since the medium of

instruction at the medical university is “French”, it would be safe to assume that the learners are referring to studying online and using platforms such as MOOC or Coursera.

Table 14. Reasons for improving speaking skills

I want to improve my Speaking skills to:	Frequency	Valid Percent	Cumulative Percent
Ask and answer questions in the class and be part of the discussion in the class.	6	9.4	9.4
Be able to carry out daily conversations with friends and colleagues.	11	17.2	26.6
Talk to foreign friends or patients.	11	17.2	43.8
Speak in public about medical issues or Give oral presentations in class.	14	21.9	65.6
Discuss medical issues/ making presentations in seminars and conferences.	15	23.4	89.1
Have casual conversations, such as telephoning, greeting, invitation, etc.	7	10.9	100.0
Total	64	100.0	

About the reasons for improving speaking skills, the skill regarded as the most important one by our students, almost a fourth (23.4%) of our learners said it was to Discuss medical issues/ making presentations in seminars and conferences. More than one-fifth of them (21.9%) said it was to Speak in public about medical issues or Give oral presentations in class. Both “Be able to carry out daily conversations with friends and colleagues” and “Talking to foreign friends or patients” sat at 17.2%, followed by Have casual conversations, such as telephoning, greeting, invitation, etc., sitting at 10.9%. However, Asking and answering questions in class and being part of the discussion in the class was last with 9.4%.

These results are dissimilar to the study by Hwang and Lin (2010), which indicated that a great amount of the students studying in the medical faculty believed carrying on daily conversations was the most important speaking skill (Hwang & Lin, 2010). They are also dissimilar to the ones by (Kayaoğlu & Akbaş, 2016)

I want to improve my Speaking skills to:  
64 responses



Figure 18. Reasons for improving speaking skills

mainly in the favourite choice, whereas the others are pretty similar; since their participants selected the option of conversational English, then followed by medical issues in conferences, and then speaking to the public on medical issues. In the study by Hwang & Lin (Hwang & Lin, 2010), the overwhelming majority of participants selected “to carry out conversation”, followed by a decent number selecting “presenting classroom oral presentation”, and lastly “delivering a speech”. Additionally, our results vary a bit from the ones by Bouguenous (BOUGUENOUS, 2019), where participants selected mostly “attending Web-English-Talks” and “talking to foreign doctors or researchers”, followed by “presenting oral reports” and “participating in negotiations” equally, and lastly “taking part in daily conversation”. These results indicate that our learners want to improve their speaking skills for academic purposes, where most of the options selected were to either discuss medical matters, present in seminars or speak to the public about medical issues, and very less favourable where the options of daily conversations with friends and just asking and answering questions, these could be because our learners believe they can already do that so it is not something they need to work on a lot.

Table 15. Reasons for learning new vocabulary

I want to learn new vocabulary to:	Frequency	Valid Percent	Cumulative Percent
Use the medical terms in Professional communication or in academic writing.	34	53.1	53.1
Exchange questions and answers about medical cases with colleagues and patients.	7	10.9	64.1
Be part of the interactive activities in class.	4	6.3	70.3
Analyse and understand a medical text, and make inferences.	12	18.8	89.1

Use the new vocabulary in a casual setting.	7	10.9	100.0
Total	64	100.0	

As regards the reasons for learning new vocabulary, the second most important language skill for our participants, more than half the participants (53.1%) said they wanted to learn new vocabulary to use medical terms in Professional communication or in academic writing. It was followed by 18.8% selecting to analyse and understand a medical text and make inferences. Both "to

I want to learn new vocabulary to:

64 responses

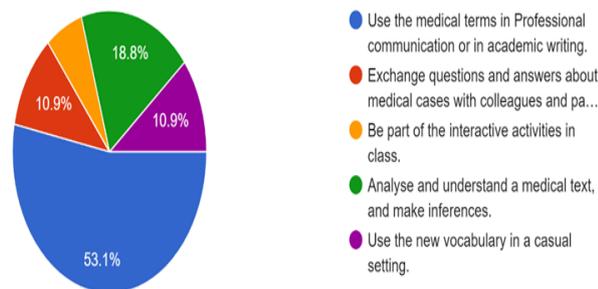


Figure 19. Reasons for learning new vocabulary

Exchange questions and answers about medical cases with colleagues and patients" and "use the new vocabulary in a casual setting" were at 10.9%. And only 6.3% said to Be part of the interactive activities in class. These results, where most participants selected to use the new vocabulary in professional communication and interact with colleagues, align with the ones from previous questions in the sense that our learners care more about academic skills and future careers and focus on improving their medical English instead of just focusing on General English and using new vocabulary to interact in class or with friends.

Table 16. Students' Perceptions of language problems

What problems are you facing	Frequency	Valid Percent	Cumulative Percent
Poor speaking and conversational skills.	29	45.3	45.3
Poor listening comprehension skills.	4	6.3	51.6
Poor reading comprehension skills.	3	4.7	56.3
Poor writing skills.	5	7.8	64.1
Limited vocabulary.	13	20.3	84.4
Difficulty in brainstorming.	6	9.4	93.8
Poor translating skills.	2	3.1	96.9

Poor grammar	2	3.1	100.0
Total	64	100.0	

When asked about the problems the students are currently facing in their academic studies, almost half the participants (45.3%) stated that it was Poor speaking and conversational skills. And a fifth (20.3%) said it was Limited vocabulary. Followed by Difficulty in brainstorming at 9.4%, Poor writing skills at 7.8%, Poor listening comprehension skills at 6.3% and Poor reading comprehension skills at 4.7%. Both Poor translating skills and Poor grammar sat at 3.1%.

What are the problems you are currently facing in your academic studies:  
64 responses

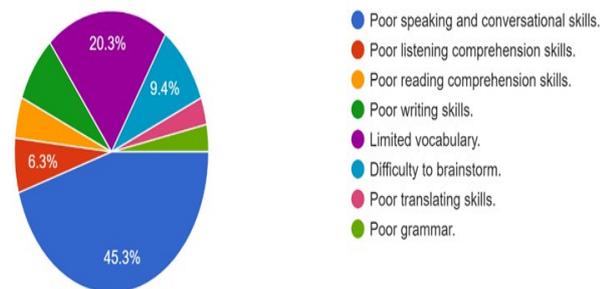


Figure 20. Students' Perceptions of language problems

Our results were different from the ones in the study by Eslami (Eslami, 2010) since the participants stated that the major problems were poor writing ability, followed by poor speaking ability, then poor listening comprehension, and the least selected one was limited vocabulary. However, In the study by Faraj (Faraj, 2015), most participants selected poor speaking and poor listening as the language difficulties, followed by poor grammar and limited vocabulary, and the two least selected were poor reading and poor writing skills; it is worth mentioning that, in that study, they did not address the problem with translation and brainstorming. Additionally, our results are a bit similar to the ones in the study by Bouguenous (BOUGUENOUS, 2019), where the main problems were holding a conversation in English, followed by translating skills, then the poor pronunciation of medical terminology and writing correct meaningful sentences, and lastly framing simple questions.

These results reflect students' major concerns and also align with their responses to the previous question: "Which skill do u want to develop more?" where most participants stated Speaking followed by vocabulary and then writing and translation. We can extrapolate the results of that question on this one to affirm that our learners seek to develop their speaking skills so that they can maintain a conversation and assume that vocabulary is a good way to achieve that. Additionally, these results will also help us select activities that would best answer their demands so that we can channel their motivation towards the acquisition of the language.

Table 17. Students’ Perceptions of learning English challenges

Other challenges you are facing:	Frequency	Valid Percent	Cumulative Percent
Reading Medical textbooks, journal articles and reports.	8	12.5	12.5
Speaking about medical topics, using and pronouncing medical vocabulary correctly.	31	48.4	60.9
Listening to authentic multimedia (videos and podcasts).	10	15.6	76.6
Revising and learning grammar.	4	6.3	82.8
Writing class notes, test answers, assignments and Lab reports	2	3.1	85.9
Other (specify)	9	14.1	100.0
Total	64	100.0	

Regarding the other challenges that students are still facing, almost half the participants (48.4%) affirmed that it was Speaking about medical topics and using and pronouncing medical vocabulary correctly. Followed by Listening to authentic multimedia (videos and

Other challenges you are facing:  
64 responses

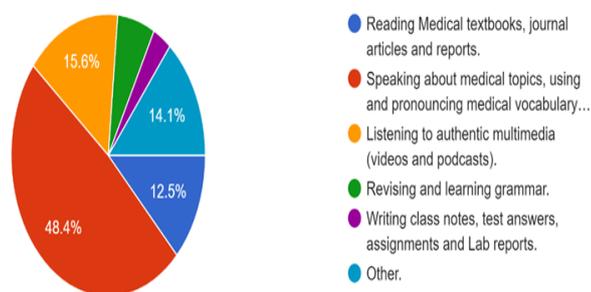


Figure 21. Students’ Perceptions of learning English challenges

podcasts), sitting at 15.6%, closely followed by Other at 14.1%, then 12.5% for Reading Medical textbooks, journal articles and reports. Only 6.3% of the participants selected “for Revising and learning grammar”. And a mere 3.1% of them went for Writing class notes, test answers, assignments, and Lab reports. These results further support the findings of the previous questions, where most participants valued speaking skills and see it as their main challenge trying to improve it the most, and very less attention is given to grammar and writing class notes or test answers because our learners believe that it is a skill they already have.

Table 18. Challenges with the EMP class

What are the major problems with EMP classes	Frequency	Valid Percent	Cumulative Percent
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The size of the class is usually too big (overcrowded classes).	4	6.3	6.3
Low level of (English/subject) knowledge of the teacher.	6	9.4	15.6
Heterogeneous students' level (mixed level of English language ability of students).	13	20.3	35.9
Uninterested and unmotivated students (boring classes).	6	9.4	45.3
The credits of the course are too low for students to take it seriously.	3	4.7	50.0
Lack of audio-visual material in the class (outdated material).	2	3.1	53.1
Lack of student involvement and participation in class activities.	6	9.4	62.5
Class hours make it challenging to focus (being at the end of the day)	24	37.5	100.0
Total	64	100.0	

And when asked about the major problems that they face when having EMP classes. More than one-third of the participants (37.5%) said it was Class hours making it challenging to focus, and another one-fifth (20.3%) said it was the Heterogeneous students' level. Additionally, three options were selected by the same number of participants, so Uninterested and unmotivated students, Lack of student involvement and participation in

What do you think are the major problems when having an EMP class:  
64 responses

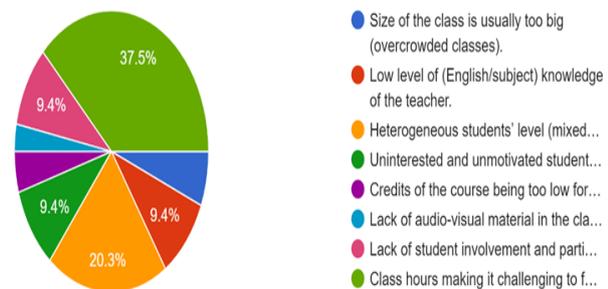


Figure 22. Challenges with the EMP class

class activities, and Low level of knowledge of the teacher all sat at 9.4%. Then the option of the Size of the class is usually too big was at 6.3%, followed by Credits of the course being too low for students to take it seriously at 4.7%; and lastly, Lack of audio-visual material in the class (outdated material) at 3.1%. In the study by (Eslami, 2010), the results were somewhat different, where most participants selected Lack of student involvement and participation in classroom activities, followed by Lack of availability of audio-visual materials, then Overcrowded classes, tailed by “Low English proficiency of instructors” and “Low content knowledge of instructors” ( which we grouped in one option to not confuse the participants), and the least selected option was “Negative attitude toward English”.

Our results reflect some major points that might need to be addressed; the first one is that the English classes are usually at the end of the week and the last class of the day; thus, many students get disappointed and lose interest in foreign language studies. This is something the students have complained about many times in previous years, but because of the Amphitheatre's availability, the only hours available for the English classes are the late ones, and regarding the group's Heterogeneity, it can be solved by setting a placement test where learners are separated into groups, but this would make evaluating the learners in an impartial manner very challenging. Regarding the other challenges (Uninterested and unmotivated students, Lack of student involvement and participation in class activities, and Low level of knowledge of the teacher), they are the same as the ones found in the study by Eslami (Eslami, 2010) and can be remedied by implementing activities that would engage the learners, and setting workshop for the ESP teachers so that they can hone their craft.

### Interpretation:

Table 19. Descriptive Statistics of Students' expectations of the class and their language needs

Questions	Maximum	Mean	Std. Deviation	Variance
Reasons for improving reading skills	5	2.97	1.790	3.205
Reasons for improving writing skills	5	2.81	1.207	1.456
Reasons for improving listening skills	5	3.47	1.357	1.840
Reasons for improving speaking skills	6	3.66	1.514	2.293
Reasons for learning new vocabulary	6	2.59	1.982	3.928
Students' Perceptions of language problems	8	3.08	2.228	4.962
Students' Perceptions of learning English challenges	6	2.81	1.562	2.440
The major Challenges with the EMP class	8	5.31	2.557	6.536

As previously stated, this section addressed the following points: students' expectations of the EMP classes, what kind of problems and challenges they experience in those classes, whether they are related to course hours, materials, or the language instruction, as well as their reasons for improving the different language skills (i.e. their language needs). The results of the first question in this section indicate that learners want to improve their reading skills in order to read technical articles, books and journals in the medical field as well as to read blogs, articles and posts on the Net and general books, newspapers and Magazines. This reflects that our learners want to improve their reading skills to benefit from the academic materials available so that they can learn more about their field, as well as improve reading to get better outcomes out of their leisure activities, from posts and blogs to books and

newspapers. Regarding their reasons for improving writing skills, it was to write articles and research papers for international journals and to write projects or Papers for Oral Presentation, as well as Lab reports; this means that our students want to improve their writing for academic purposes like writing articles or projects or even emails and motivation letters, and not so much practical ones, such as taking notes in class or answering questions in the exam. When asked about the reasons for improving listening skills, most students either picked to understand daily English, speeches, mass media, YouTube, movies and podcasts or to understand medical audio & video sources, like online lectures and documentaries; these results indicate that our learners want to improve their listening so that they can better grasp the English materials they come across daily whether it was YouTube videos movies or even podcasts, and the other interesting option was to better understand medical audio and video sources, and since the medium of instruction at the medical university is French, it would be safe to assume that the learners are referring to studying online and using platforms such as MOOC or Coursera.

Vis-à-vis why our learners want to improve their speaking skills, most participants selected to discuss medical issues/making presentations in seminars and conferences and to speak in public about medical issues and give oral presentations in class; these results indicate that our learners want to improve their speaking skills for academic purposes, where most of the option selected were to either discuss medical matters, present in seminars or speak to the public about medical issues, and very less favourable where the options of daily conversations with friends and just asking and answering questions, these could be because our learners believe they can already do that so it is not something they need to work on a lot. Concerning their reasons for learning new vocabulary, the major ones were to use medical terms in Professional communication or in academic writing and to analyse and understand medical texts and make inferences. This aligns with previous results in the sense that our learners care more about their academic skills and future careers and focus on improving their medical English instead of just focusing on General English and using new vocabulary to interact in class or with a friend.

The following questions addressed students' perceptions of the language problems they have as well as the challenges they are facing with learning the language or during the EMP classes, so when asked what language problems are students having, most of them selected poor speaking and conversational skills followed by limited vocabulary these align with the results of the second question where learners clearly voiced their need to improve speaking and vocabulary the most out of all language skills, these results will help us select activities that would answer best their demands so that we can channel their motivation towards the acquisition of the language. And when presented with a different set of challenges, our participants selected speaking about medical topics, using and pronouncing medical vocabulary correctly and listening to authentic multimedia (videos and podcasts), so we have this reoccurrence of speaking, highlighting the notion that our learners really value Speaking as a language skill and very less attention is given to grammar and writing class notes or test answers because

our learners believe that it is a skill they already have; further cementing the results found in previous questions.

The last question in this section addressed the challenges related to the EMP class, and most students selected class hours, making it challenging to focus (being at the end of the day) and heterogeneous students' levels (mixed level of English language ability of students). These are major points, and the first one is about the English classes being at the end of the week and the last class of the day; thus, many students either miss the class or attend it yet be too passive due to tiredness, thus building frustration and loss interest in foreign language studies. Something the students have complained about on numerous occasions in previous years, but because of the Amphitheatre's availability, the only hours available for the English classes are the late ones, and regarding the group's Heterogeneity, it can be solved by setting a placement test where learners are separated into groups, but this would make evaluating the learners in an impartial manner unachievable.

#### 4.6.3.Improvement of the Syllabus

The third section reflects what our students consider adequate for their medical English classes, materials, language instruction, etc. it was also about the improvement of the Syllabus at hand; worth mentioning that we elaborated the Syllabus in 2017, and it has had major changes every year, implementing improvement after each academic year, this section would help us assess the state in which the Syllabus is on, and where to go from here.

Table 20. The content of the EMP course

I would like the class to be about	Frequency	Valid Percent	Cumulative Percent
Studying specific, speciality-related words and expressions.	13	20.3	20.3
More opportunities for students to express their opinion and discuss work-related topics.	12	18.8	39.1
Analysing and reading speciality texts and acquiring new vocabulary.	10	15.6	54.7
Creative learning tasks that require higher-order thinking skills (critical thinking, brainstorming).	21	32.8	87.5
Discussions on issues of intercultural communication in the global world.	8	12.5	100.0
Total	64	100.0	

When asked about the content of the course, almost one-third of the students (32.8%) said they prefer Creative learning tasks that require higher-order thinking skills. 20.3% favoured studying specific, speciality-related words and expressions. 18.8% More opportunities for students to express their opinion and discuss work-related topics. 15.6% said it should be about analysing and reading speciality texts and acquiring new vocabulary, And

EMP course should be about (contain):  
64 responses

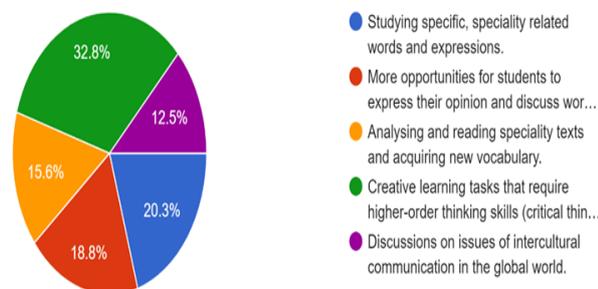


Figure 23. The content of the EMP course

12.5% Discussions on issues of intercultural communication in the global world.

These results reflect the learners’ need for more interactive activities that would challenge their intellectual faculties, even though the results might be influenced a bit by the fact that the ESP teacher is a big advocate for the practice of brainstorming and critical thinking. The students’ second choice was to learn specific, speciality-related words; this is in line with the previous question (question 2, Language Skills Preferences), where 20% of the participants selected vocabulary. However, the major issue here is that English is taught in the second year of students' academic training, which means that they are unacquainted with most field-specific terminology or certain profession-related topics, making the teaching of speciality-related words an impossible task (something we attempted in the first two years and then discontinued because it was extremely time-consuming and not that fruitful). Regarding the other selected choices, some of them have already been implemented (like discussing issues of intercultural nature), and the rest can be best implemented by adding Practical work classes (TDs) where our learners can have more freedom to practise the language and read and analyse speciality related texts and even learn new vocabulary.

Table 21. EMP class teaching methods preferences

Would you like the class to be:	Frequency	Valid Percent	Cumulative Percent
Traditional Lectures.	10	15.6	15.6
Readings sessions.	3	4.7	20.3
Small group discussions and debates.	21	32.8	53.1
Role-play – Interviews with simulated patients – actors, and volunteers.	16	25.0	78.1

Videotape reviews and translation.	9	14.1	92.2
Written reflections and text analysis.	5	7.8	100.0
Total	64	100.0	

On the subject of Learners’ preferences for EMP class teaching methods. Almost one-third of the participants (32.8%) stated they liked to study in small groups where they could discuss and debate issues. Followed by one quarter (25%) who like the class to be in the form of Role-plays and interviews with simulated patients. Moreover, 15.6% selected Traditional Lectures, and 14.1% said Videotape reviews and translation. The two least selected options were Written reflections and text analysis with 7.8%, and Reading sessions with 4.7%.

These results reflect that learners are already in favour of the current method, where we emphasise discussions and debates, and even role plays and interviews where learners got some glimpses of that in some of the activities we attempted in class. The same goes for videotape reviews and translation; however, it was interesting to

Would you like the class to be (teaching methods):  
64 responses

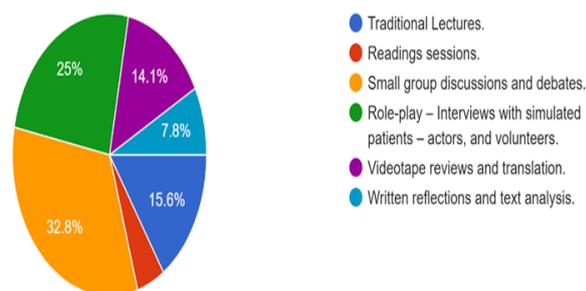


Figure 24. EMP class teaching methods preferences

notice that 15.6% of the participants did select the traditional method, yet it was in line with question 3 (Learning style preference), where we had few participants select traditional lectures.

Table 22. Students' views of the EMP Syllabus

How was the EMP course:	Frequency	Valid Percent	Cumulative Percent
The provided instructional materials were sufficient, and the topics were interesting/engaging.	20	31.3	31.3
The materials were not sufficient, and the topics were not interesting/engaging.	18	28.1	59.4
A variety of audio-visual aids were used.	13	20.3	79.7
Not enough use of the mother tongue for explanations.	6	9.4	89.1
Lack of Grammar lessons.	7	10.9	100.0

Total	64	100.0	
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And about their views of the EMP program so far. Almost one-third of the participants (31.3%) said that the provided instructional materials were sufficient and the topics were interesting/engaging. However, another 28.1% said the materials were not sufficient and the topics were not interesting/engaging. More than one-fifth of the participants (20.3%) stated that there was a variety of audio-visual aids used. 10.9% said it Lacked Grammar lessons, and only 9.4% said it's not enough use of the mother tongue for explanations.

These results show almost half the participants (31.3% and 20.3%) were pleased and satisfied by the diversity of the materials presented in the course and found most of it engaging. However, there was almost the same number of dissatisfied learners who either found the materials not sufficient (something that we could solve by teaching English in two or three academic years instead of one) or lacked the grammar lessons (even though the grammar classes take a full term but it might not be enough for students with a low level of proficiency).

How did you find the EMP course materials and instruction:  
64 responses

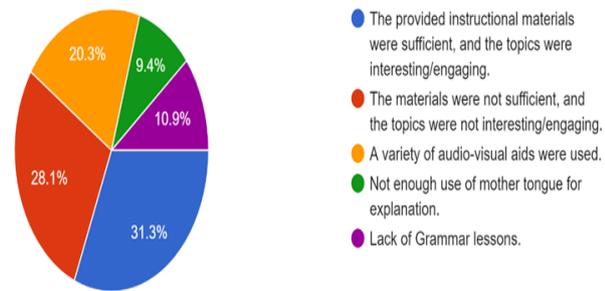


Figure 25. Students' views of the EMP Syllabus

Table 23. The emphasis of reading activities

Reading activities should be :	Frequency	Valid Percent	Cumulative Percent
To read English newspapers, magazines and books	10	15.6	15.6
To read English medical materials like textbooks, handouts and medical journals	41	64.1	79.7
To read stories and dialogues about the practice	11	17.2	96.9
Other (Please specify)	2	3.1	100.0
Total	64	100.0	

Regarding what should the emphasis of reading activities in the EMP course be about. Almost two third (64.1%) of our learners said it was to read medical materials like textbooks and handouts. It was followed by reading stories and dialogues about the practice at 17.2% and reading English magazines and books at 15.6%, and others with just 3.1%. This highlights the fact that pharmacy students, when it comes to reading activities, would rather have materials that are related to their medical studies, something that has been affirmed by the results of previous questions (section 2, question 1).

The emphasis of the reading aspect in the English course should be:  
64 responses

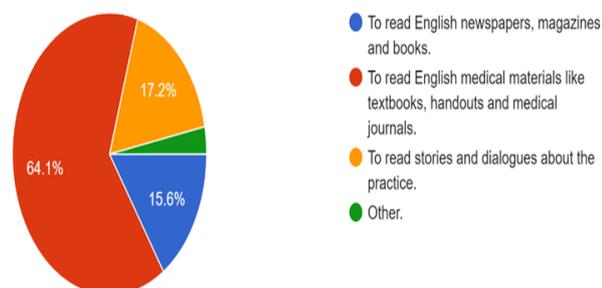


Figure 26. The emphasis of reading activities

Table 24. The emphasis of listening activities

Listening activities should be :	Frequency	Valid Percent	Cumulative Percent
To listen to casual podcasts and educational YouTube videos.	12	18.8	18.8
To listen to daily conversations and dialogues.	12	18.8	37.5
To listen to academic podcasts and watch videos about the medical field	27	42.2	79.7
To listen to the teacher and classmates and take notes	10	15.6	95.3
Other (Please specify)	3	4.7	100.0
Total	64	100.0	

Regarding what should the emphasis of listening activities in the EMP class be about. Nearly half of the participants (42.2%) said it should be about listening to academic podcasts and watching videos about the medical field. Both listening to casual podcasts and educational YouTube videos and listening to daily conversations and dialogues sat at 18.8%. To listen to the teacher and classmates and take notes

was 15.6% And last was other with 7.3%. These results could be influenced by the fact that we attempted to use some audio recordings as well as some videos related to the medical field, hence the participants’ tendencies towards it. Still, these results align with the ones of other questions showing our learners’ tendencies towards interactive material related to the medical field.

The emphasis of the listening aspect in the English course should be  
64 responses

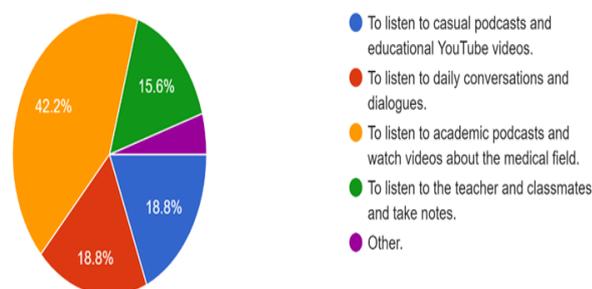


Figure 27. The emphasis of listening activities

Table 25. The emphasis of speaking activities

Speaking activities should be :	Frequency	Valid Percent	Cumulative Percent
To carry on casual conversations and debates.	11	17.2	17.2
To present classroom oral presentations or projects.	9	14.1	31.3
To deliver speeches and Public speaking outside class.	17	26.6	57.8
Participate in interactive class activities like games.	20	31.3	89.1
Other (Please specify)	7	10.9	100.0
Total	64	100.0	

Regarding what should the emphasis of speaking activities in the EMP class be about. Nearly one-third of the participants (31.3%) said it was to Participate in interactive class activities like games. And 26.6% said it was to deliver speeches and Public speaking outside class. Around one-fifth (17.2%) of the participants said it was to carry on casual conversations and debates. To present classroom oral presentations or projects was selected by 14.1%, and the other was last with 10.9%.

These results show that pharmacy students value using interactive activities like games in class and believe it to be a useful tool to practice speaking; the other outcome is that the participants value using the language inside as well as outside the classroom because many participants stated that they would like to practice speaking to deliver speeches and public presentations.

The emphasis of the speaking aspect in the English course should be  
64 responses

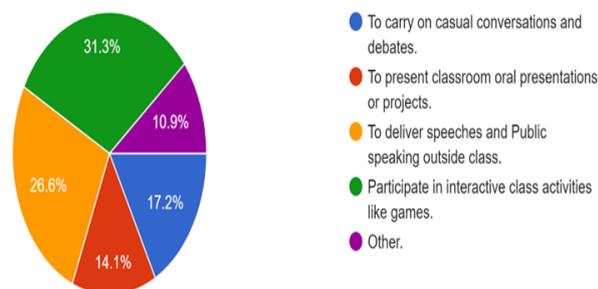


Figure 28. The emphasis of speaking activities

Table 26. The emphasis of writing activities

Writing activities should be :	Frequency	Valid Percent	Cumulative Percent
To write for a practical purpose (e.g., memos, e-mail messages, letters)	8	12.5	12.5
To write casual text, messages and comments.	12	18.8	31.3
To write course assignments, Medical or Lab reports.	21	32.8	64.1
To write research papers and articles.	17	26.6	90.6
Other (Please specify and select.)	6	9.4	100.0
Total	64	100.0	

Concerning the emphasis on activities in the EMP class, almost one-third of the students (32.8%) said it was to write course assignments and Medical or Lab reports. Another 26.6% selected to write research papers and articles. About one-fifth (18.8%) picked to write casual text, messages and comments.

What would you think the emphasis of the writing aspect in the English course should be  
64 responses

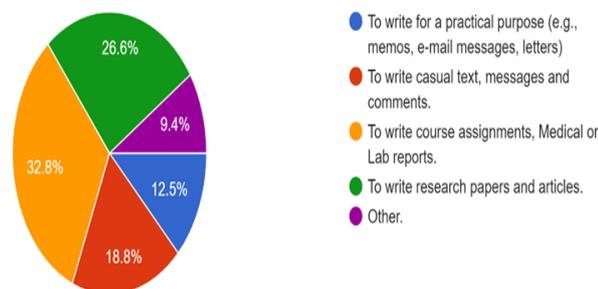


Figure 29. The emphasis of writing activities

Only 12.5% said to write for a practical purpose (e.g., memos, e-mail messages, letters). And 9.4% said other.

These results further cement the ones from previous questions, showing that our learners value a lot medical related topics and activities since many participants stated that the writing activities should be about medical topics and lab reports (worth mentioning that pharmacy students submit lab reports almost on a weekly basis but these lab reports are in French, so it would be interesting and beneficial if some of the subjects would demand that the students submit lab reports in English instead).

**Interpretation:**

Table 27. Descriptive Statistics of the Improvement of the Program

Questions	Maximum	Mean	Std. Deviation	Variance
The content of the EMP course should be	5	2.98	1.363	1.857
EMP class teaching methods preferences	6	3.41	1.433	2.055
Students' views of the EMP Syllabus	5	2.41	1.318	1.737
The emphasis of reading activities	4	2.08	.674	.454
The emphasis of listening activities	5	2.69	1.097	1.202
The emphasis of speaking activities	5	3.05	1.265	1.601
The emphasis of writing activities	5	3.02	1.161	1.349

As previously stated, this section reflects what our students consider adequate for their medical English classes, materials, language instruction, etc. it was also about the improvement of the Syllabus at hand. This section would assist us in determining the current state of the Syllabus and where to go from here. The results of the first question in this section indicate that learners would like the class to be about creative learning tasks that require higher-order thinking skills (critical thinking, brainstorming) and studying specific, speciality-related words and expressions; these findings reflect the learners' desire for more interactive activities that will challenge their cognitive abilities. The students' second choice was to learn specific, speciality-related words; this is consistent with the previous question (question 2 Language Skills Preferences), where 20% of participants chose vocabulary; however, the major issue here is that English is taught in the second year of the student's academic training, which means they are unfamiliar with most field-specific terminology or certain profession-related topics, making the teaching of speciality really challenging ( something we attempted in the first two years and then discontinued because it was extremely time-consuming and not that fruitful). Regarding the other chosen options, some have already been implemented (such as discussing intercultural issues), and the rest can be best implemented by adding Practical work classes (TDs) where our learners can have more freedom to practice the language and read and analyse speciality-related texts, as well as learn new vocabulary. Concerning their preferences vis-à-vis EMP class teaching

methods, they were in favour of small group discussions/debates and role-play – interviews with simulated patients – actors, and volunteers. These findings indicate that learners are already supportive of the current method, which emphasises discussions and debates, as well as role plays and interviews, which learners saw in some of the activities we tried in class. The same is true for videotape reviews and translation; however, it was interesting to note that some participants chose the traditional method, which was consistent with question 3 (Learning style preference), where we had a small number of participants choose traditional lectures. As to their views of the EMP Syllabus, most participants felt that the provided instructional materials were sufficient and the topics were interesting/engaging, and only some stated that the materials were not sufficient and the topics were not interesting/engaging. These findings show that most participants were pleased and satisfied with the diversity of the materials presented in the course and found the majority of it engaging; however, there was a considerable number of dissatisfied learners who either found the materials insufficient (something we could solve by teaching English in two or three academic years instead of one) or lacked the grammar lessons (despite the fact that the grammar classes take a full term).

When asked about the emphasis of reading, listening, speaking, and writing activities, respectively, they said it should be about reading English medical materials like textbooks, handouts and medical journals or about reading stories and dialogues about the practice. And about listening to academic podcasts and watching videos about the medical field and listening to casual podcasts and educational YouTube videos as well as listening to daily conversations and dialogues (for listening). About participating in interactive class activities like games and delivering speeches and Public speaking outside class ( for speaking), and about writing course assignments, Medical or Lab reports and writing research papers and articles. This demonstrates that when it comes to reading materials, Pharmacy students prefer materials related to their medical studies, which is supported by the results of previous questions (section 2, question 1). Regarding the listening results, they may have been influenced by the fact that we attempted to use some audio recordings as well as some videos related to the medical field, thus the participants' tendencies towards it; align with the ones of other questions demonstrating our learners' tendencies toward interactive materials related to the medical field. Speaking results show that students value interactive activities such as games in class and regard them as useful tools for practising speaking.

Another finding is that participants value using the language both inside and outside of the classroom, as many participants stated that they would like to practice speaking in order to deliver speeches and public presentations. Writing results reinforce previous questions, demonstrating that our learners place a high value on medical-related topics and activities. Additionally, pharmacy students submit lab reports almost weekly, but these lab reports are in French, so it would be interesting and beneficial if some of the subjects required students to submit lab reports in English instead).

**4.6.4.Cognitive Enhancement Personal Growth and Management of Learning**

The fourth section was about Cognitive enhancement, Personal growth, and Management of learning because we believe that language learning is a life-long endeavour and that teaching the language should also be about teaching critical thinking and brainstorming.

Table 28. The significance of some English language sub-skills

English language sub-skills	Frequency	Valid Percent	Cumulative Percent
Brainstorming.	9	14.1	14.1
Critical thinking.	12	18.8	32.8
Scanning and skimming in reading.	4	6.3	39.1
Summarising and editing in writing.	8	12.5	51.6
Inferring attitude, mood and understanding gist in listening.	5	7.8	59.4
Pronunciation and intonation in speaking	20	31.3	90.6
Cultural awareness.	6	9.4	100.0
Total	64	100.0	

Regarding which language sub-skills are more significant for our learners. Almost one-third (31.3%) of the learners said that Pronunciation and intonation in speaking were the most important. Another 18.8% said it was critical thinking, followed by 14.1% for Brainstorming. Summarising and editing in writing was selected by 12.5%, and Cultural awareness by 9.4%. Inferring attitude, mood and understanding gist in listening sat at 7.8% and Scanning and skimming in reading was 6.3%.

How significant are each of the following language sub-skills (which one do u want to develop more):

64 responses

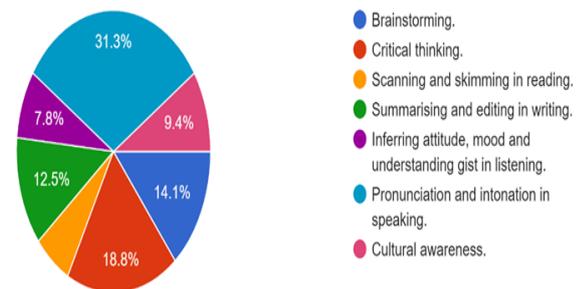


Figure 30. The significance of some English language sub-skills

These results indicated that the major focus for our learners is how to pronounce and be a fluent speaker of English, followed by both critical thinking and brainstorming, thus giving us the incentive to elaborate activities where learners can learn pronunciation and, at the same time, improve their critical

thinking and brainstorming capabilities. The other options were almost evenly selected by the rest of the participants.

Table 29. Sources of language learning satisfaction

I get a sense of satisfaction from:	Frequency	Valid Percent	Cumulative Percent
Having my work graded and getting good results.	10	15.6	15.6
Making progress in the language and getting confirmation from the teachers	15	23.4	39.1
Feeling more confident in situations that I found difficult before	25	39.1	78.1
Passing a certain English proficiency exam (such as TOEFL, TOEIC, or IELTS ...)	10	15.6	93.8
Other	4	6.3	100.0
Total	64	100.0	

When asked about what gives them a sense of achievement and satisfaction when learning the language, more than one-third of the participants (39.1%) stated it was from Feeling more confident in situations that they found difficult before. Another 23.4% said it was Making progress in the language and getting confirmation from the

In the English course, I get a sense of satisfaction from 64 responses



Figure 31. Sources of language learning satisfaction

teachers. Passing a certain English proficiency exam (such as TOEFL, TOEIC, IELTS...) and Having my work graded and getting good results were both at 15.6%. And 6.3% went with other.

So, these results show that students of pharmacy operate under both intrinsic and extrinsic motivation since one-third stated that they learn so that they can overcome challenges and another one-third stated it was to make progress in the language and get a confirmation from the teacher; this also shows that most learners are not learning the language for the grades or language test because only 15.6% selected that option.

Table 30. Learners’ needs in regard to the current syllabus

I need:	Frequency	Valid Percent	Cumulative Percent
A different study tempo (Slower or faster).	6	9.4	9.4
More listening & speaking practice.	41	64.1	73.4
More study time (more hours per week).	5	7.8	81.3
Smaller class sizes, like in tutorial sessions (TDs).	8	12.5	93.8
Topics that are delivered by students.	4	6.3	100.0
Total	64	100.0	

When asked about their needs in regard to the current syllabus and what they wanted more of, almost two-thirds (64.1%) of the participants said they needed more listening & speaking practice. They needed smaller class sizes like in tutorial sessions (TDs) was selected by 12.5% of the participants. Another 9.4% said they needed a different study tempo (Slower or faster). Surprisingly, we needed more study time (more hours per week) was selected by only 7.8%, followed by 4.7% saying they needed more topics that are delivered by students. And only 1.6% said other.

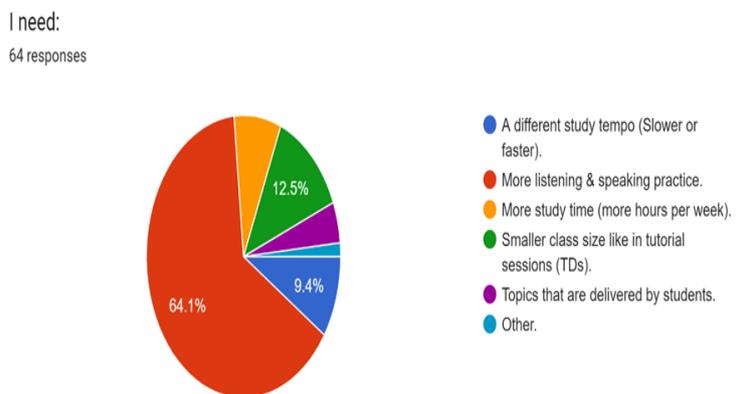


Figure 32. Learners’ needs in regard to the current syllabus

Clearly, the overwhelming majority of participants state that they need more listening and speaking practice, despite our efforts to include as many listening and speaking activities in the lecture, which highlights the need to incorporate tutorial sessions (TDs).in the course where learners get to practice the language more frequently. However, the option for More study hours per week was set, and most learners did not select it. Thus, we believe setting English classes throughout two or three years would also be a good solution where students can have strictly practical classes in one of those years.

Table 31. Learners' interests and objectives

I am more interested in:	Frequency	Valid Percent	Cumulative Percent
Being able to Frame/provide responses to simple questions.	3	4.7	4.7
Expressing ideas and thoughts clearly, and holding a conversation in English	31	48.4	53.1
Understanding questions and comments raised by colleagues and following class discussions.	6	9.4	62.5
Writing correct meaningful sentences in English.	8	12.5	75.0
Brainstorming and linking concepts previously learnt.	6	9.4	84.4
Developing other skills like critical thinking and other interpersonal skills	10	15.6	100.0
Total	64	100.0	

When asked about their interests and objectives related to language learning, almost half (48.4%) of the participants stated that they were interested in expressing ideas and thoughts clearly, and holding a conversation in English. Another 15.6% of the learners said that they were interested in developing other skills like critical thinking and other interpersonal skills,

followed by 12.5% that said they were interested in writing correct meaningful sentences in English. Both brainstorming and linking concepts previously learnt and understanding questions and comments raised by colleagues and following class discussions were at 9.4%. Only 4.7% said being able to frame/provide responses to simple questions.

The results of this question indicate that our learners value becoming articulate and fluent users of the English language; this is in line with the results of previous questions (.....); their second choice was developing critical thinking and other interpersonal skills, indicating that learners value communicating and interacting with others, both individually and in groups.

I am more interested in  
64 responses

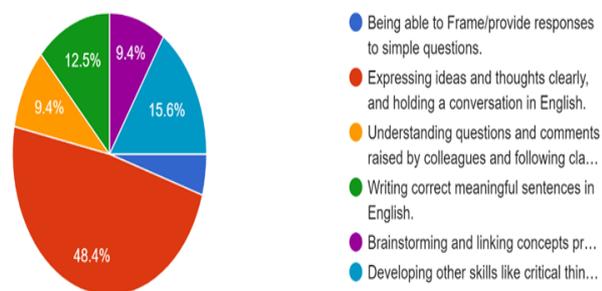


Figure 33. Learners' interests and objectives

Table 32. Learners’ preference regarding classroom activities

Your preference for classroom activities:	Frequency	Valid Percent	Cumulative Percent
Exercises from the textbook (fill in the gap, matching etc.)	2	3.1	3.1
Doctor-patient dialogues using audio-visual materials.	18	28.1	31.3
Writing tasks like small essays and reports.	9	14.1	45.3
Theoretical knowledge using PowerPoint presentation	2	3.1	48.4
Authentic reading and listening tasks using videos, articles, and podcasts.	26	40.6	89.1
Other. (Please specify)	7	10.9	100.0
Total	64	100.0	

When asked what classroom activity they liked the most. 40.6% said they preferred authentic reading and listening tasks using videos, articles, and podcasts. Another 28.1% said they like doctor-patient dialogues using audio-visual materials. 14.1% said they like writing tasks like small essays and reports. 10.9% said other, and 3.1% went for both exercises from the textbook (fill in the gap, matching etc.) and Theoretical knowledge using PowerPoint presentation.

Your preference for classroom and blackboard activities:  
64 responses

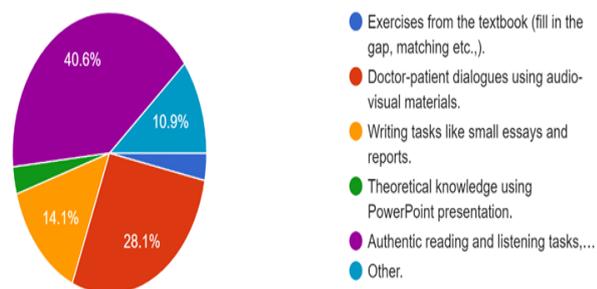


Figure 34. Learners’ preference regarding classroom activities

These results are in favour of implementing listening to and reading authentic material, whether it is videos from YouTube about a medical topic or sections of articles related to the field. Additionally, some students showed interest in doctor-patient dialogues, something we have been doing for years now, where students can practise listening skills and sub-skills as well as speaking ones.

**Interpretation:**

Table 33. Descriptive Statistics of Cognitive enhancement Personal growth and Management of Learning

Questions	Maximum	Mean	Std. Deviation	Variance
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The significance of some English language sub-skills	7	4.12	2.074	4.302
Sources of language learning satisfaction	5	2.73	1.102	1.214
Learners' needs in regard to the current syllabus	5	2.42	1.036	1.073
Learners' interests and objectives	6	3.20	1.605	2.577
Learners' preference regarding classroom activities	7	3.94	1.726	2.980

The fourth section was about Cognitive enhancement, Personal growth, and Management of learning because it is our belief that language learning should be a lifelong endeavour and that teaching the language should also include critical thinking and brainstorming. Regarding the significance of language sub-skills, our learners view pronunciation and intonation in speaking as well as Critical thinking, as the most valuable sub-skills. This indicates that our learners' primary focus is on how to pronounce and speak English fluently, followed by critical thinking and brainstorming, providing us with an incentive to design activities in which learners can learn pronunciation while also improving their critical thinking and brainstorming abilities. The remaining participants chose the other options almost evenly. When asked about their source of language learning satisfaction, most learners said it was when feeling more confident in situations that they found difficult before or when making progress in the language and getting confirmation from the teachers, indicating that pharmacy students are motivated by both intrinsic and extrinsic factors, as another one-third stated that they learn to overcome challenges, and the rest stated that they learn to make progress in the language and receive confirmation from the teacher. This also demonstrates that the majority of students are not learning the language for grades or language tests, as only a few students chose that option.

As regards learners' needs in regard to the current syllabus, the overwhelming majority of students stated that they would like more listening & speaking practice, and some said smaller class sizes like in tutorial sessions (TDs). So, despite our efforts to include as many listening and speaking activities as possible in the lecture, the overwhelming majority of participants feel that they need more listening and speaking practice, highlighting the need to incorporate tutorial sessions (TDs) in the course so that learners can practice the language more frequently. Additionally, we believe that dividing English classes into two or three years would be a good solution, with students having strictly practical classes in one of those years. When asked about their interests and objectives, most students said it was to express ideas and thoughts clearly and hold conversations in English, and some said to develop other skills like critical thinking and other interpersonal skills; this indicates that our students value becoming articulate and fluent English language users, which is consistent with the results of previous questions. The development of critical thinking and other interpersonal skills was their second choice, indicating that learners value communicating and interacting with others, both individually and in groups. The last question in this section addressed our learners' preferences regarding classroom activities; they declared

that authentic reading and listening tasks using videos, articles, and podcasts, as well as doctor-patient dialogues using audio-visual materials, were their favourite activities. These findings support the use of authentic material, whether it is videos from YouTube about a medical topic or sections of articles related to the field. Furthermore, some students expressed interest in doctor-patient dialogues, which we have been doing for years and in which students can practice both listening and speaking skills.

#### 4.6.5. Preferred Interactive Tasks

The fifth section was about interactive activities and games and getting to know which ones do our learners prefer.

Table 34. Learners' preference regarding interactive activities I

<b>I find this activity more appealing</b>	Frequency	Valid Percent	Cumulative Percent
Listening to audio recordings and podcasts.	8	12.5	12.5
Role plays, interviews, and dialogues.	9	14.1	26.6
Language games.	8	12.5	39.1
Videos from YouTube or sections from movies/TV shows.	12	18.8	57.8
Using Dictionaries, Flashcards and Memorising vocabulary lists.	6	9.4	67.2
Debates, and Group conversations and discussions.	15	23.4	90.6
Teamwork and projects.	6	9.4	100.0
Total	64	100.0	

When asked which activities suit them best. 23.4% said Debates, and Group conversations and discussions, followed by 18.8% for Videos from YouTube or sections from movies/TV shows, then 14.1% for % Role plays, interviews, and dialogues. An equal number of students went for both Language games and Listening to audio recordings and podcasts with 12.5%. 9.8% for both Teamwork and projects and Using Dictionaries, Flashcards and Memorising vocabulary lists.

In the English course, I find these activities more appealing, suit me more and are useful.  
64 responses



Figure 35. Learners’ preference regarding interactive activities I

and Memorising vocabulary lists. A similar question was asked in the study by Syakur et al. (Syakur et al., 2020), where most participants selected English games (using the computer) followed by crosswords, fill-in dialogue, and Multiple choice activities, all equally.

The results of this question were relatively close across the suggestions; it can be attributed to the fact that there were seven options (so plenty of options to choose from). Additionally, from these results, we can deduce that our learners like debates and group conversations the most (we had the chance to experiment with that during the academic year, where we debated a couple of topics, yet we did not assume they liked it that much). The second option for learners was the videos from YouTube and TV shows, indicating that many learners are visual learners and would learn best from visual cues. The least selection options were Projects and Memorising vocabulary lists.

Table 35. The introduction of English to medical students

I prefer English to be introduced:	Frequency	Valid Percent	Cumulative Percent
Focusing on the four major skills.	12	18.8	18.8
Focusing on medical terminology.	15	23.4	42.2
Focusing on practice and communication skills.	12	18.8	60.9
Using technology, i.e., computers, the Internet and laboratories.	4	6.3	67.2
Highly qualified specific courses in the medical field.	5	7.8	75.0
A specific course for every year to suit every stage.	16	25.0	100.0
Total	64	100.0	

When asked about how should English be introduced to them as medical students? One-fourth (25%) of the participants said a specific course for every year to suit every stage. Another 21.9% selected Focusing on medical terminology. Both Focusing on the four major skills and Focusing on practice and communication skills were at 18.8%. Only 7.8% selected Highly qualified specific courses in the medical field. Using technology, i.e., computers, the Internet, and laboratories were selected by 6.3%, and Focusing on Grammar by 1.6% of the participants.

How would you prefer English be introduced to medical students:  
64 responses

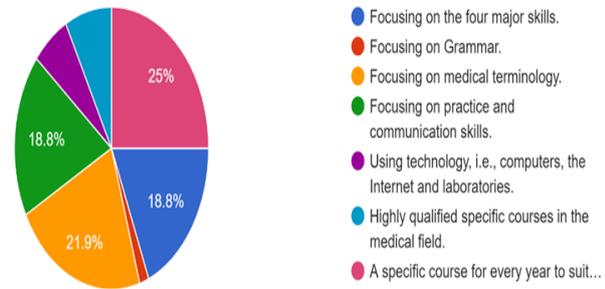


Figure 36. The introduction of English to medical students

These results should help us in designing the curriculum or adjusting the old one, In the sense that most learners selected a specific course for every year (knowing that learners only study English for one year, this would mean teaching English to pharmacy students for more than one year); additionally, we should implement more technical vocabulary coupled with communication activities.

Table 36. The utility of interactive activities and educational games

Using Interactive activities and games can:	Frequency	Valid Percent	Cumulative Percent
Reduce anxiety and stress in the classroom helps students remember faster and better.	20	31.3	31.3
Construct a cooperative learning environment and promote communicative competence.	6	9.4	40.6
Be a welcome break from the routine of the class “fun and amusing”. (the acquisition of input is more likely).	13	20.3	60.9
Allow language practice of various skills at the same time (speaking, writing, etc.).	9	14.1	75.0
Positively influence the teacher-student relationship and encourages shy students to participate.	16	25.0	100.0
Total	64	100.0	

When asked about the utility of interactive activities and games in learning languages, almost one-third (31.3%) of the participants said Interactive activities and games reduce anxiety and stress in the classroom and help students remember faster and better. Another 25% said they positively influence the teacher-student relationship and encourage shy students to participate. About a fifth (20.3%) said they are a welcome break from the routine of the class “fun and amusing”. 14.1% said they allow language practice of various skills at the same time, and only 9.4% said interactive activities and games help construct a cooperative learning environment and promote communicative competence equally.

Do you think that using Interactive activities and educational games can:  
64 responses

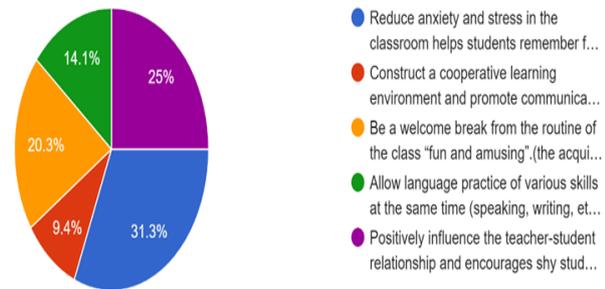


Figure 37. The utility of interactive activities and educational games

So, most learners in our study believe that interactive activities have a positive effect on the teacher-learner relationship and that they further lower stress and anxiety when learning the language, something that was reflected in class whenever we had similar activities where more students would participate, and we would get the attention of all students present.

So, most learners in our study believe that interactive activities have a positive effect on the teacher-learner relationship and that they further lower stress and anxiety when learning the language, something that was reflected in class whenever we had similar activities where more students would participate, and we would get the attention of all students present.

Table 37. Learners’ expectations coming into the EMP course

Coming into this EMP class, I expected:	Frequency	Valid Percent	Cumulative Percent
Increase my EMP vocabulary/ learn medical terminology in English	15	23.4	23.4
Practice my English language skills / carry out communicative activities	14	21.9	45.3
Discuss professional topics of common interest	12	18.8	64.1
Listen and watch medical materials.	8	12.5	76.6
Read and understand professional texts	11	17.2	93.8
Improve my grammar.	4	6.3	100.0
Total	64	100.0	

When students were asked about their expectations coming into the EMP class, almost one-fourth (23.4%) of them selected to increase their EMP vocabulary/Learn medical terminology in English. Another 21.9% said it was to practice their English language skills /carry out communicative activities. Followed by discussing professional topics of common interest at 18.8%. To read and understand professional texts sitting at 17.2%, and to listen and watch medical materials at just 12.5%.

What were your expectations coming into this EMP class:  
64 responses

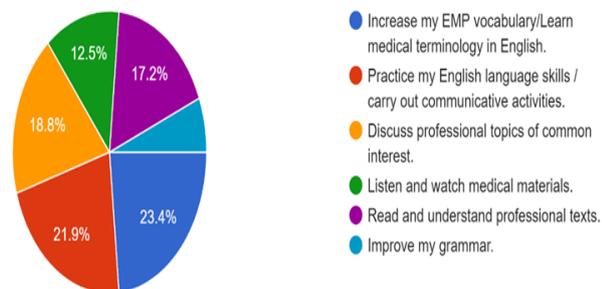


Figure 38. Learners’ expectations coming into the EMP course

These results show that our learners value vocabulary immensely; many others believe the course to be about improving the other four skills and practising communication as well as discussing professional topics of common interest, something that we attempted during the academic year, yet we faced some of the challenges where learners mostly lacked the professional knowledge to maintain such discussions and debates.

Table 38. Learners’ preference regarding interactive activities II

I can learn the language better using:	Frequency	Valid Percent	Cumulative Percent
Crossword puzzles	5	7.8	7.8
Idiom and quote debates and discussions	16	25.0	32.8
Role-plays and simulations	5	7.8	40.6
Translation activities	6	9.4	50.0
Podcasts and audio recordings of real-life conversations	12	18.8	68.8
Projects presentations	7	10.9	79.7
Flashcards and playing with Quizlet	5	7.8	87.5
Visual aids like vlogs and tv show clips	6	9.4	96.9
Storytelling and blogs	1	1.6	98.4
Labelling diagrams and discussing graphs and pictures	1	1.6	100.0

Total	64	100.0	
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When asked about what interactive activities helped them learn the language better, one-fourth (25%) of the participants said it was Idioms and quote debates and discussions. Another 18.8% said it was via podcasts and audio recordings of real-life conversations. And 10.9% said Projects presentations. Both through Visual aids like vlogs and tv show clips and Translation activities were at 9.4%. All of the Crossword puzzles, Role-plays and simulations, Flashcards and playing with Quizlet were at 7.8%. And in last place were both Labelling diagrams and discussing graphs and pictures and Storytelling and blogs, with one vote each sitting at 1.6%.

I can learn the language better using:  
64 responses

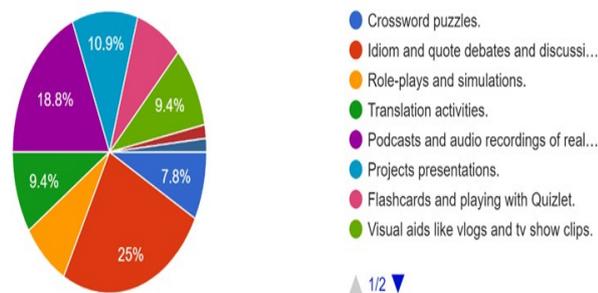


Figure 39. Learners' preference regarding interactive activities II

Figure 39. Learners' preference regarding interactive activities II

We believe that the results of this question are somewhat influenced by learners' own class experience, meaning that during the academic year, we have plenty of idioms and quotes for debates and pharmacy students took a liking to that activity, and it became an activity student look forward to, also we had some authentic podcasts and educational audio recording that students had to explain and discuss. Additionally, Unlike the study by Orawiwatnakul, where positive attitudes towards learning a language through Crossword puzzles were expressed in previous studies like the one by Orawiwatnakul (Orawiwatnakul, 2013), in our study, not many students selected Crosswords puzzles and Role-plays probably because of the abundance of the option, that is why we will be addressing this point in further questions. Additionally, we have noticed the disinterest of our students in the use of role-plays even if it was a highly suggested activity by scholars such as Taşçı (Taşçı, 2007), where it was suggested that role-play activities be used in the classes to practice communicating with foreign patients in real life situations in the medical context.

Table 39. Vocabulary learning preferences

I learn new vocabulary through:	Frequency	Valid Percent	Cumulative Percent
Word games like scatter sheets	3	4.7	4.7
Podcasts and audios of dialogues	16	25.0	29.7
Flashcards and Quizlet	8	12.5	42.2

Role-plays and Stories	3	4.7	46.9
Using visuals like videos and illustrations	17	26.6	73.4
Using mnemonic devices	4	6.3	79.7
Via Translation	9	14.1	93.8
Using Dictionaries and collocations	4	6.3	100.0
Total	64	100.0	

When we asked students about vocabulary learning preferences, more than one-fourth (26.6%) of the learners said they preferred learning vocabulary using visuals like videos and illustrations. About another fourth (25%) selected Podcasts and audio of dialogues, followed by 14.1% for Translation and 12.5% for Flashcards and Quizlet. Both mnemonic devices and Using Dictionaries and collocations were at 6.3%. Just 4.7% went for both word games like scatter sheets and Role-plays and Stories.

I rather learn new vocabulary through:  
64 responses



Figure 40. Vocabulary learning preferences

The results of vocabulary learning preferences showed that our learners prefer to learn vocabulary using visuals like videos and illustrations, followed by many who said using podcasts and dialogues, then some selected translation, yet very few selected flashcards, Quizlet, mnemonics, dictionaries, and role plays, this could be because the latter ones are ones that we did not have time to practice plentifully in class, where we mainly used translation, pictures and videos to teach terms and occasionally audio recordings.

Table 40. Vocabulary Games preferences

This game helps me learn vocabulary	Frequency	Valid Percent	Cumulative Percent
Relay Word Building	8	12.5	12.5
Crossword Puzzles	34	53.1	65.6
Board Race	3	4.7	70.3
Word Jumble Race	10	15.6	85.9

Hangman	3	4.7	90.6
The Mime	5	7.8	98.4
Cloze games	1	1.6	100.0
Total	64	100.0	

When asked which game helped them learn vocabulary better, more than half (53.1%) of the participants stated that Crossword Puzzles were their favourite. Another 17.1% went for Word Jumble Race. Relay Word Building was at 12.5%, and 7.8% said it was The Mime. And only 4.7% went for both Board Race and Hangman. Worth mentioning that one student selected Cloze games with 1.6%.

Which of the following games helps you learn vocabulary the most:  
64 responses

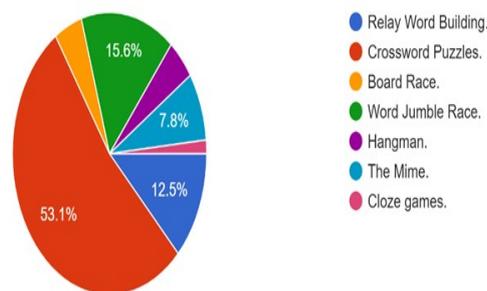


Figure 41. Vocabulary Games preferences

These results might be impacted by the fact that Crossword puzzles are by far the most frequently used game in our classes since we used it at the end of each term as a tool to revise the material studied and prepare for the examination. However, the choice of Crossword puzzles could be explained by the study of Sandiu & Balagiu (Sandiu & Balagiu, 2020), stating that Crosswords are a less threatening activity to learn or test vocabulary and can be modified to suit the classroom purpose and cover any specific topic.

Table 41. Grammar learning preferences

I learn grammar better through:	Frequency	Valid Percent	Cumulative Percent
Examples and activities	35	54.7	54.7
Labelling and discussing graphs, charts and pictures	5	7.8	62.5
Word building Games	9	14.1	76.6
Multiple-choice games	6	9.4	85.9
Word-matching and Gap-filling activities	9	14.1	100.0
Total	64	100.0	

When asked about their preferred methods to study Grammar. More than half (54.7%) of the participants selected using Examples and activities. Another 14.1% selected either through Word building Games or Word-matching and Gap-filling activities. Multiple-choice games came in 4<sup>th</sup> with 9.4%. Only 7.8% went for Labelling and discussing graphs, charts and pictures. Worth mentioning that no student selected Missing links tasks.

I rather study grammar after learning the rule through:  
64 responses

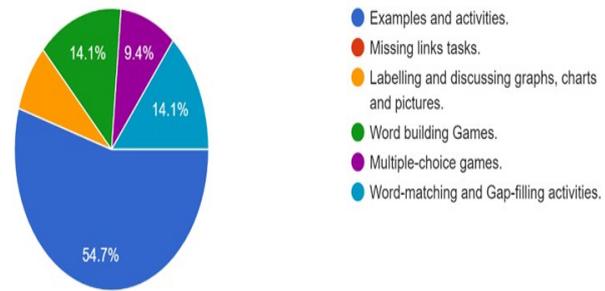


Figure 42. Grammar learning preferences

So, our learners clearly value using examples and activities to learn Grammar; some selected word-building games like crossword puzzles, and the same number had selected word-matching and gap-filling, so it is safe to assume there is enough room to experiment with these activities to teach grammar.

Table 42. The use of Crossword Puzzles to learn vocabulary

Using Crossword Puzzles:	Frequency	Valid Percent	Cumulative Percent
Is not sufficient to cover the vocabulary studied.	2	3.1	3.1
Makes learning vocabulary more interesting.	17	26.6	29.7
Can allow students to review vocabulary.	14	21.9	51.6
Can motivate to learn more vocabulary.	25	39.1	90.6
Helps get rid of anxiety when learning new vocabulary.	6	9.4	100.0
Total	64	100.0	

Regarding the use of Crossword puzzles to learn new vocabulary or review previously learnt one. More than one-third (39.1%) of our participants said that Crossword puzzles could motivate them to learn more vocabulary. Another 26.6% said it made learning vocabulary more interesting, and 21.9% claimed puzzles could allow students to review vocabulary. Crossword

Using Crossword Puzzles as a Learning tool for vocabulary development:  
64 responses

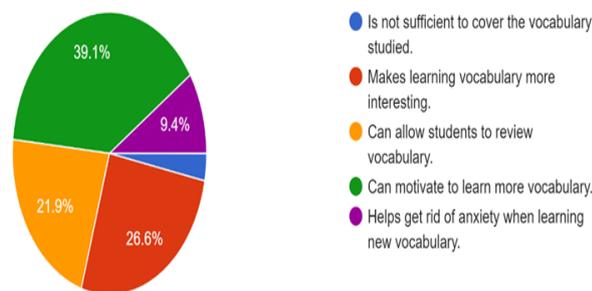


Figure 43. The use of Crossword Puzzles to learn vocabulary

puzzles help get rid of anxiety when learning new vocabulary was selected by 9.4%. And only 2.4% said they were not sufficient to cover the vocabulary studied. These results are somewhat similar to the ones in the study by Orawiwatnakul (Orawiwatnakul, 2013), where participants stated that Crossword puzzles mostly helped them memorise vocabulary, followed by the crossword puzzle sheet enabled me to review the vocabulary and Doing crossword puzzles helped rid me of anxiety when I learn new vocabulary equally. Followed by Crossword puzzles made me want to learn more vocabulary and Crossword puzzles made learning vocabulary more interesting equally, and the least selected option was the vocabulary in the crossword puzzle sheet was sufficient to cover all the lessons. We decide to change that option to a negative statement so that not all options are advocating for crossword puzzles, thus creating at least one option where learners can voice their disapproval of Crossword puzzles.

These results advocate for the use of Crossword puzzles since only two students stated they Crossword puzzles are not sufficient to cover the vocabulary studied. Thus, we can deduce that Crossword puzzles can be implemented as an activity to either learn/ review vocabulary or even study grammar and review grammatical elements.

Table 43. The use of games to learn English

Using games in class:	Frequency	Valid Percent	Cumulative Percent
Games are a fun and relaxing way to learn.	22	34.4	34.4
Games are an excellent way to learn grammar.	9	14.1	48.4
Games are motivating for me, and they make me study to win	23	35.9	84.4
Games are not helpful in learning grammar or vocabulary.	5	7.8	92.2
We should not play at all. I prefer studying using books and worksheets.	5	7.8	100.0

Total	64	100.0	
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When we asked them about the use of Games in class, more than one-third (35.9%) of the participants selected the option of "Games are motivating for me", and they made them study to win; another third (34.4%) selected Games are a fun and relaxing way to learn. Games are an excellent way to learn grammar was chosen by 14.1%, and both We should not play at all and we prefer studying using books and worksheets, and Games are not helpful with learning grammar or vocabulary was at 7.8%.

Regarding using games in class:  
64 responses

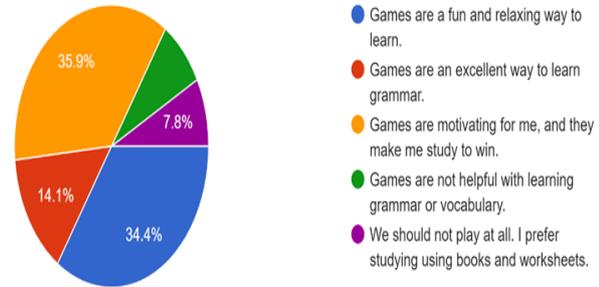


Figure 44. The use of games to learn English

These results are very similar to the ones in the study by Bush (Bush, 2015), where most participants stated that The games were fun, followed by "Games are motivating to me". I want to study to win. Few participants selected "Games are a good way to learn grammar". Fewer participants selected "Games are not helpful for learning grammar". And even fewer selected "We should not play at all". Thus, like the results of the study by Bush, ours confirm that games, due to creating an interactive and motivating context where learners can easily and subconsciously share their information, are effective in vocabulary acquisition, where learners compete and cooperate with each other in an enjoyable environment.

Table 44. The use of project presentations to learn English

Using project presentations to learn English:	Frequency	Valid Percent	Cumulative Percent
Makes learning more authentic.	9	14.1	14.1
Foster cooperative learning.	6	9.4	23.4
Develops critical thinking and creativity.	19	29.7	53.1
Helps the reproduction of technical terms in Professional communication.	17	26.6	79.7
Develops the skill of taking notes.	10	15.6	95.3
Is not an interesting activity.	3	4.7	100.0
Total	64	100.0	

When students were asked about their opinion regarding the use of Project presentations as a tool to learn Medical English, almost one-third (29.7%) of the learners said it would develop their critical thinking and creativity. Another 26.6% said it would help with the reproduction of technical terms in Professional communication. 15.6% said it develops their skill of taking notes, and 14.1% said it makes learning more authentic. 9.4% went with "it fosters cooperative learning", and only 4.7% said "it is not an interesting activity".

Using project presentations to learn English and Medical English:  
64 responses

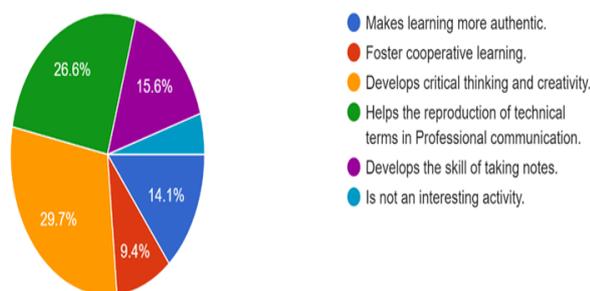


Figure 45. Using project presentations to learn English and Medical English

These results are in favour of using Project presentations to practice the language since most learners have positive views about using Project presentations, yet this activity met some major challenges in the form of not having enough time for learners to present their work and whether we should make project presentation a mandatory graded activity, something we could not do unless it was part of the Practical work grade, something the pharmacy students do not have.

**Interpretation:**

Table 45. Descriptive Statistics of Preferred Interactive Tasks

Questions:	Maximum	Mean	Std. Deviation	Variance
Learners' preference regarding interactive activities I	7	4.06	1.934	3.742
The introduction of English to medical students	7	4.17	2.142	4.589
The utility of interactive activities and educational games	5	2.92	1.587	2.518
Learners' expectations coming into the EMP course	6	2.97	1.603	2.507
Learners' preference regarding interactive activities II	10	4.37	2.347	5.508
Vocabulary learning preferences	8	4.30	2.075	4.307
Vocabulary Games preferences	7	2.77	1.520	2.309
Grammar learning preferences	6	2.66	1.978	3.912
The use of Crossword Puzzles to learn vocabulary	5	3.25	1.054	1.111

The use of games to learn English	5	2.41	1.256	1.578
The use of project presentations to learn English	6	3.34	1.371	1.880

The fifth section was about interactive activities and games and discovering which ones our students prefer. The first question in this section addressed our students' preferences regarding interactive activities, where they displayed interest towards Debates/ Group conversations and discussions as well as Videos from YouTube or sections from movies/TV shows. However, This question's results were relatively close across all suggestions, attributed to the fact that there were plenty of options to choose from. Furthermore, based on these findings, we can conclude that our students prefer debates and group discussion activities that create a fresh, dynamic atmosphere and student interaction in the class. The tendency towards videos from YouTube and TV shows indicates that many learners are visual learners and would benefit most from visual cues. The next point addressed how they would prefer English to be introduced; students mainly said they rather have a specific course for every year to suit every stage and that courses focused more on medical terminology. These findings should aid us in developing new curricula or revising the existing one, in that most learners chose a specific course for each year (given that learners only study English for one year, this would imply teaching English to pharmacy students for more than one year); additionally, we should incorporate more medical vocabulary lists along with communication activities.

As regards the utility of interactive activities and educational games, our learners stated that they reduce anxiety and stress in the classroom and help them remember faster and better. Moreover, such activities positively influence the teacher-student relationship and encourage shy students to participate. This was evident in class whenever we had similar activities where more students would participate, and we would get the attention of all students present. Interactive activities have a positive effect on the teacher-learner relationship, and they further lower stress and anxiety when learning the language. When asked about their expectations coming into the EMP course, students stated they expected to increase their EMP vocabulary/ learn medical terminology in English and, practice their English language skills / carry out communicative activities. These findings affirm the previous one, showing that our students place a high value on vocabulary, as well as honing the other four skills and practising communication, in addition to discussing professional topics of mutual interest, which we attempted during the academic year, but encountered some difficulties because students lacked the professional knowledge to maintain such discussions and debates.

When presented with a more detailed list of interactive activities, most learners favoured having idiom and quote debates and discussions or podcasts and audio recordings of real-life conversations. We believe that the results of this question are influenced in some way by the learners' own class experience,

which means that during the academic year, we had plenty of idioms and quotes for debates, and pharmacy students took a liking to that activity, and it became an activity that students looked forward to, and we also had some authentic podcasts and educational audio recordings that students had to explain and discuss. Because of the abundance of options, not many students chose crossword puzzles and role-plays, which is why we will address this point in future questions. Furthermore, we have observed our students' disinterest in using role-plays. Regarding vocabulary learning preferences, our students stated that they would prefer using visuals like videos and illustrations or podcasts and audio of dialogues to learn vocabulary. These choices are influenced by the activities that students have access to in class, from using audio recordings to YouTube videos to teach new vocabulary. On the subject of vocabulary games preferences, our learners stated that by far their favourite games are crossword puzzles, influenced by the fact that crossword puzzles were by far the most frequently used games in our classes, as we used them at the end of each term as a tool to revise the material studied and prepare for the examination. When asked about their Grammar learning preferences, learners stated that they learned it best via examples and activities or word-matching and gap-filling activities and other word-building games, indicating a readiness and a welcome on the part of learners to use games and other interactive games to learn and further cement grammar rules.

Furthermore, students were in favour of using Crossword Puzzles to learn vocabulary, stating that Crossword Puzzles can motivate them to learn more vocabulary and makes learning vocabulary more interesting, thus advocating for their use in EMP classes. As a result, we can conclude that crossword puzzles can be used as an activity to learn/review vocabulary or to study Grammar and review grammatical elements. Regarding using games to learn English, our students were in favour, asserting that games are motivating and they make them study to win; they are also a fun and relaxing way to learn. This confirms that students are in favour of using games in class and that they believe games to be an effective way to learn the language and acquire new vocabulary by creating an interactive and motivating context in which learners can easily and subconsciously share information and where they compete and cooperate with each other in an enjoyable environment. The last question in this section addressed the use of project presentations to learn English, and because it is an activity our students already do in subject modules and thus are already familiar with, they stated that project presentations could develop critical thinking and creativity and helps with the reproduction of technical terms in professional communication. These findings support the use of Project presentations to practice the language because most learners have positive attitudes toward using Project presentations. However, this activity encountered some significant challenges, such as not having enough time for learners to present their work and whether we should make the project presented a mandatory graded activity.

#### 4.6.6. Likert Questions

Likert Questions was a section of our questionnaire that helped in consolidating the results found in previous questions (such as students' views on extending the English medical course beyond the second year), as well as allowed us to directly address some themes such as students' opinions on the current course, on the impact of Interactive activities and games on their language learning etc. Additionally, as stated before, the Variables in the Likert questions were coded as follows: Strongly agree= 5; Agree= 4; Partially agree = 3, Disagree= 2, and Strongly disagree= 1. Thus, the Range for these Likert options across all questions was: Strongly agree= 3.40-5; Agree= 3.50-4.20; Partially agree = 2.70-3.40, Disagree= 1.90-2.60, and Strongly disagree= 1-1.80.

The first part addressed the general needs of our medical students.

❖ When asked about their overall level of English, 24 retorted it was good, 22 students said it was average, 12 said it was poor, 3 said it was very good, and another three said it was very poor. Thus, the vast majority believe their skills to be either good or average, which is something we could confirm via the results of the first term exam, where most grades were between average and good, We did not conduct a placement test because we believe it would not benefit the class

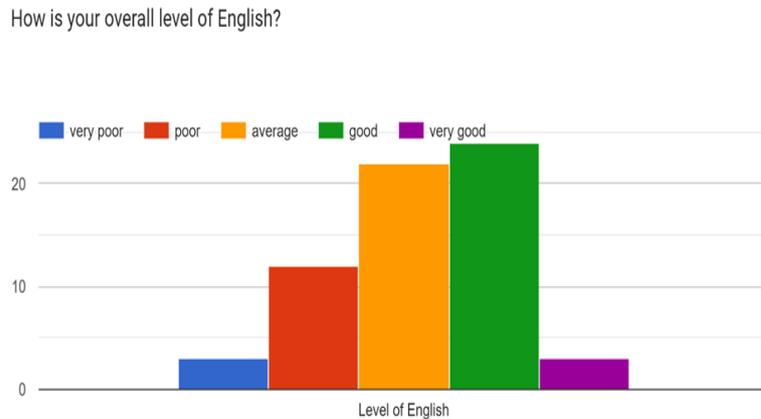


Figure 46: Students' views of their English Language levels

overall, but we believe that most students are between A2 and B2 levels.

Table 46. Students' views of their English Language levels

Students' views of their English Language levels					
What is your overall level of English?	Very good	Good	Average	Poor	Very poor
	3	24	22	12	3
	4.6%	36.9%	33.8%	18.5%	4.6%

Vis-à-vis the second Likert question, it addressed whether or not English is very important to your current medical studies. Most students (40) responded with strongly agree, and another 22 agreed. Only one participant partially agreed, and another disagreed. The same results were found in the studies by Kayaoğlu & Akbaş (Kayaoğlu & Akbaş, 2016) and the one by Franklin-Landi (Franklin-Landi, 2017), where in that study, most participants selected English as either a necessity or an investment but non

selected pointless. They are also very similar to the study by BOUGUENOUS (BOUGUENOUS, 2019), where more than 91% of participants agreed on its importance. Whereas in a study by Faraj (Faraj, 2015), 96.6% agreed to its importance compared to 96.9% who agreed on its importance.

Table 47: The importance of English in the students' current medical studies

<b>The importance of English in the students' current medical studies</b>					
English is an important element in your current medical studies	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	63%	34%	1.5%	1.5%	0%

These responses show that our participants regard English courses as extremely valuable; these findings imply that not only do they consider English indispensable but also a part of their future professional life. Thus the overwhelming majority of learners do believe that English is essential in both their studies as well as their potential future careers.

❖ About whether or not English is an important element in the future career for Medical professionals, most participants (44) answered strongly agree, another 14 students agreed; just 4 participants partially agreed, and only 2 disagreed. Thus the overwhelming majority of learners do believe that English is essential not only in their studies but for potential future careers. The same results were found in the studies by (Faraj, 2015; Kayaoğlu & Akbaş, 2016), where 98.3% of participants agreed.

Table 48: The importance of English in the future career of Medical professionals

<b>The importance of English in the future career of Medical professionals</b>					
English is an important element in the future career of Medical professionals	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	69%	22%	6%	3%	0%

These results are further cemented by the study of Chia et al. (1999), which affirms that English is important for students' future careers. (Chia et al., 1999), which might indicate that pharmacy students should be very motivated to learn the language and do the necessary work to improve their skills, so it is up to the ESP teacher to channel that motivation into something that benefits language learning.

❖ About whether or not this course could help medical students improve their English proficiency, 22 of the participants selected strongly agree, and another 31 selected agree. And the rest (11 participants) partially agreed.

Table 49: The significance of the current medical course

<b>The significance of the current medical course</b>					
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This course could help medical students improve their English proficiency	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	34%	49%	17%	0%	0%

This question addressed the current syllabus to check to what extent students are satisfied with it and if it needs radical changes or minor tweaks. The results imply that learners are more or less satisfied with the content of the course.

❖ About whether or not they were satisfied with the ESP teacher and if they liked the methods of teaching, 25 participants replied that they strongly agreed, another 27 agreed, 11 partially agreed, and one disagreed. So, the students showed great satisfaction with the ESP teacher's methods as well as skills, Yet the ESP teacher states that any further training or ESP workshops would be greatly appreciated.

Table 50: Students' satisfaction with the ESP teacher

<b>Students' satisfaction with the ESP teacher</b>					
I am satisfied with my ESP teacher, and I like the methods of teaching.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	39%	42.5%	17%	1.5%	0%

❖ About whether or not the current English language course is repetitious of what the students have studied in high school, 10 participants answered they strongly agreed, another 9 agreed, 30 other participants partially agreed, 10 disagreed, and 5 strongly disagreed. So these results, where we have so many students believe this program is repetitious of what they have studied in high school, are due to the fact that the questionnaire was conducted around the end of the first term, where learners had mainly studied general English; thus these responses would most likely change had the questionnaire been conducted at the end of the academic year where learners would have studied Medical English.

Table 51: The repetitive nature of the current Medical course

<b>The repetitive nature of the current Medical course</b>					
The current English language course is repetitious of what you have studied in high school.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	15.5%	14%	47%	15.5%	8%

❖ About whether or not the current course is providing them with the language skills to communicate effectively in English, 11 replied they strongly agree. Thirty-five agreed, 17 partially agreed, and one disagreed. These results reflect the efficiency of the current syllabus since most learners agreed (with varying degrees) to the utility of the course and how it helps them communicate better using the language.

Table 52: The course's positive impact on students' language skills

<b>The course's positive impact on students' language skills</b>					
The current course provides you with the language skills to communicate effectively in English.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	17%	55%	26.5%	1.5%	0%

❖ About whether or not English should be taught beyond the second year of your medical studies, 22 participants said they strongly agreed, another 26 participants agreed, 12 partially agreed, three disagreed, and one strongly disagreed. These results confirm the findings in table 9, where most participants advocate for extending English courses for at least another year, if not more.

Table 53: Extending the English medical course beyond the second year

<b>Extending the English medical course beyond the second year</b>					
English should be taught beyond the second year of your medical studies.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	34%	41%	19%	4.5%	1.5%

### Interpretation:

Table 54: Descriptive Statistics of The Likert Questions

Likert Question	Sum	Mean	Std. Deviation	Variance
What is your overall level of English? [Level of English]	204	3.19	.957	.917
English is very important to your current medical studies.	293	4.58	.612	.375
English is an important element in the future career of Medical professionals.	292	4.56	.753	.567
This course could help medical students improve their English proficiency.	267	4.17	.703	.494
I am satisfied with my ESP teacher, and I like the methods of teaching.	268	4.19	.774	.599
The current English language course is repetitious of what you have studied in high school.	201	3.14	1.111	1.234
The current course provides you with the language skills to communicate effectively in English.	248	3.88	.701	.492
English should be taught beyond the second year of your medical studies.	257	4.02	.934	.873

The first question regarding students' Level of English had a mean of 3.19 and was in the range of 2.7-3.4. Therefore, we can say that students see their level of English as average in general. As regards the Importance of English in the current medical studies, the mean was 4.58 (4.30-5); consequently, we can say that students strongly agree on the importance of English in their current medical studies. Concerning the Importance of English in the future career, the mean was 4.56 (4.30-5), almost similar to the previous questions, so it is a fair assessment to say that students strongly agree on the importance of English to their future medical career.

Vis-à-vis the utility of the English course, the mean was 4.17 (3.50-4.20); thus, overall, students agree on the usefulness of the English course. As regards the students' satisfaction with the ESP teacher and the methods of teaching, the mean was 4.19 (3.50-4.20); consequently, students, in general, agree (almost strongly agree) on their satisfaction with the ESP teacher and the methods used. About whether the current English language course is repetitious of what learners studied in high school, the mean was 3.14 (2.70-3.40); therefore, students partially agree with that notion. Concerning whether the current English language course is providing you with the language skills to communicate effectively in English, the mean was 3.88 (3.50-4.20); so, on the whole, students agree on the fact that the course is helping them learn how to communicate. Lastly, on the subject of whether English should be taught beyond the second year of their medical studies, the mean was 4.02 (3.50-4.20), meaning that, generally, students agree on introducing English classes beyond just the second year.

❖ The second part addressed the students' opinions on using games and interactive games in the EMP classes.

❖ The first Likert question of this section covered the practical and entertaining aspects of Interactive activities and games vis-à-vis our students; 26 participants strongly agreed, another 28 participants agreed, and 10 partially agreed. Thus all participants agreed (to varying degrees) on the effectiveness and amusing aspects of interactive activities and games. In other words, our students have positive attitudes towards the use of these tools to learn English.

Table 55: The practical and entertaining aspects of Interactive activities and games

<b>The practical and entertaining aspects of Interactive activities and games</b>							
Interactive activities and games are effective and amusing learning tools.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree		
	40.5%	44%	15.5%	0%	0%		

❖ When asked about the positive impact of interactive activities and games on students' language skills, 24 participants stated they strongly agreed, and 25 participants agreed; 13 partially agreed, and 2 disagreed. Our results are fairly similar to the study by Bendo (Bendo, 2020) (a study that analysed the employment of games while teaching English as a second language in an Albanian high

school and aimed to discover the importance of using means of entertainment in easing the process of learning the English language) the overwhelming majority of participants 97% said Interactive activities and games positively affected their language skills. Only 3% said it negatively impacted the improvement of language skills. So, it can be affirmed that learners believe that Interactive activities and games have a positive impact on their language skills.

Table 56: The positive impact of Interactive activities and games on students' language skills

<b>The positive impact of Interactive activities and games on students' language skills</b>						
Interactive activities and games can improve the four language skills.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree	
	37.5%	39%	20.5%	3%	0%	

❖ The following question addressed the positive impact of Interactive activities and games on learning Medical English and whether such use facilitated the learning process of Medical English. A total of 24 students replied with strongly agree, and 28 more agreed; 11 students partially agreed, and one strongly disagreed. Our results are a bit different from the one in the study by Bendo (Bendo, 2020), where 48% said games are an effective learning tool, 35% said that it was not always true, and 17% said no, they are not. Since, in our case, only one student said it was not true, it is safe to assume that the overwhelming majority of our students agree on the positive impact of such tools on learning Medical English. Thus, our participants agree on the fact that games and interactive activities facilitate learning the language.

Table 57: The positive impact of Interactive activities and games on learning Medical English

<b>The positive impact of Interactive activities and games on learning Medical English</b>					
Using interactive activities and games facilitates the learning process of Medical English.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	37.5%	44%	17%	1.5%	0%

❖ The next question investigated if our learners agree that practising learned linguistic and social skills could be achieved through Interactive activities and Games About. A total of 19 participants said strongly agree, and another 32 agreed; 12 participants partially agreed, and one disagreed. In the study by Bendo (Bendo, 2020), 66% of participants said it did, and 34% said it did not, so their results differ from ours; where in our case, more students believe such activities help with the practice and recycling of the language as well as other skills.

Table 58: Recycling the learned linguistic and social skills via Interactive activities and Games

<b>Recycling the learned linguistic and social skills via Interactive activities and Games</b>					
	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree

Interactive activities and games allow the use and practice of the learned linguistic and social skills.	29.5%	50%	19%	1.5%	0%
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❖ This question covered students' attitudes towards the benefits of using Interactive activities and games to promote creative thinking, brainstorming and problem-solving skills. A total of 17 said strongly agree, and another 34 agreed; 10 participants partially agreed, and only 3 disagreed. Thus, we can assume that our learners believe using Interactive activities and Games fosters creativity, brainstorming, and problem-solving abilities.

Table 59: Promoting creative thinking, brainstorming and problem-solving skills through Interactive Activities and Games

<b>Promoting creative thinking, brainstorming and problem-solving skills through Interactive Activities and Games</b>					
Interactive activities and games promote creative thinking, brainstorming and problem-solving skills.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	26.5%	53.5%	15.5%	4.5%	0%

❖ The following question investigated our learners' opinions vis-à-vis the positive impact of Interactive activities and games on anxiety and communication and whether they lower anxiety and motivate students to interact and communicate. A total of 26 participants said strongly agree, 30 agreed, 7 partially agreed, and only one disagreed. These results indicate that our learners believe such activities lower anxiety and can motivate them to communicate using English.

Table 60: The positive impact of Interactive activities and games on anxiety and communication

<b>The positive impact of Interactive activities and games on anxiety and communication</b>					
Interactive activities and games lower anxiety and motivate students to interact and communicate.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	40.5%	47%	11%	1.5%	0%

❖ This question aimed at gauging which activities students found better and more engaging, interactive materials or traditional textbook activities. A total of 16 said strongly agree, another 30 agreed, 12 partially agreed, and 6 disagreed. This indicates that our students prefer Interactive activities and games over the traditional activities taken from textbooks.

Table 61: Interactive materials or Traditional textbook activities

<b>Interactive materials or Traditional textbook activities</b>					
Interactive materials are better than those provided in the textbook (traditional activities).	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	25%	47%	18.5%	9.5%	0%

❖ The following question was intended to evaluate the students' opinions of the impact of interactive materials on Vocabulary and language proficiency. A total of 14 students said strongly agree, and another 42 agreed; 7 partially agreed, and one disagreed. Thus, we can conclude that for our students, interactive materials and games help them improve their knowledge of vocabulary and their language proficiency. These results are further cemented by the study of Riahipour & Saba (Riahipour & Saba, 2012), where the findings supported the notion that ESP vocabulary teaching through games affects the interest and motivation of L2 learners positively.

Table 62: The impact of Interactive materials on Vocabulary and language proficiency

<b>The impact of Interactive materials on Vocabulary and language proficiency</b>					
Interactive materials help me improve my knowledge of vocabulary and my language proficiency.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	22%	65.5%	11%	1.5%	0%

❖ In the next question, we tried to investigate the motivational aspect of Interactive Activities and Games to see if they motivate learners to listen and learn from other materials outside the class. A total of 21 students answered strongly agree, another 26 agreed, 15 partially agreed, and just 2 students disagreed. These results indicate that the overwhelming majority of students believe that such use motivates them to learn outside the class, encouraging, therefore, the lifelong learning concept. These findings promote the use of interactive activities and games in class since it is clear that our students feel that

Table 63: The motivational aspect of Interactive Activities and Games

<b>The motivational aspect of Interactive Activities and Games</b>					
Interactive activities and games motivate me to listen and learn from other materials outside the class.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	33%	40.5%	23.5%	3%	0%

❖ In the following question, we attempted to address an interesting point, that is, students' opinion about using Authentic materials in class and whether Authentic materials improved their language skills more than modified or non-authentic materials. This question was brought up because we had used more often than not authentic materials in class in the form of podcasts, YouTube videos etc., so we wanted to know if students would rather only use modified materials. In total 13 participants replied strongly agree, 31 agreed, 18 partially agreed, and 2 disagreed. Therefore, it is safe to assume that our learners are in favour of using authentic materials in class, such as YouTube videos, clips from TV shows or even sections from articles.

Table 64: The impact of using Authentic materials

<b>The impact of using Authentic materials</b>					
Authentic materials improve my language skills more than modified or non-authentic materials.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	20.5%	48.5%	28%	3%	0%

❖ The next question covered interactive materials and the recycling of Grammar rules since we wanted to know if our students thought that Interactive materials increase their familiarity with the use of grammar rules in their original context; 18 participants replied strongly agree, 36 others agreed, and 10 partially agreed. So, all students agreed (with varying degrees) on the fact that such activities help them familiarise themselves with grammar, especially if the ESP practitioner selected authentic material and used the material to explain certain grammatical aspects (something we attempted to do on several occasions when we used YouTube videos)

Table 65: Interactive materials and the recycling of Grammar rules

<b>Interactive materials and the recycling of Grammar rules</b>					
Interactive materials increase my familiarity with the use of grammar rules in their original context.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	28%	56.5%	15.5%	0%	0%

❖ The final question addressed whether Interactive activities and games should be a part of The English syllabus or not; 27 participants strongly agreed with the proposition, another 27 agreed, 8 other participants partially agreed, and just one disagreed and one strongly disagreed. In the study by Bendo (Bendo, 2020), 74% said they would like to have games as part of their syllabus, and only 26% said they did not, whereas in our study, 97% were in favour of using interactive activities and games, and only 3% were against. Thus, our results promote more such use since we had the majority in favour of using games and interactive activities in class.

Table 66: The inclusion of interactive activities and games in the syllabus

<b>The inclusion of interactive activities and games in the syllabus</b>					
Interactive activities and games should be a part of The English syllabus.	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
	42%	42%	13%	1.5%	1.5%

**Interpretation:**

Table 67: Descriptive Statistics of The Likert Games Questions

Likert Question	Sum	Mean	Std. Deviation	Variance
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Interactive activities and games are effective and amusing learning tools.	272	4.25	.713	.508
Interactive activities and games can improve the four language skills.	263	4.11	.838	.702
Using interactive activities and games facilitates the learning process of Medical English.	266	4.16	.821	.674
Interactive activities and games allow the use and practice of the learned linguistic and social skills.	261	4.08	.741	.549
Interactive activities and games promote creative thinking, brainstorming and problem-solving skills.	257	4.02	.787	.619
Interactive activities and games lower anxiety and motivate students to interact and communicate.	273	4.27	.718	.516
Interactive materials are better than those provided in the textbook (traditional activities).	248	3.88	.900	.810
Interactive materials help me improve my knowledge of vocabulary and my language proficiency.	261	4.08	.625	.391
Interactive activities and games motivate me to listen and learn from other materials outside the class.	258	4.03	.835	.697
Authentic materials improve my language skills more than modified or non-authentic materials.	247	3.86	.774	.599
Interactive materials increase my familiarity with the use of grammar rules in their original context.	264	4.12	.655	.429
Interactive activities and games should be a part of The English syllabus.	270	4.22	.845	.713

The first question addressing if interactive activities and games are practical and amusing learning tools had a mean of 4.25=4.30 and was in the range of 4.30-5. Thus, we can say that our students strongly agree on the practical and fun aspects of such activities. Regarding whether such activities can improve the four-language skill, the mean was 4.11(3.50-4.20), so we can state that our students agree that such activities can improve the four-language skill. Concerning whether using interactive activities and games facilitates the learning process of Medical English, the mean was 4.16 (3.50-4.20); therefore, our learners agree that using interactive activities and games facilitates the learning process of Medical English. As regards Recycling the learned linguistic and social skills via Interactive activities and Games, the mean was 4.08 (3.50-4.20), so overall, students agree on the fact that using interactive activities and games allows the use and practice of the learned linguistic and social skills.

Vis-à-vis promoting creative thinking, brainstorming and problem-solving skills using interactive activities and games, the mean was 4.02 (3.50-4.20); thus, our students agree that such use promotes creative thinking and brainstorming. Regarding the positive impact of Interactive activities and games on anxiety and communication, the mean was 4.27=4.30 (4.30-5); consequently, overall, students strongly agree with the notion that using interactive activities and games lowers anxiety and motivates them to interact and communicate. About which is better, interactive materials or those provided in the textbook (traditional activities), the mean was 3.88 (3.50-4.20); thus, overall, students agree that interactive materials are better.

In relation to the impact of Interactive materials on Vocabulary and language proficiency, the mean was 4.08 (3.50-4.20); therefore, students agree that Interactive materials help them improve their vocabulary and language proficiency. On the motivational aspect of Interactive Activities and Games, the mean was 4.03 (3.50-4.20), meaning that, in general, students agree that Interactive activities and games motivate students to listen and learn from other materials outside the class. As regards Authentic materials and whether they improved students' language skills more than modified or non-authentic material., the mean was 3.86 (3.50-4.20); thus, overall, students agree that Authentic materials are better. Concerning Interactive materials and the recycling of Grammar rules, the mean was 4.12 (3.50-4.20); so, overall, students agree that authentic materials are suitable for learning Grammar and increase their familiarity with the use of grammar rules. The last Likert addressed the inclusion of interactive activities and games in the syllabus; the mean was 4.22 (3.50-4.20); therefore, overall, students agree that Interactive activities and games should be a part of The English syllabus.

### **Conclusion:**

This chapter covered the Methodology and the research design, the Analysis of the data gathered, and the Discussion of the results found as a result of the questionnaire. In other words, this chapter enclosed the case study, the settings and the participants (i.e. the pharmacy department and second-year pharmacy students at the medical faculty Taleb Mourad, University of Djillali Liabes); it also addressed the purpose of the study and how the questionnaire, delivered to the participants, aligned with the vision the researcher had for the work. Finally, the chapter concluded with the data collection and analysis tools, as well as a discussion of the results found.

**CHAPTER FIVE:  
LIMITATIONS,  
FINDINGS, AND  
RECOMMENDATIONS**

**Introduction:**

The final chapter reveals the main challenges encountered while conducting the current study, as well as some other challenges faced by the researcher when teaching Medical English to second-year pharmacy students. This chapter further enumerates the major findings of our study, from the learners' needs to their opinions on the implementation of interactive activities and games, in addition to several interpretations; it concludes by laying forth various suggestions to overcome some of the challenges and recommendations for further implementation, as well as some tips for future pedagogical endeavours.

**5.1. Challenges and Limitations**

Like any other study, ours was faced with some challenges because our study was based on both quantitative and qualitative data gathering through both the questionnaire conducted and the observations maintained while teaching other than the informal interviews. For that reason, we decided to separate these challenges into two subcategories; ones related to the study conducted and the ones related to teaching EMP to pharmacy students at the university of Djillali Labels.

**5.1.1.Challenges Related to the Study**

- In our study, we had a limited number of participants (relatively few participants, only 64) since we only got the students of the second year to participate in the study; worth mentioning that the second-year class usually has 120-160 students, and in some cases, up to 280 students, yet the class of 2021-2022 had only 77 students, and only 64 answered our questionnaire (since participation was not mandatory).

- Another challenge we came across was COVID-19. Our study was mainly targeting medicine students, yet the medical students at the faculty of Taleb Mourad Sidi Bel-Abbes only started studying English in early 2020, and a few months later, studies were interrupted and then cancelled due to the emergence of COVID-19. When students resumed their studies, English was regarded as a cross-curricular subject (*matière transversale*), and due to the COVID-19 restrictions, all cross-curricular subjects (*matières transversales*) were cancelled and only resumed by the end of 2021. Since we could not wait longer, we decided to conduct the study on pharmacy students (students that we were more familiar with since we had been teaching them for more than five years).

- The questionnaire had way too many questions, which might have intimidated the participants and caused them to abstain from participating in the study, with 40 multiple-choice questions complemented by 20 Likert questions. We tried our best to omit and fuse questions that covered similar topics; the issue was the fact that our study covered multiple major elements, from students' purpose of language learning and general preferences to their feedback regarding the current syllabus all the way to learners' opinion regarding the implementation and the usefulness of interactive activities and games, hence the somewhat overwhelming number of questions in the questionnaire.

- The results regarding the use of interactive activities and games only reflect the students' opinion on the matter, So the benefits of their use need to be further studied via pre-and post-test analysis. Additionally, due to the classes being lectures, there were a set of interactive activities that we could implement in class, such as Crossword Puzzles, Hangman, Missing links etc. Yet, implementing other games and interactive activities such as Board Race and Word Jumble Race seemed too impractical

- Some of the results might be biased because of the fact that our learners have been mainly familiarised with a limited number of activities hence their tendency towards selecting them as useful interactive activities.

- Another challenge that we faced was the scarcity of literature covering the teaching of English for medical purposes as well as the use of interactive activities and games for adults; the materials were scarce on the global level and almost non-existent in the Algerian one because even the studies found in Algeria addressed the needs of biology students or the ones of nurses, and did not target the needs of Pharmacy students.

- Furthermore, the needs analysis process should, in fact, cover all parties, including teachers, students, administration and field experts. However, the conclusions of the current study are limited to students' viewpoints coupled with related literature studies and class observations. So, no study of the English language needs of the graduate pharmacists who now work at hospitals was done. Also, no needs analysis study was conducted with the stockholders; thus, we didn't investigate their needs as well to have a broader picture. Worth mentioning that we did conduct unofficial interviews with field experts, Pharmacists, and administration staff, and the results of the interviews did impact our work, yet it was not included in the study's results.

- The final limitation is that the only documented instruments that were used in this study were the questionnaires. However, other research instruments, such as observations and the analysis of authentic texts or journals, and unofficial interviews were also used in the study.

### **5.1.2.Challenges Related to the Teaching EMP**

Teaching medical English in an Algerian Medical Faculty can be really challenging. We selected these challenges through observation and interviewing students across multiple classes (from 2017 to 2022), as well as through reflecting on our own work and the material presented at the end of every academic year. These challenges were the ones that many other ESP (EMP) teachers have to face, e.g. heterogeneity of classes, specific terminology, lack of usable and up-to-date textbooks, very few hours, very little motivation from both the Faculty and the students, no national course content, and no specific training.

- Medical English teachers need a lot of imagination, hard work and determination to become familiar with the language and implement strategies to render their course both motivating and efficient; on top of that, they have to prepare their own handouts and search for suitable online materials to keep

up with the remarkable progress in medical science and technology, all of that while being shackled by time-limited courses.

- Regarding the problem of teaching heterogeneous ESP classes, the main impediment consisted of the level differences in general English language proficiency of the students at the faculty of medicine at Taleb Mourad, University of Djillali Liabes. Overall, learners were highly motivated to learn Medical English, but there were significant variations in the language level; most of the students could recognise meaning but not produce it, they lacked fluency, and they had problems pronouncing words. Thus, a considerable number of students had low language proficiency levels. Subsequently, they sometimes did not understand the basic sentence structures and found difficulties using or understanding parts of speech. In other words, some of the students had poor to mediocre English levels and were struggling to catch up in General English classes, and they found even the basic notions to be overwhelming, let alone the EMP activities. Others had an advanced level of language proficiency, and were not challenged by the content of general English and felt that they were not making the most of the learning situation (when presented with general English classes); these students still had some problems with medical English classes (from understanding the meaning of medical terms and expressions to pronouncing those medical terms). Therefore, there were beginners mixed with a majority of pre-intermediate and intermediate and a few advanced students. In such conditions, many students lose interest because of the different learners' concerns, background knowledge, and learning capacities. So even though most students were highly motivated to learn Medical English, for all the reasons, the main impediment consisted of the differences in language proficiency levels.

- Teaching foreign languages to medical university students is made challenging by the fact that for these learners, a foreign language is not a crucial part of their special professional education. It stands true that most medical students are highly motivated learners; however, they show an unwillingness to accept a language course as being as important as other subject-matter courses. They just want to pass the exam with as little effort as possible. Such manners of viewing things may result in a lack of motivation, where students consider ESP courses as not as significant as other courses linked directly to their specialism (which are usually modules with higher coefficients). So, it can be argued that it is the teacher's responsibility to help learners see the value in learning and mastering the language, which might be daunting at times.

- In our study, like many others in Algeria, the ESP courses (mainly EMP ones) are taught in the first or second year of a study programme, and junior students may not appreciate the value of the ESP course until much later. Additionally, the topics discussed or addressed in the class are often undervalued by first- or second-year students, which may influence their motivation and interest, especially since students do not feel the need to do some of the activities like learning how to write an article's abstract in English or write an Email. Thus, we sense that students are not as engaged as they can be, and they are mostly passive receivers of large amounts of materials. Another issue would be the fact that medical students usually treat the English classes the same way they would subject classes, so they tend to skip

classes and attempt to cram for the English exam the same way they would the other subjects, something that the EMP teacher has to address as well.

- Considering the general educational and cultural background of the Algerian medical students who entered university and regarding the fact that what they learned in middle and high school was not frequently recycled and used, these students usually have bad -if not distasteful- memories of the general English classes they attended in high school, and their standard of English tends to be low (we would like to call it the English prejudice). These learners usually do not give the English classes a chance and would spend a whole year without attending a single class, where they rely on cramming for the exam and attempting to get a passing grade, neglecting the fact that English is a language and the best way to improve at it is via using the language, and what better place to practice it than the English class. Additionally, students would usually report that they had forgotten many of the words and grammatical rules they had previously learned/ memorised in middle school or high school because they did not have a chance to practice or reproduce them.

- Attendance is yet another delicate problem in EMP classes in Algeria. Since these are considered lectures, students' attendance is not mandatory, so learners tend to skip the classes treating the language classes the same way they would subject classes, hoping to get a passing grade by cramming for exams, where we were averaging around 35 students per class out of 77. And because attending lectures is not mandatory, so many pharmacy students never give the class a chance, and we end up having barely one-third of the class attend the course on a regular basis.

- Another challenge is students' focus on grades and test results, and It is an unfortunate reality that most students tend to focus primarily on grades and test results, neglecting the lifelong learning objective of the EMP classes, where their main purpose is to pass the exam with good or decent scores. Therefore, instead of learning the language for communicative purposes, the learners prioritised their performances in tests.

- Pharmacy students lack field-specific knowledge because medical Students study foreign languages in the first or first two years of their academic training, which means that they may be unacquainted with field-specific terminology or certain profession-related topics found in the syllabus of English for medical purposes since they would be expected to study such concepts in later years; moreover, they lacked the professional knowledge to maintain technical discussions and debates. Thus, we could not adapt our classes in order to keep up with the medical curriculum and establish a natural parallel advancement of language and medical knowledge. When the listener is familiar with the subject matter but has a weak grasp of the language, prediction of the probable content reduces the load of understanding of the language just enough to enable them to match what they think the message is against what they already know. For instance, Pharmacology is studied only during the third year, but we had to introduce specific notions (concepts) and practices that they would have had difficulty comprehending even in their native language (like ADME, Bioequivalents, Biodisponibility and Bioavailability), which led us to discard many topics that we would have loved to include. The same is

true for other modules like clinical pharmacy and galenic with dosage forms etc. There were a couple of courses that were omitted from the syllabus because they caused us so much trouble since students were not acquainted with many technical notions. We came across one related issue a couple of times; when we were teaching the use of comparative and superlative adjectives, we set examples using the difference between a brand drug and a generic drug and to our surprise, the first time we used that example, students did not know anything about Brand drugs and generic ones, not even in Arabic or French. So, we found ourselves explaining these concepts to the students since they were not familiar with the notions yet. This can, in turn, influence learners' ability to acquire the language, as this particular kind of knowledge provides the context students need to understand English in the classroom.

- Evaluation is another grey area with regard to the EMP setting since EMP tests do not usually look like language tests but rather like medical knowledge tests which are in English. Where the students are evaluated on their reading or translation proficiency mostly in the form of MCQs (Multiple choice questions), and the other language skills are less precisely evaluated, such as writing, or not evaluated at all like the case with listening and speaking proficiency. Furthermore, as language teaching and field-specific topics are integrated, teachers may be biased, unintentionally, to evaluate students' language skills through the prism of their profession-related knowledge (Hutchinson & Waters, 1987). It was very challenging to properly evaluate the language skills of an EMP student since the tests dealt with did not thoroughly evaluate the students' language knowledge. Thus, evaluating the students is another issue for ESP practitioners due to the unavailability of proper guidelines for evaluation, the large classroom size, and the ambiguousness of the evaluation criteria.

- One other challenge was the limited teaching materials since finding the perfect textbook is extremely arduous because the language needs of students enrolled in EMP courses are so narrow and specific that most coursebooks on the market are simply too broad and general. Coupled with the fact that the selection of ESP textbooks available in the Algerian market is far from impressive due to the lack of specialised libraries. The lack of appropriate textbooks asserts that the materials are very limited, and the teacher has to independently choose and carefully select appropriate materials according to the student's needs and level of knowledge. For these reasons, teachers usually decide to produce their own materials. Therefore, the main consequence of the lack of availability of ready-made materials is that teachers have to spend copious amounts of time elaborating their own, usually almost from scratch (Charles, 2018, 219).

- We should also consider the limited time and the amount of workload given to students. The time allocated to EMP courses is usually not enough for EMP students to master the language skills; thus, many students get disappointed and lose interest in foreign language studies. It was not possible in the limited period of learning, one and half hours per week for only one academic year to teach a foreign language, to ensure students' acquisition of various skills such as reading special journals, writing scientific papers, and communicating etc. Time limitations also cause teachers' inability to provide the learners of EMP with evaluation and feedback on an individual level, ineffective teaching, and the

inability to carry out needs analysis projects or unproductive incomplete ones. Sometimes, there are too many materials to be mastered in very little time, and it is very challenging to design the course in such a way to cover this problem since it is inefficient to have a plethora of materials yet not enough time to cover them all. This leads to the insufficient practice of the four major skills, i.e. not enough time to practice the skills to the point where improvement is noticeable.

- When designing the EMP curriculum, we found ourselves with two options, each with its own set of difficulties. Option one, we use the ESP-only approach to curriculum, where syllabuses are structured exclusively around issues of EMP, and that leaves no space for English for General Purposes. This option had major issues that we noticed across the two years where it was implemented; even though it might be reasonable to expect university students, most of whom have been learning English for at least seven years, to have a good level of language proficiency, the reality is often far more unpleasant. In ESP classes (and also in EMP ones), some students are considered beginners and need much more time before they are ready to tackle complex language elements, let alone technical or medical ones. So, it was not adequate since many students either lacked general English knowledge from grammatical rules to vocabulary and communication skills or simply reported forgetting many of the words and grammatical rules they had previously learned/memorised. Additionally, it was unfair to quiz students on language aspects they did not address in class. Furthermore, EMP learning can be efficient only after students have already acquired a high level of General English, which is not lower than the intermediate level or level B2, according to the Council of Europe's Common European Framework of Reference for Languages 2001. If students do not have a decent level of English, they will find major difficulties when tackling Technical English (Medical English in our case). Thus, these students have to attend General English before undertaking their ESP course to make up for their prior deficiencies in General English. This led us to option two, where we attempted to teach general English one term and Medical English the second term, yet it was not nearly enough time to address all the language aspects, let alone have learners improve to a point where they could tackle the technical and medical aspects of the language. So, courses felt rushed, and the Curriculum of EMP courses seemed crammed, and we believe students did not have enough time to fully understand the material presented, let alone use it. Thus, teaching both General English and Medical one in the same year might be too challenging for both the teacher and the students.

- Another challenge was the undetermined aims; since in EMP courses taught to pharmacy students, the educational objectives were not well-defined by the institution. The university only required the teaching of the language, with no elaboration on a set of objectives and elements to cover, things that are crucial, especially since the EMP curriculum poses greater expectations on learners of English For Medical Purposes than the General English curriculum where learners will be dealing with EMP challenges on top of the usual General English ones. Thus, we are not really told what the aim of the course was and what end results were expected, and it is impractical to expect significant growth with only one and a half hours per week to cover both General and Medical English.

- Another impediment we came across was the fact that students had a deeply rooted belief about the roles of teachers and students, which slowed down the process of achieving some of the course's objectives, such as independent learning. They were in the habit of being passive receivers of knowledge, where the lectures were usually uni-directional; the teacher was the one who provided the information, and students were passive recipients and only asked a few questions here and there, coupled with the fact that there are many passive students who are aware of their shortcomings and afraid of being shamed for their mistakes, so they avoid active participation in the interactive activities. Thus, we experienced a flow in the opposite direction whenever we attempted to apply activities of discussions and debates for multiple reasons and especially at the beginning of the academic year, and it took us numerous sessions to get the students to engage in those interactive activities.

- Another impediment was the students' overreliance on their knowledge of French, which at times can prove to be extremely useful, yet at other times it causes students to come up with incorrect English terms or using ones in inappropriate situations. This problem, however, should be a common problem in all ESP classes and probably in General English classes as well. It was only after two years of implementing our program that we noticed the need to incorporate a session that addresses the cognates or the informal term "false friends", yet the correction of such bad habits might take a few years, something that our course does not provide. Another similar problem was the fact that students had difficulties understanding the need to assimilate, aside from the language, the culture from which the language emerged. This phenomenon alters considerably any form of medical interaction, such as communicating with the patient on sensitive topics (gender identity, drug abuse, alcohol intake), adopting a more tactful approach or culturally appropriate forms of address, etc. A good example was the difficulty we faced when trying to convey the fact that to make the patient feel more comfortable (so that they would share information that might help in the treatment), the medical staff might need to use short questions, so instead of using: what is your name, please? We would use: Name, please. And similar topics that students found puzzling at first.

Regardless of the huge number of challenges faced, it remains our belief that most of them can be alleviated through needs analysis, supplemented by a constant assessment of the syllabus coupled with major reforms to the previous one. The residual challenges faced by EMP teachers should be overcome through consulting health practitioners and other EMP instructors, having intellectual curiosity as an ESP teacher, implementing interesting interactive tasks that would engage students and motivate them, and attending teaching, testing, and material development workshops or conferences. Moreover, teachers should be creative and eager to try out technological innovations and online resources, for example, Internet podcasts, interactive tasks, slide presentations, and other tools, to be able to draw the attention of the digital native learners.

## 5.2. Findings and Interpretations

As a part of the needs analysis process, the current study aimed at finding out the academic English language needs of second-year pharmacy students who are attending advanced English courses at the Faculty of Medicine at Djillali Liabes University as well as investigate the validity and practicality of integrating interactive activities and games in the teaching of medical English. To this end, a structured questionnaire was administered to about 77 volunteers, and 64 pharmacy students completed the questionnaire. In this section, the related findings are discussed in relation to different parts of the questionnaire.

The first section addressed the Students' Purposes of Language learning and General Preferences; the quantitative data analysis indicates that students' priority purposes in learning English are to be able to pursue a degree or work abroad, improve job opportunities and get a better job as well as to better interact with friends from other countries. Regarding Language skills, pharmacy students are greatly in favour of improving their speaking skills and vocabulary to a lesser degree; thus, learners need more student speaking time where they can practice their speaking skills. One other major finding is that pharmacy students would love to participate more in class and be more active contributors to the learning process; thus, they welcomed using computer tools like videos, podcasts and the internet to further boost their learning, which is something characteristic of the generation Z. Another result is that face to face traditional language classroom is relatively more desirable for the participants than Online courses especially after getting to experience it first-hand due to the COVID-19 pandemic, where students complained of not understanding course content, and teachers shared similar concerns where it took them more sessions to cover the same content as previous years. However, a considerable number of students did value the option of blended learning, making it a valuable consideration. Worth mentioning that learners still value traditional teaching methods (with a whiteboard and traditional chalk explanations) to some extent, mainly because it is the method by which they have been taught for years, so they feel more comfortable with it.

Regarding their learning preferences, pharmacy students like to learn individually at home as homework or in small groups "in workshops". So, good use of this notion would be to either double down on the homework students have to do or attempt implementing Practical sessions (TDs) in such a manner that the ESP teacher would have more time to address various points and give individual feedback as well as allow students more speaking and practising time, by presenting them with activities and games that would engage them in interactive brainstorming and critical thinking journeys, something that they seem to enjoy and like, especially if used in association with education YouTube videos or some podcasts. As regards the curricula preferences, it is clear that students would like to study English for two or more years because they believe that one year is not enough to improve as much as they would love to improve. These findings are consistent with the general conclusion that materials in

an English course should be relevant to the medical field but, at the same time, address general English notions and the fact that one year is not enough for the students to have a tangible improvement in the language, calls for extending the classes to two or more years.

The second section addressed the Students' expectations of the class and their language needs; the quantitative data analysis indicates that our students want to improve their reading skills to benefit from the academic materials available so that they can learn more about their field, as well as improve reading to get better outcomes out of their leisure activities, from posts and blogs to books and newspapers. Additionally, they want to improve their writing mainly for academic purposes, like writing articles or projects or even emails and motivation letters, and not so much for practical ones, such as taking notes in class or answering questions in the exam. Furthermore, these students want to improve their listening skills so that they can better understand the English materials they encounter daily, whether they are YouTube videos, movies, or even podcasts; on top of that, they want to better understand medical audio and video sources, like the ones found on platforms such as MOOC or Coursera. They are also eager to learn new technical vocabulary to use medical terms in professional communication or in academic writing or simply be able to analyse and understand medical texts and make inferences. Moreover, Pharmacy students showed great interest in Speaking as a language skill, and they want to improve it for academic purposes, so they can discuss medical matters, present in seminars or speak to the public about medical issues. These findings highlight the notion that our learners care more about their academic skills and future careers and focus on improving their medical English instead of just focusing on General English and using new vocabulary to interact in class or with friends.

Regarding the challenges encountered with learning English, Pharmacy students complained of poor speaking and conversational skills followed by limited vocabulary; more specifically, their major challenges were speaking about medical topics in a fluent manner or correctly using and pronouncing medical vocabulary as well as the ability to listen to and understand authentic multimedia (like videos and podcasts). As regards the challenges encountered with the current EMP course, students made it clear that the first one was class hours, which made it very challenging for them to focus and learn the material presented (these hours were usually at the end of the day and mostly at the end of the week on either Thursdays or Wednesdays), where many students either missed classes or attended it yet were too passive due to exhaustion, thus building frustration and loss of interest in foreign language studies. The second challenge was heterogeneous students' levels was also another problem for our learners (mixed levels of English language ability of students). All of these results will help us select activities that would best answer their demands so that we can channel their motivation towards acquiring the language.

The third section was aimed towards the Improvement of the current Syllabus; the quantitative data analysis indicates that our students desire to have more interactive activities that will challenge

their cognitive abilities (their critical thinking and brainstorming) and to study specific, speciality-related terms and expressions, affirming their craving to learn more vocabulary. Nevertheless, English is only taught in the second year of the student's academic training, which means they are unfamiliar with most field-specific terminology or certain profession-related topics, making the teaching of speciality-related terms and expressions almost impossible. Additionally, our learners support teaching methods that emphasise small group discussions, debates, role plays and interviews with simulated patients. Vis-à-vis the current syllabus, our students felt that the provided instructional materials were sufficient and the topics were interesting and engaging; thus, they were pleased and satisfied with the diversity of the materials presented in the course and found the majority of it engaging; however, in a further question, they did express their need for more listening & speaking practice, as well the introduction of tutorial sessions (TDs) so that the classes are smaller. Regarding language skills, our learners believe that reading activities should be about reading English medical materials like textbooks, handouts and medical journals and about reading stories and dialogues relevant to their practice, thus preferring materials related to their medical studies. For them, listening activities should be about listening to academic podcasts and watching videos about the medical field and listening to casual podcasts and educational YouTube videos, as well as listening to daily conversations and dialogues. Furthermore, they would like writing activities to be about writing course assignments, Medical or Lab reports and writing research papers and articles, confirming the previous notion that these students prefer materials related to their medical studies. As regards speaking activities, our students think it should be about participating in interactive class activities like games and delivering speeches and Public speaking outside class, thus highlighting that they value interactive activities such as games in class and regard them as useful tools to practise speaking, and aim to use the language both inside and outside of the classroom.

The fourth section focused on cognitive enhancement, personal growth, and management of learning; the quantitative data analysis indicates that our students view pronunciation and intonation in speaking as well as critical thinking, as the most valuable sub-skills, indicating that speaking English fluently, brainstorming and thinking critically are of great importance to our learners, so we should design more activities in which learners can improve their speaking, as well as critical thinking and brainstorming abilities. Additionally, pharmacy students get a great sense of satisfaction from feeling more confident in situations that they found difficult before or when making progress in the language and getting confirmation from the teachers, indicating that they are motivated by both intrinsic and extrinsic factors and that the majority of students are not learning the language for grades or language tests. They also emphasised that their main objectives from the course were to be able to express ideas and thoughts clearly and hold conversations in English, as well as develop other skills like critical thinking and other interpersonal skills; thus, indicating that our students value becoming articulate communicators and fluent English language users, which is consistent with the previous findings. Lastly,

the final finding in this section was that our learners' preferred activities are authentic reading and listening tasks using videos, articles, and podcasts, as well as doctor-patient dialogues using audio-visual materials.

The fifth section tackled Students' views on using interactive activities and games in the EMP class and which ones they prefer the most; the quantitative data analysis indicates that when it comes to class activities, our students prefer Debates, Group conversations and discussions as well as activities that include Videos from YouTube or sections from movies/Tv shows, since they bring a fresh, dynamic atmosphere and allow students to interact in the class, indicating that pharmacy students are visual learners and would benefit most from visual cues. Other preferred activities include discussions, idiom and quote debates and interpreting podcasts and audio recordings of real-life conversations. Worth mentioning that these findings might be influenced by the learners' own class experience (since they had plenty of idioms and quotes to debate and some authentic podcasts and educational audio recordings to interpret, and they took a liking to that activity to the point where it became an activity that students looked forward to). With regards to the utility of interactive activities and educational games, pharmacy students believe that such activities reduce anxiety and stress in the classroom and help them remember faster and better, as well as positively influence the teacher-student relationship and encourage shy students to participate. These results further cement the statement of Franklin asserting that these activities can increase students' motivation and interest in the topic because when learners liked the activity, they tended to be more active in learning, and such active performance resulted in higher learning achievement (Franklin et al., 2003). Additionally, students showed their desire to study English every year, where the syllabus would suit every stage and that it would include more medical terminology. Moreover, our students expressed coming to the EMP courses, expecting to increase their technical vocabulary and learn medical terminology in English as well as to practice their English language skills and carry out communicative activities. Demonstrating that our students place a high value on vocabulary, as well as honing the other four skills and practising communication, in addition to discussing professional topics of mutual interest. However, this is somewhat problematic because second-year pharmacy students lack the professional knowledge to maintain technical discussions and debates.

On a different note, concerning vocabulary learning preferences, pharmacy students preferred using visuals like videos and illustrations or podcasts and audio of dialogues to learn vocabulary (affirming prior findings). In addition, their preferences vis-à-vis vocabulary games were mainly crossword puzzles, influenced by the fact that crossword puzzles were by far the most frequently used games in our classes. Regarding learning Grammar, pharmacy students favour using examples and traditional activities or word-matching and gap-filling activities and occasionally word-building games, indicating their readiness to use games and other interactive games to learn and recycle grammar. Concerning the use of Crossword Puzzles to learn vocabulary, the learners were extremely in favour

since it motivates them to learn more vocabulary and makes learning vocabulary more interesting; this might be due to the fact that this activity had been used as a tool to learn/review vocabulary or to study Grammar and review grammatical elements prior to exams. This finding helps to support the effectiveness of Crossword puzzles and thus should be implemented in teaching English for medical purposes.

Furthermore, pharmacy students believe that games are both a source of motivation and a fun and relaxing activity; therefore, our learners are in favour of using games as an effective way to learn the language and acquire new vocabulary by creating an interactive and motivating context in which they can easily and subconsciously share information and where they compete and cooperate with each other in an enjoyable environment. The final finding in this section is that our students are in favour of using project presentations to learn English, thinking that it could develop critical thinking and creativity and helps with the reproduction of technical terms in professional communication; because, for them, it is an activity they already perform in their subject modules and are already familiar with; However, this activity encountered some significant challenges, such as not having enough time for learners to present their work and whether we should make the project presented a mandatory graded activity.

The findings related to the Likert questions can be summed up in the following; pharmacy students perceive their level of English as average in general; this means that EMP learning can not be efficient unless they acquired a higher level in General English – not lower than the intermediate level, or level B2 according to the Council of Europe’s Common European Framework of Reference for Languages (2001). Thus, they need to undertake General English courses before taking their ESP course to make up for their prior deficiencies in General English. Furthermore, it is clear that pharmacy students understand the importance of English in both their current medical studies as well as their future medical careers. Regarding the current course, pharmacy students are satisfied with the material presented and view it as helping to improve their language and to learn how to communicate effectively in English. However, there were some concerns about the course being repetitious of what learners studied in high school and that one year of studying English is not enough.

The second section of the Likert questions addressed students’ opinions on using games and interactive games in the EMP classes. The significant findings in that section were the fact that pharmacy students view interactive activities and games as practical, fun activities that lower anxiety and motivate them to interact and communicate and that can improve their four-language skills. Additionally, for pharmacy students, such activities allow the use and practice (recycling) of the learned linguistic and social skills, promote creative thinking and brainstorming, and improve their vocabulary and language proficiency. Furthermore, these learners consider these interactive materials to be way better than those provided in the textbook (traditional activities) since they motivate them to listen and learn from other materials outside the class, as well as facilitate the learning process of Medical English; thus, they assert

that Interactive activities and games should be a part of The English syllabus. And as regards Authentic materials, pharmacy students prefer them over modified or non-authentic material and believe they are suitable for learning Grammar and increasing their familiarity with the use of grammar rules.

Lastly, most medical students at Djillali Liabes University still have difficulties using English for academic purposes, although they obtained good grades from their English courses. Most of them, however, are lacking in English language proficiency. This means that, as emphasised formerly, more English courses should be offered to this group of students aside from the current courses. Additionally, the responses to some of the Likert questions highlighted the importance of implementing modern technologies in the ESP instructional environment, even if it presents a challenge to both students and the teacher.

### **5.3. Suggestions and Recommendations**

Teaching English to medical students in Algeria is relatively new, and no studies have been conducted to provide a basis for an appropriate English language curriculum for this context in particular. Therefore, this study aimed first at identifying the language needs of pharmacy students and then finding effective teaching methods to teach English to medical students. This study further highlighted the challenges met while teaching medical English and suggested a set of interactive activities and games that the students found more engaging and beneficial. In the following section, we will provide some of the recommendations and solutions that we deemed fruitful to the teaching of ESP in general and EMP in particular, which might help in developing a practical curriculum for EMP teaching in Algeria:

- Language teaching at the tertiary level should be about developing language skills as well as enhancing the communication proficiency of EMP students, developing academic skills and learning strategies leading to specific habits that students may use as future pharmacists and doctors for lifelong learning. Thus, EMP teachers need to focus on a wide variety of elements, especially developing communication skills, higher-order thinking, collaborative learning, problem-solving, and decision-making skills; simulating workplace conditions where communication is of vital importance, by setting activities around asking for and giving information in a pharmacy or in a hospital, explaining various medical procedures or treatment measures, asking about medical history, etc.

- The researcher also recommends that policymakers reconsider the number of credit hours allocated to EMP courses, as well as the coefficient, to motivate learners to take language courses more seriously. And as regards class hours, we recommend setting English classes in the morning and at the start of the week, yet Amphitheatre's availability, as well as the busy schedule Medical students usually have, are the major hindrances to finding an efficient solution.

- Attempting to cover both General English deficiencies and EMP ones in one year seems to be very challenging, so instead of cramming the whole content in one academic year, we advocate for the partition of the English curriculum into two or three years. This way, students will have prolonged exposure to the English language, especially if we are to move the EMP courses toward later years of studies because doing so would also allow us to alleviate the problem of students being unacquainted with field-specific terminology or certain profession-related topics found in the syllabus of English for medical purposes.

- Furthermore, if we are to maintain the current situation (English courses just for one year), the curriculum needs to be dynamic, and syllabuses need to be supplemented with tasks promoting general linguistic proficiency, coupled with varying activities (so that different learning styles and levels are addressed), making them interesting (so that more advanced students won't be bored by lower-level activities), encouraging collaboration (to take advantage of possibilities of peer-teaching and -learning), personalizing activities, and designing tasks with a clear, easily-achieved success level. We also recommend creating an opportunity for learners to attend office hours so that teachers can work with individual students on their shortcomings, providing them with strategy training so that students can learn on their own (Antic, 2007, p. 143). Furthermore, ESP practitioners need to be wary of the time restriction they are facing and attempt to make their courses as efficient as possible.

- We also advocate for the introduction of practical sessions (TDs). Because, despite our best efforts to include as many interactive listening and speaking activities in the lecture, the participants feel that they need more listening and speaking practice, highlighting the need to incorporate tutorial sessions (TDs) in the course so that learners can practice the language more frequently. Especially when so many students are afraid of being shamed for their mistakes, so they avoid active participation in the interactive activities taking place in the Amphitheatre. Additionally, we believe that dividing English classes into two or three years would be a good solution, with students having practical sessions (TDs) in the early years.

- Furthermore, speaking, listening, reading, and writing activities and tasks should include practical matters, such as talking about symptoms and patients' feelings; listening to consultations or conversations between healthcare providers; reading referral letters and patients' records; and writing hospital documents, patient charts, medication sheets, prescriptions in English.

- EMP classes, along with communication activities, should incorporate more medical vocabulary lists, as well as cultural elements, to generate curiosity and encourage class engagement. Thus, various medicine-related activities and materials that highlight specific rhetorical and discourse features should be provided to serve as a scaffold that builds on students existing language and content knowledge in order to facilitate comprehension of the specialised texts.

- Pharmacy students are highly motivated learners but tend to lose interest and not attend classes. It is the EMP teacher's responsibility to channel that motivation toward language learning by having a

thorough discussion with the students at the start of the academic year, where the teacher would not only present the syllabus requirements but also explain and elaborate on their future importance and applicability, as well as clarify the importance of English in the modern world, highlighting its significance for the learners and laying out a roadmap for the whole year so that learners know what awaits them, increasing their awareness of the relevance and usefulness of the planned learning outcomes. Additionally, pharmacy students submit lab reports almost weekly, but these lab reports are in French, so it would be interesting and beneficial if some of the subjects required students to submit lab reports in English instead).

- Regarding syllabus design, before designing the syllabus, Universities and institutions, with the cooperation of the ESP teacher, should conduct a needs analysis in order to determine the aims of ESP courses and determine the language skills that ESP students should become proficient at. Additionally, Universities and institutions are also required to check both general language knowledge and content knowledge of EMP teachers and select those with abilities in language skills' teaching and knowledge of the subject content (medical field, for instance) instead of randomly hiring new university graduates, especially since teaching ESP is an extremely challenging undertaking.

- Concerning teaching ESP, the policymakers should elaborate a standard manual consisting of the aims of each course, syllabus, teaching strategies, and guidelines for evaluations of each ESP course. Thus, it is necessary that the institution and the ESP teachers cooperate in formulating actual and realistic aims and tasks.

- As far as the heterogeneity of ESP classes is concerned, students can be administered a placement test at the start of the academic year to evaluate their General English proficiency and split students into pre-intermediate, intermediate and upper-intermediate classes (Khalili & Tahririan, 2020; Pavel, 2014), Even though a placement test could be argued as indispensable in bringing about homogeneity in an English language classroom, it would not fully be a solution since we would have to set two different classes and, thus, two different exams, something that might be a bit unfair towards learners, because this would make evaluating the learners in an impartial manner unachievable.

- The heterogeneity of ESP classes, coupled with the ESP teacher's unfamiliarity with the genre of Medical subjects, can be surmounted by developing specific workshops, seminars, and training courses that are devoted to ESP and address mainly the ESP teacher's challenges. Thus, they need in-service training programs or workshops where they get to learn about a variety of assessment techniques. Thus, ESP teachers should attend teaching, testing, and material development workshops or conferences to sharpen their knowledge about the requirements of teaching ESP and become familiar with the latest innovations in teaching ESP, testing ESP, and material development and adaptation so that there is a sense of uniformity among the ESP teachers' attitudes, beliefs, methods, techniques, and classroom activities.

- Teaching ESP is an arduous endeavour, which is why ESP teachers must be flexible and open to new approaches and methods. They also need to figure out how to learn from and with their students

(Dudley-Evans & St John, 1998). Furthermore, we recommend that ESP teachers develop "intellectual curiosity, i.e. the willingness to cooperate with other teachers and subject specialists (Pavel, 2014, p. 41) so that they are able to surmount some of the difficulties faced while teaching ESP. It takes a lot of effort and research in the field of specialised studies of their students, but turning to new environments is always an enriching experience.

- We also recommend taking a flexible approach when designing an English medical syllabus by using both the traditional textbook and the Blackboard, as well as ICTs and other authentic online resources such as YouTube and Tv show videos, online dictionaries, Podcasts, Crossword puzzles and other visual cues, especially since we are dealing with Generation Z students, known for being visual learners. Aside from these tools, we also recommend the implementation of interactive activities and games to teach not only Grammar but the language in general, activities such as discussing and debating the material presented (whether it was YouTube videos, clips from tv shows, audio, pictures or quotes), role-plays, video blogs, project presentations, video subtitle translation, podcasts interpretation, crossword puzzles, games and many others. Using a big repertoire of activities would lead towards greater homogeneity in students' attitudes and their active involvement in the learning process. On the basis of our long-term experience and observations, it can be assumed that these types of activities, done in an interactive format of the studying process, will provide students with sufficient knowledge of medical terms and proper skills of their usage in communicative situations, tasks and exercises, as well as motivate them for long term learning. Therefore, students would leave the course with a toolbox full of various strategies that they can choose from while continuing their coursework at the university

### **Future Pedagogical Endeavours**

It is important to remain flexible once the course has been developed and the material and methods selected in response to our own students' assessment of the effectiveness of the course; for instance, implementing some of the stated above solutions is possible only in theory, as in practice, these changes would lead to problems of different nature (e.g., placing the EMP course in the third year of studies would add to an already overwhelming amount of material to learn and exams to take by medical students). So, we leave room for further studies where researchers can conduct pre-and post-test analyses to confirm the usefulness of such interactive activities and games in teaching medical English to future healthcare professionals. Additionally, in our study, the primary focus point was the needs of pharmacy students, so we do invite researchers to investigate further the needs of the stockholders (subject teachers and administrators) as well as practising healthcare professionals.

### **Conclusion**

This final chapter discussed the major challenges encountered by the researcher during the course of the current study, as well as the other difficulties faced when teaching Medical English to second-year pharmacy students. This chapter further expanded on the major findings of our study, from the learners'

language needs to their perspectives on the implementation of interactive activities and games in the medical course, in addition to several other interpretations. It concludes by laying out various suggestions to overcome some of those challenges as well as several recommendations for further implementation, in addition to some tips for future pedagogical endeavours.

## General Conclusion

Due to the increasing significance of globalisation, English has acquired an even more influential role; and English-medium programs have been introduced in universities and colleges in many non-English speaking countries. Such prevalence has created a setting in which students of medical fields are required to obtain information, knowledge and experience about their fields by listening to talks and lectures, viewing multimedia resources, and reading various science and technology materials that are mainly in English. This forces those who want to be healthcare professionals and are non-native speakers of English to study it to acquire a solid grasp of the field. Coupled with the fact that we have entered an era of medical English similar to the one of medical Latin, where healthcare providers have selected a single language for international communication, this resulted in a crucial demand to learn and teach English in the medical field, making EMP an essential component of the medical studies curriculum at many medical universities, and Algeria is no exception.

Furthermore, our study focuses mainly on EMP students, adults who already have some familiarity with English, have a basic knowledge of English, and are learning the language in order to interact using a set of professional skills and execute particular job-related functions. Moreover, they are known for being highly motivated and driven learners and cooperative and attentive. Additionally, these learners have different English proficiency levels that are reflected through voluntary reading or sharing opinions and examples, as well as test results. So, an analysis of students' needs, interests, abilities, and difficulties is necessary in order to design the appropriate curriculum and identify what learners would like to do with the language, what language skills they already master, what kind of language skills they lack, what kind of problems they encounter, what interactive activities they would enjoy and learn from, and how best to incorporate these activities. Therefore, the EMP program should be built on the assessment of learners' needs and the functions for which English is required. Because using an English medical coursebook, in the absence of conducting a needs analysis process, is never enough for a medical student studying English as a Foreign Language, i.e. the case of Algerian medical students, mainly since most of the medical English coursebooks in the market are addressing the needs of students in an English as a Second Language setting.

Finally, in this age of international competition and globalisation, it has become highly essential for Algerian students to have respectable knowledge and expertise in their appropriate field as well as in English language skills. This suggests that there should be a specific curriculum that would help students gain proficiency in English in the different areas of healthcare and address their problems according to their individual needs in a well-tailored manner. However, it is safe to assume that there are no pre-established medical courses in Algerian medical universities with a program that would enhance the English language proficiency of medical students or one that is specifically aimed at meeting their particular medical needs. Thus, there are no standard curriculums or instructional materials

determined by the higher institutions (Ministry of higher education and scientific research) for these classes since most instructors teaching Medical English attempt to design their own syllabus, which usually consists of texts related to the health sector as well as some grammar exercises, compiled mostly from the internet. Therefore, the instructor is the one who sets the objectives or determines the content of the courses or materials used in those classes as they see fit and teaches the students whatever is convenient to them. Nevertheless, usually, both the course content and the teachers' training, when weighed, are found wanting; because the issue in such settings is whether the learners' needs are being addressed, something this research aims to investigate meticulously. Additionally, It has become clear that modern language classrooms should be set in a way that would prepare students to face real-world problems that engage them in higher-order thinking skills – creativity, innovation, communication, collaboration, critical thinking and problem-solving. With these skills, students will become creators of knowledge, competent and productive communicators, successful collaborators, independent and inventive thinkers, problem solvers and career experts, and Pharmacy students are a perfect example of a fertile soil on which such seeds could be planted. Hence the motive behind the use of interactive activities like debating the quotes, discussing videos about medical /ethical matters etc.

This research's purpose was to improve the status quo, and to do so; we needed to explore the unique English language needs and expectations of the currently enrolled second-year Pharmacy students studying at the faculty of Taleb Mourad, the University of Djillali Liabes Sidi Bel Abbes (French medium of study), to identify how the English courses within the present conditions can be matched to the students' perceived and potential future needs and design a syllabus targeted toward these learners' needs. Additionally, the researcher aimed to incorporate a set of interactive activities and games within the course design (lesson plan), promoting the use of information-communication technologies (ICTs) in the ESP class, as well as to evaluate the results of implementing such activities in the EMP course and their impact on students' attendance, engagement, motivation and language learning. The study is based on identifying the specific academic English language needs of second-year pharmacy students, assessing their views and preferences in relation to a set of preselected interactive activities, and attempting to develop a Medical English syllabus. This action research's needs analysis was carried out using various data collection tools, including classroom observation, student questionnaires, and semi-structured interviews with teachers (both quantitative and qualitative).

So in other words, this study uses a Needs Analysis framework to investigate the pharmacy Students' Purposes of language and General preferences, their expectations and needs, their thoughts on the previous program, their views in regard to cognitive enhancement, personal growth and management of learning ( their academic and professional English language needs); as well as analyse the use of new pedagogical tendencies, such as the implementation of role plays, debates, games, and the use of different multimedia tools, as practical resources to carry out communicative and interactive activities for teaching EMP, and it aims to implement these interactive activities and games in the curriculum to

judge their impact on learners, with the hope of motivating the learners to attend and to actively engage in the learning process. Data were collected via an online questionnaire constructed based, in part, on information gained from informal interviews, on questionnaires used in previous needs analysis conducted in medical contexts and on the literature on ESP and EMP. The questionnaire was designed to gauge thoroughly the perceptions of the currently enrolled students, coupled with teachers' semi-structured interviews and class observations. The questionnaire contained 61 items, with 40 multiple-choice questions and 20 Likert questions. The 40 MCQs covered five different parts focusing on: 1- Students' Purposes of language and General preferences. 2- Expectations and needs. 3- Improvement of the previous program. 4- Cognitive enhancement, Personal growth and management of learning. 5- Preferred Interactive Tasks. And the Likert questions helped further cement the results of the MCQs, in addition to assessing students' views of their language level.

Furthermore, the data were analysed quantitatively using the Statistical Packages for Social Sciences (SPSS) program via some statistical methods based on the nature of the study and the researcher's objectives. The main results of the study revealed that Pharmacy students are significantly in favour of improving their speaking skills and vocabulary; they want to improve it for academic purposes so that they can discuss medical matters, present in seminars or speak to the public about medical issues. They view speaking English fluently, brainstorming and thinking critically as the most valuable sub-skills, which is why they affirmed that their main objectives from the course were to be able to express ideas and thoughts clearly and hold conversations in English, as well as develop other skills like critical thinking and other interpersonal skills; thus, indicating that our students value becoming articulate communicators and fluent English language users. Other results indicate that these students are eager to learn new technical vocabulary to use medical terms in professional communication or in academic writing, as well as be able to analyse and understand medical texts and make inferences.

They also support teaching methods that emphasise small group discussions, debates, role plays and interviews with simulated patients, which is why they are huge advocates for the implementation of Practical sessions (TDs) in such a manner that students get more speaking, participating and practising time; thus, becoming active contributors to the learning process by presenting through the interactive activities and games that would engage them in interactive brainstorming and critical thinking, as well as allow the ESP teacher would have more time to address various points and give individual feedback. Concerning their preferred activities, Debates, Group conversations and discussions, as well as activities that include the use of ICTs like Videos from YouTube or sections from movies/TV shows, and other material from the internet, since they bring a fresh, dynamic atmosphere and allow students to interact in the class, indicating that pharmacy students are visual learners and would benefit most from visual cues. Other preferred activities include project presentations, role-plays, discussions, idiom and quote debates and interpreting podcasts and other authentic reading and listening tasks, such as audio recordings of real-life conversations and doctor-patient dialogues.

With regards to the utility of interactive activities and educational games, pharmacy students believe that such fun activities reduce anxiety and stress in the classroom and help them remember faster and better, as well as positively influence the teacher-student relationship and encourage shy students to participate. They selected crossword puzzles as their favourite vocabulary learning activity, in addition to word-matching and gap-filling activities and occasionally word-building games as their grammar learning and recycling activity. Additionally, for pharmacy students, such activities allow the use and practice (recycling) of the learned linguistic and social skills, promote creative thinking and brainstorming, improve their vocabulary and language proficiency, and create an interactive and motivating context in which they can easily and subconsciously share information as well as compete and cooperate in an enjoyable environment. Furthermore, these learners consider these interactive materials to be way better than those provided in the textbook (traditional activities) since they motivate them to listen and learn from other materials outside the class, as well as facilitate the learning process of Medical English; thus, they assert that Interactive activities and games should be a part of The English syllabus. The results also disclosed that the students value English and its importance in both their current medical studies as well as their future medical careers. Regarding the current course, pharmacy students are satisfied with the diverse material presented and view it as sufficient, interesting, and engaging, helping them to communicate effectively in English; furthermore, students showed their desire to study English every year, where the syllabus would suit every stage and that it would include more medical terminology

This study further highlights some challenges faced while teaching medical English and suggests ways to overcome such challenges, such as undetermined or unrealistic aims, time restrictions, teaching heterogeneous ESP classes, students undervaluing English as an important subject, English being taught only in one year, students' lack of field-specific knowledge and their focus on test results, students as passive receivers of knowledge, the teachers' unfamiliarity with testing methods or material development and their lack of coordination and many other. So the incentive behind conducting this study was mainly to address the aforementioned problem as well as investigate the needs of the so-called Generation Z, known to have a very short attention span, making the act of keeping them focused and engaged very challenging, hence the implementation of interactive activities in the process of teaching ESP in general. And the findings indicated that the use of interactive activities and games in the ESP classroom enables students to be active and collaborative, improves learning achievements and increases learning outcomes.

The ultimate goal is to improve the quality of learning experiences, as well as to produce a highly social and authentic, supportive and productive learning environment that allows students the construction of relevant knowledge. Moreover, At the foundation of the study lies the belief that language learning, especially learning a language for specific or occupational purposes, is a lifelong learning endeavour; the syllabus would be designed with that notion in mind. Furthermore, the results

of this study provide insight into the needs of students from their own perspectives, and we believe that these results could be applied to other medical fields, such as medicine and dentistry. This could also be extended to other ESP branches, such as English for law or tourism. Accordingly, the findings of this study may prove valuable to instructors and course designers in designing ESP courses for ESP students in general and medical students in particular. Moreover, we hope that our study will contribute to the compilation of a database regarding the English academic needs of medical students, as well as the implications of implementing interactive activities in medical education.

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## Appendix A

### Students' Questionnaire: Needs Analysis of the English Course for the Pharmacy Students

#### Background Information

Gender:

Age:

Pharmacy Year:

#### **I. Students' Purposes of language and General preferences:**

1. I am studying English to:

- Interact with people and be able to communicate with foreigners
- Study from medical resources (websites, textbooks, etc.).
- Perform academic work like writing medical reports/papers and Correspond with Foreign professionals in my field or patients.
- Attend academic conferences, seminars, meetings with professionals in English etc.
- Achieve a sufficient score in language proficiency exams, like TOEFL or IELTS.
- Pursue a degree or work abroad, or improve job opportunities and get a better job.
- To get the grade "Course requirement".

2. How significant are each of the following language skills (which one do u want to develop more):

Which skill is the most significant

- Listening.
- Speaking.
- Reading.
- Writing.
- Translating.
- Grammar
- Vocabulary.

3. What is your preferred learning style:

- A Lecture with a few interactive activities.
- A traditional Lecture with the teacher doing most of the talking (as the information provider).
- A tutorial session (TDs) with activities, pair/group work and projects.
- Lectures with activities, group work and projects, where the teacher is a facilitator and guide.
- Traditional Lectures and tutorial sessions (TDs).

4. Which learning environment do you prefer for English courses:

- Traditional classroom in an amphitheatre (Face to face teaching).
- Online Synchronous distance learning using zoom.
- Blended learning (a mix between the two)
- Other (specify)

5. I like studying using:

- Whiteboard and traditional chalk explanations
- Using PowerPoint presentations
- Using computer tools like videos and the Internet
- Using applications on my mobile phone
- Other (specify)

6. In the English course, I like learning:

- Individually at home as homework.
- In pairs.
- In small groups “in workshops”.
- In big groups, “tutorial session TDs.”
- With the whole class “Lecture”.

7. In the English course, I like learning

- By listening and taking notes.
- By repeating what I hear.
- By reading and making notes.
- By memory and copying from the board
- By problem-solving and interacting with classmates.

8. I like learning from:

- Television, YouTube, vlogs, podcasts, and songs.
- The Internet, blogs and social media
- Written materials like books and textbooks.
- The blackboard/whiteboard.
- Other.

9. Which of the following English curricula do you perceive is the best one for you:

- General English, no need for English for Medical Purposes (EMP).
- No need for general English, only English for Medical Purposes.
- General English along with English for Medical purposes in one year (EMP).
- General English in one-year, medical English in the other ones.
- English classes should continue for more than two years.

## II. Expectations and needs.

10. I want to improve my reading skills to:

- Read technical articles, books and journals in the medical field.
- Read instructions for assignments and class-related projects.
- Read laboratory instructions, manuals and Medical Reports.
- Read study notes of the courses, as well as texts at English tests.
- Read blogs, articles and posts on the Net, as well as general books, newspapers and Magazines.

11. I want to improve my writing skills to:

- Answer questions in a written form, in an exam or in classwork.
- Write projects or Papers for Oral Presentation, as well as Lab reports.
- Write articles and research papers for international journals.
- Take notes from written sources like Textbooks, Handouts or during class.
- Write formal letters (motivation letters) and e-mails.

12. I want to improve my Listening skills to:

- Understand lectures, class presentations and conversations of students, colleagues, and patients.
- Understand foreign people (friends, colleagues or patients).
- Understand instructions in real medical situations (hospitals) or during exams.

- Understand medical audio & video sources, like online lectures and documentaries.
- Understand daily English, speeches, mass media, YouTube, movies and podcasts.

13. I want to improve my Speaking skills to:

- Ask and answer questions in the class and be part of the discussion in the class.
- Be able to carry out daily conversations with friends and colleagues.
- Talk to foreign friends or patients.
- Speak in public about medical issues or Give oral presentations in class.
- Discuss medical issues/make presentations in seminars and conferences.
- Have casual conversations, such as telephoning, greeting, invitations, etc.

14. I want to learn new vocabulary to:

- Use the medical terms in Professional communication or in academic writing.
- Exchange questions and answers about medical cases with colleagues and patients.
- Predict and brainstorm new General or medical vocabulary.
- Be part of the interactive activities in class.
- Analyse and understand a medical text, and make inferences.
- Use the new vocabulary in a casual setting.

15. What are the problems you are currently facing in your academic studies:

- Poor speaking and conversational skills.
- Poor listening comprehension skills.
- Poor reading comprehension skills.
- Poor writing skills.
- Limited vocabulary.
- Difficulty in brainstorming.
- Poor translating skills.
- Poor grammar

16. Other challenges you are facing:

- Reading Medical textbooks, journal articles and reports.
- Speaking about medical topics, using and pronouncing medical vocabulary correctly.
- Listening to authentic multimedia (videos and podcasts).
- Revising and learning grammar.
- Writing class notes, test answers, assignments and Lab reports
- Other (specify)

17. What do you think are the major problems when having an EMP class:

- The size of the class is usually too big (overcrowded classes).
- Low level of (English/subject) knowledge of the teacher.
- Heterogeneous students' level (mixed level of English language ability of students).
- Uninterested and unmotivated students (boring classes).
- The credits of the course are too low for students to take it seriously.
- Lack of audio-visual material in the class (outdated material).
- Lack of student involvement and participation in class activities.
- Class hours make it challenging to focus (being at the end of the day)

### **III. Improvement of the previous program.**

18. EMP course should be about (contain):

- Studying specific, speciality-related words and expressions.
- More opportunities for students to express their opinion and discuss work-related topics.
- Analysing and reading speciality texts and acquiring new vocabulary.

- Creative learning tasks that require higher-order thinking skills (critical thinking, brainstorming).
- Discussions on issues of intercultural communication in the global world.

19. Would you like the class to be (teaching methods):

- Traditional Lectures.
- Readings sessions.
- Small group discussions and debates.
- Role-play – Interviews with simulated patients – actors, and volunteers.
- Videotape reviews and translation.
- Written reflections and text analysis.

20. How did you find the EMP course materials and instruction:

- The provided instructional materials were sufficient, and the topics were interesting/engaging.
- The materials were not sufficient, and the topics were not interesting/engaging.
- A variety of audio-visual aids were used.
- Not enough use of the mother tongue for the explanation.
- Lack of Grammar lessons.

21. The emphasis of the reading aspect in the English course should be:

- To read English newspapers, magazines and books
- To read English medical materials like textbooks, handouts and medical journals
- To read stories and dialogues about the practice
- Other (Please specify)

22. The emphasis of the listening aspect in the English course should be:

- To listen to casual podcasts and educational YouTube videos.
- To listen to daily conversations and dialogues.
- To listen to academic podcasts and watch videos about the medical field
- To listen to the teacher and classmates and take notes
- Other (Please specify)

23. The emphasis of the speaking aspect in the English course should be:

- To carry on casual conversations and debates.
- To present classroom oral presentations or projects.
- To deliver speeches and Public speaking outside class.
- Participate in interactive class activities like games.
- Other (Please specify)

24. What would you think the emphasis of the writing aspect in the English course should be?

- To write for a practical purpose (e.g., memos, e-mail messages, letters)
- To write casual text, messages and comments.
- To write course assignments, Medical or Lab reports.
- To write research papers and articles.
- Other (Please specify and select.)

#### IV. **Cognitive enhancement Personal growth and Management of learning.**

25. How significant are each of the following language sub-skills (which one do u want to develop more):

- Brainstorming.

- Critical thinking.
- Scanning and skimming in reading.
- Summarising and editing in writing.
- Inferring attitude, mood and understanding gist in listening.
- Pronunciation and intonation in speaking
- Cultural awareness.

26. In the English course, I get a sense of satisfaction from:

- Having my work graded and getting good results.
- Making progress in the language and getting confirmation from the teachers
- Feeling more confident in situations that I found difficult before
- Passing a certain English proficiency exam (such as TOEFL, TOEIC, or IELTS ...)
- Other

27. I need:

- A different study tempo (Slower or faster).
- More listening & speaking practice.
- More study time (more hours per week).
- Smaller class sizes, like in tutorial sessions (TDs).
- Topics that are delivered by students.
- Other.

28. I am more interested in:

- Being able to Frame/provide responses to simple questions.
- Expressing ideas and thoughts clearly, and holding a conversation in English
- Understanding questions and comments raised by colleagues and following class discussions.
- Writing correct meaningful sentences in English.
- Brainstorming and linking concepts previously learnt.
- Developing other skills like critical thinking and other interpersonal skills

29. Your preference for classroom and blackboard activities:

- Exercises from the textbook (fill in the gap, matching etc.)
- Doctor-patient dialogues using audio-visual materials.
- Writing tasks like small essays and reports.
- Theoretical knowledge using PowerPoint presentation
- Authentic reading and listening tasks using videos, articles, and podcasts.
- Discussions/sharing opinions on topics
- Other. (Please specify)

**V. Their preference for the interactive tasks**

30. In the English course, I find these activities more appealing, suit me more and are useful.

- Listening to audio recordings and podcasts.
- Role plays, interviews, and dialogues.
- Language games.
- Videos from YouTube or sections from movies/TV shows.
- Using Dictionaries, Flashcards and Memorising vocabulary lists.
- Debates, and Group conversations and discussions.
- Teamwork and projects.

31. How would you prefer English be introduced to medical students:

- Focusing on the four major skills.
- Focusing on Grammar.
- Focusing on medical terminology.
- Focusing on practice and communication skills.
- Using technology, i.e., computers, the Internet and laboratories.
- Highly qualified specific courses in the medical field.
- A specific course for every year to suit every stage.

32. Do you think that using Interactive activities and educational games can:

- Reduce anxiety and stress in the classroom helps students remember faster and better.
- Construct a cooperative learning environment and promote communicative competence.
- Be a welcome break from the routine of the class “fun and amusing”.(the acquisition of input is more likely).
- Allow language practice of various skills at the same time (speaking, writing, etc.).
- Positively influence the teacher-student relationship and encourages shy students to participate.

33. What were your expectations coming into this EMP class:

- Increase my EMP vocabulary/Learn medical terminology in English
- Practice my English language skills / carry out communicative activities
- Discuss professional topics of common interest
- Listen and watch medical materials.
- Read and understand professional texts
- Improve my grammar.

34. I can learn the language better using:

- Crossword puzzles
- Idiom and quote debates and discussions
- Role-plays and simulations
- Translation activities
- Podcasts and audio recordings of real-life conversations
- Projects presentations
- Flashcards and playing with Quizlet
- Visual aids like vlogs and tv show clips
- Storytelling and blogs
- Labelling diagrams and discussing graphs and pictures

35. I rather learn new vocabulary through:

- Word games like scatter sheets
- Podcasts and audios of dialogues
- Flashcards and Quizlet
- Role-plays and Stories
- Using visuals like videos and illustrations
- Using mnemonic devices
- Via Translation
- Using Dictionaries and collocations

36. Which of the following games helps you learn vocabulary the most:

- Relay Word Building
- Crossword Puzzles
- Board Race
- Word Jumble Race
- Hangman
- The Mime
- Cloze games

37. I rather study grammar after learning the rule through:

- Examples and activities
- Missing links tasks
- Labelling and discussing graphs, charts and pictures
- Word building Games
- Multiple-choice games
- Word-matching and Gap-filling activities

38. Using Crossword Puzzles as a Learning tool for vocabulary development:

- Is not sufficient to cover the vocabulary studied.
- Makes learning vocabulary more interesting.
- Can allow students to review vocabulary.
- Can motivate to learn more vocabulary.
- Helps get rid of anxiety when learning new vocabulary.

39. Regarding using games in class:

- Games are a fun and relaxing way to learn.
- Games are an excellent way to learn grammar.
- Games are motivating for me, and they make me study to win
- Games are not helpful in learning grammar or vocabulary.
- We should not play at all. I prefer studying using books and worksheets.

40. Using project presentations to learn English and Medical English:

- Makes learning more authentic.
- Foster cooperative learning.
- Develops critical thinking and creativity.
- Helps the reproduction of technical terms in Professional communication.
- Develops the skill of taking notes.
- Is not an interesting activity.

**1-Likert questions:** strongly agree /agree / Partially agree (not always) /disagree/ strongly disagree.

1- How is your overall level of English? “very poor, poor, average, good, very good”.

2-English is very important to your current medical studies.

3-English is an important element in the future career of Medical professionals.

4-This course could help medical students improve their English proficiency.

5-I am satisfied with my ESP teacher, and I like the methods of teaching.

- 6-The current English language course is repetitious of what you have studied in high school.
- 7-The current course provides you with the language skills to communicate effectively in English.
- 8. English should be taught beyond the second year of your medical studies.

**Games Likert question:**

- 9. Interactive activities and games are effective and amusing learning tools.
- 10. Interactive activities and games can improve the four language skills.
- 11. Using interactive activities and games facilitates the learning process of Medical English.
- 12. Interactive activities and games allow the use and practice of the learned linguistic and social skills.
- 13. Interactive activities and games promote creative thinking, brainstorming and problem-solving skills.
- 14. Interactive activities and games lower anxiety and motivate students to interact and communicate.
- 15. Interactive materials are better than those provided in the textbook (traditional activities).
- 16. Interactive materials help me improve my knowledge of vocabulary and my language proficiency.
- 17. Interactive activities and games motivate me to listen and learn from other materials outside the class.
- 18. Authentic materials improve my language skills more than modified or non-authentic materials.
- 19. Interactive materials increase my familiarity with the use of grammar rules in their original context.
- 20. Interactive activities and games should be a part of The English syllabus.

Would you like to point out anything else related to your English language needs (issues of listening, speaking, reading and writing) and why? (e. g., any suggestions or problems etc.).

**Thank you for your participation.**

We Used Google Forms to create the online Questionnaire

The link to the online questionnaire.

**[https://docs.google.com/forms/d/1zpVkyi0nHWS\\_YIU1n\\_tBNY\\_--hz5mP0C145oP3t8sdA/edit](https://docs.google.com/forms/d/1zpVkyi0nHWS_YIU1n_tBNY_--hz5mP0C145oP3t8sdA/edit)**

## Appendix B

### Suggested Syllabus For Second-Year Pharmacy Students

Unit	Course title	Language Function	Interactive activities	Teaching Aids
01	<b>General English Introduction</b>	<ul style="list-style-type: none"> <li>• Introduction to "The course"</li> <li>• Why study English?</li> <li>• The Four Language Skills</li> <li>• General English vs ESP</li> <li>• Parts of Speech</li> </ul>	<ul style="list-style-type: none"> <li>• Debating the Quote</li> <li>• Multiple choice games (MCQs)</li> </ul>	<ul style="list-style-type: none"> <li>• Idiomatic expressions</li> <li>• Visual representations</li> <li>• Youtube videos</li> </ul>
02	<b>Sentences &amp; Nouns</b>	<ul style="list-style-type: none"> <li>• Common and proper nouns</li> <li>• Plural of nouns</li> <li>• The possessive form of nouns</li> </ul>	<ul style="list-style-type: none"> <li>• Missing links: Collocations</li> <li>• Personal details: listen to a dialogue Doctor-Patient</li> </ul>	<ul style="list-style-type: none"> <li>• Audio Transcript and recording</li> <li>• Pictures;</li> <li>• Charts of the plural of nouns and missing links</li> </ul>
03	<b>Adjectives</b>	<ul style="list-style-type: none"> <li>• Function of adjectives</li> <li>• Forms of Adjectives</li> <li>• Degrees of Comparison</li> <li>• Types of Adjectives</li> <li>• Order of adjectives</li> </ul>	<ul style="list-style-type: none"> <li>• Put the adjectives in the appropriate order</li> <li>• What do we say? ( select the right form of adjectives)</li> <li>• Collocations: selecting the right adjective for pain</li> </ul>	<ul style="list-style-type: none"> <li>• Idiomatic expressions</li> <li>• Mnemonic devices: OSASCOMP</li> </ul>
04	<b>Interactive Activities I</b>	<ul style="list-style-type: none"> <li>• Common grammar errors</li> <li>• Generic Vs Branded Drugs</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple choice games (MCQs)</li> <li>• Discuss the video " Is There a Difference Between Brand Name Medications and Generics."</li> </ul>	<ul style="list-style-type: none"> <li>• Youtube videos</li> <li>• Charts</li> </ul>
05	<b>Pronouns &amp; French False Friends</b>	<ul style="list-style-type: none"> <li>• What Is a Pronoun?</li> <li>• Types of Pronouns</li> <li>• What is a French false friend and a French cognate</li> <li>• Complete false and Semi-false friends</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple choice games (MCQs)</li> <li>• Debating the Quote</li> <li>• Word-matching and Gap-filling activities</li> </ul>	<ul style="list-style-type: none"> <li>• Quote</li> <li>• Pictures;</li> <li>• Charts of prepositions</li> <li>• Charts of false friends</li> </ul>
06	<b>Adverbs &amp; Preposition</b>	<ul style="list-style-type: none"> <li>• What is a preposition?</li> <li>• Time and place prepositions: on, at, in</li> <li>• Adverbs: Form and Use</li> </ul>	<ul style="list-style-type: none"> <li>• Debating the Quote</li> <li>• Word building Games: make a suitable form</li> <li>• Discuss the salary Chart</li> </ul>	<ul style="list-style-type: none"> <li>• Quote</li> <li>• Pictures;</li> <li>• Charts of Salary</li> </ul>
07	<b>Verbs in English</b>	<ul style="list-style-type: none"> <li>• What is a verb?</li> <li>• Types of Verbs: Main &amp; Auxiliary Verbs - Linking and Modal verbs, Transitive &amp; Intransitive Verbs</li> <li>• Confusing Verbs</li> </ul>	<ul style="list-style-type: none"> <li>• Debating the Quote</li> <li>• Multiple choice games (MCQs):</li> <li>• "Raise a hand if you ever" Game</li> <li>• Missing links: put the right verb</li> </ul>	<ul style="list-style-type: none"> <li>• Idiomatic expressions</li> <li>• Pictures;</li> <li>• Charts of types of verbs</li> </ul>
08	<b>Verb Tenses</b>	<ul style="list-style-type: none"> <li>• The different English tenses</li> <li>• Their forms</li> <li>• Their use and meaning</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple choice games (MCQs): selecting the right tense</li> <li>• Debating the quote</li> <li>• Gap-filling activities</li> </ul>	<ul style="list-style-type: none"> <li>• Idiomatic expressions</li> <li>• Mnemonic devices: Fussy Jane</li> </ul>
09	<b>Phrasal verbs &amp; Interactive Activities II</b>	<ul style="list-style-type: none"> <li>• What is a phrasal verb?</li> <li>• Types of phrasal verbs</li> <li>• Common phrasal verbs</li> </ul>	<ul style="list-style-type: none"> <li>• Missing links: put the right preposition/adverb</li> <li>• Brainstorm terms related to...(pain)</li> <li>• Draw a Spidergram</li> <li>• Crossword puzzle I and II</li> </ul>	<ul style="list-style-type: none"> <li>• Idiomatic expressions</li> <li>• Charts</li> <li>• Spidergram</li> </ul>

10	<b>Questions in English</b>	<ul style="list-style-type: none"> <li>• What is a question?</li> <li>• Yes/No and Wh Questions</li> <li>• Embedded Questions</li> <li>• Tag questions</li> <li>• Rhetorical questions</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple choice games: select the correct question</li> <li>• Twenty Questions Game</li> <li>• "Raise a hand if you ever" Game</li> </ul>	<ul style="list-style-type: none"> <li>• Idiomatic expressions</li> <li>• Videos (examples of the different questions)</li> </ul>
11	<b>Etymology of Pharmacy</b>	<ul style="list-style-type: none"> <li>• Origin of the Term Apothecary and Pharmacy</li> <li>• Pharmacy: countable and uncountable</li> <li>• History of Pharmacy</li> <li>• Picking Up Prescriptions</li> </ul>	<ul style="list-style-type: none"> <li>• Audio recording and Transcript "A Pharmacist and a Customer Dialogue " Discussion.</li> <li>• Discuss the video "Picking Up Prescriptions."</li> </ul>	<ul style="list-style-type: none"> <li>• Audio Transcript and recording</li> <li>• Idiomatic expressions</li> <li>• Pictures; Charts</li> <li>• Youtube videos</li> </ul>
12	<b>Medical Slang</b>	<ul style="list-style-type: none"> <li>• What does Slang mean?</li> <li>• Medical Slang Terms</li> </ul>	<ul style="list-style-type: none"> <li>• Audio recording and Transcript " Medical Slang" Discussion.</li> </ul>	<ul style="list-style-type: none"> <li>• Audio Transcript and recording</li> <li>• Youtube videos</li> </ul>
13	<b>Education of Pharmacists</b>	<ul style="list-style-type: none"> <li>• Education and Entry Requirements</li> <li>• History of Pharmacy Education</li> <li>• Pre-professional courses</li> <li>• Tuition and Fees</li> </ul>	<ul style="list-style-type: none"> <li>• Audio recording and Transcript " Medical Equipment" Discussion.</li> <li>• Discuss the video " Steps to Becoming a Pharmacist."</li> </ul>	<ul style="list-style-type: none"> <li>• Audio Transcript and recording</li> <li>• Pictures; Charts</li> <li>• Youtube videos</li> </ul>
14	<b>Writing an Email / a Curriculum Vitae</b>	<ul style="list-style-type: none"> <li>• Prewriting strategies</li> <li>• Tips for Writing Professional Emails</li> <li>• What makes a winning CV?</li> <li>• Reading critically</li> </ul>	<ul style="list-style-type: none"> <li>• Rearrange the text</li> <li>• Use emails as roleplay cards</li> <li>• Pairwork: spot the errors</li> <li>• Spot the errors race</li> <li>• Create a draft CV/Email</li> </ul>	<ul style="list-style-type: none"> <li>• Idiomatic expressions</li> <li>• Visual representations</li> </ul>
15	<b>Organs &amp; Body Parts</b>	<ul style="list-style-type: none"> <li>• External body parts</li> <li>• Internal body parts</li> <li>• The Body Systems</li> <li>• Clinical Acronyms</li> </ul>	<ul style="list-style-type: none"> <li>• Audio recording and Transcript " The Human body" Discussion.</li> <li>• Complete the Diagram: Label the Digestive Diagram</li> </ul>	<ul style="list-style-type: none"> <li>• Audio Transcript and recording</li> <li>• Pictures</li> <li>• Mnemonics: MR DICE RUNS</li> </ul>
16	<b>Common &amp; Mild Diseases</b>	<ul style="list-style-type: none"> <li>• What's a Disease</li> <li>• Types of Diseases</li> <li>• Signs and Symptoms</li> <li>• Mild &amp; Common diseases</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple choice games (MCQs)</li> <li>• Mind Map Game: choosing words from a list to complete each sentence</li> </ul>	<ul style="list-style-type: none"> <li>• Quote</li> <li>• Pictures</li> <li>• Mnemonics: OLD CARTS - SOCRATES</li> </ul>
17	<b>Medical Terminology "Introduction"</b>	<ul style="list-style-type: none"> <li>• Introduction to Medical Terms</li> <li>• Main Types of Word Formation</li> <li>• Structure of Medical Terms</li> </ul>	<ul style="list-style-type: none"> <li>• Presenting Complaints using non-technical terms</li> <li>• Explain the Chart (in the form of prescriptions with abbreviations)</li> </ul>	<ul style="list-style-type: none"> <li>• Idiomatic expressions</li> <li>• Pictures</li> <li>• Charts</li> </ul>
18	<b>Medical Terminology "Structure"</b>	<ul style="list-style-type: none"> <li>• Common Medical Prefixes</li> <li>• Common Medical Suffixes</li> <li>• The Plural Forms</li> </ul>	<ul style="list-style-type: none"> <li>• Word building Games: fill in using the suitable form</li> <li>• Medical Crossword puzzle I</li> </ul>	<ul style="list-style-type: none"> <li>• Idiomatic expressions</li> <li>• Charts</li> <li>• Spidergram</li> </ul>
19	<b>Advanced Writing: Writing an essay</b>	<ul style="list-style-type: none"> <li>• Outlining and setting a Plan</li> <li>• Tips for writing a good essay</li> <li>• Reviewing and Editing</li> </ul>	<ul style="list-style-type: none"> <li>• Pairwork Spot and Correct</li> <li>• Spot the errors race</li> <li>• Write a draft</li> </ul>	<ul style="list-style-type: none"> <li>• Idiomatic expressions</li> <li>• Visual representations</li> </ul>
21	<b>Interactive Activities III</b>	<ul style="list-style-type: none"> <li>• Revision of the previously addressed themes</li> <li>• Prescription Drug Abuse- Red Flags</li> </ul>	<ul style="list-style-type: none"> <li>• Medical Crossword puzzle II and III</li> <li>• Discuss the video " Prescription Drug Abuse- Red Flags for Pharmacists and Pharmacy Technicians."</li> </ul>	<ul style="list-style-type: none"> <li>• Idiomatic expressions</li> <li>• Youtube videos</li> </ul>

## Appendix C

### A Pharmacist and a Customer Dialogue "Audio Transcript"

**Pharmacist:** Good morning. How can I help you today?

**Customer:** Hello. Can you fill a prescription?

**Pharmacist:** Certainly. I see that you need several items - let me check if we have them all. I will be right back.

**Pharmacist:** Well, Mr. Jones we have most of the items but I see that your doctor prescribed you brand name antibiotics and we only have the generic variety, will this be ok?

**Mr. Jones:** Um, what's the difference?

**Pharmacist:** The drugs are actually the same, both varieties use the same active ingredients and are taken in the same manner. The only real difference is the cost, the generic are much cheaper.

**Mr. Jones:** That sounds good. Oh, but what about side effects of the generic one?

**Pharmacist:** The side-effects are the same with both drugs; the most common one being drowsiness. Of course, you should read the instructions before taking and pay close attention to the contraindications as this drug has a few.

**Mr. Jones:** Ok, so I will take the generic antibiotics and what about the other items?

**Pharmacist:** We have the eye-drops, the anti-inflammation suppository and the liniment. I must say that this seems like an unusual combination of treatment.

**Mr. Jones:** Ah, well you see it is not just for me. The prescription is from our family doctor and covers me, my wife and our son.

**Pharmacist:** Now I see. Ok, so I just need to tell you a little about these drugs. May I ask who the liniment is for?

**Mr. Jones:** That's for me.

**Pharmacist:** Ok, well this is a transdermal liniment which means you need to apply it to the area and the active ingredient is absorbed into your bloodstream.

**Mr. Jones:** Ok, and it should only be applied to a small area of skin?

**Pharmacist:** Yes, that is correct. Just follow the instructions on that. Now, the eye-drops - these are topical...

**Mr. Jones:** You mean they may be unsafe?

**Pharmacist:** You would be surprised how often people try taking them orally.

**Mr. Jones:** I assure you that I know how to use eye-drops.

**Pharmacist:** Right, sorry I didn't mean to cause offense. Anyway, the suppositories are a little more unusual. Are these also for you?

**Mr. Jones:** Absolutely not. They are for my wife.

**Pharmacist:** Ok, well please tell her that she must follow the dosage instructions on the box and if at any time she starts to feel numb, she should discontinue the treatment.

**Mr. Jones:** Of course.

**Pharmacist:** So that's everything from the prescription. Is there anything else I can do for you?

**Mr. Jones:** Yes, I need something for a blocked nose and do you have anything to help the immune system cope better?

**Pharmacist:** There are several options for boosting the immune system but as you don't have a prescription it will have to be an over-the-counter remedy. I would recommend 'rescue remedy'

**Mr. Jones:** What is it?

**Pharmacist:** It is a tincture of alcohol and herbs.

**Mr. Jones:** So it is natural?

**Pharmacist:** Yes, and it is very good. I use it on my daughter during the flu season.

**Mr. Jones:** Ok, that sounds good.

**Pharmacist:** And for the blocked-nose, of course a nasal spray to clear the nose and maybe a vitamin C dietary supplement as well.

**Mr. Jones:** That would be good, but it's for my son and he cannot swallow tablets.

**Pharmacist:** No problem, these are effervescence tablets so they dissolve in water.

**Mr. Jones:** Perfect. How much will that be?

**Pharmacist:** 49.92 with tax.

### Explaining the underlined expressions:

**Fill a prescription:** to validate and supply the required items of a prescription. **Example:** took the prescription to my local pharmacist who filled it.

**Generic:** a product which is directly comparable to a brand name but without trademark

**Example:** Generic drugs are usually much lower in cost than brand name drugs.

**Active ingredient:** the chemically active part of a drug **Example:** Benadryl's active ingredient is diphenhydramine.

**Side effects:** a negative or detrimental effect which accompanies a drug's intended effect

**Example:** Patients often feel quite concerned when they see a long list of possible side effects.

**Drowsiness:** the state of feeling tired **Example:** Thousands of drivers each year are killed because of drowsiness.

**Contraindications:** something, which makes a particular course of treatment unadvisable.

**Example:** Most drugs contain a list of contraindications on the instructions.

**Drops:** a liquid medicine which is given in the form of globules. **Example:** Eye-drops are the most common medication for treating infections in the eye.

**Suppository:** a solid mass of medicinal substance which melts when inserted into the rectum.

**Example:** Suppositories are often used to treat infants for whom orally administered treatment is not an option.

**Liniment:** a liquid or semi-liquid preparation which is applied directly to the skin. **Example:**

Liniments are most commonly used in the treatment of bruises or sprains.

**Transdermal:** applied to the skin for absorption into the blood stream. **Example:**

Nicotine patches are the most common transdermal patches in the US.

**Absorb:** to take up or be received by chemical interaction. **Example:** The cream is absorbed directly into the skin.

**Topical:** local, applied externally to a specific part of the body. **Example:** Topical anesthetics are used to relieve pain from sunburn, burns and insect bites.

**Oral:** connected with the mouth. **Example:** The interface between medicine and dentistry is called oral medicine.

**Numb:** without physical sensation or the ability to move. **Example:** His hands were numb from the cold.

**Discontinue:** to cease or stop. **Example:** You should discontinue taking the tablets if you feel any shortness of breath.

**Over-the-counter:** without a doctors' prescription but within the law. **Example:** A lot of over-the-counter medicines can now be bought online.

**Tincture:** a solution of alcohol and animal, vegetable or chemical drugs. **Example:** Most herbal extracts in the form of liquids are tinctures.

**Nasal:** of or relating to the nose. **Example:** When they examined the boy, they realized he had a small plastic car stuck in his nasal cavity.

**Dietary supplement:** a product containing ingredients with nutritional value, designed to compensate for a lack of this ingredient in a person's diet. **Example:** More and more people are taking dietary supplements to ensure that they meet the recommended daily allowance of vitamins and minerals.

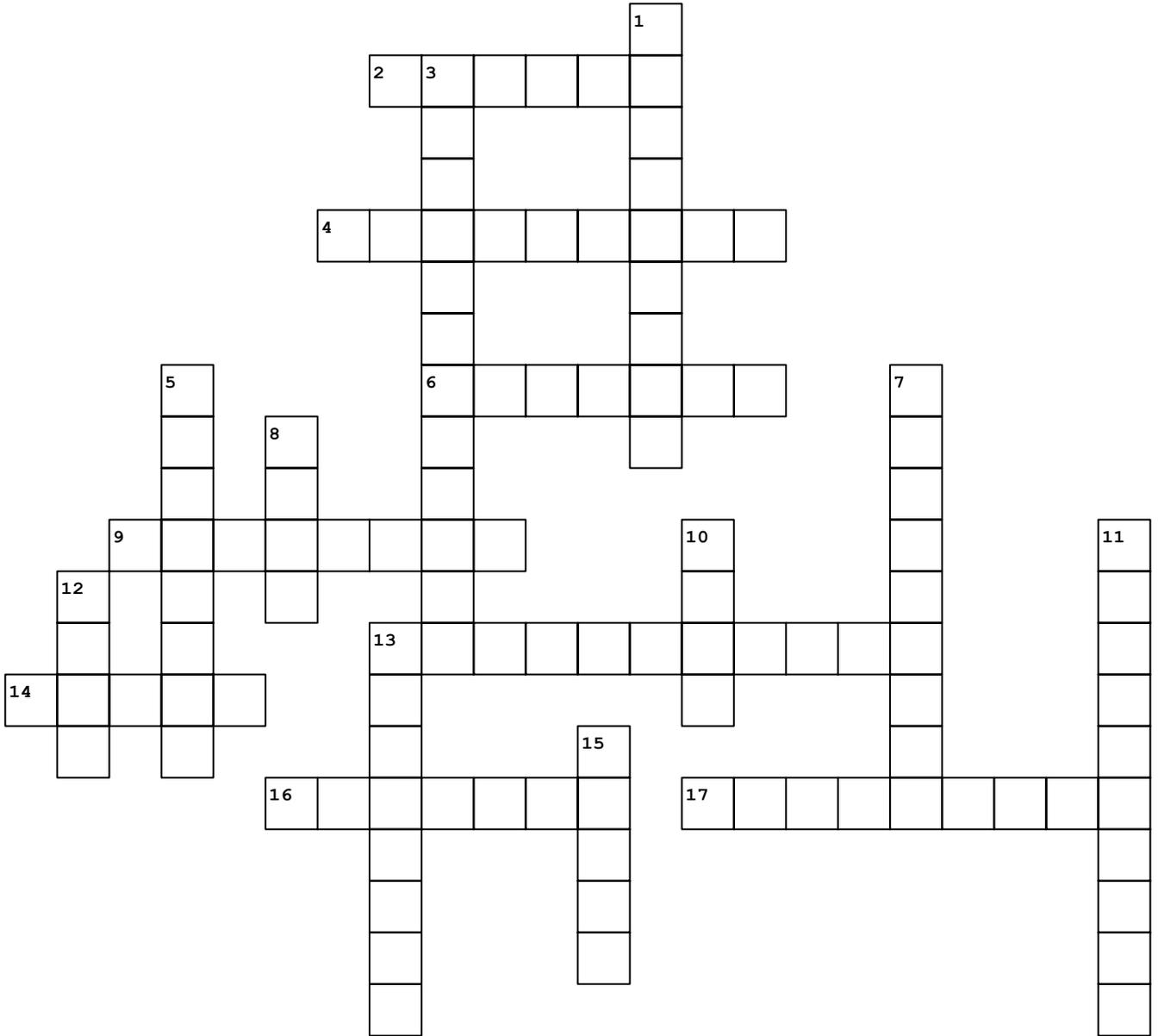
**Effervescence tablet:** a tablet which dissolves in water giving off small bubbles. **Example:** Effervescence tablets are one of the most popular forms of vitamin supplement.

The audio and the transcript are accessed through the following website:

<https://www.medicalenglish.com/module/core/unit/15/reading>

## Appendix D

### Medical Crossword puzzle I



**Across**

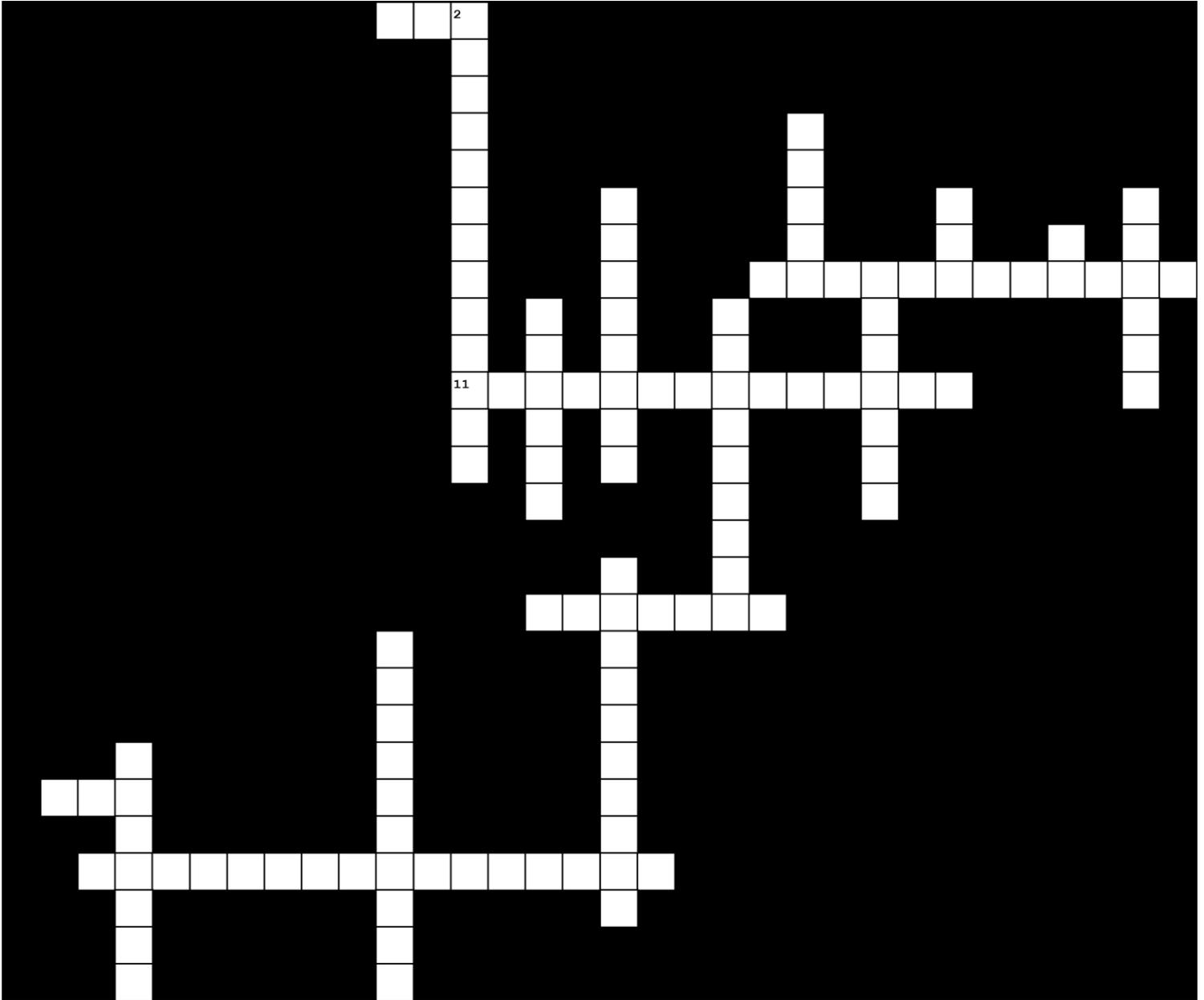
2. An organ near the stomach. It forms lymphocytes, produces antibodies, aids in destroying worn-out red blood cells.
4. An inflammatory condition of the lung affecting primarily the microscopic air sacs known as alveoli.
6. Teaching or instruction, especially of individual pupils or small groups. In NA: a sum of money charged for teaching by a college or university.
9. An eating disorder characterized by food restriction, odd eating habits or rituals, obsession with having a thin figure, and an irrational fear of weight gain.
13. A condition or requirement that is specified or demanded as part of an agreement.
14. He established Western society's first independent pharmacist guild
16. A mental disorder characterized by periods of elevated mood and periods of depression.
17. A place where prescription drugs are dispensed.

**Down**

1. A patient's account of their medical history.
3. The person who does the surgical incision into the vein.
5. The lines in your skin caused by age. Old people have many of them.
7. It is to be feeling faint, light-headed or unsteady.
8. Also known as Acid reflux, heartburn or acid indigestion is signaled by an unpleasant burning sensation in the food pipe or behind the breastbone.
10. A clinical acronym that means Immediately.
11. Varicella
12. Is designed to examine the skills and abilities needed to excel and succeed in pharmacy school. a computer-based standardized test that assesses your abilities in writing, biology, chemistry, critical reading, and quantitative reasoning.
13. Less obvious breaks in normal function, can only be recognized by the person experiencing them, such as stomach-ache, lower back pain, and fatigue.
15. A sum of money given by a government or other organization for a particular purpose.

## Appendix E

### Medical Crossword puzzle II



**Across**

1. "...effects": a negative or detrimental effect which accompanies a drug's intended effect.
10. The inflammation of the gallbladder.
11. Medication you can get without a doctors' prescription but within the law.
14. A liquid or semi-liquid preparation which is applied directly to the skin.
16. To validate a prescription and supply the required items of a prescription.
17. It makes a particular course of treatment inadvisable.

**Down**

2. a procedure that involves removing the tube between your mouth and stomach.
3. "...effects": the harmful, unpleasant, or undesirable effects a subject manifest after receiving an inert dummy or placebo.
4. The swelling and tenderness of one or more joints.
5. An inflammation of the appendix.
6. Meaning local, or applied externally to a specific part of the body.
7. The chemically active part of a drug also referred to as Active ingredient.
8. The most common type of primary liver cancer.
9. A product which is directly comparable to a brand name but without trademark.
10. A substance, organism or agent capable of causing cancer.
12. Known as adrenaline, a powerful stress hormone and neurotransmitter that is produced by the adrenal glands.
13. A non-invasive (the skin is not pierced) procedure used to treat kidney stones that are too large to pass through the urinary tract.
15. A type of skin cancer that develops when melanocytes start to grow out of control.

## Appendix F

### "Prescription Drug Abuse" Interactive Activity Related Terms

**Pill mill:** is a term used primarily by local and state investigators to describe a doctor, clinic or pharmacy that is prescribing or dispensing powerful narcotics inappropriately or for non-medical reasons.

**Oxy script:** oxycodone prescription

**Rheumatoid Arthritis:** or RA, is an autoimmune and inflammatory disease, which means that your immune system attacks healthy cells in your body by mistake, causing inflammation (painful swelling) in the affected parts of the body. RA mainly attacks the joints, usually many joints at once.

**Pain clinic:** Also called pain management clinics, they're healthcare facilities that focus on the diagnosis and management of chronic pain.

**Warning signs:** this is a type of sign which indicates a potential hazard, obstacle, or condition requiring special attention.

**Abuser:** someone who uses something in a way that is harmful or morally wrong

**Medication Diversion:** the transfer of any legally prescribed controlled substance from the individual for whom it was prescribed to another person for any illicit use, i.e. the transfer of any legally prescribed controlled substance from the individual for whom it was prescribed to another person for any illicit use.

**Opioid abuse:** Opioid addiction is characterized by a powerful, compulsive urge to use opioid drugs, even when they are no longer required medically.

**Nationwide epidemic:** affecting or tending to affect a disproportionately large number of individuals within a country at the same time

**Opioids:** a compound resembling opium in addictive properties or physiological effects.

**Red Flags:** circumstances surrounding the presentation of a controlled substance prescription that should raise a reasonable suspicion to the pharmacist about the validity of that prescription

**Prescription insurance card:** If the insurance company covers prescription costs along with the medical coverage the letters Rx will be printed somewhere on the card.

**Prescription Monitoring Program (PMP):** A PMP registry report indicates that your patient has received controlled substance prescriptions in the past six months.

**Xanies:** Xanax is a medication that is used for conditions such as anxiety and depression.

## Appendix G

### Clinical Terms, Acronyms and Abbreviation

#### 1. For Prescriptions:

**Pc:** Post Cibum (after meals).

**Ac:** Ante Cibum (before meals).

**CI:** Contraindication.

**PRN:** Pro re nata (as needed).

**Stat.:** Statim (Immediately).

**PO:** Per os (by mouth).

**od:** omni die (once daily).

**bd:** Bis die (Two times a day).

**tds:** Ter die sumendus (three times a day).

**qds:** Quater die sumendus (four times a day).

**on:** omni nocte (at night).

**om:** omni mane (in the morning).

**Rx:** Recipe (prescription).

**q.h:** quaque hora (every hour).

**q.6.h:** quaque sexta hora (every 6 hours).

**gtt., gtts:** gutta(e) (drop(s)).

**OD:** the right eye.

**OS:** the left eye.

**OU:** both eyes.

**IM:** intramuscularly.

**Subq:** subcutaneous.

**IV:** intravenous.



#### 2. Technical Terms:

- ❖ **Ward Rounds:** a regular visit to patients in the hospital by medical staff for the purpose of making decisions concerning patient care.
- ❖ **Phlebotomist:** The person who does the surgical incision into the vein; the act is called Phlebotomy.
- ❖ **Placebo effect:** The placebo effect is the fact that some patients' health improves after taking what they believe is an effective drug but which is in fact, only a placebo (a sugar pill).
- ❖ **Nocebo effect:** A Nocebo reaction or response is the harmful, unpleasant, or undesirable effects a subject manifest after receiving an inert dummy or placebo.
- ❖ **Terminal illness:** A terminal illness cannot be cured and causes death. So here we say he is fading, and once he dies, they might say he passed away.
- ❖ **Referral Letters:** The recommendation of a medical or paramedical professional. If you get a referral to ophthalmology, for example, you are being sent to the eye doctor.

## Abstract

This age of international competition and globalisation pushed Algerian students to acquire thorough knowledge and expertise in their appropriate fields, as well as have good English language mastery. This suggests the need for a specific, well-tailored curriculum to address students' problems and help them gain proficiency in English. Our study targets second-year pharmacy students enrolled in the Medical faculty of Taleb Mourad, Djillali Liabes University. The study uses a Needs Analysis framework to investigate students' purposes of language learning and general preferences, their expectations and needs, their views concerning cognitive enhancement, and personal growth, as well as identify their perceptions and attitudes towards using interactive activities and games to learn the language. The study utilises three research tools: classroom observations, students' questionnaires, and teachers' semi-structured interviews. Results show that Pharmacy students recognise the importance of English and welcome the use of information and communications technologies like videos, podcasts, and the Internet. These students are also in favour of implementing practical sessions to participate more in small group discussions, project presentations, debates, and role-plays. Additionally, Pharmacy students prefer interactive activities and games in the EMP course because they view them as practical, fun tasks that lower anxiety, help recycle grammar learnt, promote creative thinking and brainstorming, expand their vocabulary and language proficiency, and can improve their four-language skills as well as the social ones. To conclude, the findings of this study have given an overview of teaching English for Medical Purposes, in the hope that it will enhance ESP teaching methodologies.

**Keywords:** Needs analysis, English for medical purposes, Teaching Medical English, Interactive Activities, Educational Games.

## Résumé

L'ère de la mondialisation et de la concurrence internationale a incité, les étudiants algériens à acquérir des connaissances et développer des compétences dans leurs domaines ainsi qu'une bonne maîtrise de la langue anglaise. Pour ce faire, un programme adapté et répondant à leurs attentes et à mettre en place dans le but de résoudre certains problèmes entravant leur formation en langue anglaise. Notre cas d'étude concerne les étudiants de la deuxième année pharmacie de la faculté de médecine Taleb Mourad, de l'université Djillali Liabès. Ce travail mené par le biais d'une enquête, consiste en une analyse des besoins et des objectifs d'apprentissage d'anglais ainsi que les préférences générales des apprenants ; leurs points de vue concernant l'amélioration cognitive et la croissance personnelle. Cette étude permet également d'identifier les perceptions et attitudes des étudiants à l'égard de l'utilisation des activités ludiques pour apprendre l'anglais. Pour ce faire, l'étude requiert trois outils de recherche à savoir des observations en classe, des questionnaires à l'égard des étudiants ainsi que des entretiens semi-structurés adressés aux enseignants. Les résultats démontrent que les étudiants reconnaissent l'importance de l'anglais dans leur formation et accueillent favorablement l'insertion et l'utilisation des Technologies de l'Information et de la Communication. Ces étudiants sont également favorables à la mise en place de travaux dirigés pour participer davantage aux discussions en petits groupes, présentations de projets, débats et jeux de rôle. De plus, les étudiants en pharmacie préfèrent les activités ludiques dans le cours d'anglais à des fins médicales car ils les considèrent comme des tâches pratiques et amusantes qui réduisent l'anxiété, aident à recycler la grammaire apprise, favorisent la pensée créative et le remue-méninges, élargissent leur vocabulaire et leurs compétences linguistiques et améliorent les quatre compétences ainsi que leurs compétences sociales. Pour conclure, les résultats de cette étude ont donné un aperçu de l'enseignement de l'anglais à des fins médicales dans l'espoir d'améliorer les méthodologies d'enseignement de l'anglais à des fins spécifiques.

**Mots clés :** Analyse des besoins, Anglais à visée médicale, Enseignement de l'anglais médical, Activités interactives, Jeux éducatifs.

## المخلص

قد دفع عصر المنافسة الدولية والعولمة الطلاب الجزائريين إلى اكتساب معرفة وخبرة شاملة في مجالاتهم المناسبة بالإضافة إلى إتقان اللغة الإنجليزية. ويشير هذا إلى الحاجة إلى منهج محدد مصمم بصفة جيدة لمعالجة مشاكل الطلاب ومساعدتهم على اكتساب الكفاءة في اللغة الإنجليزية. تستهدف دراستنا هاته طلاب السنة الثانية صيدلة في كلية الطب بجامعة طالب مراد ، جامعة جيلالي ليايس. تستخدم الدراسة إطار عمل تحليل الاحتياجات للتحقيق في أغراض الطلاب لتعلم اللغة وأولوياتها العامة ، وتوقعاتهم واحتياجاتهم ، وآرائهم بشأن التعزيز المعرفي ، والنمو الشخصي ، وكذلك تحديد تصوراتهم ومواقفهم نحو استخدام الأنشطة والألعاب التفاعلية لتعلم اللغة. استعمل في الدراسة ثلاث أدوات بحثية ، وهي الملاحظات الصفية ، استبيانات الطلاب ، والمقابلات شبه المنظمة للمعلمين. تظهر النتائج أن طلاب الصيدلة يدركون أهمية اللغة الإنجليزية ويحبون باستخدام تكنولوجيا المعلومات والاتصالات مثل مقاطع الفيديو والبيث الصوتي والإنترنت ؛ كما يفضل هؤلاء الطلاب أيضاً إدراج الأعمال الموجهة للمشاركة بشكل أكبر في حوارات المجموعات الصغيرة وعرض المشاريع والمناقشات وتمثيل الأدوار. بالإضافة إلى ذلك ، يفضل طلاب الصيدلة الأنشطة والألعاب التفاعلية في دورة اللغة الإنجليزية للأغراض الطبية، لأنهم ينظرون إليها على أنها مهام عملية وممتعة تقلل من القلق ، وتساعد في إعادة تدوير القواعد المكتسبة ، وتعزيز التفكير الإبداعي والعصف الذهني ، توسيع مفرداتهم وكفاءتهم اللغوية، ويمكنها تحسين مهاراتهم اللغوية الأربع بالإضافة إلى المهارات الاجتماعية. في الختام ، أعطت نتائج هذه الدراسة لمحة عامة عن تدريس اللغة الإنجليزية للأغراض الطبية على أمل أن تعزز منهجيات تدريس اللغة الإنجليزية للأغراض محددة.

**الكلمات المفتاحية:** تحليل الاحتياجات، اللغة الإنجليزية للأغراض الطبية، تدريس اللغة الإنجليزية الطبية، الأنشطة التفاعلية، الألعاب التعليمية.