People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research

University 8 Mai 1945 – Guelma — **جامعة 8 ماي 1945 ـقالمة**

Faculty of letters and Languages — **كلية الآداب واللغات**

Department of Letters and English Language — **قسم الآداب واللغة الإنجليزية**

OPTION: LANGUANGE AND CULTURE

Exploring ESP Teaching through Technology-based Approach

Case Study: ESP Teachers in the University of 8 Mai 1945 Guelma

A Dissertation Submitted to the Department of Letters and English Language in Partial Fulfillment of the Requirements for the Degree of Master in Language and Culture

Board of Examiners

Chair: Mrs. TABOUCHE Imene	(MAA) University 08 Mai 1945 Guelma
Supervisor: Dr. ELAGGOUNE Amina	(MCB) University 08 Mai 1945 Guelma
Examiner: Mrs.DOUAFER Imane	(MAA) University 08 Mai 1945 Guelma

Submitted by:

BERBACHE Cherifa
ROUBI Maroua

Supervised by:

Dr. ELAGGOUNE Amina

June 2023

DEDICATION

I dedicate this work to my parents BERBACHE Miloud and MAHI MOUSSA Achouria. No one would be truly happier to see me reaching this more than them.

To my angelic sisters BERBACHE Maroua, BERBACHE Dounia Zed Fadoua

To my grandmother RAHMOUNA, and my uncle MAHI MOUSSA Djamel, although you both left us, you will keep surviving in our memories. May Allah bless your souls.

To my dear husband Aifaoui Mohamed Ali, who did his best to make me happier. Whose love drove me to be a better person. May you always be by my side

A special dedication should also go to my best friend and partner in this work ROUBI Maroua, I really appreciate you were the one who crossed with me this whole path.

To my besties Nourelhouda, Nessrine, Nejla, Loubna, and Meriem thank you for every laugh and true moment we passed together.

I love you ALL to the moon and back!

Cherifa

‘’It was the end of a decade but the start of an age’’

Taylor Alison Swift

Without a shred of doubt, I dedicate my work to the superheroine of my life: my dear mother. You have fearlessly confronted every frustration and hardship to shape the person who I am, I have always been proud to be your daughter.

To the memory of my beloved grandmother, even though you are no longer present, your spirit will remain alive in my heart and mind forever.

A special feeling of gratitude to my dear father, my supportive brothers and my favorite Iman.

To all my relatives.

To those who have a unique place in my heart, the ones who brighten up my path with encouragement and unconditional love: Nihed, Meriem, Maram, Nussa and Yassmine.

And finally a special thanks to my source of inspiration my best friend and my partner BERBACHE Cherifa. I cannot thank you enough for being by my side all along this exhausting journey. Your positive energy and sense of humor make every experience worthwhile.

I LOVE YOU ALL!

Maroua

ACKNOLEGMENTS

Make it a habit to tell people thank you. To express your appreciation, sincerely and without the expectation of anything in return.

Ralph Marston

The greatest gratitude and thanks go first to Allah the Almighty, who gave us the strength to complete this work.

This work would have never been accomplished without the assistance, encouragement and guidance of our dear supervisor **Dr. ELAGGOUNE Amina.**

We would like also to express our gratitude to the jury members **Mrs DOUAFER.Imane** and **Mrs TABOUCHE.Imene** for accepting to consult, review, and evaluate our work.

Special thanks should go to **Dr. ABDAOUI Mounia, Mr. CHETTIBI Walid,** and **Ms. SELAIMIA Amel,** for their constant support, help, and advice throughout this work.

To Mrs **MANSOURI.Fatima** and Mrs. **HARROUZ.Ghania,** our trainers who gave us the opportunity to closely experience teaching for the first time.

ABSTRACT

English for Specific Purposes usually refers to teaching English language to learners who require English for specific professional or academic purposes. However, this task can be really challenging for teachers to perform. Thus, the current research attempts to explore the effectiveness of teaching this course through the integration of technology. It also seeks to understand teachers 'perspectives on the opportunities and challenges associated with technology integration. Hence, it is hypothesized that implementing technology would improve the teaching process to some extent. To confirm or reject the previously mentioned hypothesis and find accurate answers to the research questions, a quantitative method was adopted in which teachers' questionnaire was administered to 20 teachers of English for specific purposes from different departments at the university of 8 Mai 1945, Guelma. The findings highlight that the majority of English for specific purposes teachers view technology as a valuable tool that can enhance language teaching, but they encounter challenges including limited technology access, technical issues, and the blind reliance on technology which decreases student's critical thinking. Despite the limitations that were encountered in this study, some recommendations and suggestions are provided to guide teachers and students in conducting future research.

Keywords: *ESP Teaching, Technology-based Approach, teacher's attitudes and perceptions*

LIST OF ABREVIATIONS

AECT: The Association for Educational Communications and Technology.

BL: Blended Learning.

CALL: Computer-Assisted Language Learning.

DL: Distance Learning.

DLs: Digital Libraries.

EFL: English as a Foreign Language.

E-Learning: Electronic Learning.

ESP: English for Specific Purposes.

ET: Educational Technology.

GE: General English.

IWB: Interactive Whiteboards.

M-Learning: Mobile Learning.

OHP: Overhead Projector.

TBA: Technology-based Approach.

LIST OF TABELS

LIST OF FIGURES

CONTENTS

Chapter Two: Technology-based Approach

Chapter Three

Field of Investigation: Data Analysis and Pedagogical Implementation

General Introduction

As human beings we have an innate desire to continuously explore and adopt every possible way to make our lives easier and more enjoyable. We have invented tools and technologies to make all the disciplines more efficient, we have developed systems to improve communication, and we have explored new ideas to expand our knowledge and understanding of the world. However, in the academic sphere, the increasing demand for English for Specific Purposes (ESP) in various fields such as human sciences, commerce, economics, and business management, has created immense pressure on ESP teachers to deliver courses that effectively meet the specific language needs of their students. In light of this, integrating technology in ESP teaching has become an inevitable process due to its constant advancements, which have impacted every aspect of our lives. Therefore, ESP teachers have realized the need to understand how the implementation of technology can serve as a means to facilitate and enhance the teaching and learning experiences. As a result, it is important to critically examine its impact on the whole process of ESP teaching including areas like learners' engagement, motivation, language acquisition, access to resources, and teacher-student interaction.

1. Statement of the Problem

In today's modern world there is a growing demand for ESP, as it helps students acquire the skills and knowledge they need to succeed in their specific fields of study or work. However, many ESP teachers still rely only on the traditional methods such as the use of textbooks, face to face interactions and following a teacher centered approach, where the teacher is the only source of knowledge and guidance. Nevertheless, language teaching and learning methods have been continuously changing and evolving in recent years due to many reasons. Hence, technology is one of the main factors that plays a significant role in transforming education in general and the field of ESP teaching in particular. Technology offers a wide range of resources including online libraries, educational videos, and online courses and as it continues to evolve,

its influence on language learning and teaching continues to expand as well. Therefore, understanding the effect of technology on ESP teaching requires considering various perspectives and conducting a detailed research in order to raise awareness about its impact and its appropriate use in classrooms for the purpose of maximizing the learning outcomes for students.

2. Aims of the Study

This study has two-fold purposes:

1- Exploring teachers' awareness about integrating technology in ESP.

2- Investigating teachers' perspectives towards the potential benefits and obstacles that teachers may encounter when using technology in ESP instruction.

3. Research Questions

The current study addresses the following questions:

- To what extent do ESP teachers depend on the use of technology in their instruction?
- What are the views and perceptions of ESP teachers towards the implementation of technology in their courses?

4. Research Hypothesis

The concept of using technology for educational purposes is widely spread nowadays. It is also the case for ESP teachers, we hypothesize that ESP teachers have positive attitudes towards the use of technology in their classrooms.

5. Research Methodology and Design

5.1 Research Method

Since the study aims to investigate teachers' attitudes towards integrating technology in ESP teaching, a descriptive method is used to collect data.

5.2 Data Gathering Tools

In this study we used a questionnaire as a data gathering tool. It was administered to 20 ESP teachers in order to provide us with information about teacher's usage of technology in their instruction, in addition to their views and attitudes about the use of technology in ESP courses and its impact on the teaching process.

5.3 Population of the Study

The population consists of all the ESP teachers from different departments at the University of 8 Mai 1945- Guelma- in which, 20 ESP Teachers were chosen randomly.

6. Structure of the Dissertation

The current dissertation consists of a general introduction, three chapters, and a general conclusion.

The first chapter provides an overview about ESP, including various definitions, origins, features, as well as the difference between ESP and General English and finally, ESP teaching including its importance, needs analysis, its stages, assessment, and some challenges related to ESP teaching are tackled.

The second chapter provides information about Technology- based approach (TBA), including a general overview about it, various definitions, its types, its forms and models, in addition to the advantages and disadvantages of Technology in the teaching process. Finally, it tackles teaching the four skills to ESP students through TBA.

The third chapter is a field investigation and data analysis. It introduces the chosen population/sample. It also describes the data collection tools, and the teachers' questionnaire. Moreover, it provides data discussions and presentation, i.e., interpretation and analysis of the findings. Hence, data is presented quantitatively. Finally, in the general conclusion we suggest some pedagogical implications and recommendations as well as the research' limitations.

CHAPTER ONE

ESP Teaching

Introduction

The English language is undoubtedly the most used language all over the world. Therefore, people nowadays tend to learn this language with a great passion because it paves the way to a greater success in various aspects of life whether in terms of academic disciplines or occupational ones. In this view, ESP immerged in order to satisfy the different needs of learners. Thus, this chapter is devoted to provide the literature review concerning its definition, origins, characteristics, ESP vs. general English, its importance, needs analysis, the different roles of ESP practitioner, stages, types of materials used in ESP teaching, assessment in ESP, as well as, challenges in ESP teaching.

1.1 Definitions of ESP

From the early 1960s, many studies have clearly shown that ESP has grown to become one of the most prominent areas of EFL; therefore, it is given many definitions. According to Mackay and Mountford (1978), “ESP is generally used to refer to the teaching of English for a clearly utilitarian purpose.” (As cited in Bđlokcuoğlu, 2012, p. 80). In other words, ESP focuses on teaching English in a practical and functional way as the term "utilitarian" suggests that the language skills taught in ESP are directly applicable and useful for learners in their real-life situations. Similarly, Richards and Rodger (2001) described ESP as a movement that aims to meet the language requirements of learners who need English in order to perform practical skills rather than seeking the mastery of language.

Munby (1978) also provided a definition of ESP, focusing on the relationship between ESP courses and the specific communicative needs of the students. In this respect, ESP courses are characterized by syllabus and materials that are primarily based on a detailed analysis of the learner's communication needs. To put it simply, this course is designed by carefully considering the specific requirements and objectives of the learners in terms of communication.

Similarly, Hutchinson and waters (1987) stated that "ESP should properly be seen not as any particular language product but as an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning." That is to say that the content is made with great focus on learners' objectives and even the selected techniques of teaching are fully based on what students prefer. However, based on Robinson (1980), "Quintessential ESP, if we can pinpoint it, is perhaps this: materials produced for use once only by one group of students in one place at any one time". He also added "English for specific purposes for specific people" (as cited in Ibrahim, 2019, p.80). To break it down, Robinson described the ideal ESP course as materials created specifically for a particular group of students in a specific location and time. This ensures that the materials are highly relevant and tailored to the specific needs of the learners at that particular time and place.

As it has been noted, ESP is commonly defined as a method to improve learners' language and professional skills, that is done by paying a special attention to some important information about the learners in terms of needs analysis; for instance, their personal information including their favorite learning styles, previous educational experiences, and why not their cultural background and their attitudes towards English, for the purpose of providing the accurate materials and tasks that directly align with their chosen fields or areas of study.

1.2 Origins and Development of ESP

ESP has become a prominent subject matter in the twenty-first century, it has expanded rapidly all around the world since its beginning in the 1960s. Accordingly, Hutchinson and Waters (1987) identified three main factors contributed to the emergence of ESP, starting with the demands of a brave new world after the end of World War II in 1945, the period that marked a great international scientific, technological, and commercial activity. this growth led English to become the key to the global currency of technology and commerce due to the economic power of US, leading to a desire for a universal language. Thus, a whole new generation of

individuals wanted to learn English to satisfy the demands of the English for science and technology.

The second factor was a linguistic revolution brought on by English classes that concentrated on particular language demands. In the late 1960s and early 1970s, there was a shift from theoretical approaches to practical applications, this shift emphasized the importance of using language in practical contexts that directly addressed the specific needs of learners. Furthermore, the last factor was related to educational psychology. It took into account learners' interests and needs by considering them as active learners instead of just listeners and followers. To delve deeper, Hutchinson and Waters (1987) stated that the development of ESP can take on different stages, each of them focused on a different area of teaching and learning, the first stage that is called register analysis, is derived from the concept that academic or scientific English has a different type of language (register) from that of GE. The purpose of this strategy is to identify the specific language features used in a particular field, such as, the technical vocabulary and grammatical structures so that they can be used to develop the appropriate teaching methods and materials. Additionally, the second stage, known as rhetorical or discourse analysis, focuses on how sentences are used in various types of communication (like different forms of speaking or writing) to convey new ideas or meanings. In simpler terms, learners analyze language in texts to understand how it works. This stage helps students develop their communication skills.

Another approach in the development of ESP is target situation analysis. Its purpose is to identify the specific situations in which the language will be used, so that the focus can be on teaching the relevant linguistic features to any particular setting, this helps students achieve their goals from the course effectively. Moreover, there's another approach related to language skills and strategies and it focuses on reading and listening strategies to help students understand written or spoken texts. Lastly, Hutchinson and Waters (1987) introduced a learning-centered

approach that shifted the focus from the linguistic biases to understanding how learners think and learn by considering their motivations, learning styles, and even the social and cultural factors that may impact their language learning.

1.3 Features and Characteristics of ESP

ESP is a goal-oriented approach to language learning that is characterized by practicality and usefulness. From this perspective, Strevens (1988) explained the concept of ESP through differentiating between the four absolute and two variable characteristics of this approach (as cited in Senhadji, 2020).

The former is represented as:

- It is designed to meet the need of learners
- Its content must be related to specific fields and activities
- It focuses on the appropriate language to those activities
- It is mainly the opposite of General English

The latter are represented as:

- It is limited to particular language skills such as reading, writing.
- It is taught by adopting a predetermined methodology

In light of this, Dudley Evans (1998) modified the characteristics mentioned previously by removing the concept of "ESP is contrasted with general English" and added some variable characteristics.

Absolute characteristics:

- ESP is developed to satisfy the learners' specific needs.
- ESP makes use of the essential methodology and activity of the fields it covers.
- ESP mainly focus on the suitable language to activities like grammar, lexis, register, study skills, discourse, genre.

Variable characteristics:

- ESP may be linked to or designed for various disciplines.
- ESP may utilize a different methodology than General English.
- ESP is most likely to be designed to be for adults. However, it might be also used for secondary school pupils.
- ESP is often developed for intermediate or advanced learners.
- Most ESP courses require a basic understanding of the language system.

In summary, the key features of this course are the focus on practical language skills with a special attention given to methodology and material selection, in order to offer learners a greater chance to achieve their objectives.

1.4 The Difference between ESP and General English

ESP and general English (GE) are two common approaches to teaching and learning English, however, each of these approaches has its own specific focus and aims. As believed by Hutchinson and Waters (1987), “in theory nothing, in practice a great deal.” This means that although ESP and GE may seem similar in theory as both involve the teaching and learning of English, their practical implications and applications can have a significant difference, because General English (GE) covers a broader range of topics and language skills, but it may not delve deeply into the specific needs, vocabulary, and communication skills required in professional or academic contexts.

Likewise, ESP is a language teaching activity that is based on facts about language learning, and teaching and it is learner-centered, whereas, GE is language-centered, focusing on learning language from a broad perspective. In other words, ESP is contrasted with GE. Another distinction between the two is that ESP students are mostly adults who are conscious of their language demands while GE classes are required in schools, their primary objective is to help students pass in tests. The difference appears even in course design, because ESP courses are made appropriately for learners according to their needs, on the other hand, General English

courses are only made to help students improve different skills such as writing, speaking, reading, and listening. In this respect, Carver (1983) stated that ESP is used to communicate in a specific setting which is totally the opposite of GE that is used in a broadest sense.

To sum up, the main difference between ESP and GE is the level of specificity. Therefore, the choice between the two depends on learners' needs and goals. That is to say, ESP is ideal for learners who need to use English in a specific professional setting, while GE is suitable for learners who want to improve their general English language skills for everyday communication.

1.2. Teaching ESP

1.2.1 The Importance of ESP Teaching

ESP has gained importance in language studies due to the global status of the English language as a lingua franca (William, 2014). To put it simply, globalization is one of the major factors that makes people think about the need of learning and teaching ESP. William (2014) also noted that ESP has quickly gained an important role in this globalized society since it is effective in acquiring English linguistic competence that may be applied in a professional environment. Furthermore, teaching ESP can enhance learners' productivity in their academic and professional careers by enabling them to acquire the specific English skills they need in order to show mastery in their profession and to interact with others properly. Equally important, Fitria (2020) stated that an ESP course provides a significant advantage in the ability to use English effectively and accurately for job-related activities. This means that after completing the course, learners can immediately apply their English language skills in the workplace. Ultimately, the importance of ESP teaching lies in the fact that it can provide learners with the language skills they need to communicate effectively and confidently in their professional contexts, by focusing on the language that is most relevant and useful to their fields.

1.2.2 The Roles of ESP Teacher

In language teaching a role is likely to change depending on the type of activity in the classroom. Accordingly, Dudley Evans and St. John (1998) stated that it is preferable to use the term "ESP practitioner" rather than "teacher" to emphasize the broader nature of ESP, which involves more than just traditional teaching. In this regard, they suggested five roles for ESP practitioners which highlight the diverse responsibilities they have including teaching, designing materials, conducting research, collaborating with others, and assessing students' progress. The figure 1.1 illustrates these roles:

Figure1.1 The Role of ESP Teacher

Adopted from Ahmed, 2014.

1.2.2.1 As a Teacher

It is true that the ESP practitioner is teaching English. However, the difference is in the goal of education. To put it differently, ESP teachers are responsible for setting clear objectives and goals for students, providing them with necessary materials and resources, and continuously assessing their performance to check the progress. Hence, the main focus of the ESP teacher is

to help students use the English language effectively in academic and professional contexts.

1.2.2.2 As a Course Designer and Materials Provider

The aim of an ESP course is to help students use English effectively in both academic and professional settings. Therefore, ESP courses and materials are designed based on the learners' needs (Basturkmen, 2006). To achieve this, ESP teachers carefully analyze the language requirements of the students' academic or professional contexts and design the course accordingly. They have to select appropriate textbooks, adapt activities to suit the learners' needs, and may even develop their own materials when necessary. Hence, the primary goal is to provide relevant and effective resources that facilitate language learning in the chosen domains (Evans and John, 1998).

1.2.2.3 As a Researcher

It is essential for ESP teachers to conduct their own research before designing courses or providing resources in order to determine the specific goals of their courses, genres of texts that are relevant to their learners' professional or academic contexts, and they also explore the language itself, including the specific vocabulary and discourse. Furthermore, this kind of research is also done for the purpose of staying updated with the latest trends and best practices in the field to ensure continuous improvements.

1.2.2.4 As a Collaborator

Activities such as cooperating with colleagues are seen as critical steps in any educational process. According to Evans and John (1998), this collaboration is essential for ESP teachers as it promotes a deeper understanding of the subject matter, skills, tasks, syllabus, and their relationship to language. By working together with colleagues, ESP teachers can exchange ideas, share resources, and enhance their teaching practices which ensures that the courses provided by them are accurate, up-to-date, and most importantly, relevant to the specific needs of them.

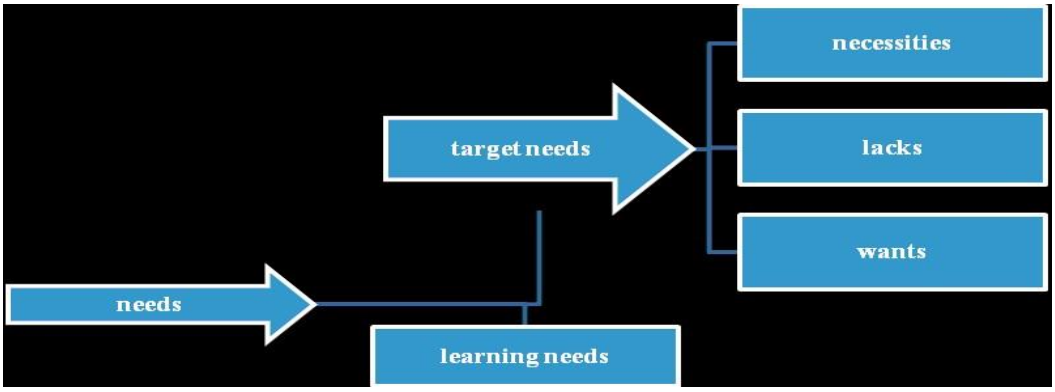
1.2.2.5 As an Evaluator

Evaluation is an important aspect of language teaching as it provides feedback on the course and the learners (Dudley-Evans and St John, 1998). In the context of ESP, there are two distinct evaluation methods. On the one hand, the first one involves evaluating the course and teaching materials to ensure that they effectively fulfill the needs and requirements of the learners. On the other hand, the second method is learner evaluation. It aims to determine if the students possess the necessary abilities to succeed in their academic or professional pursuits and to assess the level of their achievement.

1.2.3 Needs Analysis

Needs analysis is a systematic process used to identify the language needs of learners in a particular context, in order to design appropriate language courses and materials that meet those needs. This process has been given many definitions, in light of this, Basturkmen (2010) defines it as the procedure followed by teachers during the stage of designing an ESP course where they tend to determine learners' needs in terms of the nature of language and skills. Based on Hutchinson and Waters (1987), needs can be categorized into target needs and learning needs. The figure 1.2 illustrates the classification of need analysis

Figure1.2 Hutchinson and Waters' (1987) Needs Classification.



Adopted from Chalak, 2020.

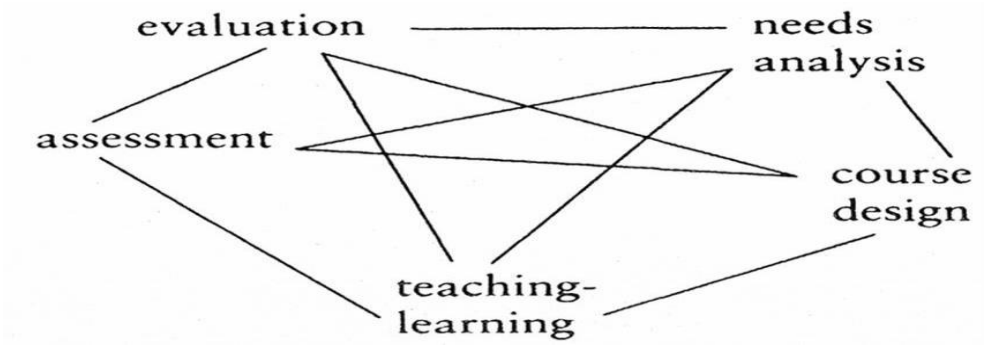
Target needs refer to what the learner needs to do in the target situation, including necessities, lacks, and wants. Necessities refer to what learners must know in order to function competently in their target situation, while lacks refer to the areas where learners need to improve or develop their skills and knowledge. Wants, hence, refer to learners' full awareness of the necessities they need to acquire and their lacks as well. In contrast to target needs, learning needs refer to "what learners need to do in order to learn" this means identifying the most suitable methods and strategies for teaching and learning based on the learners' preferences (West, 1994).

In brief needs analysis is an essential stage in the development of ESP programs because it provides learners with the necessary language abilities and knowledge to perform effectively in their chosen fields and it ensures that the course will be useful, relevant and valuable, which has the potential to enhance their interest and engagement in the learning process.

1.2.4 Stages of ESP Teaching

The teaching process in ESP programs involves several stages, each with its own unique characteristics and objectives. In this regard, Dudley-Evans and St-John (1998) expressed this process through five interrelated stages: needs analysis, course design, teaching and learning, assessment, and evaluation.

Figure1.3 Stages in the ESP Process (Dudley-Evans and St. John, 1998).



Adopted from: Tratnik, 2008.

In the first stage, the ESP practitioner takes on the role of a researcher by evaluating and analyzing learners' language and communication needs in order to figure out how to best maximize language learning and skill development for a certain learner group. Once the needs analysis is completed, the course design stage follows, during this stage the ESP practitioner must first establish the course objectives and determine the characteristics of content and methodology then create the course, which entails developing the syllabus and creating the necessary materials and after this, the teaching and learning stage begins, where the actual language teaching takes place. This stage involves selecting appropriate teaching methodologies and activities, following with the next stage which is assessment and it is used to determine the progress of students, diagnose their strengths and weaknesses, and provide feedback on their performance through different means, such as quizzes, assignments, presentations, and exams. Thus, Evans and john (1998) noted that evaluation in ESP involves making judgments about the effectiveness of the program, course, or lesson, However, it is impossible to evaluate everything, but priorities can be established and data gathering can be planned. To sum up, assessment focuses on the students' learning, while evaluation focuses on the effectiveness of the program as a whole.

1.2.5 Types of Materials in Teaching ESP

The selection of accurate materials is necessary for creating a meaningful and engaging learning experience that addresses the learners' language needs and goals. Generally, materials involve anything that may help in the process of language learning. Hence, teachers must ensure that their materials are matching the target needs and learning profiles of their learners as much as possible, because course outcomes rely heavily on them. In this context, Mirela (2017) noted that materials are typically classified into two categories: "Ready-made Materials" and "Tailored Materials". To put it simply, Ready-made materials are available resources like textbooks and they offer a broad coverage of language skills but lack specificity to professional

contexts. Tailored materials, on the other hand, are created by ESP teachers to meet the specific language needs of their students. According to Mirela (2017), the selection of using ready-made (text-books) or tailored materials is strongly related to the learners' subject area. So, the ESP teacher will have more opportunities to identify relevant materials if the subject is broader. Nevertheless, if it is more precise, it could be challenging to identify materials that would satisfy the needs of learners. In this situation the teacher is more likely to choose from the available ready-made materials. Mirela (2017) also stated that text-books are the best option because they can save the teacher a lot of time and effort creating new materials, however, they should be taken from the real world in order to make a connection between the classroom and the real world and to have an opportunity to practice the language they tend to learn. In the same regard, Hutchinson and Waters (1994) declared that "teachers should only resort to tailored materials when all other possibilities of providing materials have been exhausted" and when the textbooks are unable to meet learners' needs (As cited in Mirela, 2017).

In short, both types of materials have distinct advantages and should be integrated into ESP teaching. However, they should be carefully selected based on the learners' specific needs, goals, and the unique demands of their professional contexts.

1.2.6 Assessment in ESP Teaching

Assessment is the process of gathering and analyzing data to enhance the quality of learning. To delve deeper, Evans and John (1998) stated that ESP assessment is similar to that of general English, However, the only difference between them is that ESP assessment focuses more on multiple areas such as skills, discourse and language. This process can be determined by the analysis of learning situation and analysis of target situation. The former is described as the process in which learners express what they want to learn and how they prefer to learn (Hutchinson & Waters, 1987) and it enables teachers to determine the content of the course and also the type of assessment. Additionally, based on Evans and John (1998), Target Situation

Analysis is defined as "professional information on the learners (and) the tasks and activities (they) are/will be using English for", it is considered as the most effective way to determine both of ESP tests and ESP assessment as it provides the most accurate information about the subject course and the situations where English is used for, which will guarantee the authenticity of tests (as cited in Çelik, 2021). According to Harmer (2007), there are three basic types of tests in ESP.

1.2.6.1 Placement Tests

Placement tests serve as a way to place new students in the appropriate ESP course according to their needs. These tests assess students' knowledge of grammar and vocabulary as well as their productive (writing, speaking) and receptive skills (listening, reading), the test results would help determine whether the student should be placed in a beginner, intermediate, or advanced level. Moreover, many universities include self-evaluation in the placement process and take it into account when making the final placement decision.

1.2.6.2 Achievement Tests

Achievement tests are used to assess a students' language and skill development in relation to the curriculum they have been studying, for instance they can be assessed on their ability to write professional emails or give presentations. Thus, teachers frequently administer these tests to learners every few weeks in order to evaluate their progress and to highlight areas that may need additional attention or support.

1.2.6.3 Proficiency Tests

Proficiency assessments provide an overall picture of students' knowledge and competence; they are required to determine whether or not a student is competent to perform a certain task using language skills. Overall, ESP assessments boost a sense of confidence in students as they recognize their progress and capabilities through teachers' feedback. When teachers evaluate

the performance of their learners, they can deliver valuable feedback and it is essential because it helps students gain a better understanding of their strengths and weaknesses.

1.2.7 Challenges in Teaching ESP

Despite the continuous development of this approach, it is still prone to many challenges during the teaching process. The following are some common challenges in ESP teaching:

1.2.7.1 Course Design

ESP teachers may face difficulties to define the course objectives that will enable their learners to achieve their goals because these objectives should be specific, measurable, achievable and relevant, Additionally, Falaus (2017) pinpointed the struggle of ESP teachers who face a large number of ready-made course books, which can reduce their motivation to create original content. These books give teachers the option to choose activities that are appropriate for learners, while also forcing them to become "slaves" of the published textbooks.

1.2.7.2 Teachers' Lack of Knowledge of Learners' Discipline and the Absence of Training

Teachers of ESP are most of the time required to teach materials in a certain profession or field of study in which their knowledge about it is considered insufficient (Basturkmen, 2010). This might lead them to struggle to master new areas of study, and can cause feelings of insecurity and lack of confidence which reflect badly on the performance of teachers in the classroom. Therefore, without proper training, teachers may face a significant knowledge gap when teaching ESP.

1.2.7.3 Large Classes

Large class size encounter issues that smaller classes do not. Because crowded classes will certainly have an impact on the accomplishment of course objectives for the reason that teachers will be frustrated and maybe distracted to focus on all learners equally due to time limitations.

1.2.7.4 Teachers' Lack of Motivation

Motivation is essential for achieving a goal or performing an activity successfully. It is a set of desires based on needs, interests, goals, ideas, and ambitions (Stefanova, 2020). However, it is important to note that teachers who experience a lack of motivation can be significantly influenced by various factors. These factors may include external pressure, unsupportive environment and poor working conditions. Such challenges can contribute to demotivation among teachers, by impacting their performance and overall job satisfaction.

1.2.7.5 Keeping up with the Latest Trends

As new technologies and professional practices arise, ESP courses are continually evolving as well. Hence, teachers must stay up to date on the newest trends and advancements in their profession and change their lessons accordingly. In summary, ESP teachers can overcome the challenges they face by embracing flexibility, creativity, and innovation. By continuously updating their knowledge and resources, they can effectively address the specific language needs of learners from diverse professional backgrounds and create engaging ESP programs. This approach allows teachers to adapt to the evolving demands of the professional and academic worlds, ensuring that learners acquire the necessary language skills for success.

Conclusion

The fact that learners have different demands led to the rise of ESP, as it is a learner -centered approach that puts greater emphasis on the fulfillment of their needs. The current chapter provided a general overview of the concept of ESP by explaining its different areas, from its definition, development and characteristics, to the teaching process of this approach coupled with all details related to it.

CHAPTER TWO

Technology-Based Approach

Introduction

The development of technology in the last two decades has had a positive impact on the education process and raised the idea to integrate it into educational practices. Hence, technology has been integrated into the Higher education. Nowadays, technology is playing a greater role everywhere. While the classroom was the only place where learners can learn and acquire knowledge, technology opened the door for new educational systems that enable them to learn using the variety of technological tools inside and outside the classroom.

This chapter reviews the literature about the integration of a TBA in teaching English for specific purposes (ESP). TBA will be considered in terms of its Definition, history and evolution. The chapter will also deal with TBA's forms, models and types of its tools. Then we will move to mention some advantages of TBA in the ESP Teaching process, in addition to some limitations that may face ESP teachers during this process. Lastly, it will also tackle teaching the four skills to ESP students through TBA.

2.1 Definition of Educational Technology and Technology-Based Approach (TBL)

Technology-based approach (TBL) simply, is the effective integration of technology into educational practices, which may enhance its quality. It covers learning via the variety of electronic media including the internet, emails, websites, audio and video conferencing, chat rooms. Technology -based approach is one of the major concepts when talking about Educational Technology (ET), although many scholars assume that TBL is synonymous to ET, many other researchers assume that it is synonymous to E-learning, however TBL is more concrete and practical in its use because it encompasses both hardware and software. According to Thomas (1987), "there is no universally-agreed-upon definition of educational technology", because the diversity of Technologies and applications, make it somehow challenging to establish a fixed definition, in addition to the fact that the term ET may mean different things to different people. In this respect ET's definitions had differentiated throughout history and over the years. Accordingly, The Association for Educational Communications and Technology

(AECT) has provided three definitions that are meant to be taken as a whole because none of the three gives an adequate definition of educational technology if it is taken alone. The AECT (1977) first defines ET as a process that uses people, procedures, ideas, and devices to analyze problems, create solutions, evaluate their effectiveness, and manage the process. The main concern of this definition is that ET is a theory about how problems in learning are identified and then solved. AECT's second definition (1994) combines ET with instructional concept. It says that instructional technology is the theory of designing, developing, using, managing, and evaluating the learning process. Teachers can use these basics to create an engaging learning environment that supports students' goals and needs. AECT's latest definition (2008) says that ET involves using appropriate technological processes and resources to facilitate learning and improve performance. It emphasizes the importance of educators knowing how to use the latest technologies and manage them effectively.

In order to provide a clear definition of ET, there emerged other definitions including the one provided by Leedhan (1973) who says that ET can be described as the intentional use of new methods and media for teaching and learning. Within the same scope Sampath (1984) views ET as a behavioral science approach to teaching and learning. He believes that the purpose of ET is to develop, utilize, and assess methods, skills, and equipment in order to improve the learning experience. The case was different according to Garrison and Anderson’s definition of ET, they basically focus on tools rather than techniques. They refer to ET as tools that facilitate learning, communication, and interaction between learners and teachers (2003).

ET was tackled differently and variously from many points of views. What almost all definitions agreed on and shared in common is the fact that ET tries to make the best use of the latest tools and techniques to improve teaching and learning process, promote collaboration, ensure equal access to resources, and support professional development for teachers. ET recognizes the power of technology to transform education, making it more engaging, interactive, and inclusive while meeting the diverse needs of students.

2.1.1 Historical overview of Technology-Based Approach

ET has been interpreted differently by different people, leading to diverse perspectives on its meaning. As a result, the history of ET has been shaped by these varying definitions, which encompass both broad and specific understandings of the term. Consequently, the development of ET is traced differently based on scholars' viewpoints. In light of these facts, this section explores the broad history of ET, considering a wide timeline from the time of the Sophists (450 B.C-350 B.C) up to the present day. According to Pathak and Chaudhary "ET has a long history. Its beginning can be traced back to the time when tribal priests systematized bodies of knowledge and early cultures invented pictographs or sign writing to record, preserve, transmit and reproduce information" (2011). Hence, each era has witnessed different ways of processing information to achieve educational goals. The Sophists played a significant role in mass education by implementing systematic knowledge and creating instructional technologies (Lucido & Borabo, 1997). They also introduced analytical techniques based on philosophy and rhetoric (Pathak & Chaudhary, 2011). During the middle ages, Scholasticism emerged as an important period in the history of ET. Led by Pierre Abelard, this educational approach involved presenting arguments to students, allowing them to draw their own conclusions. Thomas Aquinas adopted similar instructional techniques. J.A. Comenius, considered the father of modern instructional technology, made significant contributions with his illustrated textbook Orbis Pictus in 1658 (Lucido & Borabo, 1997).

Pathak and Chaudhary (2011) point out that the period from 1700 to 1900, is a significant period in the history of ET, there was a notable evolution in scientific thinking, educational theories, and the emergence of experimental psychology. Researchers during this time introduced new educational methods, such as Joseph Lancaster's Monitorial System, Pestalozzi's instructional system emphasizing the development of insight, and the concept of Kindergarten by Pestalozzi and Froebel. Friedrich Herbart's concept of

Apperception, defined as the process of relating new ideas to old ones, also gained prominence. Additionally, figures like Edward Thorndike and John Dewey contributed to the field by formulating scientific theories of learning and the scientific method, respectively. These innovative instructional methods and theories have significantly shaped the development of Educational Technology (Lucido & Borabo, 1997).

Before the industrial revolution, education heavily relied on simple tools like blackboards and chalk. During this period, ET was synonymous with basic aids such as charts and pictures (Aggarwal, 2011). However, a significant event in the history of audio-visual education occurred in 1873 at an international exhibition in Vienna, where an American school showcased charts, maps, and other media, gaining recognition and marking a pivotal moment. Another important development took place in 1920 when the British Broadcasting Corporation (BBC) made remarkable contributions to education through school broadcasts. By 1952, instructional broadcasting became integrated into many American schools, and radios were incorporated into almost all UK schools (Aggarwal, 2011). Another noteworthy educational invention was S. L. Pressey's Drum Tutor, a teaching machine developed in 1920. This machine provided stimuli, registered responses, and indicated results. Importantly, Pressey's machine influenced B.F. Skinner's theory of conditioning in the 1950s and 1960s (Pathak & Chaudhary, 2011).

The post-World War II era brought about the widespread adoption of television, which revolutionized the field of education by offering a new medium for learning (Pathak & Chaudhary, 2011). Television had the potential to replace traditional teaching aids and expand learning beyond the classroom walls. Another significant development in ET was the integration of computers in learning during the 1970s. Computers, especially with the advent of artificial intelligence in the 1990s, reshaped education and opened up new possibilities. Computer-based learning enhanced human learning through dynamic relationships and paved the way for computer networking, connecting learners to the global community (Pathak & Chaudhary, 2011). Today, educational technology is increasingly influenced by the growing interest in

social media networks and the availability of diverse technological devices that play crucial roles in education.

Aggarwal (2011) outlines five major stages in the development of ET. The first stage was characterized by the use of audio-visual aids such as charts, maps, and models. The second stage witnessed the electronic revolution, with the introduction of projectors, radios, and televisions. The third stage focused on mass media, communication, and computer-assisted instruction. The fourth stage emphasized autonomous learning through programmed instruction and teaching machines. The final stage embraced the system approach defined by Ryan (1975), where ET was used to design, implement, and evaluate teaching and learning activities based on specific criteria and objectives.

2.1.2 Forms of Technology Based Approach

The integration of technology in language learning has brought two forms: Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL). CALL utilizes computer technology to support language learning, while MALL focuses on mobile devices like smartphones and tablets. Both approaches offer interactive and convenient tools for learners to enhance their language skills.

2.1.2.1 Computer Assisted Language Learning (CALL)

Computer -assisted learning has developed over history, along with developments in technology and language learning. CALL as simple as possible is any learning experience that is mediated by computer, where is no direct interaction between students and their teachers. According to Beatty (2010), CALL the use of computers or technology to support language learning. In simpler words, Beatty sees that using the computer device by a learner leads to language improvement. As a matter of fact, the use of computer facilitates the learning and teaching processes, provides immediate feedback as well. According to Levy (1997), CALL is a way how computers can be used in the process of teaching and learning languages, the definition highlights the importance of understanding the benefits and limitations of computer-

based learning. Additionally, CALL can cover many other aspects such as lesson planning, grading and homework assignment so this can prevent teachers from spending a lot of time looking for their targeted lesson materials.

Two notable examples of CALL are interactive whiteboards (IWB), or smartboards, and overhead projectors (OHP) which exemplify how technology, specifically computers are integrated into the educational process. In this hand, IWB are used for presentations by combining projectors and computers. They offer direct screen interaction, providing a wide range of engaging language learning activities. This interactivity differentiates them from traditional projectors and computers. IWB allow students to actively participate, manipulate content, collaborate with peers, and create dynamic learning experiences. Their integration in language classrooms expands teaching possibilities and get students to be more engaged (Kopp, 2012,). On the other hand, overhead projectors utilize light to project images onto a screen or wall, enabling the effective sharing of documents and visuals with a large audience (Anderson et al, 2005). Hence, Harmer (2008) assumes the usefulness of the overhead projectors since they allow us to prepare visual material, as it facilitates teachers' delivery of the lesson, subsequently teachers do not have to show everything on an overhead all at once. These examples align with the concept of CALL, showcasing the practical implementation of technology in language learning environments.

2.1.2.2 Mobile Assisted Language Learning

Mobile- assisted learning is also known as M-learning, and it is a method that supports learning and teaching via the use of wireless and mobile technology. It has the advantage of the easy access to knowledge at any time. M-Learning may take different shapes such as: smart phones, laptops, and iPad that are all connected to wireless networks. M-Learning enables educators and their students to take teaching outside classrooms, gives more flexibility to the experience because it presents them new ways and opportunities for interaction (Aumhani et al. 2022). According to Karsenti et al (2013), mobile technology provides easy usage and access,

helps students learning in an independent way, motivates students to interact and make social connections among each other. Simply, mobile assists language learning in the way that it provides a smooth and simple interference into the educational process. Within the same regard, Sung et al. (2016) stated that Mobile technology keeps the students directed towards active learning, even with the absence of classroom resources, because it is proved to be effective especially in the case of introvert students and those who lack performance within the classrooms.

Online libraries are a prime example of how mobile-assisted learning simplifies the educational process. According to Bidgoli (2003), mobile devices connected to the internet allow students to access digital libraries anytime and anywhere. These libraries offer a vast array of educational resources, including books, journals, articles, and more. With just a few taps on their mobile devices, students can search for and access the materials they need, eliminating the constraints of physical libraries and saving valuable time. The combination of mobile-assisted learning and online libraries empowers students to engage in self-directed learning, explore diverse topics, and deepen their understanding of subjects, all at their own pace and convenience.

2.2 Models of Technology –Based Approach

Along with the desire to improve the learning experience and meeting students' needs by providing them the most suitable methods and techniques, Technology-based learning can take different shapes including Online learning (e-learning), Blended learning (BL), and Distance learning (DL).

2.2.1 Online Learning

Online learning also called e-learning, is the use of software programs to give students instructions in content and skills in order to facilitate learning out of the traditional classroom setting. According to Rosenberg (2001), e-learning refers to the use of technologies in order to facilitate the learning process which may enhance students' knowledge and performance. To

break it down, it is the acquisition of knowledge that takes place via electronic media. Additionally, e-learning is another method or model of ET, whereby students can learn in a fully virtual environment, and it is mostly used in the higher education. It allows students to learn flexibly, at their own pace so that students can attend online classes anytime and anywhere thanks to Web access. Hence, students can benefit from the flexible schedule, which may help them to balance between their education, free time and personal life. Furthermore, Derrick (2003), noted that e-learning requires a set of skills that do not exist in traditional learning settings. All in all, online learners are proved to be more autonomous, resourceful, and independent students.

2.2.2 Blended Learning

BL model which is also known as the hybrid learning, is an approach to education that combines online education with traditional education (Bonk & Graham, 2012). Hence, blending face-to-face with online activities provides two shapes of education within a single course, such as: discussion forums and chats (Koller et al., 2006). As a result, BL suggests the best solution to the issues related to meeting all students 'needs, because it attempts to integrate technological tools offered by the online learning with the interaction and participation offered by traditional learning. Subsequently, BL is classified among the most significant developments in the 21st century, because it is crossing global boundaries and being universal by bringing groups of learners together through different cultures and zones. It literally can provide the right learning at the right time and in the right place for all the learners (Thorne, 2007).

2.2.3 Distance Learning (DL)

According to Williams, Paprock, and Covington (1999), distance learning is the delivery of education where the learner and instructor are physically and temporally distant from each other. This definition highlights the key feature of distance learning, which is the separation of the learner from the teacher in terms of time and physical distance. Moreover, DL represents an

institutionalized form of education that brings together distinct groups, learning materials, as well as learners and teachers relying on technological tools (Simonson, 2003).

So simply, the two provided definitions imply that DL stands for the educational process using the variety of targeted materials of technological tools, in which learners and teachers are separated by geography and time. Thereby, DL provides a flexible learning environment that offers a lot of opportunities to individual and group learners.

2.3 TBA and ESP Teaching

ET is a double-edged sword, it can provide teachers with many opportunities that may improve the teaching-learning process, as it can impose on them some challenges. The following part is going to show and explain these two sides.

2.3.1 Advantages

According to Muñoz-Luna and Taillefer (2018), ESP and Technology fit and complement each other in a perfect way. On this hand, ESP courses provide analysis of the targeted needs of teachers, students and materials. On the other hand, technology affords the digital requirements that ESP course necessitates. Within the same scope, Prensky (2008) assumes that technology can improve teaching and learning processes through different ways.

It promotes student's excitement, enriches their communication skills, as it has access to all students from all levels, it can also be considered as an excellent research and assessment tool. Doubtless, Technology is a powerful contributor to education, it has radically changed education from a traditional environment to a modern one. According to Vlieghe (2014), the use of technological tools in education nowadays and its remarkable effects on student's achievement is a great step which would contribute to their future developments. In this regard, Hussain et al. (2011) also assumed the importance of incorporating technology within education and declared that in order to reach diversity in learning styles, the integration of technology into the classrooms is proved to be so effective and beneficial.

In short, for the sake of improving the quality of ESP teachers' performance, and therefore facilitating the acquisition process for their students, teachers use technology to expose their students to English in context rather than focusing on grammar and sentence structures, motivate them, and get them to be cooperative. It also helps teachers to better and easily plan their lessons.

2.3.2 Limitations

The process of integrating technology within educational practices is a very complicated step, teachers are still facing difficulties and challenges, especially in ESP contexts. Number of scholars have discussed a variety of limitations and barriers that may face teachers within this process. Ertmer (1999) for example, categorized barriers into two classes, the first-order and second-order barriers. First-order barriers are external factors that may include access to technology, time, support, and professional development training, that is; a teacher must first have a certain level of access to technological tools and resources in order to integrate them into a teaching and learning experience. However, the second-order barriers are basically internal ones, including teacher's confidence and their beliefs in the usefulness of technology use in education. Within the same scope, Hechter and Vermette (2013) has given a list of for external barriers, and found that the main obstacles preventing teachers from the use of technology are lack of resources, lack of time, lack of training opportunities, and lack of support. Catherall (2005) added some other barriers of technology including lack of motivation due to poor social skills, poor computer skills and a lack of access; a lack of time, lack of motivation, social awareness and school culture. Overall, obstacles to technology integration continue to make it difficult for teachers to incorporate ET in their classrooms, although these methods and devises can create important opportunities for the development of teaching process.

2.4 Technology Based Approach and Teaching the Four Skills for ESP students

ESP course provides analysis of students' needs in which the teacher can determine which of the reading, writing, speaking and listening - the four foundational skills of language learning - is most needed by the students, and then they design their syllabus accordingly.

2.4.1 Teaching Listening Through TBA for ESP Students

Listening is a receptive skill that plays a crucial role in the communication process. It involves the ability to receive and interpret messages accurately. According to Wilson (2008), the listening skill is often overlooked compared to other language skills, such as speaking. He described it as the "Cinderella skill," emphasizing the need to give it more attention in language teaching. Additionally, listening skills according to many studies has been proved to be a very helpful tool in designing a productive ESP lesson. It is firstly essential to differentiate between listening sub-skills, i.e.; top-down and bottom-up listening practice. Morley's research distinguishes between top-down and bottom-up listening strategies. Top-down strategies focus on the overall meaning of the message and require drawing on one's background knowledge of the listening context, while bottom-up strategies focus on details such as pronunciation, grammar, and vocabulary. Top-down listening activities include comprehension questions and predicting, while bottom-up activities require a sound or word level understanding. Thus, ESP practitioners and teachers generally prefer top-down activities in ESP classes, because recognizing the topic and key words of a listening situation can help the listener identify the targeted terms of their field of study (Morley, n.d.)

The recent developments of records, audios and different digital devices have contributed in a great way to facilitate access to various listening experiences that language learners and specifically ESP learners can rely on such as: DVD players, streaming media players, smart phones, tablets ... etc. A listening experience requires first to be relevant and authentic, because learners listen with a purpose and listen to things that interest them and suit their goals and experiences. As a result, an ESP teacher may have an overall idea of what listening skill is, and

that such a skill may be difficult for his students, and hence he should be aware of the reason behind this difficulty. Therefore, ESP teachers and students can access a wide range of listening materials that allow them to meet their specific needs and interests. For example, they can listen to podcasts, online lectures, and news broadcasts related to their field of study. They can also use some tools to practice their listening skills.

2.4.2 Teaching Speaking Through TBA for ESP Students

According to Hutchinson and Waters (1987), Speaking is often considered the most challenging skill to master in foreign language learning, as it requires not only knowledge of vocabulary and grammar but also the ability to comprehend them. However, with practice, language learners can improve their speaking skills and gain the confidence and fluency needed to communicate effectively in their professional settings. Similarly, Harmer (2007) highlighted the significance of listening skill in language learning. Through it, students can freely express their knowledge, ideas, and thoughts, providing them with the opportunity to practice grammar rules and structures. This continuous practice eventually leads to fluency in speaking without encountering any difficulties. In ESP courses, it is particularly important for learners to develop the ability to speak about topics related to their specific field of study, which requires not only language skills but also specialized vocabulary and knowledge. Due to the essential role of oral communication, ESP teachers rely on technology to facilitate the process of learning this skill, for instance they rely on videoconference usage through which students can improve their fluency and also develop their discourse skills (Blake, 2016). Hence, there are many online resources that can help ESP learners improve their speaking skills. For example, websites like BBC Learning English and Ted Talks that provide learners with a variety of listening and speaking exercises. Overall, technology plays a great role in enhancing Speaking skills for ESP learners. Because it provides them with the necessary tools and resources to improve their pronunciation, fluency, and motivation to speak.

2.4.3 Teaching Reading through TBA for ESP Students

Reading skill is simply a cognitive process that aims to understand symbols and decode them to get the meaning of a written content. Nowadays and especially at the Higher education level, it is really necessary to motivate students to search and get information in their own through the use of new technologies to meet their needs. Grabe and William (1991) define reading as a cognitive process in which students are required to acquire strategies that enhance their reading efficiency, including drawing inferences from the text, making use of contextual clues to guess meanings, setting expectations before reading, and quickly scanning ahead to gather contextual information. By employing these techniques, students can develop their reading comprehension abilities and become more proficient readers. In the context of ESP, reading is particularly important as it provides learners with specific knowledge related to their field of study. This implies that reading within the scope of ESP aims at getting and acquiring specific information for the targeted field of study.

Some specialists such as Carrell, P.L., Devine, J. & Eskey, D.E. (1988), agreed that reading is an interactive process. The idea is that the reader interacts with the text to create meaning. Within the same line, Hosenfeld (1979), believed that interacting with text is crucial for students because it helps them understand the structure, syntax, and vocabulary of different types of text. He also suggested that a reader's level of proficiency is determined by factors such as their purpose for reading, level of interest in the topic, knowledge of the subject matter, language abilities, awareness of the reading process, and willingness to take risks. Thus, these factors should be considered by ESP teachers when selecting texts and designing reading activities for their students.

2.4.4 Teaching Writing Through TBA for ESP Students

Writing skill refers to expressing ideas, knowledge and abilities through the written word. It is one of the four language skills that learners must acquire in addition to the other three. The quality of students writing is very important especially in the higher education. According to

Zandi and Krish (2018), technology can be used to enhance the teaching and learning of writing skill, as it offers various benefits such as supporting learning, increasing student motivation and autonomy, improving writing outcomes as well. Given the fact that, technology has a great role in improving writing skill, many studies proved that students become more productive, and able to produce longer texts than those produced by hand when they use technology, because it allows them to write freely without any pressure.

In short, Technology and online platforms give students access to multiple resources that can help with their studies and written assignments and provide them many tools and programs that they can rely on them to improve their writing skill such as: wikis, web quests, and e-books (Erben et al., 2008). Online platforms can also be beneficial for teachers, because they facilitate the process of receiving feedback from their students, with online platforms, teachers can quickly assess their students' progress (Marleni, 2020). Overall, the use of online platforms in writing instruction can improve the learning experience for both teachers and students.

Conclusion

To sum up what has been discussed in this chapter, TBA is not a new phenomenon. Nevertheless, it was not well occupied until the 20th century, and it has considerably evolved over the years. Consequently, nowadays, many technological devices are available in schools and universities with wide use, which opened the floor to a wide variety of tools that has proved to be an effective problem solving in many fields especially education. These relevant tools try to facilitate the learning experience as they can be used by teachers and students. Technology - based learning may take two forms, Mobile – assisted learning where language is enhanced or assisted through the use of mobile device, or through Computer assisted learning where students can learn using computer device. As it can take three different shapes online learning or e-learning, blended learning also known as the hybrid learning and Distance learning. Therefore, Technology is a double-edged sword that can be beneficial, as it can be a challenging task for

teachers to perform. Technology as well, can be used as a tool to improve the four language skills of ESP students and get them to meet their needs.

CHAPTER THREE

Field Investigation

Introduction

Since the two previous chapters analyzed ESP Teaching and TBA, it is now possible to explore whether Technology-based approach supports ESP teaching or not, based on teachers' views and perceptions towards it. It also aims to analyze and interpret these findings in order to gather additional information and insights. Hence, this chapter presents a summary of the findings from a questionnaire administered to teachers. The latter, will help determine whether the main hypothesis is confirmed or rejected.

3.1 Population and Sample of the Study

The study focuses on ESP teachers at the University of 8 Mai 1945, Guelma, during the academic year 2022/2023. A random sample consists of (20) ESP teachers, were selected based on their relevance to the research topic and their ability to provide valuable insights. These teachers are considered the target group for the questionnaire as they have the knowledge and the necessary experience to address the challenges they have encountered in their teaching process

3.2.1 Aims of Teachers ‘Questionnaire

The teachers' questionnaire aims to gather information about ESP teachers' views towards technology integration, including their attitudes, perceptions, experiences, challenges and suggestions for improvement.

3.2.2 Description of Teachers ‘Questionnaire

This questionnaire has three main parts, as it encompasses 18 questions. 6 questions are open ended ones (Q2-Q3-Q14- Q15-Q16-Q18). The other 12 questions are multiple choice (Q1-Q4-Q5-Q6-Q7-Q8-Q9-Q10-Q11-Q12-Q13-Q17). Additionally, some questions require justifications such as: Q4 and Q17.

Section One: General Information (Q1-Q2)

The first section is devoted to general information. It consists of two questions about teachers' general information. It includes two main questions (Q1-Q2) which aim to identify the sample, including their academic qualifications and the department they work in.

Section Two: ESP Teaching (Q3-Q10)

This section contains seven questions, it focuses on the process of ESP teaching and teachers' understanding of various concepts related to this process. Specifically, it includes questions (from Q3 to Q10) about teacher's experience, their main roles, teaching approaches, assessment practices, and explores the effective strategies for enhancing learners' language skills.

Section Three: TBA (Q11- Q18)

Finally, the last section comprises eight questions. Questions from (Q11 to Q14), tackle the utilization and types of technological tools in the teaching process. The next two questions (Q15 and Q16) deal with challenges and opportunities that teachers may encounter when using technology in their instruction. Before the last is question 17, which is presented to know ESP teachers' views and perceptions about technology integration. Finally, the last question (Q 18), is designed for ESP teacher’s suggestions and comments.

3.2.3 Administration of Teachers ‘Questionnaire

The questionnaire was administered to ESP teachers from different faculties at the University of 8 Mai 1945 -Gulam- such as: Faculty of economics, Faculty of mathematics and computer sciences, Faculty of human and social sciences, Faculty of science and Technology, Faculty of biology, Faculty of law and political science, and lastly Faculty of letters and languages. This was over two weeks from 4th to 18th May, 2023. It was distributed in a comfortable environment and the teachers were very cooperative in this process and they showed interest in the topic itself and considered it as an important and new subject to be

discussed. Furthermore, the questionnaire has been answered anonymously. While distributing the questionnaire, we have clarified some concepts that may have been unclear to the participants in order to help them understand and provide appropriate answers.

3.2.4 Analysis of Results and Findings from Teachers 'Questionnaire

The data collected from the questionnaire are counted, organized and presented in tables. Teachers' perceptions are reported and then discussed.

Section One: Background Information

Question One: Please state your highest academic qualification:

Table 3.1

Academic Degree

Options	Number of teachers	Percentage (%)
Master	12	60%
Magister degree	4	20%
Doctorate degree	4	20%
Total	20	100%

As it is displayed in Table 3.1, statistics show that the majority of ESP teachers have a master degree with a percentage of 60%, this implies that the sample in hand have perused advanced studies and gained experience in their specific field. However, 20% have a magister degree and it is similar to master's degree. Additionally, 20% hold a doctorate degree; this means that they possess an advanced research skills and a broader knowledge to participate in our research effectively.

Question Two: Can you specify which department you teach in?

Table 3.2 *Academic Departments Where Teachers Work*

Options	Number of Teachers	Percentage (%)
-Faculty of Economic, Trade and Management sciences (Economy)	5	25%
-Faculty of Mathematics, Computer science and Material Science (Mathematics/Computer science)	3	15%
-Faculty of Human and Social Sciences (Psychology)	2	10%
-Faculty of Science and Technology (Electronic and Telecommunication)	5	25%
-Faculty of Nature and Life and Earth Sciences and Universes (Biology)	1	5%
-Faculty of Law and Political Science (Law)	1	5%
-Faculty of Letters and Languages (Arabic/French)	3	15%
Total	20	100%

In table 3.2, the statistics show a diverse spread, given that ESP teachers teach in different departments which is interesting and can have positively reflect the quality of our research. ESP teachers (25%) are located in economy department, closely followed by the department of electronic and telecommunication department (also 25%), this may indicate that these departments place a higher value on the English language. Meanwhile, 15% of ESP teachers are found in the department of mathematics and computer science departments, it is likely due to the fact that English is the dominant language in technology and programming languages, similarly, the departments of Arabic and French languages have a percentage of 15% ESP teachers, indicating that ESP teaching is highly valued in these fields. on the other hand, there are 10% of them in psychology department, this may reflect that the English language is important in these fields but perhaps not to the same extent as in economics and

telecommunication. Lastly, the departments of law and biology have 5% of each, the percentage shows that there is less demand for ESP teaching in these fields.

Section Two: ESP Teaching

Question Three: How many years have you been teaching ESP?

Table 3.3

Teachers' Experience in ESP Teaching

Options	Number of Teachers	Percentage (%)
From 1-5	13	65%
From 5-10	7	35%
Total	20	100%

The obtained results presented in table 3.3 reveal teachers' experience in ESP teaching. The majority of ESP teachers (65%) have been teaching from 1 to 5 years. This percentage demonstrates that there is a significant number of new teachers entering the field of ESP each year. This could be due to the demand of specialized language learning. The rest (35%) have been teaching from 5 to 10 years and it is a sign for career growth and advancement within the field.

Question Four: Do you think that teaching ESP is more complex than teaching general English?

Table 3.4 *Teachers' views on the Complexity of ESP Compared to General English*

Options	Number of Teachers	Percentage (%)
Yes	14	70%
No	6	30%
Total	20	100%

Table 3.4 presents teachers' perspectives regarding the difficulty of ESP teaching in comparison to General English. The results show that the majority of teachers 70% believe that ESP is more complex than GE, they justified their opinion by stating that ESP teaching requires further research into the students' target needs and then doing everything accordingly, also because they have to possess enough knowledge on certain specialties they had never tackled before. Moreover, many teachers stated that its complexity lies in finding the appropriate materials to use. However, the remaining 30% of teachers believe that ESP is not more complex than GE which indicates that they were able to overcome these challenges, this can be due to their long experience in this career.

Question Five: How often do you teach this module per week?

Table 3.5

The Number of Sessions Dedicated to ESP Teachers per Week

Options	Number of teachers	Percentage (%)
Once	17	85%
Twice	3	15%
More	0	0%
Total	20	100%

Table 3.5 illustrates the number of ESP teaching sessions. Results reveal that 85% of ESP teachers teach this course once a week, maybe because of scheduling limitations since most specialties give more importance to core courses. Moreover, a percentage of 15% teach ESP twice a week, showing that the number of sessions depends on many factors such as the nature of the field, and level of students. Briefly, these findings may reflect the flexibility of ESP teaching.

Question Six: What kind of materials do you use in your teaching of ESP?

Table 3.6 *The Types of Materials that ESP Teachers Prefer to Use*

Options	Number of Teachers	Percentage (%)
A-Authentic materials	1	5%
B-Textbooks	5	25%
C-Audio and video materials	7	35%
D-Online ressources	4	20%
B+C+D	3	15%
Total	20	100%

This question aims to investigate the different types of materials that teachers may depend on during the teaching process. As shown in table 3.6, the highest percentage of teachers (35%) rely on audio and video materials, which is not surprising considering the benefits of technology in language teaching. Such as promoting learners' motivation and engagement since it helps them to practice their language skills in a fun way. While a quarter (25%) of them opted for ready-made textbooks this is probably because of their easy access. Moreover, (20%) of teachers depend on online resources, which indicate that integrating technology in ESP teaching is becoming more common. On the other hand, (15%) claim to use a combination of textbooks, audio and video materials, and online resources, which shows that some teachers choose to use a variety of materials to address the different needs and preferences of learners. Lastly, only (5%) of teachers use authentic materials, which are designed to reflect real life situations, this explains that they are probably time consuming.

Question Seven: Why do you assess your learners?

Table 3.7 *Teachers' Reasons for Assessing Learners*

Options	Number of Teachers	Percentage (%)
To measure the success of the course	0	0%
To measure learner's performance and progress	0	0%
To provide feedback	0	0%
All	20	100%
Total	20	100%

As indicated in table 3.7 which demonstrates results related to the goals of ESP teachers behind assessing their students, all teachers (100%) opt for the choice "all" which includes measuring the success of the course, measuring learners' performance and progress, and providing feedback. This means that they all agree on the fact that there are many interrelated reasons of assessment in ESP.

Question Eight: How do you assess your learners?

Table 3.8 *ESP Teachers' Methods of Assessment*

Options	Number of Teachers	Percentage (%)
A-Short quizzes	4	20%
B-Presentations	0	0%
C-Role play activities	0	0%
D-Final exam	7	35%
A+D	9	45%
Total	20	100%

Table 3.8 displays the different methods of assessment that teachers use. Accordingly, 45% of the teachers chose the combination of short quizzes and final exams as the most used techniques in assessing their learners' performance, this indicates that they value both formative (short quizzes) and summative (final exams) assessments. Meanwhile, a percentage of 35% assess learners through final exams only; however, they may fail to discover learners' weaknesses and knowledge gaps which can be identified through regular formative assessment. On the other hand, a smaller group of teachers 20% rely on only short quizzes as their primary assessment method. Well, short quizzes can provide quick feedback on student's weaknesses. However, they may not be enough to provide a full image of their overall performance and mastery of the course. Whereas, none of the teachers 0% prefer role play activities this can be due to time limitations or learners' preferences because some of them feel uncomfortable and anxious if they are not confident in their language abilities. Eventually, none of them depend on presentations alone, perhaps because some language skills are difficult to assess through presentations since they focus on how well is the oral performance and may neglect the other skills such as writing, listening and reading.

Question Nine: What are the main roles of an ESP teacher?

Table 3.9 *The Roles of an ESP Teacher*

Options	Number of Teachers	Percentage (%)
A-Collaborator	0	0%
B-Provider of material	0	0%
C-Researcher	0	0%
D-Evaluator	0	0%
B+D	7	35%
All	13	65%
Total	20	100%

As seen in table 3.9, more than half of the teachers (65%) agree that the ESP teacher plays multiple roles including: collaborator, provider of materials, researcher and evaluator, this means that they are aware of the importance of all roles. Consequently, they are more likely to meet the exact needs of their learners. Moreover, only (35%) believe that the ESP teacher should play the role of a material provider and an evaluator only, this denotes that they neglect the other roles which are also important in providing a successful ESP course.

Question Ten: What strategies can ESP teacher use to help students develop their language skills.

Table 3.10 *Strategies for Enhancing Students' Language Skills*

Options	Number of Teachers	Percentage (%)
Practical tasks	0	0%
Technology integration	10	50%
Collaborative learning (pair work)	0	0%
Feedback and error correction	1	5%
All	9	45%
Total	20	100%

The descriptive statistics in table 3.10, suggest that half (50%) of the sample prioritize technology integration as a means to support the learning process of different language skills, since it provides access to many online, authentic resources such as, podcasts, online articles and books which improve the reading and listening skills and help to obtain more vocabulary, Additionally, they can even benefit from grammar checker applications to enhance their writing and enjoy learning. However, (45%) of teachers use all possible strategies which include (practical tasks, technology integration, collaborative learning and providing feedback) to help their students master the four skills because each skill requires different

techniques. Nonetheless, only (5%) adapt the strategy of providing feedback and error correction, this means that this technique is not sufficient and advanced enough to create a more effective learning environment for the students to enhance skill development.

Section Three: The use of TBA in ESP Teaching

Question Eleven: Do you depend on technological tools as instructional materials in your lessons?

Table 3.11 *Technology Usage*

Options	Number of Teachers	Percentage(%)
Yes	18	90%
No	2	10%
Total	20	100%

Concerning whether teachers depend on technological tools as instructional materials in their lessons, (90%) of them say that they use them. This indicates that the majority of ESP teachers are aware of the importance and the advantages of incorporating technological tools in the teaching process. Whereas, only (10%) of teachers indicate that they don’t depend on it. This may imply that they may face difficulties when integrating technology within their ESP course.

Question Twelve: Which technological tools do you use most frequently in your ESP Teaching.

Table 3.12 *Technological Tools Frequency*

Options	Number of Teachers	Percentage(%)
Interactive whiteboards	0	0%
Digital libraries	2	10%
Overhead projector	4	20%
Mobile and computer Assisted learning	6	30%
All of the above	6	30%
None	2	10%
Total	20	100%

As shown in the previous table 3.12, which represents types of Technological tools that teachers rely on while teaching ESP course. (30%) among teachers, claimed that they depend on all the mentioned technological tools as instructional materials, which indicates that the majority of ESP teachers are aware of the importance of integrating technology within their educational practices. Other (30%) of them, stated that they rely on mobile and computer assisted learning in their ESP teaching, particularly through the use of online platforms such as: Google classroom and Moodle. This may mean that they are aware of the importance of Mobile and computer assisted learning in ESP teaching. Whereas, (20%) among teachers stated that they use the overhead projector, may be due to its simplicity and familiarity. Only (10%) use Digital libraries, though its percentage is low, the use of digital libraries is still a positive development in education. Meanwhile, (10%) reported that they do not rely on technology in their ESP teaching, as they use none of the mentioned tools. While, no one (0%)

selected the interactive whiteboard, which indicates that the use of such innovative tool is still neglected.

However, it is important to note that the absence of selection does not necessarily imply that the interactive whiteboard lacks value or effectiveness as an instructional tool.

Question Thirteen: How often do you integrate these technologies in your classroom instruction?

Table 3.13 *Teachers Integration of Technology in ESP Course*

Options	Number of teachers	Percentage(%)
Regularly	11	55%
Occasionally	7	35%
Rarely	2	10%
Total	20	100%

As presented in the table 3.13, which demonstrates teacher's frequency of technology in ESP Course. The highest percentage (55%) of teachers said that they use technology in their module regularly. Others (35%), told that they use them occasionally. This means that they are comfortable with its use as they are aware of its necessity. Meanwhile, the last (10%) of teachers stated that they rarely use technological tools in their teaching process. Therefore, it seems that the majority of ESP teachers are motivated to integrate it into educational practices.

Question Fourteen: what benefits have you seen from using Technology in you ESP teaching?

In this question teachers were asked to state some benefits they have seen from the integration of technology within ESP course. Their answers were mainly about the feedback their students give. The majority of teachers (50%), stated that integrating technology in ESP

has several benefits for both teachers and students. It can motivate students, increase engagement, productivity, and learning outcomes. Some teachers (30%), argued that Technology can help students develop their four language skills and improve their proficiency level, which makes them aware of the importance of learning a foreign language. Some others (20%), mentioned that integrating technology in ESP can enhance the language learning experience and make it more effective, engaging and interactive.

Question Fifteen: what challenges have you encountered when using Technology in your ESP teaching?

In this question teachers were asked to state some challenges they may face during integrating technological tools in their ESP teaching. The majority of teachers (45%), indicate that they face numerous challenges when integrating technology in their classrooms, including technical issues with tools, time limitation, lack of materials, and limited internet access. These challenges decrease the effectiveness of technology in the classroom and impact the overall learning experience for students. Some other teachers face various challenges, including a portion of teachers (25%) who mentioned that they struggle with students' luck of interest in the course. This may highlight the importance of finding ways to make the subject matter more engaging and interesting for students. Some teachers (20%), argue that the over use of technological tools would make students lazy and lose creativity. While, other teachers (10%) who exclusively use online technologies and platforms do not face any difficulty, as their students are already proficient with technology. Therefore, it is important for teachers to consider these challenges and find ways to overcome them to ensure the successful integration of technology in ESP classrooms.

Question Sixteen: what is/ are your perceptions towards the integration of technology in ESP course? Justify you answer.

Table 3.14

Teachers Attitudes Towards the Integration of Technology in ESP Course

Options	Number of teachers	Percentage(%)
Positive	18	90%
Negative	2	10%
Total	20	100%

As it is shown in the table 3.14 which represents teacher's attitudes towards the integration of technology within ESP course. Nearly all the participants (90%) agreed that technology use is positive, which indicates teacher's awareness and appreciation of technologies in the teaching process. Whereas, only (10%) held negative attitudes, this may convey that they struggle when using technological tools in their ESP teaching. Teachers hence were asked to justify their answers. Those who chose the positive option about integrating technology in ESP courses think that technology can motivate students, make them more engaged and productive, and improve their learning outcomes, as they think that using technology can help students improve their language skills and become more proficient. However, teachers who chose the negative option justified their selection by facing technical issues with tools, time limitations, and a lack of materials and internet access, in addition to the overreliance on technology that can lead to decreased creativity in students. Therefore, it is important for teachers to strike a balance and use technology in a way that enhances student learning and motivation, while also addressing the potential challenges

Question Seventeen: Do you have further comments or suggestions that you would like to add?

In this part teachers were asked to comment or give some suggestions. The majority of teachers (65%) did not respond to the question. However, the feedback from those who

responded was generally positive. Around (25%) of teachers found the topic interesting and wished the researchers luck, and the remaining (10%) of them emphasized the importance of using a variety of technological tools and balancing them with traditional teaching methods to enhance the learning experience.

3.1.5 Summary of the results and Findings from teachers' questionnaire

In brief, the first section is dedicated to providing general information on the teachers' sample. According to the findings, most of the teachers have a master's degree. Thus, they are supposed to be qualified enough to teach ESP. Additionally, this section also shows that these teachers are employed in different departments such as the department of economy, mathematics, psychology, biology, law, Arabic, French...

The second section sheds light on different aspects of ESP teaching. It appears that ESP teachers have different levels of teaching experience indicating a diverse level of knowledge and proficiency, therefore, they hold different opinions about the complexity of ESP compared to GE however, the majority argued that it's really challenging to teach ESP, this refers to the fact that, most ESP teachers are originally general English teachers, who suddenly find themselves teaching a domain they are a bit familiar with or have no knowledge about. It is also noted that the majority of teachers teach this course only once a week, and this is definitely not enough to meet the specific needs of learners because the complex nature of this course requires intensive practice and individual focus on each learner. Apart from that, assessing learners is very important for ESP teachers, as it helps them to measure learners' progress, performance and to provide them feedback, and all the participants opted for all of these reasons as the primary purposes for assessing their learners. Furthermore, they seem to rely on different methods of assessment such as short quizzes combined with final exams or short quizzes only or final exam, on the other hand, none of them depend on role play activities consequently, this neglection may affect learners' confidence and motivation. In addition, it should be highlighted that the majority of them argued that ESP teachers should practice many

roles including providing materials and evaluating learners, researching and making collaborations with other teachers from the same domain, this shows that they are fully aware of their roles. Finally, half of the teachers integrate technology in their teaching to help students improve their four skills as it facilitates the process.

The last part reveals ESP teacher's views including attitudes, experiences, challenges, and opportunities. Towards the integration of technology based approach in teaching ESP. It is declared from the results that a great percentage of ESP teachers rely on technological tools as instructional materials in their lessons, this step can have a positive impact on learners' outcomes in terms of achieving their objectives. Moreover, the statistics also show that these teachers use different technological tools regularly such as, interactive whiteboards, digital libraries, overhead projector and smartphones, this indicates that teachers are able to provide learners with an enjoyable and rich learning experience and offer them the chance to participate and engage in their favorite learning style. Thus, it is noted that ESP teachers have a positive attitude towards technology integration which creates a supportive and inspiring environment for learners; However, despite their positive attitudes towards the use of technology in ESP teaching they still face many challenges including technical issues with tools, time limitation, lack of materials, and limited internet access.

3.3 Pedagogical Implementations and Recommendations

The main focus of this research is to explore the integration of technology in ESP teaching in addition to teacher's perceptions and views on its use. Technology presents significant opportunities for enhancing ESP instruction by providing access to authentic resources, interactive activities, and communication platforms. However, teachers may face various barriers that can hinder their effective use of technology in the classroom. This section aims to provide valuable suggestions and recommendations for teachers based on the findings of the study. By addressing the identified barriers and offering practical guidance, teachers can

overcome challenges. The ultimate goal is to empower teachers to integrate technology effectively, promote engaging and learning experiences, and enhance the language proficiency of their students.

3.3.1 Pedagogical Implementations to Teachers

Integrating ESP into an English language course requires careful planning and pedagogical considerations. Here are some pedagogical implementations that ESP teachers can employ to effectively integrate ESP into their courses:

- ESP teachers should conduct a comprehensive needs analysis to identify the specific language needs and goals of the learners. This analysis will help you tailor your ESP course to meet the learners' specific requirements.
- ESP teachers should Incorporate authentic materials relevant to the learners' professional field or area of study. This could include industry-specific texts, reports, case studies, and multimedia resources.

Authentic materials provide learners with real-world language use and context.

- They also should Integrate all language skills (reading, writing, speaking, and listening) in the ESP course. Use activities and tasks that require learners to practice and develop their skills in an integrated manner.
- They should pay special attention to the vocabulary and terminology relevant to the learners' ESP needs.
- They should as well Identify the specific language functions required in the learners' ESP context, such as giving presentations, writing reports, or participating in meetings. Provide explicit instruction and practice opportunities for these language functions.
- ESP teachers should create opportunities for learners to engage in authentic communication within the ESP context. This could include role-plays, simulations, discussions, and collaborations with professionals or experts from the field.

- ESP teachers ought to develop assessment tools that evaluate learners' progress based on their ESP goals. Provide timely and constructive feedback on their language use, content accuracy, and overall communicative competence.
- ESP teachers need to develop their professional development to stay updated with the latest trends and developments in the learners' field. This will help them enhance their knowledge and pedagogical strategies.

3.4 Research Perspectives and Limitations

Like any other research, this study also has limitations. Time limitation is a major obstacle faced in conducting this research because ESP teachers are spread through many departments and it takes time to reach them. Additionally, it is worth mentioning that it was difficult to obtain a sufficient sample size due to the fact that many teachers taught ESP in the first semester only and students lost contact with them. Overall, recognizing and addressing research limitations is important to guide future investigations.

Conclusion

This practical chapter aims at investigating the effectiveness of ESP teaching through technology-based approach. Therefore, the findings of teachers’ questionnaire demonstrate a high agreement on the positive effect of using technology in the teaching process of ESP courses, in other words, we affirm that the gathered data answered the research questions and confirmed the hypothesis. The analysis of the questionnaire shows that nearly all the teachers are aware of the different aspects of ESP teaching and they support the integration of technological tools because they enhance learners' engagement, facilitate access to information and equip them with the most up to date features, However, many teachers reported that they face many obstacles when attempting to integrate technology into their teaching, Hence, they are trying to overcome these difficulties to provide learners with a successful ESP course.

General Conclusion

Teaching ESP courses is undeniably crucial in equipping learners with the necessary language skills to thrive in their professional and academic domains. However, traditional methods of delivering ESP courses bring forth significant challenges that can impede the progress and effectiveness of the learning process. ESP courses act as a vital link between language learning and specialized contexts, catering specifically to learners' unique needs and objectives. By tailoring instruction to address their professional or academic requirements, ESP courses empower learners with the linguistic competence required for effective communication within their respective fields. Nevertheless, the conventional approaches employed in ESP instruction present obstacles that impact the course's effectiveness. Ineffective resources, inadequate materials, and outdated syllabi often hinder ESP teachers' ability to provide targeted and relevant instruction. Moreover, the complex nature of ESP subjects, coupled with learners' diverse linguistic backgrounds, poses a substantial challenge in ensuring successful language acquisition. To overcome these challenges, ESP instructors must embrace innovative pedagogical strategies and integrate modern technologies into their teaching practices. Incorporating authentic materials, real-life tasks, and technology-driven resources can enhance the relevance and authenticity of the learning experience. Additionally, fostering collaboration with professionals in the specific fields can create an immersive learning environment that mirrors real-world contexts. Continuous professional development opportunities, such as workshops, training programs, and ongoing research, are essential for ESP teachers to stay updated with evolving trends and methodologies. By engaging in continuous learning and adaptation, ESP instructors can remain effective and responsive to the changing demands of learners and their respective industries. In conclusion, while teaching ESP courses is vital for learners' success in professional and academic settings, the traditional methods employed in this context present challenges that must be addressed. By embracing innovative teaching

approaches, utilizing technology, and pursuing professional development, ESP instructors can overcome these obstacles and enhance the effectiveness of ESP courses. Ultimately, this will facilitate learners' acquisition of the necessary language skills tailored to their specific purposes

REFRENCES

AECT Task Force on Definition and Terminology. (1977). *Educational technology*

Aggarwal, J. C. (2011). The Essentials of educational technology (3rded.). New Delhi:

Ahmed, M. K. (2014, January). The ESP Teacher: Issues, Tasks and Challenges. Research Gate. https://www.researchgate.net/figure/The-Role-of-ESP-Teacher_fig2_281345731

Anderson, J., Semenov, A., Pereverzev,L. and Bulin-Sokolova, E. (2005).Information and communication technologies in schools. Paris: Unesco

Aumhani, A., Ebriek, A., &Fatema, A. (2022, October). The Impact of Using Visual Materials in Enhancing Learning EnglishVocabulary at Libyan Preparatory Schools. In AlZaytoonah University of Jordan Journal for Human and Social Studies (ZJJHSS)Vol. 3, No.1, pp217-229.

Basturkmen, H. (2006). Ideas and Options in English for Specific Purposes. In Google Books. Routledge. https://books.google.dz/books?hl=fr&lr=&id=bzuRAgAAQBAJ&oi=fnd&pg=PP1&d q=Basturkmen+H.+2006.+Ideas+and+Options+in+English+for+Specific+Purposes.+Mahwah:+Lawrence+Erlbaum+Associates.&ots=XtzU1mBzW&sig=2wcy3wmF3siNSe5x0bHtmUAO-Iw&redir_esc=y#v=onepage&q&f=false

Basturkmen, H. (2010). Developing Courses in English for Specific Purposes. Palgrave Macmillan UK. https://doi.org/10.1057/9780230290518

Bđlokcuoğlu, H. (2012). ENGLISH FOR SPECIFIC PURPOSES “A paper on the special area of English of the non-specialist ESP English instructor.” https://dergipark.org.tr/tr/download/article-file/71888

Beatty, K. (2010). Teaching and researching computer assisted language learning

Bidgoli, H. (2003). The internet encyclopedia (Vol. 1). New Jersey: John Wiley & Sons, Inc.

Blake, R. (2016, June). Technology and the four skills. ResearchGate. https://www.researchgate.net/publication/304045490_Technology_and_the_four_skills

Bonk, C. J., & Graham, C. R. (2012). The Handbook of Blended Learning. John Wiley & Sons.CA: Shell Education Publishing, Inc.

Carrell, P.L., Devine, J., & Eskey, D.E.(Eds.). (1988)

Carver, D. (1983). Some propositions about ESP. The ESP Journal, 2(2), 131–137. https://doi.org/10.1016/0272-2380(93)90003-p

Catherall, P., Skills exchange experience by students in the use of education technology/elearning. PowerPoint presentation Communications and Technology. Definition and glossary of terms. Washington, DC: Association for Educational

Çelik, H. (2021). Testing and assessment in English for Specific Purposes (ESP). Research Gate; Vizetek Yayıncılık. https://www.researchgate.net/publication/350530590_Testing_and_assessment_in_En glish_for_Specific_Purposes_ESP

Chalak, A. (2020, August). The Effect of Employing Critical Needs Analysis on Iranian Intermediate Learners' Speaking Skills Improvement. Research GATE. https://www.researchgate.net/figure/Hutchinson-and-Waters-1987-Needs-Classification_fig1_344942867

Derrick, M. G. "Creating Environments Conducive for Lifelong Learning." New Directions for Adult and Continuing Education, no. 100. San Francisco: Jossey-Bass, 2003

Donesch-Jezo, E. (2012). English for Specific Purposes: What does it mean and why is it different from teaching General English? ResearchGate. https://www.researchgate.net/publication/308914571_English_for_Specific_Purposes_What_does_it_mean_and_why_is_it_different_from_teaching_General_English

Dudley-Evans, T., John, M. J. S., & John, M. J. S. (1998). Developments in English for Specific Purposes: A Multi-Disciplinary Approach. In Google Books. Cambridge University Press. https://books.google.dz/books?id=FY5ChNRKtxwC&hl=fr&source=gbs_book_other versions Education, 4(1), vii-viii.

English for Academic Purposes: An Advanced Resource Book (Routledge Applied Linguistics) by Ken Hyland - PDF Drive. (n.d.). Www.pdfdrive.com. Retrieved March 5, 2023, from https://www.pdfdrive.com/english-for-academic-purposes-an-advanced-resourcebook-routledge-applied-linguistics-e184416926.html

Erben, T., Ban, R., &Castañeda, M. (2008). Teaching English language learners through technology. Routledge. https://doi.org/10.4324/9780203894422

Ertmer, P. A. (1999). Addressing first- and second-order barriers to change: Strategies for technology integration. Educational Technology Research and Development, 47(4), 4761for research and practice. London: RoutledgeFalmer. essential guide. California, CA: SAGE Publicatio

Fălăuş, A. (2017). The current challenges of teaching ESP. IOP Conference Series: Materials Science and Engineering, 200, 012059. https://doi.org/10.1088/1757-899x/200/1/012059

Fitria, T. N. (2020). Teaching English for Specific Purposes (ESP) to the Students in English Language Teaching (ELT). JET ADI BUANA, 5(01), 55–66. https://doi.org/10.36456/jet.v5.n01.2020.2276

Garrison, D. R., & Anderson, T. (2003). E-learning in the 21st century: A framework

Górska-Poręcka, B. (2013). THE ROLE OF TEACHER KNOWLEDGE IN ESP COURSE DESIGN. Studies in Logic, Grammar and Rhetoric, 34(1), 27–42. https://doi.org/10.2478/slgr-2013-0021

Grabe, W. (1991). Current Development in Second Language Reading

Harmer, J. (2007). The Practice of English Language Teaching 4th Edition.

Harmer, J. (2008). The Practice of English Language Teaching. Harlow, England: Pearson Longman.

Hechter, R. P. & Vermette, L. A. (2013). Technology integration in K-12 science classrooms: An analysis of barriers and implications. Themes in Science and Technology Education, 6(2),73-90

Hosenfeld, C. (1979). Cindy: a Learner in Today's Foreign Language Classroom. In W.C. Born, (Ed.). The Foreign Language Learner in Today's Classroom Environ-ment. Northeast Conference Reports (ERIC Document Reproduction Service No. ED 185 834)

Hussain, A. J., Morgan, S., & Al-Jumeily, D. (2011, December). How Does ICT Affect Teachings and Learning within School Education? In Developments in E-systems Engineering (DeSE), 2011 (pp. 250-254). IEEE.https://doi.org/10.1109/DeSE.2011.50

Hutchinson, T., & Waters, A. (1987). English for Specific Purposes. In Google Books. Cambridge University Press. https://books.google.dz/books?id=s2FIpUv7gaoC&printsec=frontcover&dq=development%20of%20esp%20book%20pdf%20by%20hutchinson&hl=en&sa=X&ved=2ahU KEwjtqqDS15f9AhWNVKQEHYVuCJoQ6wF6BAgBEAU&fbclid=IwAR0IXKMrqPru7Q18XVIkUnlcQtnqwFadSN4V6ufyK5d3n_oITtx8rXy6F-4#v=onepage&q&f=false

Ibrahim, A. I. (2010). ESP at the Tertiary Level: Current Situation, Application and Expectation. English Language Teaching, 3(1). https://doi.org/10.5539/elt.v3n1p200

Ibrahim, H. H. (2019). The Role of an Ideal ESP Practitioner. Open Journal of Modern Linguistics, 09(02), 76–91. https://doi.org/10.4236/ojml.2019.92008

Kamo, C. (2012). ESP IN THE MODERN SOCIETY. Academic Science Journal. https://www.academia.edu/38105286/ESP_IN_THE_MODERN_SOCIETY?fbclid=IwAR2dByqGlklNfqcfdimYJ7yQcnFo6Wz0sOGLHwvEKN6y_257fXJNhXT-67A

Karsenti,T.,&Fievez,A.(2013).TheiPadineducation:uses,benefits,andchallenges.Asurveyof,60 57 Kobayashi (eds.), Educational technology: Its creation, development and cross cultural transfer(pp. 123). England: Pergamon Press.

Koller, V., Harvey, S., & Magnotta, M. (2006). Technology-Based Learning Strategies. https://www.doleta.gov/reports/papers/TBL_Paper_FINAL.pdf

Kopp, K. (2012). Using interactive whiteboards in the classroom. Huntington Beach,

Leedhan, J. (1973). Educational technology in curriculum development. London:

Levy, M. (1997). CALL: Context and conceptualization. Oxford: Oxford University Press.

Lucido, P. I., & Borabo, M. L. (1997). Educational technology. Quezon City: Katha

Marleni, M. (2020). Enhancing the Students' Writing Skill through Technological Writing Feature of Wridea. Journal of English Education and Teaching, 4(1), 140–153. https://doi.org/10.33369/jeet.4.1.140-153

Mirela, C. (2017). Selecting Materials for ESP Classes. The European Proceedings of Social and Behavioural Sciences. https://doi.org/10.15405/epsbs.2017.05.02.28

Moon, P. (1987). English for specific purposes: A learning-centred approach. Www.academia.edu. https://www.academia.edu/899180/English_for_specific_purposes_A_learning_centr e d_approach

Morley, C. (n.d.). Listening: Top down and bottom up. TeachingEnglish. https://www.teachingenglish.org.uk/professional-development/teachers/knowingsubject/articles/listening-top-down-and-bottom

Munby, J. (1978). Communicative Syllabus Design: A Sociolinguistic Model for Designing the

Content of Purpose-Specific Language Programmes. In Google Books. Cambridge University Press. https://books.google.dz/books?hl=fr&lr=&id=mFJUqCs5da0C&oi=fnd&pg=PA1&ots=kqfB08OFit&sig=oRitS4VOP9zrKIh_lA2TcaTGbAU&redir_esc=y#v=onepage&q&f=false

Muñoz-LunaR., & Taillefer, L. (2018). Integrating information and communication technologies in English for specific purposes. Springer International Publishing.

Nguyen, T. C. V. (n.d.). Developing Courses in English for Specific Purposes. Www.academia.edu. https://www.academia.edu/33544413/Developing_Courses_in_English_for_Specific_Purposes

Pathak, R. P., & Chaudhary, J. (2011). Educational technology. India: Pearson

Phuc, H. H. (n.d.). The practice of english language teaching 4th edition - Jeremy Harmer. Www.academia.edu.https://www.academia.edu/25472823/The_Practice_of_English_Language_Teaching 4th_Edition_Jeremy_Harmer

Prensky, M. (2008). The role of technology. Educational Technology, 48(6). Prentice Hall. Publishing CO., INC. Research in Qurterly, 3, 499-545.

Richards, J. C., & Rodgers, T. S. (2001). Approaches and Methods in Language Teaching. https://doi.org/10.1017/cbo9780511667305

Rosenburg, M.J. (2001). E-Learning Strategies for Delivering Knowledge in the Digital Age. US: Mc GrawHill.

Sampath, K. (1984). Introduction to educational technology. India: Sterling Publishers.

Senhadji, N. (2020). ESP: Past, Present, Future. https://www.asjp.cerist.dz/en/downArticle/163/11/1/144847

Simonson, M. R. (2003). Definition of the field. Quarterly Review of Distance learning

Stefanova, A., & Zabunov, G. (2020). Enhancing Student Motivation in ESP by Increasing the Level of Engagement: A Proposed Model. English Studies at NBU, 6(2), 201–216. https://doi.org/10.33919/esnbu.20.2.2

Sung, Y.T., Chang, K.E., &Liu, T.C. (2016). The effects of integrating mobile devices with teaching and learning on students 'learning performance: Ametaanalysisandresearchsynthesis.Computers&Education,94,252275.https://doi.org/10.1016/j.compedu.2015.11.008

Thomas, R. M. (1987). The nature of educational technology. In R. M. Thomas & V. N.

Thorne, K. (2007). Blended learning: how to integrate online & traditional learning. Kogan Page.

Tratnik, A. (2008, January). Stages in the ESP process (Dudley-Evans and St. John 1998: 121) ResearchGate.https://www.researchgate.net/figure/Stages-in-the-ESP-process-DudleyEvans-and-St-John-1998-121_fig1_293123487 Vikas Publishing House.

Vlieghe, J. (2014). Education in an age of digital technologies. Philosophy & Technology, 27(4), 519-537. https://doi.org/10.1007/s13347-013-0131-x

West, R. (1994). Needs analysis in language teaching. Language Teaching, 27(1), 1–19. https://doi.org/10.1017/s0261444800007527

Williams, C. (2014). The future of ESP studies: building on success, exploring new paths, avoiding pitfalls. ASp, 66, 137–150. https://doi.org/10.4000/asp.4616 Williams, M. L., Paprock, K., & Covington, B. (1999). Distance learning: The

Wilson, JJ. (2008). How to Teach Listening. England: Pearson.

Zandi, P., &Krish, P. (2018). Enhancing EFL writing instruction through technology in Iran. Research on Humans and Social Sciences, 7(18), 7583.

APPENDICES

Teachers' questionnaire

This questionnaire is part of our master dissertation. It aims to gather data in order to explore the process of ESP teaching through the integration of Technology-based approach in different departments at the university of 8 Mai 1945, Guelma. We also seek to know your opinions and attitudes towards this approach. Hence, you are kindly invited to take part by answering this questionnaire which will be taken anonymously and only for academic purposes.

Your help will be highly appreciated.

Miss. Berbache Cherifa

Miss. Roubi Marwa

Department of English

Faculty of Letters and Languages

Section One: Background Information

1-Please state your highest academic qualification:

Master degree ☐ Magister degree ☐ Doctorate degree ☐

2- Can you specify which department you teach in?

…….....

Section Two: ESP Teaching

3-How many years have you been teaching ESP?

…….

4-Do you think that teaching ESP is more complex than teaching general English?

Yes ☐ No ☐

5-How often do you teach this module per week?

Once ☐ Twice ☐ More ☐

6-What kind of materials do you use in your teaching of ESP?

-Authentic materials ☐

-Textbooks ☐

-Audio and video materials ☐

-Online resources ☐

7-Why do you assess your learners?

-To measure the success of the course ☐

-To measure learners' performance and progress ☐

-To provide feedback ☐

8-How do you assess your learners?

-Short quizzes ☐

-Presentations ☐

-Role play activities ☐

-Final exam ☐

9-What are the main roles of an ESP teacher?

-Collaborator ☐

-Provider of materials ☐

-Researcher ☐

-Evaluator ☐

-All ☐

10-What strategies can ESP teachers use to help students develop their language skills?

-Practical tasks ☐

-Technology integration ☐

-Collaborative learning (pair work) ☐

-Feedback and error correction ☐

Section Three: The Use of TBA in ESP Teaching

11- Do you depend on Technological tools as instructional materials in your lessons?

Yes ☐ No ☐

12- Which Technological tools do you use most frequently in your ESP Teaching?

Interactive Whiteboard ☐ Online Libraries ☐ Overhead Projector ☐

Mobile / Computer Assisted Language Learning ☐

All of the above ☐ None ☐

13- How often do you integrate these Technologies in your classroom instructions?

Regularly ☐ Frequently ☐ Occasionally ☐ Seldom ☐

Rarely ☐

14- What benefits have you seen from using Technology in your ESP Teaching?

……

……

15- What challenges have you encountered when using Technology in your ESP Teaching?

……

…….....

16-What is / are your views and perceptions towards the integration of Technology in ESP course? Justify your answer

Positive ☐ Negative ☐

……

…….

17-Do you have further comments or suggestions that you would like to add?

……

…….

الملخص

يشير الإنجليزية لأغراض محددة عمومًا إلى تدريس اللغة الإنجليزية للمتعلمين الذين يحتاجون إلى اللغة الإنجليزية لأغراض مهنية أو أكاديمية محددة. ومع ذلك، يمكن أن تكون هذه المهمة صعبة للغاية بالنسبة للمعلمين. وبالتالي، يحاول البحث الحالي استكشاف فعالية تدريس هذه الدورة من خلال دمج التكنولوجيا. كما يسعى إلى فهم آراء المعلمين حول الفرص والتحديات المرتبطة بدمج التكنولوجيا. وبالتالي، يفترض أن تنفيذ التكنولوجيا سيحسن عملية التدريس إلى حد ما. لتأكيد أو رفض الفرضية المذكورة سابقًا وإيجاد إجابات دقيقة على الأسئلة البحثية، تم اعتماد أسلوب كمي، حيث تم توزيع استبيان على 20 معلمًا للإنجليزية لأغراض محددة من أقسام مختلفة في جامعة 8 مايو 1945، قالمة. تسلط النتائج الضوء على أن غالبية معلمي الإنجليزية لأغراض محددة يعتبرون التكنولوجيا أداة قيمة يمكن أن تعزز تدريس اللغة، ولكنهم يواجهون تحديات تشمل الوصول المحدود للتكنولوجيا، والمشاكل التقنية، والاعتماد الأعمى على التكنولوجيا مما يقلل من التفكير النقدي للطلاب. على الرغم من القيود التي واجهت في هذه الدراسة، يتم تقديم بعض التوصيات والاقتراحات لتوجيه المعلمين والطلاب في إجراء بحوث مستقبلية.

الكلمات الرئيسية: *تدريس اللغة الإنجليزية لأغراض محددة، نهج قائم على التكنولوجيا، اتجاهات وتصورات المعلمين*

LE RÉSUMÉ

L'anglais à des fins spécifiques désigne généralement l'enseignement de la langue anglaise aux apprenants qui ont besoin de l'anglais à des fins professionnelles ou académiques spécifiques. Cependant, cette tâche peut être très difficile à réaliser pour les enseignants. Ainsi, la présente recherche tente d'explorer l'efficacité de l'enseignement de ce cours par le biais de l'intégration de la technologie. Elle vise également à comprendre les perspectives des enseignants sur les opportunités et les défis liés à l'intégration de la technologie. Par conséquent, l'hypothèse est formulée selon laquelle la mise en œuvre de la technologie améliorerait dans une certaine mesure le processus d'enseignement. Pour confirmer ou rejeter l'hypothèse précédemment mentionnée et trouver des réponses précises aux questions de recherche, une méthode quantitative a été adoptée, dans laquelle un questionnaire a été administré à 20 enseignants d'anglais à des fins spécifiques, issus de différents départements de l'Université du 8 Mai 1945 à Guelma. Les résultats mettent en évidence que la majorité des enseignants d'anglais à des fins spécifiques considèrent la technologie comme un outil précieux pouvant améliorer l'enseignement des langues, mais ils rencontrent des défis tels que l'accès limité à la technologie, les problèmes techniques et la dépendance aveugle à la technologie qui réduit la réflexion critique des étudiants. Malgré les limitations rencontrées dans cette étude, des recommandations et des suggestions sont fournies pour guider les enseignants et les étudiants dans la réalisation de futures recherches.

Mots-clés : *Enseignement de l'ESP, Approche basée sur la technologie, Attitudes et perceptions des enseignants*.