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An investigation into the effectiveness of computer-assisted language learning in improving reading comprehension among English as a foreign language (EFL) learners.

The case of first-year EFL students at Biskra University.

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A Dissertation submitted to the Department of English language and literature as partial fulfillment of the requirements for the degree of Master in Sciences of Language

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DECLARATION OF INTEGRITY

I, "**BACHAR Isra**", solemnly declare that the dissertation titled "**An investigation into the effectiveness of computer-assisted language learning in improving reading comprehension among English as foreign language learners**" submitted to the Department of the English language and Literature at Biskra University is entirely my own work, free from plagiarism, and has not been submitted to any other educational institution. I have appropriately acknowledged and cited all sources used, and I have conducted myself with academic integrity throughout the process. I understand the severe consequences of academic misconduct and affirm the authenticity of my dissertation.

Signature

Dedication

I dedicate this work wholeheartedly to my beloved parents

*My father**, Abdelhamid**, and my Mother **Fatima Zohra**, and i would like to*

express my deepest gratitude to them for their unconditional love, unwavering

support, endless encouragement, and heartfelt prayers.

*To my dear brother **Sabri***

*To my dear sisters **Imane, Rania, Rofida, Nour Elyakine***

*To my cherished nieces **Baraa, Assil** and to my nephew **Mahdi***

And to all my Family members

*To my best friends **Sara, Soundous, Houda, Amani, Manel, Kenza, Zahra***

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Abstract

One of the most important skills in the English language is the reading skill, which plays a crucial role in enhancing students' knowledge and developing other skills. However, the traditional theoretical teaching method of reading module often leads to comprehension difficulties among EFL learners. Hence, in the current study, we suggested the integration of computer-assisted language learning (CALL) as a teaching strategy to improve EFL learners' reading comprehension. The study hypothesise that if CALL is used in EFL classes, the learners' reading comprehension skills will be improved. To check out the validity of our suggested hypothesis we opted for a mixed-methods approach, and one data collection tool was used in order to investigate the students' attitude toward the implementation of CALL in EFL classrooms to improve reading comprehension. The used tool is a students' questionnaire administered to a sample of 61 EFL students of first-year at Biskra University. The data analysis is done through statistical methods relying on SPSS for the quantitative data, and thematic analysis for qualitative data. After the analysis and interpretation of the collected data, the findings show that the students face difficulties in reading comprehension through the traditional teaching method in the reading module. Moreover, the results reveal that the use of CALL programmes helps in improving EFL learners' reading comprehension. As a result, the suggested hypothesis is confirmed.

Keywords: Computer Assisted Language Learning, EFL, Reading comprehension, first-year students, Biskra university.

List of Abbreviations and Acronyms

CALL: Computer-Assisted Language Learning

CD-ROM: Compact Disc Read-Only Memory

DVD: Digital Video Disc

EFL: English as a Foreign Language

ELT: English Language Teaching

ESL: English as Second Language

Et al: And Others

ICT: Information and Communication Technologies

IT: Information Technology

L1: First Year Licence

PC: Personal Computer

RH: Research Hypothesis

RQ: Research Question

SPSS: Statistical Package for the Social Sciences

UMKB: University of Mohamed Kheider Biskra

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Introduction

Foreign language learners have recently become more interested in using technology to improve their English skills, which include reading, listening, writing, and speaking. These skills play an increasingly important role in mastering the language. For that reason, many educators around the world rely on using technology that offers a variety of interactive tools and activities that help students practice their language skills and improve their proficiency. In sum, it facilitates the learning process, and makes the students more engaged in the classroom.

The introduction of technology into the classroom particularly computer-assisted language learning (CALL). This technology-based approach to teaching and learning can be used in a variety of learning contexts to help students with all aspects of language development, from grammar and pronunciation to reading and writing. CALL provides an excellent way to reach the students' language learning goals. Thus, the present study aims to investigate the effectiveness of CALL to improve EFL learners' reading comprehension.

Statement of the Problem

Reading is a macro skill that must be mastered by foreign-language learners. It is considered a productive skill that is vitally important for all EFL learners; however, reading comprehension is a skill that could be one of the major problems faced in EFL classes, especially for first-year students of Biskra University, where the learners encounter difficulties concerning the lack of concentration during reading, the confusion of terms and sentences, and the understanding of vocabulary. These factors can reduce student achievement and cause failure in the learning process.

To overcome this problem, we suggest the use of CALL to promote and improve learners' reading comprehension. Since the use of technology in language learning provides students with interactive and engaging experiences that could help them acquire language skills faster, more effectively, and more efficiently. CALL typically includes activities such

as language drills, language games, and multimedia applications, such as audio and video. It has become increasingly popular in the last few decades, with many language schools and universities making use of it in their language classes. Thus the introduction of CALL in EFL classrooms is a powerful solution for improving first year EFL learners' reading comprehension, and it is an effective way to help students become more successful readers.

Research Questions

This research seeks to answer the following research questions:

RQ1: In what way does the use of CALL enhance the new method of teaching and learning instead of the traditional method?

RQ2: What are the difficulties faced by EFL learners' in reading comprehension?

RQ3: Does CALL have any effect on improving EFL learners' reading comprehension skills ?

Research Hypothesis

Based on the above research questions we propose the following research hypothesis :

RH: If CALL is used in EFL classes, the learners' reading comprehension skill will be improved.

Aims of the Study

General aim:

- ✓ This study aims to investigate the effectiveness of using the CALL to improve first-year EFL learners' reading comprehension at Biskra University.

Specific aims:

- ✓ To show the benifits of using CALL in EFL classes of the first-year.
- ✓ To promote the use of CALL programmes in EFL classes in order to enhance learners' comprehension.

Research Methodology

To answer the research questions outlined above and confirm our hypothesis, we will use the mixed-methods approach to combine both quantitative and qualitative data. This method can provide a better understanding of the relationships between the different variables, as well as allows for providing more reliability and validity to the research findings.

Data Collection Tools

In this study, one gathering tool is used which is a questionnaire to be given to the students to find out the effectiveness of using CALL as learning strategy to improve their comprehension.

Population and Sample

In this research, we select first-year students of English at Biskra University as a population, and The sample of this study is therefore required the participation of 61 students approximately 15 % of the whole population of 409 students of first-year.

Significance of the study

The particular significance of this study lies in the new approach to teaching and learning the skill of reading through the use of CALL in EFL classes to help students improve their reading comprehension skills. In addition, this study is meant to show the benefits of CALL in the education environment.

Structure of the Dissertation

The present study consists of two main parts, the theoretical part and the practical part. The former includes two main chapters, and the latter is an empirical part, which includes one chapter.

The first chapter of the dissertation is devoted to an overview about CALL, and its definition, a brief history of CALL, also its benefits in learning/ teaching process, and the

challenges faced when using CALL. The following points will show the role of using CALL in EFL classes.

The second chapter is revealed with defining the reading comprehension skill, mentioning its nature, its importance in EFL context to master the learners' proficiency. In addition to its theories.

The last chapter is concerned with gathering and analysing the data obtained through the gathering tool, which is the sudents' questionnaire, in order to confirm our hypothesis.

Limitations of the Study

This study has certain limitations encountered, such as the reliance on a single gathering tool which is the students' questionnaire that provided valuable insights. However, incorporating additional data collection methods, such as interviews or observations, could have a more comprehensive understanding of the impact of CALL on EFL learners' reading comprehension. In light of this, the present study is limited to a particular kind of learner and cannot be generalised to other learners in other departments or universities throughout Algeria. Nevertheless, the results of the present study can be beneficial for both teachers and learners, as they assist in enhancing the teaching/learning process, and teaching materials.

CHAPTER ONE : COMPUTER-ASSISTED LANGUAGE LEARNING

Introduction

In recent years, technology has revolutionised the field of education, and English language teaching (ELT) is no exception. One of the most significant developments in this regard has been CALL, which involves using technology to facilitate language learning. CALL has been shown to have numerous benefits for language learners. However, the effectiveness of CALL depends on how it is integrated into the language curriculum and the level of teacher training and support. This chapter deals with the essential themes associated with CALL programmes and examines the current state of CALL, including its definition, its history, its categories, and its different applications. Additionally, this chapter will explore the benefits and challenges of using technology for language instruction. Finally, it will show the impact of CALL in EFL classrooms.

Definition of Computer-Assisted Language Learning (CALL)

The term "CALL is an acronym of computer-assisted language learning," which is described by Davies (2016) as a concept in language teaching and learning that is often viewed narrowly. It consists of the use of a computer as a tool for presenting, reinforcing, and assessing material to be learned, usually with an element of interaction. Additionally, Levy (1997, p. 1) defines CALL as "the search for and study of applications of the computer in language teaching and learning". This quotation implies that the computer is considered to be a potentially useful tool in the context of language teaching and learning. Moreover, CALL is any method that requires the learners to use a computer in order to develop their language skills (Beatty, 2003). This explanation means that the use of CALL in learning and teaching helps students improve their language skills.

Gündüz (2005) has typically described CALL as a means of presenting, reinforcing, and testing' particular language items, in which the learner is first given a rule and several

examples, and then answers a series of questions that test her/his knowledge of the rule, and the computer provides relevant feedback.

Overall, CALL is an effective way to learn a language. It can be used to supplement traditional language learning methods and provide learners with the opportunity to interact with digital language learning materials.

A Brief History of Computer-Assisted Language Learning

CALL has its roots in the 1960s. According to Warschauer and Healey (1998), the history of CALL can be divided into three main phases: bahaviouristic CALL, communicative CALL, and integrative CALL. The three main stages can be summarised as follows:

- **Behaviouristic CALL:** A type dates back to the 1950s and 1960s, this mode of CALL is based on the behaviourist learning model and consists of repetitive language drills, also known as drills and practices. In this stage, the computer was viewed as a mechanical tutor that never tired or judged the student and allowed them to work at their own pace. In spite of the fact that behavioural CALL eventually moved to the personal computer, its first implementation was on mainframes.

- **Communicative CALL:** The phase emerged in the late 1970s and early 1980s, when behaviouristic approaches to language teaching were being rejected. This stage focuses on the importance of using forms, teaching grammar implicitly rather than explicitly, allowing and encouraging students to generate original utterances, and using the target language predominantly or exclusively with the use of computer-based activities.

- **Integrative CALL:** By the late 1980s and early 1990s. This stage seeks to integrate the four skills; reading, listening, writing, speaking and to integrate technology more fully into the language learning process. In addition, it focuses on task-based, project-based, and content-based approaches, which involve learners using a variety of

technological tools as an ongoing process of language learning and use rather than isolated exercises.

Categories of Computer-Assisted Language Learning

In recent years, the computer has had a profound impact on every field and area of life. namely the education field. According to Warschauer and Kern (2000, as cited in Chaka, 2009) there are three different categories of CALL are listed below:

- **Mainframe Computer Technologies:** These refer to a very large, powerful computer with a lot of memory that many people can use at the same time (according to the Cambridge dictionary); however, Warschauer and Kern (2000) stated that the first-generation CALL technologies related to the mainframe computer, informed by the behaviourist approach to CALL technologies, view the computer as a tutor/ taskmaster to facilitate language learning between the learner and materials. Examples of these technologies include drill and practice programmes, grammar and tutorial programmes, and language testing instruments. Warschauer and Kern (2000) argued that mainframe computer technologies facilitate language learning through repetition, pronunciation, reading, and writing.

- **PC Technologies:** According to Warschauer and Kern (2000), these technologies are considered as second-generation CALL technologies. Mainly driven by cognitivists/ constructivist approach to language learning and teaching, these CALL technologies view computers from both the tutor's and student's perspectives. On the other hand, as a stimulus and toolkit. This category includes software programs that focus on skill practice in nondrill formats, oral and written activities, and simulations and role-plays. Consequently, language learning is mediated through communication and contextual activity (spoken and written), language games, reading, text reconstruction, simulation

and role-playing games, language discovery activities, critical thinking, problem solving, and hypothesis testing activities.

- **Multimedia Networked Computer Technologies:** These constitute the third-generation CALL technologies based on multimedia computers, the Internet, and the Web. These technologies are supported by two intertwined frameworks, namely a sociocognitive perspective that emphasises meaningful interaction within authentic discourse communities and a technological shift about computer networking, in which computers serve as primary vehicles for human contact. In this category of technologies, learners learn by interacting with others through computers, which is one of its basic tenets (Kern & Warschauer, 2000).

There are several features and characteristics of these technologies in this regard, including integrating four basic language skills (listening, speaking, reading, and writing) into one activity; integrating text, graphics, sound, animation, and video; the use of multimedia applications such as CD-ROMs and DVDs; and hybrid approaches that integrate CD-ROMs/DVDs and audio- and video conferencing with Web activities. According to Warschauer and Kern (2000), language learning associated with these CALL technologies is therefore mediated via multimedia CD-ROMs and DVDs, synchronous and asynchronous communication, object-oriented internet relay chat, chat rooms, email, newsgroups, and bulletin boards, internet and web usage, interactive pair and group work, audio and video conferences, content, and task-related activities.

In brief, all of these technologies play an important role in facilitating teaching and learning process.

The applications of CALL

Interactive Tutorials

Computer-delivered tutorials are an effective tool for teaching students' concepts, skills, and knowledge. These tutorials can provide students with a more interactive and engaging learning experience than traditional methods. In the context of CALL, it has been demonstrated that the tutorial format is effective for individualised reading comprehension and for improving study skills, particularly in special purpose content areas (Schreck & Schreck, 1991, as cited in Huang, 1998). The latter explanation means that through the computer, students can monitor and adjust textual passages as they gain a better understanding of the passages and receive feedback based on the text.

In Kang and Dennis' (1995) study, the HyperCard authoring environment was used on a Macintosh computer to teach 100 English vocabulary words. The experiment treatments were definition, picture, and context condition, and after the treatment, a follow-up test was administered to the students. As a result, they found that the contextualised approach was the most effective in promoting long-term recall of vocabulary definitions, listening comprehension, and spontaneous use of vocabulary.

Drill and Practice

According to Torut (2000), Drill and Practice are based on the behavioural learning theory and the audio-lingual approach. The main aim of Drill and Practice is to reinforce content/background knowledge and help students master language skills (such as reading, listening, writing, and speaking). There are three steps in Drill and Practice: providing stimulus, receiving an active response from the learner, and giving immediate feedback. Therefore, it has been mentioned that as part of CALL, Drill, and Practice include a variety of types such as paired-associate (matching), sentence completion, multiple choice, part identification, true-false, and short-answer questions. In CALL, drill and practice can be

used to provide students with additional practice and reinforcement of language skills, especially grammar points and vocabulary items allowing them to progress more quickly and confidently (Huss et al., 1990, as cited in Huang, 1998).

Simulations and Games

Torut (2000) defined simulation or problem-solving as a process that is used to increase students' critical thinking skills, discussion skills, and writing abilities. For tutorial purposes, the computer is rarely used. Correspondingly, the programme is designed to create language interaction between the student and the teacher through problematic situations, conditions, or problems. There are a lot of problem-solving games available, namely simulation programmes that are both entertaining and educational at the same time. In the same way Huang (1998) stated that computer simulations or games allow students to participate in determining outcomes in situations based on models of real or imaginary situations, as a result of these activities, students learn a variety of procedures or problem-solving strategies. For example, simulations and games may involve only the learner and the computer, or they may include several participants, each with a particular role and set of choices (Huang, 1998).

Text-building Application

Text-building computer applications encompass a broad range of learner-computer interactions in which the student is required to produce, modify, or reconstruct the text. These activities necessitate the student to apply multiple kinds of language knowledge at the same time as well as comprehend the meaning of the text (Schreck & Schreck, 1991, as cited in Huang, 1998). The learner might edit writing samples or modify their text through CALL text modification activities such as punctuating, changing verb tenses, or rearranging random sentences. For example, a word processor facilitates the task of writing; by using features such as "cut and paste", students can make any changes to their text without having to rewrite

whole sections. Additionally, grammar and style checker software can be useful for intermediate and advanced language learners in analysing and correcting their writing (Huss et al., 1990, as cited in Huang, 1998). Overall, through text-building applications, students can experiment and edit their writing samples by using electronic mail or bulletin boards, which can increase cultural awareness and focus attention on textual meaning.

Multimedia Applications

The term multimedia has been around for several decades (Brown et al., 1973, as cited in Kozma, 1991). Until recent times, the term meant combining multiple media devices, including texts, graphics, audio, and motion video. However, due to technological advances, these media have been combined to deliver information on one device rather than several (Kozma, 1991). According to Palumbo and Bermudez (1994, as cited in Huang, 1998), multimedia offers the opportunity to enhance virtual presentations with other methods, such as sound and animation. Teachers can therefore create input-rich learning environments by integrating the real world into their classrooms.

Advantages of Implementing CALL Programmes

It has become increasingly popular to use CALL in language learning and teaching due to advancements in technology. Thus, there is an emphasis by many educators and scholars on the importance of using CALL in the teaching/ learning process, as it offers numerous benefits to both students and teachers. Some of those advantages can be stated as follows:

Learners' Autonomy

It could be one of the advantages of CALL, which involves the learner's ability to plan, monitor, and control their own learning process. This includes the ability to identify learning goals, select and use learning strategies, and evaluate learning outcomes. Regarding that, Ward (2003) stated that the use of CALL programmes allows learners to work at their own pace, and it is possible for the learner to spend more time on topics that are causing

difficulties. In addition, she asserts that CALL programmes in general help learners to be autonomous in learning.

In the field of CALL, learner autonomy is the idea that learners should be able to independently use computer-based tools and resources to achieve their language learning goals. Hence, it is one of the main benefits of CALL.

Privacy

One of the benefits of CALL programmes is the private environment they offer for self-conscious language learners. In traditional classroom settings, many learners are shy and don't participate as much as they would like to for fear of making mistakes or being ridiculed However, a computer provides a forum where learners can lose their self-consciousness. Whenever they make a mistake, the computer will not show them (although they can review the errors afterward). CALL allows learners to learn in a sheltered, protected environment (Ward, 2003).

This benefit is particularly important for language learners who might feel embarrassed or uncomfortable practicing their new skills in front of others. Through CALL, they can practice their skills without feeling judged or ridiculed. In addition to building their confidence, this can also encourage them to continue learning.

Immediate Feedback

Feedback is one of the key benefits of CALL. According to Ward (2003), CALL programmes can provide immediate feedback to learners, which is a significant advantage over traditional classroom settings, where students may have to wait until the end of a lesson or even until the next class to receive feedback on their work. With CALL, learners could receive feedback immediately after completing an exercise or activity.

This immediate feedback could be helpful for language learners who are trying to improve their accuracy and fluency. Furthermore, CALL programmes can provide

personalised feedback that is tailored to each learner's needs and abilities. Overall, feedback is a crucial benefit of CALL that helps language learners to improve their skills more quickly and effectively than traditional classroom methods allow.

Motivation

Motivation is an important factor when it comes to language learning. is defined as the extent ones strive to acquire the language because of the desire to do so and the satisfaction derived from it (Gardner, 1985). Based on Adara and Haqiya's (2021) findings, the use of CALL promotes motivation and interest among EFL learners because it provides access to learning materials faster than textbooks, in addition to making the language learning experience more engaging and enjoyable. Moreover, Nasri, et al. (2021) suggest that CALL (Computer-Assisted Language Learning) can be an effective teaching innovation that introduces learners to technology and brings positive effects such as increased motivation.

Based on a number of studies CALL has many advantages in the classroom. It can be used to supplement traditional instruction, providing learners with additional resources to practice their language skills. In addition, CALL programs can be used to create personalied instruction and provide learners with immediate feedback on their performance. Finally, CALL could be an effective way to motivate learners and foster engagement.

In conclusion through CALL students could access and develop a variety of resources and internalize information more easily and meaningfully through personal engagement (John & Torrez, 2001, as cited in Adel et al., 2014).

Challenges of Implementing CALL Programmes

Despite its potential benefits, CALL also has several disadvantages that should be taken into consideration. Here are some of the most common drawbacks of CALL:

Lack of Resources

As technology continues to evolve, so do the challenges associated with its use and integration. One of the major disadvantages of CALL in the EFL context is the lack of resources available to support the instruction. In this regard, Ward (2003) stated that due to the limited financial resources of many EFL communities, it is simply not possible to provide access to computers and the internet for their learners without external assistance. This is because the cost of electricity to power the necessary computers is too high for these communities to bear alone. In addition, the lack of access to computers and the internet also presents a barrier when it comes to learning EFL, as it leaves learners without access to the necessary resources and support. This lack of resources is a major obstacle to the implementation of CALL in EFL contexts.

Lack of Trained Teachers

CALL is a relatively new field in which there is a shortage of qualified educators who are knowledgeable about the use of technology in language teaching. This can lead to teachers who are not adequately prepared to use technology effectively. In a similar vein, Lai and Kritsonis (2006) stated that it is impossible for a student to use a computer without being trained in computer technology. Despite technological advancements, most teachers today do not have the necessary training and experience to guide their students through CALL programmes. Lai and Kristonis asserted that before using computer technology to assist second language teaching and learning, both teachers and learners should have basic technical knowledge. Hence, the lack of trained teachers can lead to a decrease in motivation among students, which can further hinder language learning progress.

Cultural Acceptability

Another challenge associated with implementing CALL programmes in the EFL classroom is the cultural acceptability; language and culture are deeply intertwined, and

CALL programmes may not always reflect the cultural values, beliefs, and norms of the learners who use them. For example, CALL materials may contain content or images that are offensive or inappropriate for certain cultural groups, which could lead to feelings of discomfort, disengagement, or even discrimination. In this regard, Ward (2003) stated that integrating CALL materials may not be appropriate in some communities because they have specific cultural beliefs and practices that restrict the use of recordings or images of certain individuals, especially those who have passed away. For instance, some communities may believe that the use of such materials is disrespectful or can lead to negative consequences. In such cases, the development of CALL courseware may face additional cultural barriers that need to be taken into account to ensure that it is culturally acceptable and respectful.

Lack of Equipment and Tools

One of the challenges in CALL is the lack of access to proper equipment and tools. This issue can hinder learners' ability to fully engage with the technology and benefit from the language learning software. On this point, Torut states that there are many poor CALL software programmes due to the lack of programmers with linguistic knowledge and language teaching experience. The author notes, therefore, that CALL activities (such as behaviouristic approaches) are typically limited to specific exercises, including multiple-choice, true/false, matching, and ignoring question-answer interactions. As of now, CALL software has not been able to solve problems abstractly or in a systematic fashion.

Another challenge in integrating CALL in EFL classrooms is represented by CALL hardware. Torut (2000) indicated that computer hardware is difficult to install and maintain for classroom teachers. In addition, CALL presentation is sometimes restricted by the capabilities of hardware (e.g., not enough RAM to run big CD-ROM programmes). The latter could sometimes not be suitable for all computers, platforms, and hardware. In

summary, while CALL has the potential to revolutionise language learning, the lack of access to proper equipment and tools remains a significant challenge.

CALL and English Language Comprehension

CALL has become an increasingly popular method in the field of education. It utilises various software and technology tools to enhance language learning and provide interactive opportunities for learners to practise reading, writing, listening, and speaking skills. Jiang (2008, p. 108) stated, "CALL makes language learning and teaching flexible. Active videos, colourful pictures, and graphs make learners excited and not bored of it". The quote implies that CALL has the potential to make language learning and teaching more flexible, engaging, and enjoyable for learners.

According to Khamkhien (2012), the purpose of CALL in language classrooms is primarily to improve student self-concept and mastery of basic language skills, increase student-centred learning, and encourage active learning. As a result, students develop higher-order thinking skills, better recall, and confidence in directing their own learning.

Conclusion

In conclusion, this chapter has clearly stated the key points regarding the use of technology, specifically the implementation of CALL, which has been shown to be an effective teaching method that helps learners in enhancing their motivation and engagement in language learning. As well, it provides learners with access to a variety of interactive materials and resources, allowing for a personalised and autonomous learning experience. Additionally, CALL can provide immediate feedback to learners, facilitating a faster and more accurate understanding of language skills.

Through CALL implementation, language teachers can create a more dynamic and simulation-based learning environment that caters to the diverse needs and interests of their

learners. Thus, in the next chapter, we will highlight the role of CALL in improving EFL

learners' reading comprehension.

CHAPTER TWO: READING COMPREHENSION

Introduction

Reading is a vital skill that is required for success in many areas of life. We use it every day, whether we are reading a book, a newspaper article, or an email. However, simply being able to read text on a page is insufficient. To properly understand and comprehend what we are reading, we should acquire great reading comprehension skills.

The chapter on reading comprehension skills aims to explore the process of reading, including its definition and its importance in EFL learning. In addition, it will give an overview of reading comprehension, as it will discuss the theories and factors that can affect reading comprehension. It will explain how each of these factors can affect a reader's ability to understand and retain information from a text. By the end of the chapter, we will show the impact of technology in improving the reading comprehension, as it plays a crucial role in developing EFL learners' skills.

Definition of Reading and its Importance in EFL learning

In a broader sense, reading is considered a macro skill of the English language, which has been defined by a variety of scholars. Reading is "an active skill that constantly involves guessing, predicting, checking, and asking oneself questions" (Grellet, 1981, p. 8). That is to say, reading requires active engagement and mental effort; in other words, it means that the readers should constantly use their prior knowledge and context clues to guess and predict what might happen next, in addition to ask themselves questions while reading to ensure they comprehend the information.

Moreover, Anderson (2004) defined reading as "a process of readers combining information from a text and their own background to build meaning" (as cited in the CATESOL Journal, 2004). The quote implies that readers actively interact with the text by

using their own experiences and knowledge to make sense of it. Reading is not just about decoding words but about constructing meaning based on the readers' own backgrounds; furthermore, the quote suggests that reading is a dynamic process in which readers interact with the text in order to build their own understanding of its meaning.

Furthermore, Redondo (1997) noted that a reader is a person who is able to process texts in a silent way in order to obtain, use, and analyse information or to entertain themselves.

Within the framework of foreign language learning, reading is considered a fundamental receptive skill that is a crucial component of EFL learning. It involves interpreting a written text in the target language, which can help learners develop their vocabulary, grammar, comprehension, and critical thinking. In this respect, Hasbun (2006, as cited in Şentürk, 2015) highlighted the importance of reading by stating that reading skills "lie at the heart of formal education". And without a fluent and adequate comprehension of the language, it is difficult to accomplish many goals. Therefore, every person should be provided with the opportunity to become a skilled reader (Kulaç, 2011).

Reading Techniques

According to Several types of reading performance are identified through the purposes of reading mentioned as follows:

Skimming

According to Brown and Abeywickrama (2004, p. 213) "skimming is the process of rapid coverage of reading matter to determine its gist or main idea". The quote means that when we skim, we are not reading every word and sentence in detail, but rather glancing over the text and picking out the most important information. Skimming is often used when we need to get an overview of a text quickly, such as when we are trying to decide whether a book or article is relevant to our research, or when we are trying to gather information from

many different sources in a short amount of time. Skimming is considered as an active reading, and it can be a useful reading technique.

Scanning

Based on Maxwell's (1972) definition, scanning is a quick search for an answer to a specific question or the location of certain information. With this technique, students look for specific information, and scanning as a reading strategy typically does not involve reading every word. Instead, we focus on scanning the text to find relevant information quickly, and we can do this by moving our eyes quickly over the text, looking for keywords, phrases, or other visual clues that will help us locate the information we need. The scanning technique can be very useful for students who are trying to find specific information in a textbook, article, or other type of reading material. Besides, it helps them save time and find the information they need more efficiently.

Extensive Reading

As described by Day, et al (1998), extensive reading refers to the autonomous reading of a large amount of material in pursuit of knowledge or enjoyment. The primary goal of ER programmes is to improve readers' skills while allowing them to enjoy the learning process. One of the purposes of extensive reading, according to the authors, is to increase students' enjoyment of reading; thus, affect plays a crucial role in the development of reading skills.

Hedge (2003, as cited in Gilakjani & Sabouri, 2016a) declared that learners' motivation and school resources influence extensive reading. A well-trained and motivated teacher can select appropriate materials and activities for their students. Hedges (2003) emphasised the importance of including extensive reading in EFL/ESL programmes since it helps learners to expand their reading skills.

Intensive Reading

An intensive reading programme typically focuses on teaching reading as a set of components and emphasises close reading of shorter, more difficult foreign language texts with the goal of improving comprehension. Reading skills that are distinct are introduced and practiced intensively through texts. (Palmer 1968, as cited in Loucky, p. 387, 2009)

Waring (1997) argued that intensive reading is crucial to learning vocabulary and comprehending text. It was found by Stahl (2003) that intensive reading activities are related to language proficiency. Furthermore, intensive reading has been found to be beneficial for developing reading comprehension skills such as making inferences and understanding text structure. Ultimately, intensive reading is an invaluable tool for improving overall language proficiency.

Reading Comprehension an Overview

The primary purpose of reading is to comprehend the information presented. Reading without understanding provides no value because it does not lead to new knowledge or new insights.

Howell and Morehead (1993, as cited in Boulkroun & Reham, 2020) defined reading comprehension as follows: "Reading comprehension is the act of combining information in a passage with prior knowledge in order to construct meaning". That is to say, the process of reading comprehension is to make sense of the information presented in a text by connecting it to our own knowledge and experiences. In the same sense, Pressley (2000) and Birsch (2011, as cited in Gilakjani & Sabouri 2016b) described reading comprehension as the ability to get meaning from what is read. To understand the text, a reader needs a variety of reading skills, including word recognition, fluency, lexical knowledge, and pre-existing knowledge.

McCord (1994, as cited in Gilakjani & Sabouri, 2016b) stated that efficient reading is dependent on the ability to recognise words easily. It is identified by individuals' cognitive growth, which is the structure of reasoning processes.

Theories of Reading Comprehension

Mental Representations

Van Oostendorp and Goldman (1998, s cited in Gilakjani & Sabouri, 2016a) suggested that readers could construct mental representations of text when reading a text to explain how they understand it. Many studies support the idea that meaning is constructed at several levels of representation. According to Kintsch (1998, as cited in Gilakjani & Sabouri, 2016a), when reading a text, three levels of mental representation are created: surface, text base, and situation model. The surface component represents the words and phrases encoded in the mental representation, while the text base refers to the meaning of the text without adding anything that is not explicitly identified in the text. The text base can be created without remembering the exact words used. The situation model is the highest level of mental representation and involves creating a complete and consistent mental representation using prior knowledge.

Kintsch (1998, as cited in Gilakjani & Sabouri, 2016a) proposed that the situation model is formed by combining the text base with the reader's relevant knowledge. The text base requires some general prior knowledge to decode the text, while the situation model involves more specific knowledge related to the content of the text.

Content Literacy

Content literacy refers to the ability to read, comprehend, and learn from texts related to a specific subject matter. It consists of three types of literacy skills: general literacy abilities, content-specific literacy abilities, and previous knowledge of content. The first two types of literacy abilities are based on more general knowledge that can be applied

to any text, while the third type is specific to the content of a particular text (McKenna & Robinson, 1990, as cited in Gilakjani & Sabouri, 2016a).

Cognitive Processes

Cognitive processes involve applying syntactic and semantic rules, as well as activating previous knowledge, both of which occur unconsciously and automatically. Perception is a highly automatic and unconscious process, such as when identifying a dog. Problem-solving, on the other hand, requires active thinking, such as trying to remember someone's name. Comprehending a text without difficulty falls somewhere between perception and problem-solving, and is more related to perception since it is largely an unconscious process (Kintsch, 1992, as cited in Gilakjani & Sabouri, 2016a).

Factors Affecting Reading Comprehension

According to Dennis (2008), reading comprehension is a challenging process that involves both recognising printed symbols and comprehending the meaning behind the symbols. Some of these factors affect reading comprehension skills are elaborated in detail.

Motivation

There is a well-established correlation between reading motivation and overall comprehension progress. Motivated readers are more likely to engage with the text, activate their prior knowledge, and apply effective comprehension strategies to make sense of it. In contrast, those who lack motivation may find it difficult to engage with the text and may not use their prior knowledge and experiences effectively. In this vein, Dennis (2008) stated that the interests and motivation of learners play an important role in developing reading comprehension skills. In addition, if the reading material is engaging for learners, they can easily understand and remember it. Thus, the EFL teacher should motivate their students by providing interesting reading materials during class.

Text structure and Genre

Reading comprehension may be greatly influenced by text organization and genre. Different genres and text structures necessitate distinct cognitive processes, which might influence how quickly readers understand and recall information. In this regard, students are reluctant to read because they find it difficult to become familiar with the text's genre, code, and style. It has been demonstrated that competent readers retain more textual information when they read. Therefore, teachers should select adaptively patterned texts for the target group of learners, and students should be taught how to recognise textual arrangements so that concepts are understandable and memorable (Duke & Pearson, 2009).

Vocabulary

Another crucial component in facilitating understanding is vocabulary and word knowledge. Understanding and using words is a fundamental skill that is required for communication and comprehension. So, when readers encounter new or complex words in a text, it might be difficult for them to understand the information. Perfetti and Hart (2002) established "the lexical quality hypothesis," which proposes that understanding words, such as spelling, phonology, morphology, and meaning, supports reading skills.

Moreover Tánczikné (2017) stated that understanding sentences requires the identification of words. The recognition of individual words, i.e., the mechanisms that turn visual input into linguistic presentation, is the first step in reading the text. To grasp the material, the reader must integrate the meaning of each phrase and analyse the information in the text. To perform this evaluation, the reader must draw on past information. It is at this level of comprehension that the situation is reflected. The reader chooses the proper interpretation for the scenario. (Tánczikné, 2017). In sum, vocabulary is a critical factor that affects reading comprehension.

Automatic Word Recognition

Another important component that may affect reading comprehension is automatic word recognition, which is known as the ability to recognise words fast and accurately without having to sound them out or consider their meaning. It has been stated that word recognition is a strong predictor of reading comprehension (Faggella-Luby & Deshler, 2008; Swanson et al., 2003). It has been found that reading comprehension deficits are associated with word recognition deficits as well. According to the authors, if prior knowledge differences correlate with word recognition differences, insight into how to improve each can be gained.

Research showed that accurate word recognition contributes to reading comprehension and enjoyment (Kuhn and Stahl 2000). In fact, good word recognition abilities in the primary years predict good comprehension in the later elementary years (Pressley, 2000, as cited in Trehearne & Doctorow, 2005).

The Frequency of Reading

The frequency of reading is a crucial factor that can affect reading comprehension. Reading is a skill that requires practice, and frequent reading can improve a reader's ability to comprehend texts. Routman (2002, as cited in Trehearne & Doctorow, 2005) stated that ''reading programme that substantially increases the amount of reading students do will impact their reading achievement''. The quotation implies that there is a direct relationship between the amount of reading a student does and their reading achievement. This suggests that the more students read, the better they will become at reading, as increased exposure to different texts and genres can improve their vocabulary, fluency, and comprehension skills. Henceforth, reading programmes can be effective in improving reading comprehension if they focus on increasing the amount of reading that students do.

Lack of Background Knowledge

Al-Mahrooqi (2012) argued that students' general knowledge of texts differs from their cultural knowledge (cited in Al Noursi, 2014). Prior knowledge affects comprehension. The more one already knows, the more one comprehends, and the more one comprehends, the more one learns new knowledge to enable comprehension of an even broader array of topics and texts (Fielding and Pearson 1994).

The Role of Reading Comprehension

Reading comprehension is an important skill that is essential for success in many areas of life, including education, employment, and personal relationships. It allows us to understand and extract meaning from written texts, which is crucial for learning and professional development. In summary, reading comprehension plays a vital role in helping us navigate our daily lives and achieve our goals. Likewise, Oakhill et al. (2014) emphasised the crucial role of reading comprehension not only in understanding written texts but also in learning, education, employment, and even in social interactions. However, the challenge is that reading comprehension is a complex process that requires various cognitive skills and abilities.

Technology as an Effective Strategy to improve the Reading Comprehension Skill

A large number of studies and research publications acknowledged the effectiveness of using technology in the EFL classroom to improve EFL learners' comprehension. Some of these studies are presented here.

In a study, Benettayeb (2012) conducted an experiment study at Hassiba Ben-Bouali University of Chlef with the aim of investigating EFL university students' attitudes and teachers' reactions to computer to shed light on the importance of introducing ICT in the EFL extensive reading classroom. The participants were 24 EFL students and 4 teachers to help them monitoring their selection of some interesting materials. The researcher managed

to schedule three hours for extensive reading, one hour and a half for each session during one semester; moreover, both teachers and students were handed a questionnaire to elicit data from the two omnipresent partners in the teaching/ learning process. The data were analysed and the results showed that teachers and students are all aware of the benefits new technologies, and its presence in the classroom will make reading more enjoyable.

In another study, Meihami and Varmaghani (2013) tested the effect of integrating CALL materials in L2 reading comprehension classrooms. The participants were two classes of 30 students each who attended a course on English reading comprehension at Azad University in Qazvin, Iran. It was found between the experimental group and the control group that EFL low advanced students were able to improve their reading comprehension skills by using CALL. Moreover, most students have positive attitudes towards CALL. Based on the results, it seems that CALL materials can be beneficial to learners in both teaching and learning reading comprehension in L2.

Furthermore, to determine the effectiveness of using CALL in enhancing reading comprehension, Adel, et al., (2014) conducted a comparative study on 40 Iranian learners. They were randomly allocated as two experimental and control groups. As part of the experimental group's treatment, they were instructed to use computer in the language lab during treatment sessions, while the control group used paper-based and printed texts. Both groups were asked to sit for pre-test and post-test. With regards to their post-test reading comprehension results, the experimental group exceeded the control group. Additionally, using CALL as a tool could motivate students and increase their desire to do their assignments excitedly. At numerous levels, the English education curriculum needs to be fundamentally changed in order to incorporate computer technology as a necessary component of English instruction.

Conclusion

From this chapter, we come up with a conclusion in which we can say that reading is one of the most important skills for EFL learners. The chapter highlights the factors that can affect reading comprehension, including text structure, genre, vocabulary, automatic word recognition, the frequency of reading, and background knowledge. It also explores the most effective strategy for improving reading comprehension, such the use of technology in EFL classrooms such as CALL.

By implementing the strategy outlined in the chapter, EFL learners can improve their reading comprehension, become proficient readers, and achieve success in many areas of their lives.

CHAPTER THREE: FIELD WORK AND DATA ANALYSIS

Introduction

The current study was conducted to investigate how effective CALL is in enhancing reading comprehension skills among first-year (EFL) students at the University of Mohamed Kheider Biskra. Firstly, we start by introducing the theoretical background concerning our adopted research methodology, the research approach of the study, and the data collection method used in investigating the findings and accomplishing the study. Secondly, we focus in this chapter on the practical aspect of the study, specifically presenting and analysing the data collected through a questionnaire administered to the students. Aiming to support or refute the hypothesis and gain insights into the effectiveness of CALL in improving reading comprehension among EFL learners. Then we describe, analyse, and interpret all the results obtained from the data-gathering tool that we used as a foundation for this study. As a result of this comprehensive analysis, we are able to explore numerous aspects, including participants' perceptions and their satisfaction with the integration of CALL into their learning process as a whole. Based on these findings, we can draw conclusions about the effectiveness of CALL in improving reading comprehension. Moreover, we can make recommendations about the implementation of CALL in the classroom, to ensure that students are provided with the best possible learning environment and enhance the new teaching method.

Research Methodology

This section is dedicated to discuss the research methodology adopted for conducting the current study. It includes the research approach, data collection tools, sampling and population, in addition to the data analysis and procedures.

Research Approach

The employed research approach in this study is the mixed methods approach, which integrates both quantitative and qualitative methods to investigate the effectiveness of CALL in improving EFL learners' reading comprehension. This approach allows for a comprehensive examination of the hypothesis by combining the strengths of quantitative and qualitative methods. In addition to its reliability

Data Collection Tool

In this study, a data collection tool was employed for multiple purposes, including testing the validity of hypotheses and answering research questions. To gather valuable insights, students' questionnaire was created to gather their perspectives and perceptions.

In this questionnaire, we aim to assess different aspects related to the effectiveness of CALL in improving EFL learners' reading comprehension. The questionnaire explores students' experiences and their attitudes about using technology for language learning, and their perceptions of how it affects their reading comprehension. The questionnaire was designed to provide insight into the effectiveness of CALL for EFL learners, and the data collected will be used to inform future CALL interventions.

Population and Sample

The population of the target study was the First-year EFL student at the university of Mohamed kheider Biskra, the sample of this study required the participation of 15 %, which represents 61 students approximately of the whole population of 409 of first-year students.

Selecting first-year students as the sample can have several reasons. Firstly, because they often represent a transitional phase in their academic journey when they are adapting to a new learning environment and developing foundation skills Secondly, their feedback can be valuable for assessing the effectiveness of the university's educational system. Lastly, they can be a good indicator of the future performance of the university.

Description of Students' Questionnaire

A semi-structured questionnaire was answered by students from L1 groups in order to support or refute the hypothesis. They answered the questionnaire that was administred to them by hand. The questionnaire is divided into three sections:

Section One: General Information

The first section of the questionnaire focuses on general information about the respondents. It typically includes three questions about the gender of the participants and their English language proficiency level; in addition, we asked the students if they read in English outside of the class. These data were collected to facilitate subsequent analyses in the study.

Section Two: Computer-Assisted Language Learning

This section includes six questions where participants were asked about their familiarity with CALL tools, their frequency of using CALL as part of their language learning, and how effective it is in enhancing their reading comprehension skills. A lickret scale was used, including strongly disagree (1), disagree (2), agree (3), and strongly agree (4). Followed by justification. Also, multiple-choice questions were asked about the types of CALL tools that the students would be interested in using to improve their reading comprehension. This section provides valuable insight into participants' subjective reactions, beliefs, and preferences regarding the use of technology in order to improve their skills. This data is then used to inform the development of CALL instructional materials and strategies that are tailored to the varying needs and preferences of the participants.

Section Three: Reading Comprehension

The last section consists of six questions concerning reading comprehension, where students are asked to rate their reading comprehension skills in addition to specifying and choosing their preferred reading materials. Additionally, direct questions were asked to look

for the difficulties they encounter in reading comprehension. Moreover, we asked the participants about the teaching and learning process in the classroom during reading activities, and finally, we asked them about the use of CALL in the classroom to improve reading comprehension.

Analysis of Students' Questionnaire results

Section One: General information

Item 1: Specify your gender please

Table 1. The respondents' gender

		Frequency	Percent	Valid Percent	Cumulative Percent
	male	21	34.4	34.4	34.4
Valid	**female**	40	65.6	65.6	100.0
	Total	61	100.0	100.0	
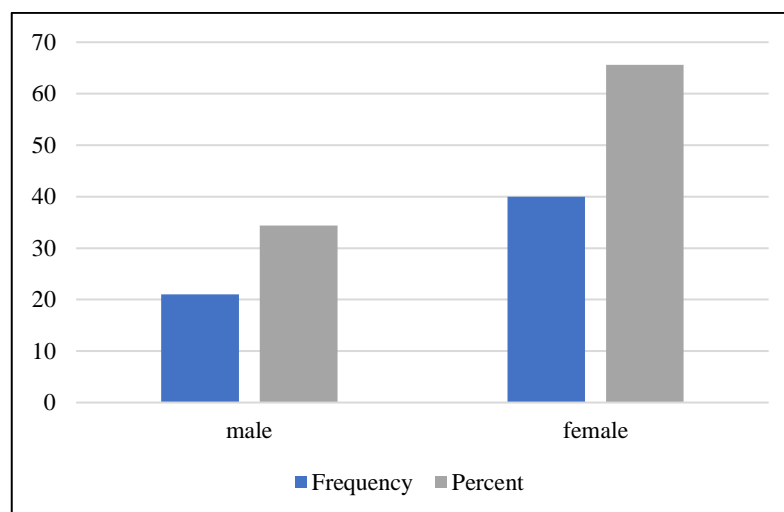
Bar Chart 1. The respondents' gender

The table 1 indicates that out of 61 participants in this study (65.6%) from them are female and (34.4%) are male students. Thus, the highest percentage of participants is for female.

Item 2: How would you rate your overall English proficiency level?

Table 2. Students' proficiency level

		Frequency	Percent	Valid Percent	Cumulative Percent
	beginer	3	4.9	4.9	4.9
	elementary	16	26.2	26.2	31.1
Valid	**intermediate**	32	52.5	52.5	83.6
	advanced	10	16.4	16.4	100.0
	Total	61	100.0	100.0	
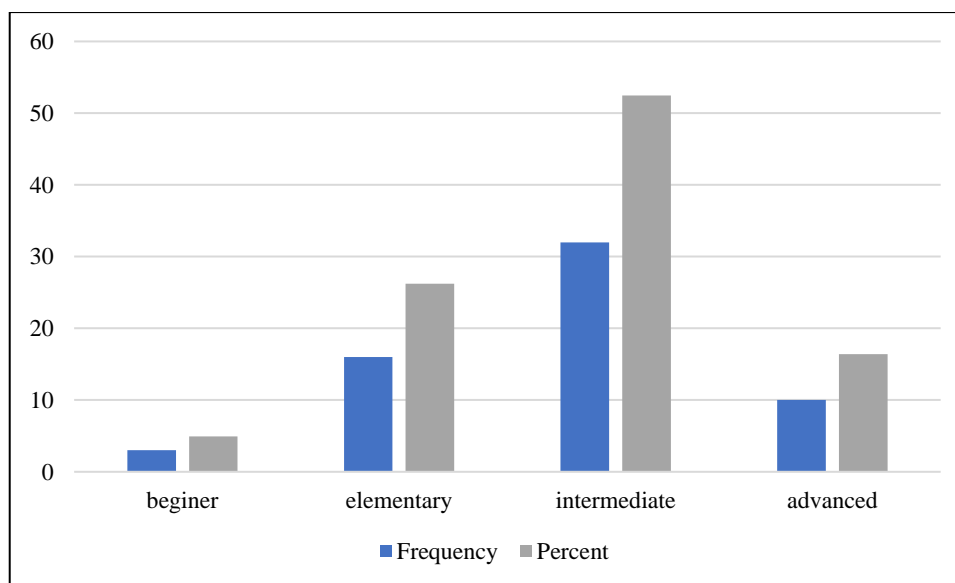
Bar Chart 2. Students' proficiency level

The results in the table 2 show that among the 61 students included in the analysis, 4.9% were classified as beginners, while 26.2% were at the elementary level. The majority of students, accounting for 52.5%, were classified as intermediate in terms of proficiency.

Lastly, 16.4% of the students were deemed advanced. These findings provide insights into the distribution of proficiency levels among the student population.

Item 3: How often do you read in English outside of class?

Table 3. Students distribution of reading in English outside of class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**never**	2	3.3	3.3	3.3
	rarely	8	13.1	13.1	16.4
	sometimes	24	39.3	39.3	55.7
	often	13	21.3	21.3	77.0
	always	14	23.0	23.0	100.0
	Total	61	100.0	100.0	
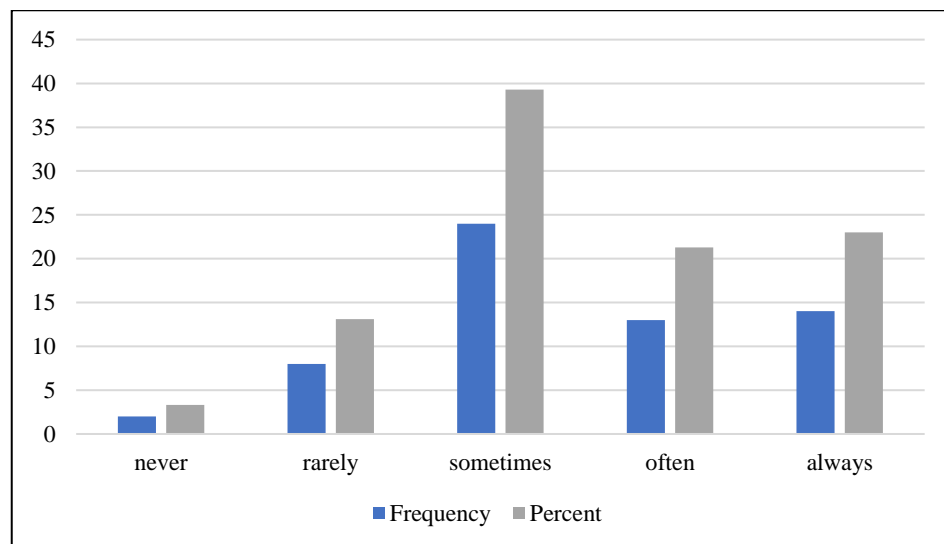
Bar Chart 3. Students distribution of reading in English outside of class

The results show 3.3% of the 61 students included in the analysis reported never reading in English, while 13.1% reported reading rarely. The majority of students, constituting 39.3%, mentioned reading in English sometimes. A smaller portion of students, 21.3%,

reported reading often, and 23.0% stated they always engage in English reading outside of class. These findings offer insights into the varied frequency of English reading habits among the student population.

Section Two: Computer-assisted language learning

Item 4: Have you used technology namely computers in order to learn English language skills before?

Table 4. Students' attitudes towards using computers to learn English language skills

		Frequency	Percent	Valid Percent	Cumulative Percent
	no	7	11.5	11.5	11.5
Valid	**yes**	54	88.5	88.5	100.0
	Total	61	100.0	100.0	
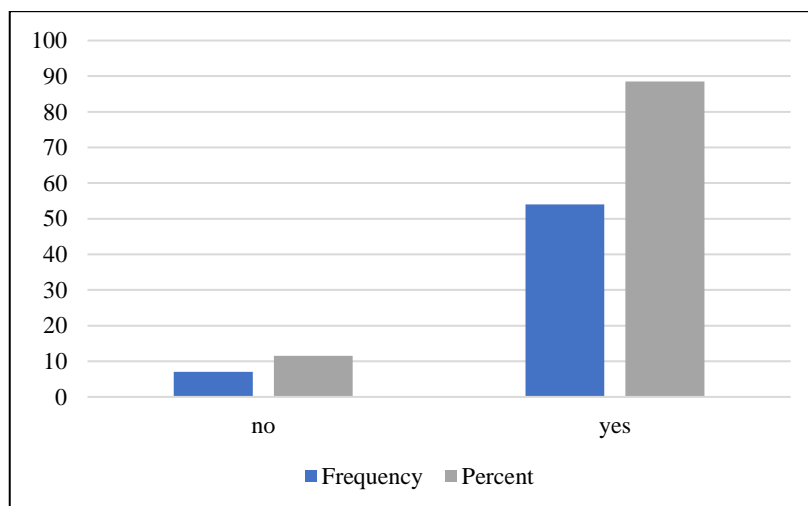
Bar Chart 4. Students' attitudes towards using computers to learn English language skills

As it mentioned above, in total, 61 respondents expressed a negative attitude towards using technology for language learning, with 11.5% saying "no". The majority of students (88.5%), however, expressed a positive attitude toward using technology to learn English language skills. The results of this survey suggest that students are open to the idea of using technology to learn English.

Item 5: What kinds of CALL have you used before in order to improve your English language skills?

The figure below presents the kinds of CALL that the students used before to improve their English language skills.

language learning software
- Rosetta Stone
- Pimsleu

online language learning platforms
- Platforms like Rosetta Stone, FluentU, and Busuu offer comprehensive language courses.
- Multimedia content, speaking practice, and language exchange opportunities.

language learning Websites
- Websites like BBC Learning English
- ESL Cafe
- EnglishClub

Online dictionaries
- Oxford Learner's Dictionaries
- Online dictionaries like Merriam-Webster

Online reading platforms
- Websites like Newsela
- ReadTheory
- ESL Library

Figure 5. Kinds of CALL used by students to improve their English language skills

Item 6: How helpful do you find CALL in improving your reading comprehension?

Table 5. Students' attitudes toward CALL in improving their reading comprehension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Not helpful**	6	9.8	9.8	9.8
	moderately helpful	34	55.7	55.7	65.6
	extremely helpful	21	34.4	34.4	100.0
	Total	61	100.0	100.0	
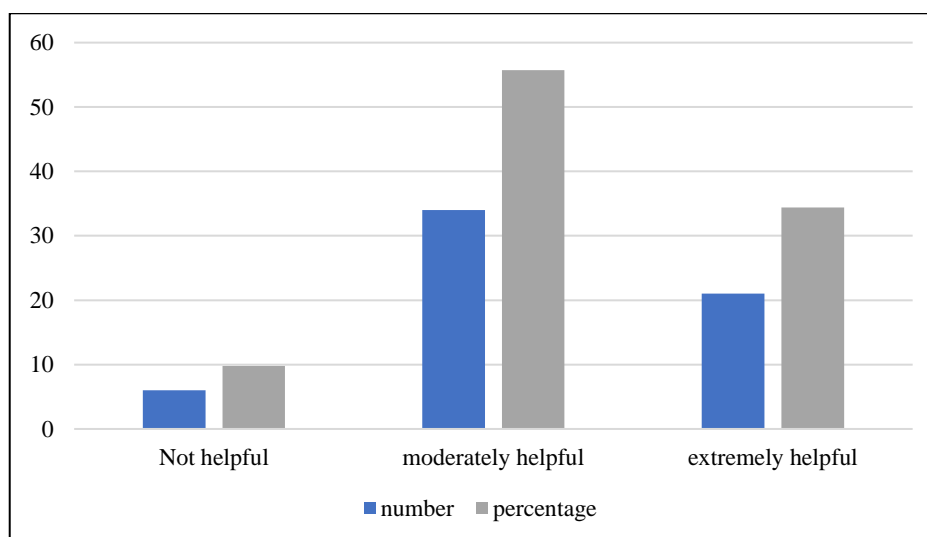
Bar Chart 6. Students' attitudes towards CALL in improving their reading comprehension

The table above shows that out of the 61 respondents, 9.8% reported that CALL was not helpful for their reading comprehension. A large proportion of participants (55.7%) found CALL to be moderately helpful in improving their reading skills. Furthermore, 34.4% of respondents found CALL to be very helpful for improving their reading comprehension. Overall, the survey results showed that CALL was effective in improving reading

comprehension, with the majority of respondents finding it to be moderately or extremely helpful.

Item 7: Would you be interested in using CALL tools to improve your Enlish reading skills in the future?

Table 6. Students' interest in using CALL in the future

		Frequency	Percent	Valid Percent	Cumulative Percent
	no	11	18.0	18.0	18.0
Valid	**yes**	50	82.0	82.0	100.0
	Total	61	100.0	100.0	
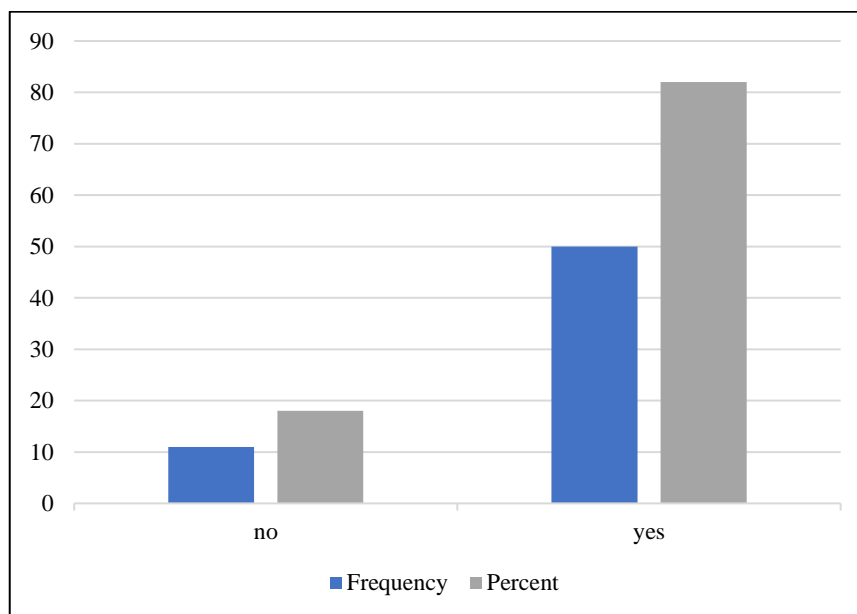
Bar Chart 7. Students' interest in using CALL

The table presents the results of students' interest in using CALL. Out of the total 61 respondents, 18.0% indicated that they were not interested in using CALL for language learning. On the other hand, a majority of the students (82.0%) expressed their interest in utilizing CALL as a learning tool.

Item 8: If yes, which types of CALL tools or software would you be interested in ?

Table 7. Types of CALL tools or software students are interested in

		Responses		Percent of Cases
		N	Percent	
Types of CALL tools or software students are interested in	**Interactive reading exercices**	41	42.7	85.4%
	vocabulary quizzes and flashcards	26	27.1	54.2%
	Audio support for reading	29	30.2	60.4%
	Total	96	100.0	200.0%
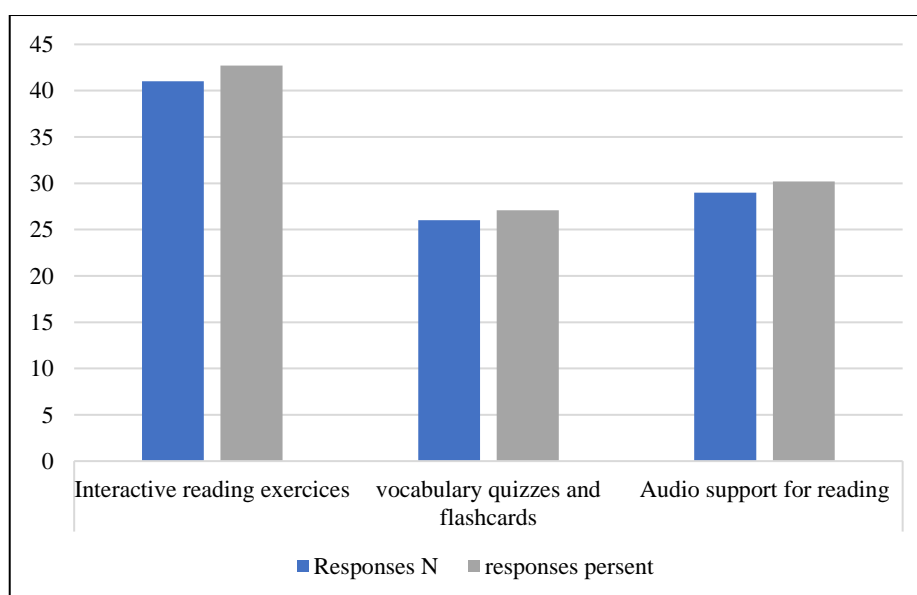
Bar Chart 8. Students' interest in types of CALL tools or software

As shown in the table, students who are interested in the different types of CALL tools or software. The majority of respondents (42.7%) reported interest in interactive reading exercises as a CALL tool. Vocabulary quizzes and flashcards were also commonly considered interesting tools, with a frequency of 26 responses (27.1%). Similarly, audio support for reading was selected by 29 students, representing 30.2% of the cases. The total

frequencies exceeded the number of respondents due to participants being able to select multiple options.

Item 9: Do you think that the integration of CALL programmes in EFL classrooms is effective in improving your reading comprehension in English?

Table 8. Students' attitudes twoards the integration of CALL in EFL classrooms

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**strongly disagree**	2	3.3	3.3	3.3
	disagree	7	11.5	11.5	14.8
	agree	37	60.7	60.7	75.4
	strongly agree	15	24.6	24.6	100.0
	Total	61	100.0	100.0	
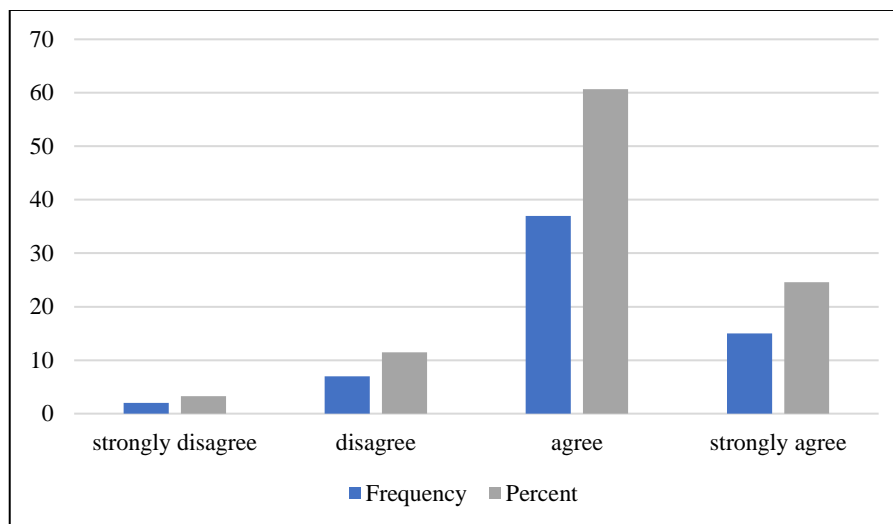
Bar Chart 9. Students' attitude twoard the integration of CALL in EFL classrooms

The table presents students' attitudes toward the integration of CALL programmes in EFL classrooms to improve their reading comprehension. Among the 61 respondents, 3.3%

strongly disagreed with the integration of CALL programmes. Another 11.5% disagreed while the majority of students (60.7%) expressed agreement. Additionally, 24.6% of respondents strongly agreed with the integration of CALL programs to enhance their reading comprehension. Overall, the survey results showed that most students were in favor of the integration of CALL programmes into their learning.

Section Three: Reading comprehension

Item 10: How would you rate your reading comprehension skills in English?

Table 9. Student's rate in reading comprehension skills in English

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**poor**	2	3.3	3.3	3.3
	fair	5	8.2	8.2	11.5
	average	12	19.7	19.7	31.1
	good	30	49.2	49.2	80.3
	excellent	12	19.7	19.7	100.0
	Total	61	100.0	100.0	
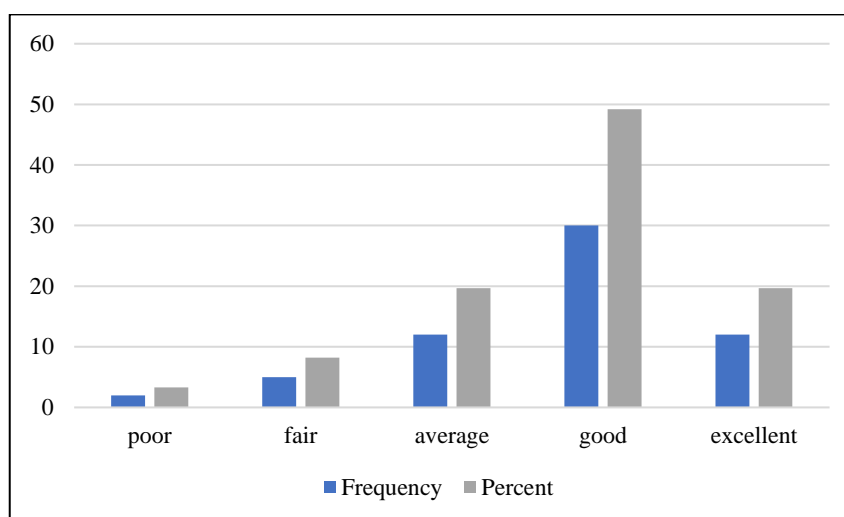
Bar Chart 10. Student's rate in reading comprehension skills in English

The table display the frequencies and percentages of students' self-rated reading comprehension skills in English. Out of the 61 respondents, 3.3% rated their skills as poor,

while 8.2% considered them fair. Furthermore, 19.7% of students rated their skills as average, while 49.2% of students rated their skills as good. Another 19.7% of respondents rated their skills as excellent. The data reveals that most students rated their English reading comprehension skills as good or higher.

Item 11: Which types of reading materials do you prefer to read in English?

Table 10. The preferred English reading materials for students

		Responses		Percent of Cases
		N	Percent	
Types of reading materials	**News articles**	45	29.0	76.3%
	Short_stories	28	18.1	47.5%
	Novels	34	21.9	57.6%
	Academic articles	48	31.0	81.4%
	Total	155	100.0	262.7%
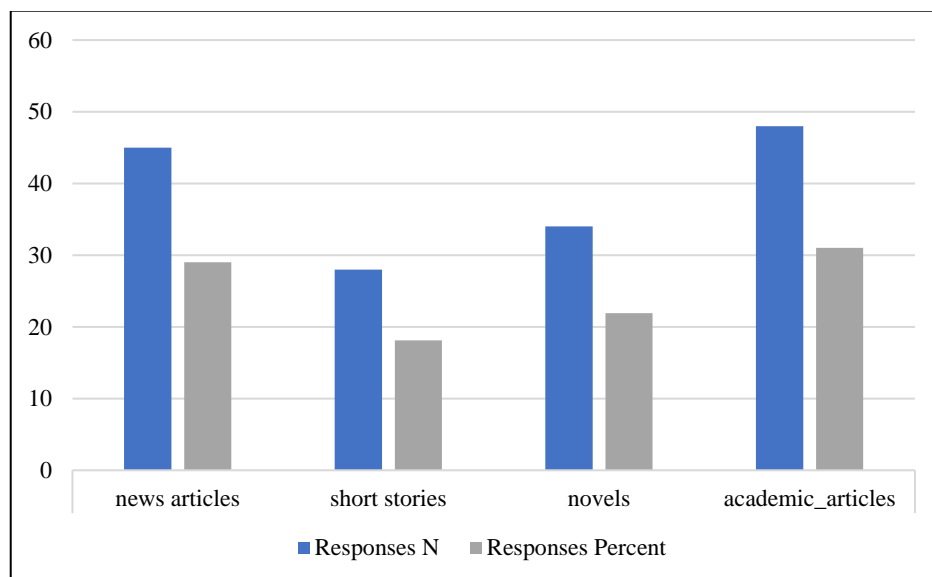
Bar Chart 11. The English reading materials preferred for students

The table above shows, with a frequency of 45 (29.0% of cases), followed by short stories with 28 responses 18.1%. A total of 34 participants mentioned novels, accounting for 21.9% of cases, while 48 participants mentioned academic articles, accounting for 31.0% of cases. Since participants were able to select multiple options, the total frequency exceeded the number of respondents. Overall, the survey indicates that news articles and short stories were the most widely read types of reading materials.

Table 11. The other preferrd types of reading materials

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**no answer**	46	75.4	75.4	75.4
	books	15	24.6	24.6	100.0
	Total	61	100.0	100.0	
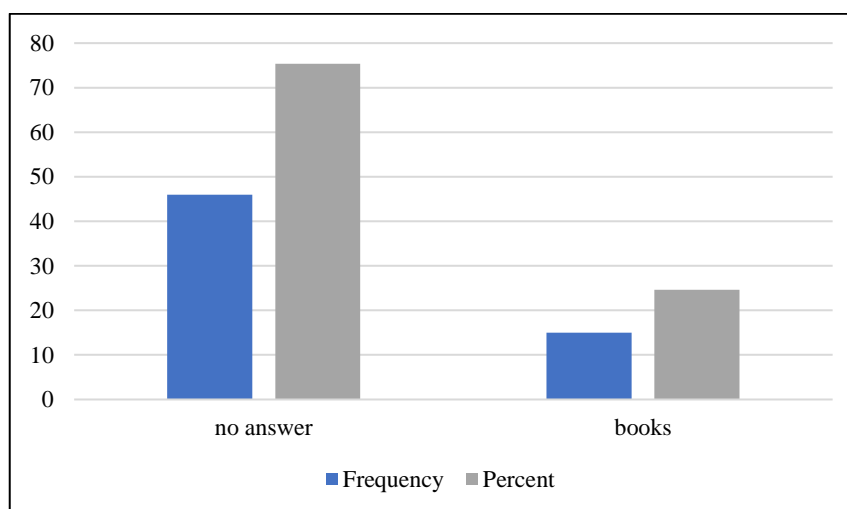
Bar Chart 12. The other preferrd types of reading materials

From the table above, the majority of participants (75.4%) did not provide an answer. However, 24.6% mentioned books as their choice of reading material.

Item 12: Have you ever struggled with understanding the meaning of words while reading in English?

Table 12. Students' struggles with understanding the meaning of words

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**no**	11	18.0	18.0	18.0
	yes	50	82.0	82.0	100.0
	Total	61	100.0	100.0	
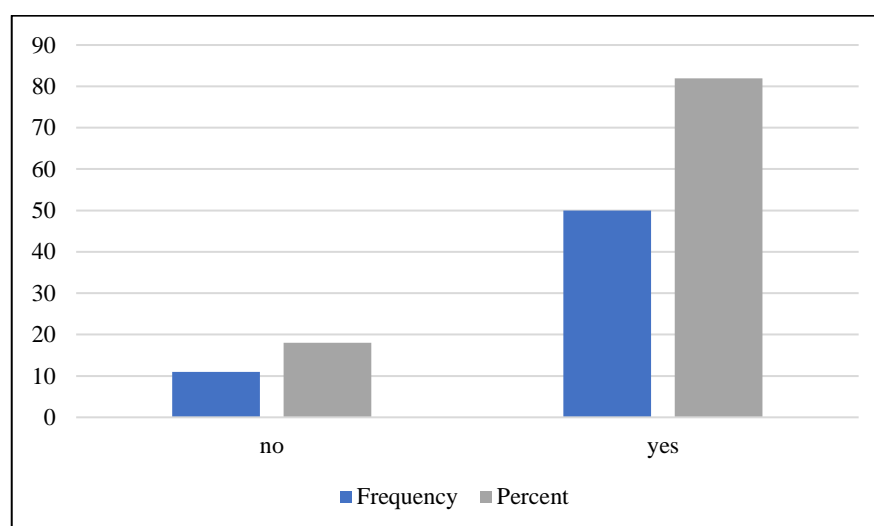
Bar Chart 13. Students' struggles with understanding the meaning of words

The results above present the frequencies and percentages of respondents who indicated whether they have struggles understanding the meaning of words while reading in English. Out of the total 61 respondents, 18.0% reported not having such struggles, whereas the majority of students (82.0%) acknowledged experiencing difficulties in comprehending words while reading. The data shows that a majority of respondents experienced difficulty in understanding words while reading.

If yes, what do you do?

The students who face difficulties with understaning the meaning of words, they all use online dictionnaries.

Item 13: What are other difficulties you face in reading comprehension?

The most difficulties that the students face in reading comprehension are presented below:
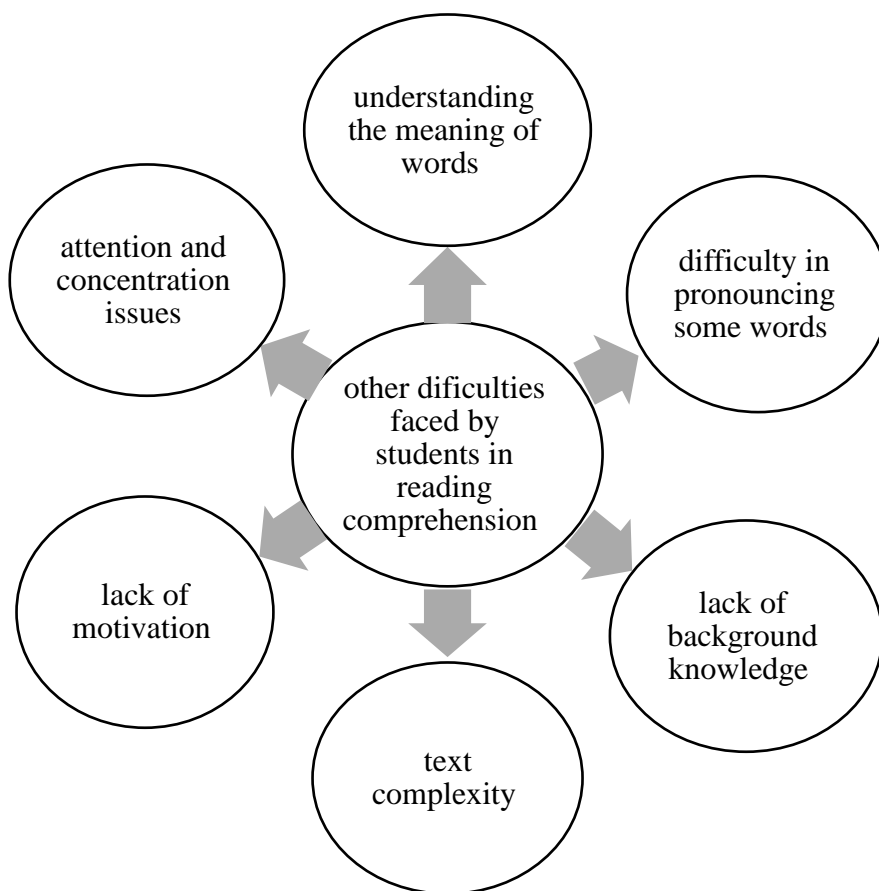
Figure 14. The Other difficulties faced by students in reading comprehension

Item 14: How is the teaching and learning process in the classroom, especially in reading activities?

Table 13. Students' attitudes towards the teaching process of reading in the classroom

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not very interesting	15	24.6	24.6	24.6
	not interesting	22	36.1	36.1	60.7
	interesting	20	32.8	32.8	93.4
	very interesting	4	6.6	6.6	100.0
	Total	61	100.0	100.0	
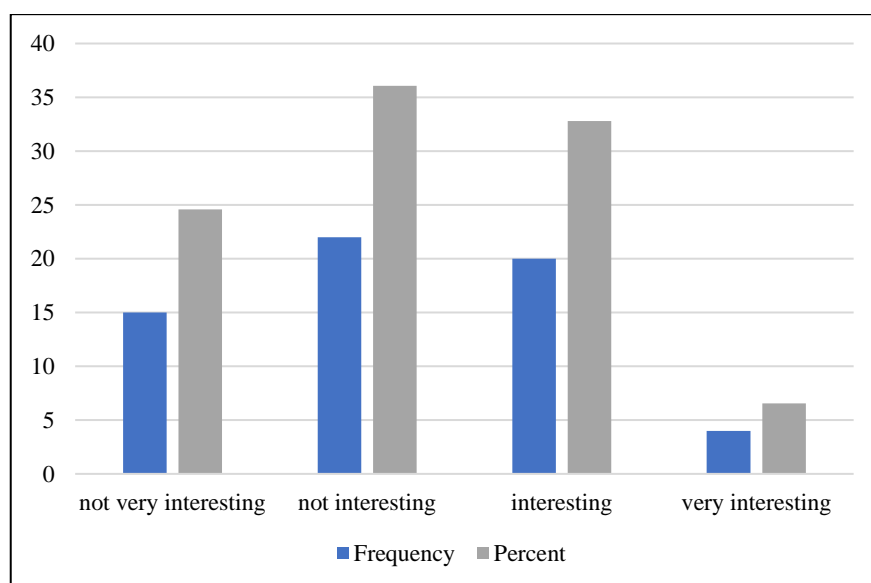
Bar Chart 15. Students' attitudes toward the teaching process of reading in the classroom

The results which is displayed in the table above shows that from the total of respondents, 24.6% found the process of teaching and learning not very interesting, while

36.1% indicated it was not interesting. However, 32.8% of students found the teaching and learning process interesting, and 6.6% considered it very interesting.

Item 16: What do you think of the influence of using CALL in the classroomm to improve the reading comprehension?

Table 14. The influence of CALL in the classroom to improve reading comprehension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**very demotivating**	1	1.6	1.6	1.6
	demotivating	7	11.5	11.5	13.1
	motivating	46	75.4	75.4	88.5
	very motivating	7	11.5	11.5	100.0
	Total	61	100.0	100.0	
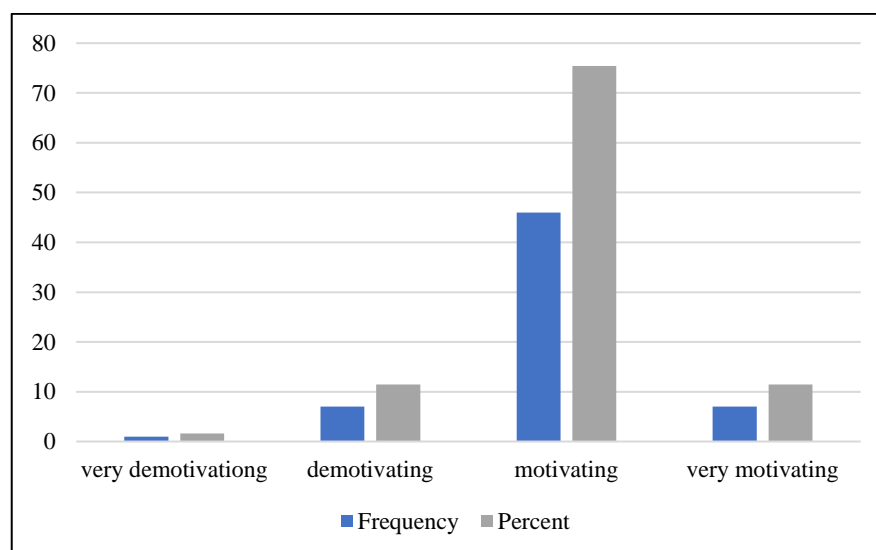
Bar Chart 16. The influence of CALL in the Classroom to improve reading comprehension

The findings display students' perceptions regarding students' perception regarding the influence of using Computer-Assisted Language Learning (CALL) in the classroom to improve reading comprehension.1.6% of the 61 respondents found it very demotivating, and 11.5% considered it demotivating. However, the majority of students (75.4%) found the use of CALL motivating, and another 11.5% found it very motivating.

Discussion and Interpretation of the Questionnaire' Results

The findings of the students' questionnaire reveal that the first-year EFL students have different levels, and most of them were classified as intermediate in terms of proficiency. Regarding their responses, most of the students prefer to read sometimes since it is an important skill that help them enrich their vocabulary, and develop their writing skill in addition to gain knowledge about several subjects, however, most of them when they read face difficulties in understanding written texts because of unfamiliar vocabulary that they face during reading. In addition, to the difficulty in pronuncing some words.

According to the obtained results, there are several factors contribute to students' lack of interest in reading activities in the classroom, and the main reason is the choice of reading materials which do not align with students' personal interests or fail to capture their attention which lead to reducing motivation and engagement among learners. Furthermore, there are some students noted that the teaching and learning method that employed during reading activities might not be adequately stimulating or interactive, leading to decreased interest among them.

Moreover from the analysis of the results, it was indicated that students generally have a positive attitudes towards the use of technology in learning English language skills, and the majority of them expressed an interest in utilising CALL programmes for their language learning activities, espacially when they encounter any difficulty concerning comprehending, and as a solution they go directly to use online dictionnaries. Hence the

obtained results regarding the influence of of using CALL in the classroom to improve the reading comprehension reveal that the majority of learners found CALL programmes to be helpful and motivating, in which the students show a positive attitude towards the integration of technology namely CALL in the EFL classroom. As said by a participant " Using CALL programmes will make the session more enjoyable and effective", another participant demonstrated that " I agree with the integration of CALL in the classroom as a new way of teaching, because it will facilitate the learning process and will motivate us to improve our language skills faster ".

Conclusion

In summary, this chapter dealt with the analysis and interpretation of gathered data related to students' attitudes about the use of CALL for improving reading comprehension. We opted for one gathering tool, which was a questionnaire completed by students. Moreover, since the chapter illustrated the obtained findings and the students' responses, we can assume that students were facing difficulties with reading comprehension. This showed that the students need more support in order to improve their reading comprehension skills and that CALL can be an effective tool in helping them reach their goals. It can be concluded that the integration of CALL in EFL classrooms is highly effective at improving learners' reading comprehension.

Pedagogical Recommendations

Based on the analysis of the students' questionnaire, the findings show that the students have positive attitudes towards the integration of CALL in the EFL classroom. We attempt to suggest pedagogical recommendations to enhance the integration of CALL and improve the teaching and learning process. The suggested recommendations are as follows:

- ✓ The educational institution should ensure that students have access to necessary resources such as computers and the internet

- ✓ IT employees should address and resolve any technical issues or malfunctions in the ICT laboratories.

- ✓ In order to create an engaging learning environment, it is recommended to address the issue of the huge number of students by dividing them into smaller groups

- ✓ Teachers are proposed to select appropriate CALL resources, such as coordinating a range of digital reading resources that cater to different proficiency levels, interests, and learning styles.

- ✓ Teachers are proposed to offer clear instructions and guidance on how to navigate and effectively utilise CALL tools and platforms for reading activities to maximise students' engagement and comprehension.

- ✓ Students should be aware of the importance of reading module in helping them improve their skills.

- ✓ Students should demonstrate a committed, engaged, and motivated attitude during the reading session.

General Conclusion

Technology has revolutionised the field of education, leading to the need for innovative teaching methods and strategies to enhance the teaching and learning experience. In this study, we presented one of the advanced strategies for teaching/learning reading comprehension. We opted for CALL to improve learners' comprehension.

Our research aimed to comprehensively investigate thoroughly the effectiveness of the adopted strategy and the attitudes of EFL students towards the utilization of CALL in improving their reading comprehension. This investigation focused specifically on L1 students enrolled in the English department at Biskra University. Our primary goal was to shed light on the integration of CALL in EFL classrooms in order to confirm or disconfirm our hypothesis. To ensure a comprehensive analysis, we employed one gathering tool namely a questionnaire administred to L1 students.

This research is divided into two parts: the initial part is the theoretical one, which is composed of two chapters that delve into the two variables under investigation. The first chapter provides an extensive overview of CALL, while the second one is about the reading comprehension. On the other hand, the second part of the research is dedicated to the practical aspect of the study. As it consists of the interpretation and analysis of students' questionnaires in order to answer the research questions and test the suggested hypothesis set in this study.

The first chapter presented CALL. Starting with its definition, the history of CALL, and its categories. Moving on to its applications. Then it shed light on the advantages of integrating CALL into EFL classrooms. Furthermore, it discussed its challenges and concluded by presenting the role of CALL in English language comprehension.

The next chapter dealt with the reading comprehension, in which we started with the process of reading including its definition and its importance in English as a foreign language

learning. Next, we moved to present the reading techniques, then we provided an overview of reading comprehension and mentioned its theories and the factors that affect reading comprehension. In the end, we concluded by describing the previous studies about the impact of technology namely CALL in improving reading comprehension among EFL learners.

In the third chapter, our investigation focused on administering a questionnaire to first-year EFL students at UMKB. This chapter encompassed the discussion and interpretation of the questionnaire findings. As a result, the findings obtained from the questionnaire have been presented and interpreted in a comprehensive manner within this chapter.

In conclusion, the findings obtained from the analysis and the interpretation of the students' questionnaire revealed a notable relationship between the use of CALL and the enhancement of reading comprehension because its integration will cater to students' learning needs, promoting active engagement and motivation. Therefore, our research results helped to confirm the hypothesis which states that if CALL is used in EFL classes, the learners' reading comprehension skills will be improved. Consequently, this research remains open to future researchers to build upon our work and contribute to expanding the knowledge base in this area.

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The Student's Questionnaire

A Questionnaire for First-Year EFL Students at UMKB

You are kindly invited to answer the following questionnaire, which will help to collect the information needed for the completion of a Master dissertation. It is undertaken to identify the effectiveness of computer-assisted language learning (CALL) in improving the reading comprehension among English as a foreign language learners.

Thank you for your time and collaboration

Please, tick where you find it suitable.

Section One: General Information

Q1. Specify your gender please: **a. Male** ☐   **b. Female** ☐

Q2. How would you rate your overall English proficiency level?

  a. Beginer ☐   **b. Elementary** ☐   **c. Intermediate** ☐   **d. Advanced** ☐
Advanced

Q3. How often do you read in English outside of class?

a. Never ☐   **b. Rarely** ☐   **c. Sometimes** ☐   **d. Often** ☐   **e. Always** ☐

Justify………………………………………………………………………………………
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Section Two: Computer-Assisted Language Learning

Q4. Have you used technology namely computers in order to learn English language skills before?

            a. No ☐   **b. Yes** ☐

Q5. What kinds of CALL have you used before in order to improve your English language skills? (e.g. language learning software, online language learning platforms, etc)

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Q6. How helpful do you find CALL in improving your reading comprehension?

a. Not helpful   ☐   **b. Moderately helpful**   ☐ **c. Extremely helpful**   ☐

Q7. Would you be interested in using CALL tools to improve your Enlish reading skills in the future?

b. No ☐   **b. Yes** ☐

Q8. If yes, which types of CALL tools or software would you be interested in using to improve your English reaing skills?

a. Interactive reading exercies   ☐   **b. Vocabulary quizzes and flashcards**   ☐
c. Audio support for reading ☐   **e. other (please specify)** ☐

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Q9. Do you think that the integration of CALL programs in EFL classrooms is effective in improving your reading comprehension in English?

a. Strongly disagree ☐ **b. disagree** ☐   **c. Agree** ☐   **d. Strongly agree** ☐

Justify……………………………………………………………………………………

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Section Three: Reading Comprehension

Q10. How would you rate your reading comprehension skills in English?

a. Poor ☐ **b. Fair** ☐   **c. Average** ☐ **d. Good** ☐   **e. Excellent** ☐

Q11. Which types of reading materials do you prefer to read in English?

a. News articles ☐ **b. Short stories** ☐ **c. Novels** ☐ **d. Academic articles** ☐
e. other (please specify) ☐

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Q12. Have you ever struggled with understanding the meaning of words while reading in English?

a. No ☐   **b. Yes** ☐

If yes what do you do

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Q13. What are other difficulties you face in reading comprehension?

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Q14. How is the teaching and learning process in the classroom, especially in reading activities?

a. Not very interesting ☐   **b. Not interesting** ☐   **c. Interesting** ☐   **d. Very interesting** ☐ Explain why?

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Q15. What do you think of the influence of using CALL in the classroomm to improve the reading comprehension?

a. Very demotivating ☐ **b. Demotivating** ☐   **c. Motivating** ☐   **d. Very motivating** ☐

Résumé

L'une des compétences les plus importantes dans la langue anglaise est la compréhension de lecture, qui joue un rôle crucial dans l'amélioration des connaissances des étudiants et le développement d'autres compétences. Cependant, la méthode d'enseignement traditionnelle et théorique du module de lecture entraîne souvent des difficultés de compréhension chez les apprenants en anglais langue étrangère (ALE). Par conséquent, dans la présente étude, nous avons suggéré l'intégration de l'apprentissage des langues assisté par ordinateur (CALL) en tant que stratégie d'enseignement pour améliorer la compréhension de lecture des apprenants en ALE. L'étude a formulé l'hypothèse que si CALL est utilisé dans les cours d'ALE, les compétences de compréhension de lecture des apprenants seront améliorées. Pour vérifier la validité de notre hypothèse suggérée, nous avons opté pour une approche mixte, et une méthode de collecte de données a été utilisée pour enquêter sur l'attitude des étudiants à l'égard de la mise en œuvre de CALL dans les salles de classe d'ALE pour améliorer la compréhension de lecture. L'outil utilisé est un questionnaire administré à un échantillon de 61 étudiants en ALE de première année à l'Université de Biskra. L'analyse des données a été réalisée à l'aide de méthodes statistiques en utilisant le logiciel SPSS pour les données numériques. Après l'analyse et l'interprétation des données collectées, les résultats montrent que les étudiants rencontrent des difficultés en compréhension de lecture avec la méthode traditionnelle d'enseigement dans le module de lecture. De plus, les résultats ont révélé que l'utilisation de programmes CALL aide à améliorer la compréhension de lecture des apprenants en ALE. En conséquence, l'hypothèse suggérée est confirmée.

*Mots clés***:** apprentissage des langues assisté par ordinateur, ALE, compréhension de lecture, première-année, université de Biskra

المخلص

إحدى أهم المهارات في اللغة الإنجليزية هي مهارة القراءة، والتي تلعب دورًا حاسمًا في تعزيز معرفة الطلاب وتطوير مهارات أخرى. ومع ذلك، فإن الطريقة التقليدية النظرية لتدريس وحدة القراءة غالبًا ما تؤدي إلى صعوبات في الفهم بين متعلمي اللغة الإنجليزية كلغة أجنبية. ولذا، في الدراسة الحالية، اقترحنا دمج تعلم اللغة المعتمد على الكمبيوتر كاستراتيجية تعليمية لتحسين فهم القراءة لدى متعلمي اللغة الإنجليزية كلغة أجنبية. افترضت الدراسة أنه إذا تم استخدام تعلم اللغة المعتمد على الكمبيوتر في دروس اللغة الإنجليزية كلغة أجنبية، ستتحسن مهارات فهم القراءة لدى المتعلمين. وللتحقق من صحة الفرضية المقترحة، اعتمدنا النهج النوعي والكمي، واستخدمت طريقة واحدة لجمع البيانات للتحقيق في موقف الطلاب تجاه تطبيق تعلم اللغة المعتمد على الكمبيوتر في الفصول الدراسية لتحسين فهم القراءة. وتتمثل هذه الأداة في استبيان للطلاب تم توزيعه على عينة مكونة من 61 طالبًا في السنة الأولى بجامعة بسكرة. تم تحليل البيانات باستخدام الأساليب الإحصائية باستخدام برنامج الحزمة الإحصائية للعلوم الاجتماعية للبيانات الرقمية (SPSS). بعد تحليل وتفسير البيانات المجمعة، تظهرت النتائج أن الطلاب يواجهون صعوبات في فهم القراءة من خلال الأسلوب التقليدي في تدريس وحدة القراءة. علاوة على ذلك، أظهرت النتائج أن استخدام برامج تعلم اللغة بمساعدة الكمبيوتر يساعد في تحسين فهم القراءة لدى متعلمي اللغة الإنجليزية كلغة أجنبية. نتيجة لذلك، تم تأكيد الفرضية المقترحة.

الكلمات المفتاحية: تعلم اللغة بمساعدة الكمبيوتر، اللغة الإنجليزية كلغة أجنبية، الفهم القرائي، طلاب السنة الأولى، جامعة بسكرة.