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Option: Linguistics

**Exploring EFL Students' Perceptions and Practices towards
the Use of Interactive Multimedia Tools to Enhance Digital
Literacy Skills**

**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**

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DEDICATION

In the Name of ALLAH, Most Gracious, the Most Merciful

First and last, to myself for making it to the end.

I dedicate this work to my father, who scattered stars on my roadside, and to my heaven on earth, my mother, whose prayers blessed my soul. May this humble achievement make you proud, may it help me repay a bit of my parents' endless favour and love.

A special feeling of gratitude to my beloved sister, Faten, for her endless love and support.

And to my brothers, Chiheb and Saleh, who always knew how to make me smile, even on the hardest days.

To my guardian angel, Abed, who has been a source of strength, support, and encouragement.

To my grandmother, your prayers, love and kindness have always been my guiding light.

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To all my family and friends who supported me throughout this journey. My love for you all can never be described.

May ALLAH bless each and every one of you.

Imene

DEDICATION

In the name of ALLAH, the most Gracious, the most Merciful.

I dedicate this dissertation to the flower of my life, my mother, Khadija, whose love and support have been my guiding light. I am grateful for your endless sacrifices and encouragement.

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ABSTRACT

In the modern educational landscape, integrating interactive multimedia tools into the learning and teaching process has become a key strategy to improve students' competencies in navigating, evaluating, and creating digital content. The primary objective of this study is to explore students' attitudes towards the effectiveness of these tools in improving digital literacy skills, including information literacy, media literacy, digital communication, and digital problem-solving. This exploratory research used a mixture of both quantitative and qualitative research tools in order to gather relevant data about the most commonly used interactive multimedia tools by EFL students, as well as their perceptions towards the role of these tools in shaping the 21st-century learners' competencies. On the one hand, a questionnaire was administered via Google Forms in order to gather data from fifty third-year EFL students at 8 May 1945 Guelma University. On the other hand, an online focus group discussion via messenger was administered with seven participants from the same population. The findings showed that the majority of learners shared positive perceptions about the use of interactive multimedia tools and perceived them as effective in improving their digital literacy skills. However, students claimed that the use of interactive multimedia tools exhibit serious limitations such as the lack of technological resources, digital competencies, and distraction and time consumption. Therefore, practical recommendations were proposed to ensure the effective integration of these tools in the teaching and learning process.

Keywords:

21st-Century Competencies; Digital Literacy; Exploratory Research; Information Literacy; Interactive Multimedia Tools; Media Literacy

LIST OF ACRONYMS

AI: Artificial Intelligence

AR: Augmented Reality

CT: Computational Thinking

ICT: Information and Communication Technology

IMTs: Interactive Multimedia Tools

VR: Virtual Reality

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GENERAL INTRODUCTION

In today's rapidly advancing digital era, proficiency in digital literacy is becoming increasingly essential for EFL learners to navigate and succeed in both academic and professional environments. Digital literacy encompasses the ability to effectively use digital tools, critically evaluate digital content, and engage in online communication. With the rapid integration of interactive multimedia tools (IMTs), such as gamified language apps, virtual learning platforms, and artificial intelligence-assisted writing tools, EFL students are exposed to new opportunities to improve their reading, writing, speaking, and listening skills. However, the integration of IMTs in EFL classrooms remains a topic of ongoing exploration, especially concerning students' perceptions and practices. This study aims to explore EFL students' perceptions and practices regarding IMTs influence on the development of their digital literacy skills. Investigating how learners perceive and engage with these tools will provide valuable insights into their impact on digital literacy development within EFL education, highlighting both their benefits and the challenges students may face.

1. Statement of the Problem

The continuous growth of IMTs and digital literacy skills within the field of education has witnessed multiple changes in language learning and teaching worldwide, including those at the Department of English language at University of 8 May 1945 Guelma. Digital literacy leads many EFL teachers and learners to integrate different IMTs in their teaching and learning process. It has the potential to increase access to education, facilitate learning for both learners and teachers, and help them interact at the same time. Moreover, it has provided students with innovative ways to put the English language into practice due to the numerous resources available on the internet. However, despite the growing adoption of these technologies, there remains a gap in understanding how EFL students perceive and engage with IMTs to develop their digital literacy skills.

2. Aims of the Study

This study aims to investigate EFL students' attitudes towards the use of IMTs in enhancing their digital literacy skills. It also seeks to identify the specific benefits that IMTs offer in developing key areas of digital literacy. In addition, the research explores the main challenges and barriers students encounter when using digital tools for language learning. Finally, it provides practical recommendations for educators and curriculum designers on how to effectively integrate IMTs into EFL teaching and learning to support and improve students' digital literacy development.

3. Research Questions

The current research addresses the following questions:

1. How do EFL students perceive the use of IMTs in their language learning process?
2. What strategies can be used to enhance the effective integration of IMTs in EFL education?

4. Research Methodology and Design

4.1. Research Method

In order to examine the aforementioned hypothesis, the current study followed an exploratory research method, using both a questionnaire and a focus group discussion. On the one hand, a questionnaire was administered to third-year students to investigate learners' attitudes toward the use of IMTs in enhancing their digital literacy skills. On the other hand, a focus group discussion was conducted with third-year students in order to explore complex issues concerning the use of IMTs in a more detailed and open-ended manner.

4.2. Population and Sampling of the Study

The sample of the study was randomly selected from the population of third-year students of English at the Department of Letters and English Language, University of 8 Mai 1945, Guelma. The sample of the questionnaire consisted of fifty (50) third-year students, while the focus group consisted of seven (7) participants. The selection of third-year students was based

on the assumption that EFL learners at this stage in their academic career are expected to have sufficient knowledge and experience with the use of IMTs, and they tend to rely more on technology since the integration of such tools into education. These factors enabled them to provide valuable insights into the effectiveness of IMTs in enhancing students' digital skills and improving their language learning.

4.3. Data Gathering Tools

With the intention of exploring students' perceptions and practices towards the use of IMTs to enhance their digital literacy skills, a questionnaire and a focus group were used as data-gathering tools. The former has been distributed online to fifty (50) third-year students of English to inquire about learners' perceptions concerning the use of IMTs in order to improve their digital literacy skills. The latter has been conducted in a form of virtual communication with a sample of seven (7) participants to explore complex issues concerning the use of IMTs in a more detailed manner.

5. Structure of the Dissertation

The current dissertation is divided into three chapters, along with a general introduction and a general conclusion. The first chapter introduces the theoretical framework of the study, which focuses on the literature review, while the second and third chapters are devoted to the interpretation, analysis, and discussion of both the questionnaire and focus group findings.

The first chapter deals with the theoretical background of IMTs and their integration in education. It also offers a brief overview of their definitions, concepts, and types. Then, it sheds light on the relevant theoretical frameworks that support their use highlighting both significance and challenges. In addition, it discusses the concept of digital literacy and its relevance in contemporary EFL learning by defining digital literacy, explaining its core components and exploring essential digital literacy competencies for 21st-century learners. Moreover, the chapter explores major digital literacy frameworks, along with the significance of IMTs and the

challenges that EFL students face in developing their digital literacy skills. By the end of the first chapter, a review of previous research on IMTs and digital literacy in educational settings is presented.

The second and third chapters focus on the practical fraction of the study, where the followed methodology, procedures, participants, and results are presented. These chapters cover the analysis of data which was gathered via the questionnaire and the focus group discussion. Therefore, the second chapter is devoted to the analysis of the students' questionnaire. However, the third chapter presents the data gathered from the focus group. Accordingly, the general conclusion provides a summary of the research findings, limitations of the study, and suggestions and recommendations for future research.

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Introduction

In recent years, there has been a growing attention at the significance of IMTs into EFL learning to enhance student's digital literacy skills. Graphics, applications, text, audio, video, and animations can all be used to improve the learning process's effectiveness. To provide a clear structure this chapter is divided into two main sections. The first one introduces definitions, concepts and types of IMTs. Then, it investigates multiple prominent theoretical frameworks. The section ends by discussing the significance and challenges of using IMTs in learning. The following section of the study explores digital literacy. The latter involves a wide range of abilities that empower students to communicate and work together using digital tools and devices, access and evaluate information. Consequently, building on the previously discussed concept, the chapter continues by defining digital literacy skills, outlining their key elements and emphasizing the crucial digital literacy skills necessary for 21st-century students. The main frameworks of digital literacy are then discussed, along with their contribution to the field. Moreover, the chapter elaborates the significance of digital literacy skills and addresses the challenges encountered by students while acquiring these skills. Lastly, the chapter concludes with a review of previous research on IMTs and digital literacy in educational settings.

1.1. Definitions of Interactive Multimedia Tools

IMTs are digital systems that combine different types of media, including text, images, audio, video, and animations, into an interactive environment that helps learners to interact meaningfully with the content.

In addition, Reddi and Mishra (2003) explained that IMTs is the combination of different types of digital media, including text, graphics, video, and sound, combined to enable users to actively engage with the content, instead of being passive individuals. Mayer (2005) described multimedia learning as a process in which learners form mental images through verbal and

visual information, and it becomes more effective when they take an active role in the learning experience. This highlights that people learn more effectively when they experience visual and auditory learning at the same time, as active engagement with the content helps them better understand and retain the information.

According to Encyclopaedia Britannica (1998), IMTs refer to any computer based electronic systems that enable the user to control and integrate multiple forms of media such as text, images, video, applications, and animation. Therefore, these definitions shed light on how the user plays an important and active role in engaging with and shaping the multimedia content. For example, according to a study conducted by Hossain (2023) and published in the Journal of Innovative Technology Convergence, IMTs have transformed learning by providing interactive and engaging learning experiences. Various IMTs, such as gamification, simulations, augmented reality, and virtual reality, make an effective contribution to education. The study emphasized that these technologies improve teaching and learning by providing an immersive experience, which enhances understanding and memory of complex principles.

Furthermore, IMTs are crucial in today's education. They combine different media elements to make learning spaces more engaging and effective. Teachers can use these tools to make complex information easier to understand, address different learning preferences and improve critical thinking and problem-solving abilities among students (Reddi & Mishra, 2003).

The concept of IMTs can be understood through several core elements. First, Hossain (2023) suggests that interactivity in modern education is about the use of various media such as video chats, online classes, and discussion boards to enhance learning. Second, multimedia integration is about how traditional textbooks are transformed into interactive learning resources, including videos, quizzes, and note-taking applications, to help students keep engaged with the content. Moreover, simulations in IMTs help students perform scientific

experiments in a virtual laboratory. These tools support learners' understanding by providing immediate feedback and the option to do exercises again.

Additionally, the incorporation and interactivity of multimedia, through the use of both visual and verbal components, actively involve students and enhance their learning experiences, by allowing them to produce engaging presentations and immersive videos. These tools are developed to help students understand difficult concepts through introducing new ideas, explaining complicated topics and providing interactive sessions.

To conclude, integrating IMTs such as text, audio, video, graphics, animation, and interactive platforms into the curriculum is seen as a key strategy for improving students' competencies in navigating, evaluating, and creating digital content.

1.2. Types of Interactive Multimedia Tools

In today's modern education, students are more actively engaged in their learning processes. IMTs integrate text, graphics, videos and interactive elements to enhance students' comprehension and memory retention. These tools address different learning styles, in order to allow students to learn in ways that suit their preferences. With ongoing technological advancements, teachers use IMTs to design more effective lessons, while students rely on them to enhance their understanding and engagement. To better understand their role in education, it is necessary to explore some major types of IMTs currently used in classroom practices.

1.2.1. E-Learning Platforms

E-learning platforms have become essential tools in education. They are designed to deliver educational content through digital spaces and facilitate interaction between students and teachers, in addition to access to learning materials. According to Wienand et al. (2024), e-learning platforms rely on IMTs and internet technologies to improve the quality of learning, which facilitates access to educational content. In addition, they are supported by technology, where educational content is offered in digital formats and accessed through an online platform

using a web browser. With these platforms, students can access course materials in different formats, such as text, and video, interact using tools like forums and chat rooms, and have their learning development assessed.

E-learning platforms are designed not only to provide educational content but also to create flexible learning classrooms, which enable learners to reach learning materials anytime and anywhere. Moodle and Coursera are examples of well-known e-learning platforms that make learning more accessible. They allow learners to access flexible courses, attend online classrooms, answer interactive quizzes and submit their assignments.

1.2.2. Gamified Learning Applications

Gamification refers to the use of gaming elements in education to promote students' engagement and participation. According to Christopoulos and Mystakidis (2023), gamification turns traditional learning into an interactive experience through the use of challenges, rewards and interesting practices. These applications include points, leaderboards, badges and progression levels to keep learners engaged in their learning tasks. Many educational platforms provide immediate feedback to help learners understand their mistakes and improve their performance.

Kahoot is an example of a commonly used gamified learning platform that helps teachers to design interactive quizzes and polls in order to engage learners through learning competitions. The use of application games in educational practices enhances knowledge retention, encourages participation and creates a more immersive learning experience.

1.2.3. Digital Storytelling

Digital storytelling is a useful educational tool that enhances learning by combining traditional narrative methods with multimedia elements. Jeetha (2021) stated that digital storytelling combines traditional storytelling with multimedia components such as images, audio, and video in order to improve learners' comprehension and memory. In subjects like

history and literature, this strategy simplifies complex concepts into meaningful stories. Therefore, it helps learners feel more connected to what they are learning and encourages them to explore diverse perspectives.

Adobe Spark Video is an example of a widely used tool that enables students to create brief animated stories. It is particularly beneficial for presenting research, historical events, or scientific topics in a creative manner. Incorporating digital storytelling into the educational process can enhance students' interest in learning, creativity, and critical thinking.

1.2.4. Virtual Reality (VR) and Augmented Reality (AR) Tools

Virtual Reality (VR) and Augmented Reality (AR) are new technological tools that help students enhance their learning outcomes through the use of realistic content. According to Al-Ansi et al. (2023), to enable students to visualize topics and interact with abstract concepts effectively, VR and AR technologies provide engaging learning experiences either by integrating digital content with real world contexts or by generating scenarios in the virtual world. These resources facilitate experiential learning, especially in science, medicine, and engineering courses that rely on practice. For instance, in the field of medical education, AR applications provide an excellent opportunity for students to view 3D models of the human body, allowing them to gain knowledge about human anatomy. VR can offer virtual experiences that allow students to visit historical or scientific places, and this helps them better understand topics by realistic simulations.

The realistic content provided by these tools helps students understand difficult ideas, remember things better and even develop practical skills. Consequently, by applying VR and AR in education, educators can make learning more interactive and effective.

1.2.5. Artificial Intelligence (AI) Language Assistants

Artificial Intelligence (AI) language assistants are artificial tools that support the use and understanding of language. They provide clear support for learning, writing, and

communication. Zawacki-Richter et al. (2019) explained that AI language assistants use natural language processing to help students develop their language and communication skills with personalized feedback, flexible learning, and real-time conversational practice. These tools analyze learners' responses and offer them suggestions on how to improve their grammar, vocabulary, pronunciation, and fluency to learn the language effectively.

For example, ChatGPT is one of the most commonly used AI tools, as it helps students practice language with immediate responses and engage in conversations to develop their speaking skills. Therefore, the implementation of AI language assistants in education personalizes learning, increases accessibility to real-time language practice, and improves learners' communication.

1.2.6. Interactive Whiteboards and Presentation Tools

Interactive whiteboards and presentation tools are digital technologies that help teachers and students to display the content visually. Puteh and Shukor (2010) stated that interactive whiteboards and presentation tools provide educators and students with the ability to present information in an interactive way, and that integrating multimedia components like images, videos and digital notes enriches the learning experience. These tools also provide different teaching strategies, such as collaborative learning, problem-solving exercises and immediate responses, which demonstrate their importance in today's classrooms.

For instance, Smart Boards are educational tools that enable educators to present lessons in a way that permits students to write, draw, and interact with objects directly on the screen. The application of these tools, helps teachers to boost students' motivation, address different learning styles and create more interactive and flexible lessons.

1.3. Theoretical Frameworks

Multimedia for learning involves understanding several key theories, like constructivist learning theory, Mayer's cognitive theory of multimedia learning, cognitive load theory, and

dual-coding theory. These theories help explain how IMTs can improve learning by showing how people process, understand, and remember information.

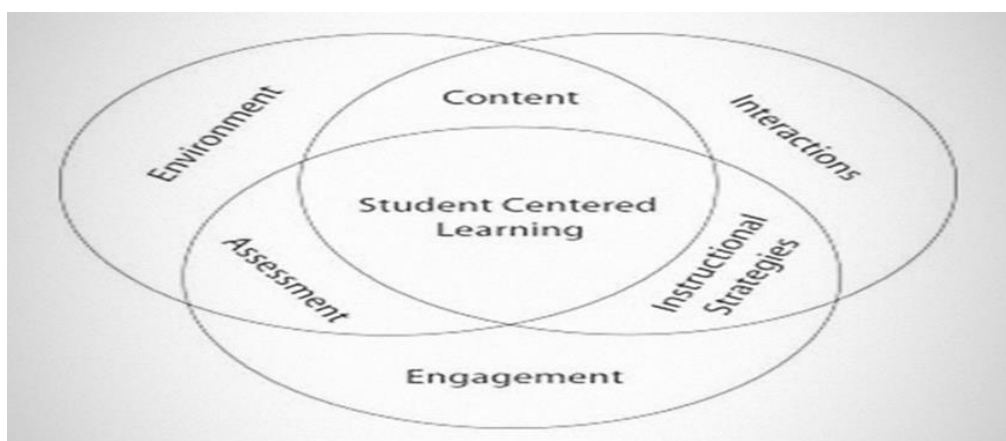
1.3.1. Constructivist Learning Theory

Constructivist learning theory is a widely recognized approach that explains how people can learn successfully. It provides the basis for many current teaching and learning strategies. Tsulaia (2023) stated that constructivist theory views learning as a process in which individuals build new ideas by connecting them to their prior knowledge and experiences. It supports teaching methods that focus on active student participation, rather than relying on traditional and teacher-centered approaches. Moreover, successful learning requires depending on existing knowledge, modifying concepts, and critically analyzing earlier understandings (Fosnot, 2005).

Additionally, Piaget (1936) believed that children actively learn by interacting with the environment. He stated that information is acquired through real-world interactions, not passively absorbed, and described this in four main stages, which are sensorimotor, pre-operational, concrete operational and formal operational. To conclude, this theory shows that individuals learn more effectively when they connect new ideas to what they already know and actively participate in the classroom, rather than just listening to lectures.

Figure 1.1.

Jean Piaget Constructivism Theory of Learning (Based on Piaget, 1936)



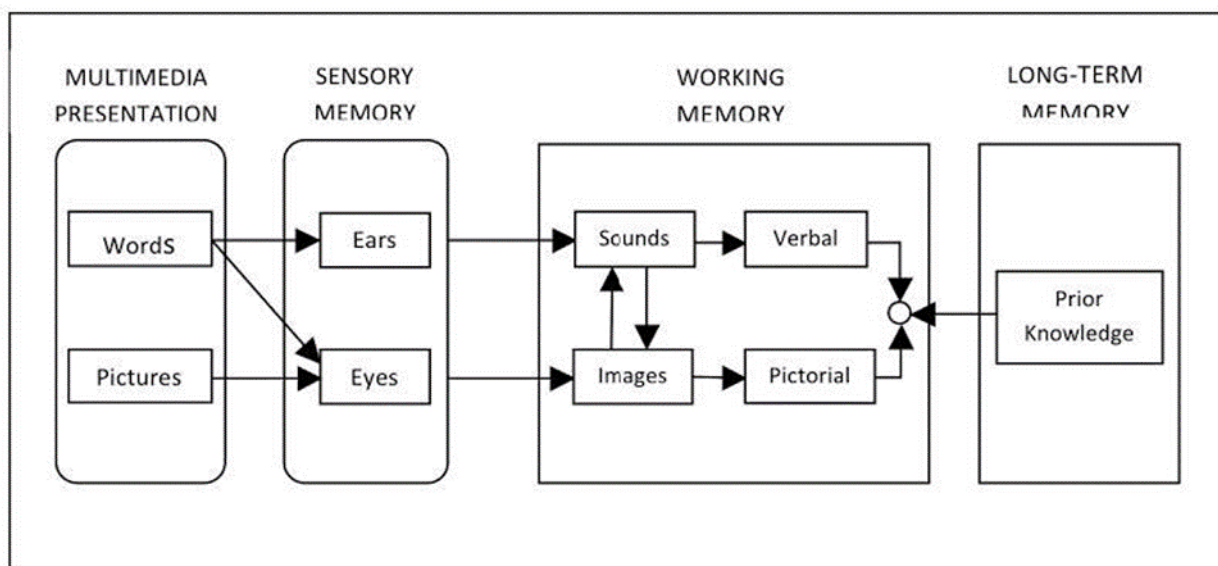
1.3.2. Mayer's Cognitive Theory of Multimedia Learning

Mayer's cognitive theory of multimedia learning highlights that learning improves when visuals and words are used together in a meaningful way. Mayer (2024) stated that individuals learn through two main channels: one visual channel that processes what they see and another auditory channel that processes what they hear. Nevertheless, each channel has a limited capacity, which means that it can handle only a certain amount of information at once. Moreover, the theory emphasized that effective learning happens when students actively select, organize and understand the information they receive. According to the theory, there are three main types of mental processing: extraneous processing happens when information is unnecessary to the learning objective, essential processing helps learners focus on important content, and generative processing helps learners make sense of what they learn and connect it to their prior knowledge.

Educational multimedia designers and academics have used Mayer's twelve principles in order to create effective multimedia learning materials. These principles include: the coherence principle, the signaling principle, the redundancy principle, the spatial contiguity principle, the temporal contiguity principle, the segmenting principle, the pre-training principle, the modality principle, the multimedia principle, the personalization principle, the voice principle and the image principle (Mayer, 2009, as cited in Chaeruman, 2021). Mayer's theory introduced these principles to reduce cognitive overload and suggested that using both visual and auditory channels develops students' comprehension.

Figure 1.2.

Mayer's Cognitive Theory of Multimedia Theory (Based on Mayer, 2024)



1.3.3. Cognitive Load Theory

Cognitive Load Theory is an educational theory developed by Sweller. It refers to how the brain processes and stores information, especially in working memory and long-term memory (Sweller, 2011). Long-term memory can retain all the information that individuals need, while working memory can only hold a certain amount. When individuals learn new information, it is first processed in working memory and then stored in long-term memory. The brain retrieves this information from long-term memory to working memory for use when necessary, which may lead to cognitive overload if not handled in an appropriate way.

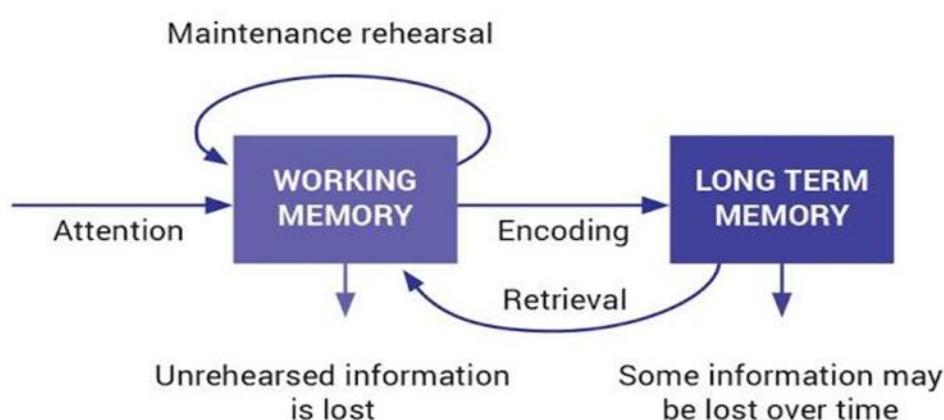
Smith (2019) found that teaching computational thinking (CT) to students using robots improves their cognitive outcomes. Çakıroğlu et al. (2018) also found that using Scratch, a block-based programming tool, to teach students lowers their cognitive load. Sweller (1988) noted that designs or activities that create unnecessary mental effort without helping students understand the content should be removed.

Sweller (2011) explained that when intrinsic load is high, extraneous load should be minimized in order to avoid the negative influence of unnecessary elements on the learning

process. Even when the intrinsic load is low, a high level of extraneous load can still negatively impact learning, showing that adding too many non-essential details can make the content harder to understand. Cognitive load theory shows that reducing unnecessary mental effort encourages students to learn more effectively. Tools like robots and Scratch are used to reduce cognitive load and improve learning outcomes.

Figure 1.3.

Sweller's Cognitive Load Theory (Based on Sweller, 2011)



1.3.4. Dual-Coding Theory

Dual-coding theory suggests that mental imagery and verbal information influence learning and memory. Initially, Paivio (1979) focused on how verbal and non-verbal language influence memory, and later researchers discovered that they could also be applied to other cognitive areas. Moreover, the two systems include the verbal system "logogens," which stores information related to language such as text and sounds, and the visual system "imagens," which manages visible information like pictures, movies and letters. Both logogens and imagens work unconsciously to improve cognitive performance.

Paivio (1979) stated that the verbal and visual processes function in three different stages: representational, referential, and associative processes. First, representational processing refers to how pictures or words are stored in our brains. Second, referential processing explains how

the verbal and visual systems influence each other, which means how a word can make you think of a picture and how a picture can make you think of a word. Third, associative processing emphasizes mainly on the relationships between words and pictures by increasing the connection between verbal and visual understanding. In brief, this theory reinforces the idea that learning is more effective when information is presented in both visual and verbal formats, highlighting the important role of IMTs in learners' development.

1.4. Importance of Multimedia Tools in Learning

Mayer (2005) stated that the purpose of IMTs is to facilitate learning through media that can be incorporated into various learning environments, such as presentations, laboratories, simulations, online courses, video games, and virtual reality. Therefore, IMTs combine text and pictures in different settings to help learners understand content effectively.

Firstly, IMTs help students increase their motivation and interest. According to Ferreira and Vasconcelos (2020), presenting information through multiple senses, such as seeing, hearing, and interacting grabs students' attention and makes learning more engaging. IMTs play an important role in the educational process as they reinforce the interaction between teachers, learners, and course content, which leads to more powerful and lasting learning, especially for 21st-century students. This shows that IMTs address different learning preferences and boost both motivation and interaction, which are essential for maintaining students' focus.

Secondly, using both visual and auditory elements helps students understand and remember difficult concepts more easily. Multimedia content includes different types of forms, such as pictures, sounds and animations, which support them build a clearer understanding of the topic. This also encourages the development of long-term memory and strengthens their overall learning (Tulsiani, 2024). This means that IMTs are not only engaging but also help improve memory and make complex content easier to understand.

Thirdly, Rumiantseva et al. (2023) stated that IMTs are flexible and can be changed to meet students' different learning preferences. Digital platforms modify the learning content based on student performance, which helps make learning more adapted to each student's needs. Besides, IMTs allow students to learn at their own pace. They can access and review content anytime and anywhere, which makes learning more flexible and supports different learning needs and levels. Therefore, IMTs support personalized learning by modifying the content depending on students' needs to help them learn at their own pace.

Furthermore, IMTs can be used to assess students' performance through the use of online quizzes, polls and simulations. Unlike traditional assessments, which may cause delays in providing responses, IMTs' assessments provide immediate feedback that helps learners understand their performance in real time. This promotes students' active participation and enables educators to assess learners' understanding in a modern and timely way (Budhai, 2021). This stresses that IMTs help students assess their progress in real time and keep them actively engaged in the learning process.

In addition, proficiency with IMTs is a valuable skill that prepares students for future careers in which digital literacy is necessary. The implementation of these tools in language learning enables learners to actively engage in creating, evaluating and analyzing information, thereby developing essential digital skills that encourage students to become creators rather than passive consumers (Misir, 2018). IMTs help students develop their digital literacy skills, which prepares them to succeed in modern education.

What is more, IMTs encourage active participation in learning and foster critical thinking skills by presenting information from different perspectives. Through engaging students in activities like simulations and problem-solving, they develop a deeper understanding of the material, improve their ability to think independently, and become more motivated in the

content (Blyznyuk & Kachak, 2024). IMTs present the content in different forms, which helps learners enhance their critical thinking skills and take an active part in the learning process.

Finally, IMTs support collaborative learning environments and encourage students to work together through group projects and shared digital platforms, enhancing their communication and cooperation skills (Neo & Neo, 2009). The use of IMTs also enhances academic performance and engagement, particularly through social media and peer interaction networks (Hossain, 2023). This highlights how IMTs promote collaborative learning, which is necessary in both educational and professional settings.

To conclude, the use of IMTs in education offers a dynamic and beneficial way to develop the quality of learning experiences. Therefore, when used appropriately and strategically, IMTs can help students understand, remember, and use knowledge effectively.

1.5. Challenges and Limitations Faced by Students in Modern Education

While IMTs can enhance the quality of learning, various barriers may restrict their effective integration into the classroom. According to Bingimlas (2009), IMTs have a significant impact on enhancing learning and improving student engagement and participation. However, their implementation in the classroom presents several challenges. To ensure their effectiveness and success, many issues must be addressed.

Firstly, one of the main barriers to applying IMTs in education, as noted by Huda (2024), is the lack of essential technological resources. Schools in less privileged areas often face limitations such as poor internet access, outdated computers, and insufficient training to manage technical issues. As a result, students do not receive equal opportunities to access digital learning. While IMTs are very beneficial and helpful, their effectiveness relies on the availability of essential technological resources.

In addition, Mast (2017) explained that IMTs can lead to cognitive overload when they present too much information at once through animations, sounds, and videos. This kind of

information is called transient information because it appears quickly on the screen, which makes it harder for learners to focus on multiple elements at the same time and store the information in their short-term memory in order to understand what comes next. Therefore, presenting too much information that cannot be replayed makes it harder for the brain to understand and remember the content. This reveals that multimedia content can be difficult to understand and less effective when not used in an appropriate way.

Moreover, according to Bordoh et al. (2024), creating multimedia content also demands a variety of technical abilities. Skills such as graphic design, video editing and audio production are essential for producing quality educational materials. In addition, many teachers face some obstacles such as inadequate training, insufficient computer proficiency, and difficulty transitioning from traditional classroom methods to digital learning. This suggests that without proper technology training, teachers may struggle to improve obstacles the quality of their educational materials. The shift from traditional to digital learning requires not only new tools but also new competencies.

Finally, Bates (2015) stressed that one of the main challenges in using IMTs is their high cost. Producing or subscribing to high-quality multimedia content requires obstacle investment. This includes costs for material production, teacher training, digital tools and technical support. The cost of using IMTs can be a serious limitation for schools and institutions in poor areas. Bates (2015) highlighted that although IMTs can improve the quality of learning, their affordability must be carefully planned by educational institutions to ensure equal opportunities for all learners. This shows that financial challenges can prevent many schools from using IMTs effectively.

To sum up, while IMTs offer many benefits for learning, barriers such as lack of technical resources, cognitive overload, digital literacy, and costs must be addressed to ensure their successful integration in education.

One key challenge is the lack of digital literacy, which significantly affects students' ability to use and benefit from IMTs. The ability to use technology effectively has become an important educational skill in today's digital world. Digital literacy involves a wide range of abilities that enable students to use digital tools and devices, access, and evaluate information, communicate, and collaborate using digital tools. These competencies develop creativity, problem-solving, communication and critical thinking, in addition to academic performance. However, many educational institutions still lack the integration of digital literacy in their curricula, which highlights its impact in preparing learners to face the demands of the modern digital environments.

1.6. Definitions of Digital Literacy and Its Key Components

An important concept in modern education is digital literacy, which includes a variety of skills required for interacting with the digital environment. Digital literacy has been defined in several ways according to different researchers. According to the American Library Association (as cited in Sharma & Singh, 2024), digital literacy is about finding, assessing, and producing information using digital tools and devices. Likewise, according to Gilster (1997), digital literacy is “the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers” (p.1). This ensures the ability to interact with the information across different digital platforms.

Additionally, in the global context, according to the United Nations Educational, Scientific and Cultural Organization (2018, as cited in Malotiya et al., 2024), digital literacy involves the software and hardware functions of digital devices, in order to search, navigate, create, evaluate, communicate, collaborate, think critically, analyze information and address safety and well-being. Which highlights the importance of such competencies for learners to significantly participate in the modern digital world.

Furthermore, Fauzian, Ramdani, et al. (2021) explain that digital literacy is more than just being able to use digital devices and tools. It goes beyond knowing how to search for and use online information to solve problems, collaborate with peers and interact in learning and development. Moreover, according to Jones-Kavalier and Flannigan (2006, as cited in Kmmoun, 2019), digital literacy requires the acquisition of new skills that are essential for surviving in today's digital environments, especially for students. These skills include constructing knowledge through internet research, decoding user interfaces, playing digital games, searching databases, creating and sharing content on the web and communicating in social networks.

In summary, these definitions show that digital literacy is a set of different skills that need to be integrated in classroom settings to prepare students for the demands of the modern age, as well as to enhance their academic, personal and professional success.

1.7. Essential Digital Literacy Skills for Students

Phuapan et al. (2015) claimed that digital literacy incorporates skills from related domains, including media literacy, internet literacy, information and communication technology (ICT) literacy, and information literacy. First, Information literacy involves the acquisition, organization, and processing of information. Media literacy focuses on the interpretation, use, and creation of media for personal development and participation. ICT literacy refers to the technical aspects of computers and software applications. Internet literacy is about learning the skills and knowledge involved to operate effectively in networked media environments.

Katz and Macklin (2013) explained that ICT literacy includes a set of cognitive and problem-solving skills that go beyond technical abilities. These are the seven fundamental components of ICT literacy, which are define, access, manage, integrate, evaluate, create and communicate. Define means to determine an information need and to represent it through digital tools. Access refers to the ability to search for and retrieve digital information. Manage refers to the ability

to use digital tools to organize information in a clear and structured way. Integrate is to use digital tools to interpret, compare, and summarize information. Evaluate involves analyzing how well digital information is useful, credible, and objective. Create involves designing new content using appropriate media tools. Communicate is about interacting with others on digital platforms. These elements represent the necessary skills to succeed in modern education.

According to Eshet-Alkalai's (2004) conceptual framework, digital literacy is composed of a selection of distinct but interconnected skills that collectively allow learners to perform effectively in digital environments. Firstly, photo-visual literacy refers to the ability to effectively understand and interpret images and graphical interfaces. This type of literacy lies in analyzing visual information through critical thinking and remembering visual memory. It is particularly beneficial in digital learning environments, where learners are required to understand non-verbal cues like symbols and icons. It supports them to interact more naturally and effectively with digital tools in order to enhance the learning process.

Furthermore, reproduction literacy is another main skill. It refers to the ability to construct new meanings or interpretations by combining separate pieces of information from different media formats like text, graphic or sound. This competency is particularly important in two major fields: in writing, where previously written sentences are restructured to generate new ideas, and in visual arts, where existing media like audio or visual pieces are edited into new forms. Therefore, this skill focuses on learner's ability to produce original work through transforming existing digital content instead of directly copying it. This enables them to think in creative manner (Luić & Švelec-Juričić, 2021).

Additionally, branching literacy refers to understanding and building knowledge from non-linear and hyper-textual sources of information. Websites, online libraries, and digital multimedia tools provide learners with more freedom to navigate information without following a fixed order, by contrast to traditional reading materials such as scrolls and books, which

present information in a linear sequence. With the increasing growth of hypermedia technologies, learners need to understand how these systems work. Branching literacy develop analytical thinking and spatial awareness, both of them are important to understand online non-linear information (Eshet-Alkalai, 2004).

Moreover, information literacy is important for learners to navigate the vast amounts of data available through digital platforms. It involves understanding how to access sources and being able to evaluate and interpret them critically, and distinguishing between reliable and unreliable sources. Students with strong information literacy are better to use digital resources to improve learning and apply knowledge across different subjects (Chanda & Zohaib, 2024, as cited in Chanda et al., 2024).

Finally, according to Cohen (2012, as cited in Kammoun, 2019), socio-emotional skills include the awareness of understanding and following proper online behavior for secure and respectful interactions on the internet during activities, including communication, browsing, or studying. In today's web 2.0 era, students are highly active in chatting, studying, shopping, and participating in virtual communities. Therefore, it is essential for them to develop their socio-emotional literacy, helping them to evaluate the credibility of digital information, websites and online contacts.

In conclusion, these digital literacy skills play a unique role in shaping learners' ability to process information, create new content, assess sources, and contribute to digital content. They foster students to become active, responsible, and participate meaningfully in digital education and the modern workforce.

1.8. Digital Literacy Frameworks

Regarding the growing integration of digital technologies in modern education, digital literacy has become a necessary component for effective teaching and learning. Several frameworks have been developed to guide the application of digital skills and provide various

views on digital literacy in the 21st century. Evurulobi, Dagunduro, and Ajuwon (2024), stated that many conceptual frameworks and models have contributed to shape our understanding of digital literacy and create effective digital literacy programs. These frameworks include many important competencies like technological literacy, media literacy, and information literacy. They guide educators, researchers, and policymakers understand the essential elements of digital literacy and develop effective approach to apply and evaluate these skills in practical settings.

1.8.1 Dudeney, Hockly & Pegrum's Digital Literacies Framework

The digital literacies framework developed by Dudeney, Hockly and Pegrum (2013) provides a structured method to integrate essential digital skills into language learning. It increases the concept of literacy from traditional reading and writing to digital context that involves evaluating, interacting and producing digital content. The framework stresses four main categories. First, language literacies focus on the use of language and how it is applied and interpreted within digital environments. These include competencies like print literacy, texting literacy, hypertext literacy, and code literacy. Second, information literacies emphasize the ability of finding, assessing, and controlling digital information. This category involves skills like search literacy, information literacy, tagging literacy, and filtering literacy.

Third, connection literacies stress the importance of online connections through digital platforms. They consist of personal literacy, participatory literacy, network literacy, and intercultural literacy. Finally, redesign literacies focus on the ethical reshaping of digital content in creative manners. This framework provides practical guidance for teachers to design learning activities that help students enhance their digital and language skills through activities like content creation, digital collaboration and critical assessment. Therefore, this framework connects language learning with real-life digital use to help students succeed in their academic and professional domains (Pegrum, 2019).

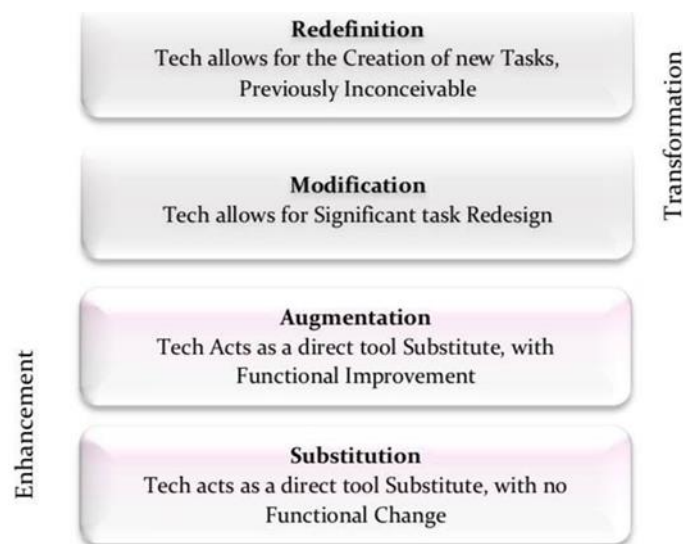
1.8.2. SAMR Model

The SAMR model is a widely used framework created to guide the use of technology in education through providing a structure for assessing and integrating digital tools. According to Rehman and Aurangzeb (2021), the model outlines four organized levels. Firstly, at the substitution level, technology replaces traditional tools without changing the aim of the activity. Secondly, at the augmentation level, technology replaces traditional methods but with improvements that enhance task performance. Thirdly, at the modification level, technology is used to restructure educational tasks in a significant way. Finally, at the redefinition level, technology is used to design new tasks that were beyond the limits of traditional approaches. This model highlights the development from basic forms of technology integration like the enhancement through substitution and augmentation to more transformative practices, such as modification and redefinition. It provides educators with a practical framework to evaluate how deeply technology is integrated into their teaching methods.

Rehman and Aurangzeb (2021) stated that the SAMR model not only enhances participation and engagement but also contributes to the development of 21st-century skills including original creation and critical thinking. Their study also demonstrated that with proper training and professional development in the effective use of the SAMR model effectively, educators can be fully prepared to design creative and student-centered activities that improve deep learning and critical thinking. In conclusion, the SAMR model serves as a clear framework and valuable tool for educators to reflect on and enhance their integration of technology in the classroom. This supports students' creativity, critical thinking and promotes student-centered learning.

Figure 1.4.

SAMR Model of Technology Integration (Adapted from Puentedura, as cited in Rehman & Aurangzeb, 2021)



1.8.3. 21st-Century Skills Framework

Skills for 21st-century are important in both educational and professional settings because to their relevance to the evolving demands of today's digital world. Van Laar et al. (2017) explained that digital skills represent a combination of crucial abilities that enable individuals to navigate, engage, and perform successfully in modern digital society. Sopianingsih and Lukman (2022) stated that these competencies are developed through formal training, learning activities, or educational experiences.

Moreover, communication involves the exchange of information between the communicator and the audience. This includes verbal, written, and nonverbal communication skills and even use of modern technologies and digital platforms. Similarly, collaboration is important in both learning and professional domains, as it promotes productivity, teamwork, and the contribution of each participant. In addition, critical thinking refers to the ability to assess information using careful reasoning and reflection before making decisions and communicating ideas. Furthermore, creativity refers to the mental process that leads to the development of original

ideas or products, particularly in solving problems. Likewise, problem-solving skills are vital in order to address and handle difficult situations efficiently.

As noted by Herlinawati et al. (2024), this century shows the importance to equip individuals with the necessary skills and attitudes aligned with current societal and academic demands. Therefore, to support students to develop the 4Cs competencies, it is essential to engage them in effective learning activities and well-planned educational tools. In general, this approach emphasizes the implementation of academic learning with practical abilities, aiming to prepare students to meet and succeed in a global environment.

1.9. Significance of Digital Literacy in the Modern Education

In modern education, technological competence is important for both teachers and students in order to enhance learning outcomes. Digital literacy is becoming an essential skill for accessing, evaluating, and using information effectively, as well as for supporting more creative and adaptive teaching and learning environments (Arifin et al., 2025). With the increasing integration of digital technologies into educational institutions, it is necessary to understand the importance and value of digital literacy.

Firstly, digital literacy prepares students for the modern workforce by fostering the necessary abilities to effectively navigate, interact with, and make use of the digital world. This concept covers a variety of skills, such as the ability to research, assess and use information efficiently, as well as engage in online communication and understand the application of various technologies (Chanda et al., 2024). This highlights the importance of mastering digital literacy for both academic success and lifelong learning.

Additionally, according to Haryanto et al. (2022), critical thinking forms an essential element of digital literacy, which includes the ability to evaluate, analyze, and create content through the effective use of digital tools and platforms. This competency is essential for processing the vast amount of information available online and for ensuring informed decision-

making. It enables users to distinguish between reliable and unreliable sources, draw logical conclusions from the information they gather and use digital tools for problem-solving and the development of new knowledge. Overall, it becomes clear that teachers need to help students not only use technology but also think critically about the information they find online, especially given the large amount of misleading content on the internet.

Furthermore, the ability of teachers to integrate digital tools effectively into their teaching practices greatly impacts students' level of digital competence. When teachers are digitally literate, they can illustrate the appropriate and efficient use of technology, guiding learners in understanding how to apply these tools responsibly and effectively (Hall et al., 2014, as cited in Taheri & Pennington, 2024). Through this guidance, students learn how to apply digital literacy effectively in both academic work and everyday activities.

Moreover, the advancement of digital literacy allows teachers to improve their teaching strategies. Mokhtari (2023) stated that by developing these skills, educators can access a diverse range of teaching materials, facilitate information searches, and foster ongoing communication with students and colleagues. The final objective is to promote a dynamic and active classroom environment that enhances learners' collaboration, communication, and problem-solving abilities, which leads students to achieve academic success. To sum up, digital literacy is not just a technical skill that enhances educators' performance, but also fosters student interaction and active learning.

To summarize, digital literacy enhances learning outcomes by supporting teacher engagement with technology, improving teaching methods and integrating these tools into classroom practices. Providing both educators and students with digital literacy skills increases the potential for academic success. Its inclusion in educational systems is a fundamental element of 21st-century learning. This improves educational performance and prepares learners for future academic and professional contexts.

1.10. Challenges in Developing Digital Literacy among Learners

Digital literacy is an essential skill for learners, as it supports both academic and professional development. Nevertheless, acquiring these skills in education can involve several obstacles. In order to implement digital literacy effectively, these barriers must be identified and addressed.

First, the principal challenge of digital literacy among students is the limited access to internet and (ICT), as well as the lack of technical support in schools, which hinders both teachers and students from using technology effectively in the classroom (Argelagós & Pifarré, 2017; Habibu, 2012, as cited in Purmayanti, 2022). Overall, this highlights that the lack of resources directly affects digital education, which indicates the necessity of providing essential tools and internet connectivity to implement technology successfully.

In addition, teachers' low digital competence results from the absence of proper ICT training, as well as factors such as age, qualifications, teaching experience, and professional classification (Hinojo-Lucena et al., 2019, as cited in Priyantin & Herwati, 2023). Therefore, it is clear that institutional support and professional development are important in helping teachers overcome these barriers and adapt to digital demands.

Furthermore, a significant issue is digital safety and ethics. With the increased use of digital devices, students may face various security risks, including the misuse of personal information and exposure to harmful content. As a result, effective digital literacy should go beyond technical skills by providing guidance on safe internet practices, cybersecurity, digital responsibility, and the lasting impact of their online presence (Miyanti & Izzy, 2024). From this perspective, it is evident that improving digital competence must include ethical awareness and digital responsibility to ensure students' safety and help them become ethical and digitally literate individuals.

Additionally, educators with long experience tend to show a certain resistance regarding the transition from traditional text-based methods to digitally oriented teaching

approaches. This resistance is owing to doubts about the reliability of the new methodology or a lack of confidence in navigating digital environments (Hamlaoui, 2021). Such resistance can hinder the shift from traditional methods to a digital learning environment, which emphasizes the need for personalized training opportunities to bridge the gap in technology application within teaching practices.

Finally, the effective integration of digital literacy in education needs well-planned strategies that address technical resources, teacher training and student digital safety. Overcoming these limitations involves collaborative work that includes institutional support, ongoing professional development and ethical digital education, which are key to achieving success in digital literacy within learning environment.

1.11. IMTs and Digital Literacy Skills in Educational Setting

The integration of technology in education has made digital literacy and IMTs important elements in helping EFL learners improve their language abilities. IMTs combine different forms of media such as text, audio, and animations to help students enhance their learning outcomes. Unlike traditional methods such as textbooks, which provide limited information, modern educational tools offer several ways to present the content in an engaging and dynamic way. With the ongoing advancements, many studies have explored students' perceptions towards the use of IMTs to enhance learning outcomes, especially in terms of motivation, digital skills development, and academic achievement. At the same time, research has investigated the role of digital literacy in helping EFL learners to access, analyze and use digital tools to support language learning.

The first study was conducted by Cakrawati (2017) using a mixed-method approach. The objective of the research was to explore students' perceptions about online learning platforms. Forty students from Bandung, West Java, were surveyed and interviewed for this study. The research focused primarily on the use of online platforms such as Edmodo and Quipper, which

facilitate teaching and learning by providing teachers with digital material, communication tools and evaluation tools. The answers that students gave on the closed-ended questions were analyzed using statistical methods to determine positive and negative perceptions. The results reported that students perceived the use of these platforms as helpful to understand lessons, submit tasks on time and stay motivated. Although some students reacted neutrally to the role of these platforms in enhancing motivation, the general responses were positive. This stresses their usefulness in providing flexibility, motivating students and making the learning content relevant.

The second study was conducted by Yonanda et al. (2024) and employed a research and development approach to create and evaluate an interactive multimedia learning application, particularly using an Android-based platform. The study involved twenty-nine fifth-grade students who participated in assessing the application, which included various multimedia elements such as text, images, audio, video, animation and interactive features designed to examine whether it could enhance students' learning outcomes and increase their motivation or not. Data collection aimed to evaluate the educational media's validity, practicality and effectiveness. The results indicated a positive impact on both motivation and learning achievement. However, the study also identified some barriers that require attention in future research. This study highlighted the benefits of integrating digital tools into educational practice in order to promote students' learning outcomes and develop a more dynamic and interactive classroom environment.

These studies showed that IMTs can improve students' motivation and language learning. Cakrawati (2017) stated that EFL students had a positive perceptions regarding the use of IMTs, while Yonanda et al. (2024) demonstrated that multimedia applications help boost motivation and learning outcomes among students. These findings support the application of IMTs in educational settings. Meanwhile, the development of digital literacy skills is now necessary,

especially for EFL learners. Digital literacy refers to the ability to assess, analyze, and use digital tools effectively. Therefore, many studies have investigated its contribution to language learning.

Wahyuddin et al. (2024) conducted a study using a quantitative approach and a one-group pretest-posttest design with 114 students to evaluate the influence of digital literacy on English language acquisition through a blended learning model. The research measured students' English language proficiency before and after the implementation of the blended learning model that integrated digital literacy. The findings showed that incorporating digital literacy had a strong positive impact on language learning performance, particularly in students' speaking, listening, reading, and writing skills. Furthermore, the research revealed that an interactive e-learning environment increased students' motivation to use digital tools, which highlights the need for dynamic and engaging digital learning experiences.

The following study was conducted by Pertiwi and Rodliyah (2022) in order to examine EFL university students' perceptions of digital literacy in their English language learning. Data were collected using questionnaires and interviews. The questionnaire was administered to 22 EFL students and was followed by interviews conducted through purposeful sampling. The results showed that participants had positive perceptions to digital literacy. They acknowledged its significance in accessing, evaluating, and using information critically and effectively. In addition, participants felt comfortable using digital tools and showed interest in learning more. Some also suggested that digital technology should be integrated into all aspects of education, particularly in language learning.

The findings of both studies emphasize the importance of digital literacy in improving English language acquisition. Wahyuddin et al. (2024) found that it improved learners' performance across all language skills in a blended learning framework. Similarly, Pertiwi and Rodliyah (2022) showed that students had positive perceptions of digital literacy and felt

motivated to use digital tools. Both studies agree on the importance of digital literacy in supporting language development and student motivation.

Proficiency in digital literacy is an essential skill for learners in various disciplines, including language learning. According to Yu and Zadorozhnyy (2021), the process of creating multimedia presentations supports students in building their communication skills and their ability to use digital tools effectively, which highlights that IMTs help students use digital tools in ways that enhance their language learning and digital skills development. Similarly, Wu and Lambenicio (2022) stated that IMTs such as applications, video platforms, and online learning programs provide useful content that supports students' technological competencies. To sum up, the relationship between IMTs and digital literacy skills is interconnected, since IMTs provide tools and content that directly contribute to language learning improvement and digital skills development.

Conclusion

To conclude, IMTs have a significant influence on modern education, especially when it comes to EFL learning. The findings presented in this chapter indicate that in today's modern education, IMTs significantly develop the effectiveness and engagement of the learning process. However, their successful implementation relies on thorough planning and fair access to the required technology. In parallel, the chapter emphasized the critical role of digital literacy skills in motivating students, empowering them, and enhancing their language acquisition. Nonetheless, the realization of these benefits depends on the effective implementation, support, and fair access to digital tools.

CHAPTER TWO: QUESTIONNAIRE DATA ANALYSIS AND INTERPRETATION

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Introduction

While chapter one was exclusively concerned with conveying a theoretical understanding of IMTs and digital literacy skills, this chapter focuses on the practical part of the study. Eventually, it aims to explore EFL students' perceptions and practices regarding the use of IMTs to enhance digital literacy skills. This section provides the analysis of qualitative and quantitative data which was collected through the questionnaire, in order to address the research questions and confirm or reject the research hypothesis.

2.1. Research Methodology and Design

2.1.1. Research Method

In order to investigate EFL students' perceptions on the use of IMTs to foster learners' digital literacy skills, this exploratory research used both a questionnaire and a focus group discussion. On the one hand, a questionnaire that consisted of both close-ended and open-ended items was administered to gather both qualitative and quantitative data about EFL students' attitudes and perspectives. Quantitative research usually involves the use of specific statistical methods to collect and analyze numerical data. It also aims to develop generalizable hypotheses and explanations that apply to different individuals and settings (Lim, 2024). However, in this study, the quantitative elements were used only to support a descriptive understanding of the participants' attitudes and perceptions. On the other hand, a focus group was applied to collect qualitative data in order to gain a more accurate description and a better understanding of the participants' perceptions and practices, and also to explore the use of IMTs in relation to digital literacy skills. The qualitative method generally includes a limited number of participants with different perspectives related to the research being conducted. It aims to gain a deep understanding of specific phenomena by collecting detailed and non-numerical data such as written texts, spoken words, or visual materials (Creswell, as cited in Sarfo & Ofori, 2017). This approach allows researchers to explore participants' lived experiences in their natural

contexts, investigate complex issues and provide flexibility and openness, enabling participants to express their ideas freely.

2.1.2. Research Population and Sample

The current field of investigation was conducted at the Department of Letters and English Language at the University of 8 Mai 1945 Guelma. The participants who contributed in gathering research data were third-year learners specialized in language and culture. The factor behind targeting this population is their experience in learning English as combined with their familiarity with digital tools, and they tend to rely more on technology since the integration of such tools into education. These features enabled them to offer valuable insights into the effectiveness of IMTs in enhancing students' digital skills and improving their language learning. The research sample for the questionnaire consisted of fifty (50) third-year EFL students who were randomly selected to complete the questionnaire. As for the focus group, it consisted of seven (7) male and female participants who were randomly selected and invited to engage in a group conversation via the “Messenger” platform. The inclusion of both genders was intended to ensure diversity in perspectives among EFL learners and to reflect their familiarity with digital platforms in order to provide informed and reflective opinions on the use of such tools in developing digital literacy skills.

2.1.3. Data Gathering Tools

It is evident that the mixed method encompasses the implementation of two different data collection tools. Hence, an online survey questionnaire as well as a focus group have been used in the practical field of investigation, and are discussed in following two practical chapters. The former has been administered online to a sample of fifty (50) third-year students in order to gather the necessary research data. According to Taherdoost (2016), the primary aim of questionnaires is collecting relevant data and gathering necessary details in the correct ways (p. 28). This justifies the choice of this data gathering tool to address more details and questions

with a larger number of third-year students. The latter has been conducted online to a sample of seven (7) participants, who were selected and invited to participate in the discussion via the ‘‘Messenger’’ platform. Focus groups are a useful data gathering tool used to explore individuals’ knowledge, experiences, and the reasons behind their views, particularly in areas that require exploration of attitudes and shared perceptions (Kitzinger, 1995). This justifies the selection of the focus group in the current study, as it allows for a comprehensive exploration of participants’ shared experiences and perceptions. Therefore, this chapter presents the analysis of the questionnaire findings, whereas data from the online focus group discussion will be analyzed in the following chapter.

2.2. Administration of Students' Questionnaire

The current questionnaire was administered online via Google Forms to 50 third-year students at the Department of Letters and English Language, University of 8 Mai 1945, Guelma. The link to the form: <https://forms.gle/nh8bzDaL5AqLJJ9f8> was distributed through Facebook groups, group chats and Messenger. The process took about 24 days from April 22nd to May 15th, 2025. Furthermore, as promised in the questionnaire, students’ answers were handled with strict confidentiality and were used exclusively for academic purposes. The success and development of this research greatly benefited from the students' collaboration since they seriously engaged with the questionnaire and provided insightful responses and helpful suggestions. The sample included 50 participants and all of them completed the questionnaire.

2.3. Aims of students' Questionnaire

The current questionnaire aims to:

- 1) Explore EFL students’ perceptions and practices towards the use of IMTs.
- 2) Identify the role of IMTs in developing digital literacy skills.
- 3) Figure out the challenges that EFL students face when using IMTs.

2.4. Description of Students' Questionnaire

The questionnaire at hand aimed to explore EFL students' perceptions and practices towards the use of IMTs to enhance digital literacy skills. As attached in Appendix A, it comprised twenty-four (24) questions divided into three key sections, and each section targets a different dimension. These include multiple-choice questions, checkboxes, yes/no questions and scaled-response items, which facilitate both answering and analyzing them.

The purpose of the first section is to gather general data from the target sample. It includes three closed-ended questions regarding their age, how many years they have studied English, and their own evaluation of their English language mastery.

The second section of the questionnaire is designed to explore EFL learners' perceptions and practices towards the use of IMTs via a compilation of twelve (12) questions. It covers how often and when students use IMTs, the tools they prefer, and how these tools match their learning styles. It also examines whether IMTs are part of their learning habits and how useful they find them. In addition, this section looks at how students evaluate the use of IMTs in understanding course content, their use by teachers in the classroom, their opinions on related statements, and the challenges that may affect the effective use of IMTs.

The third section focuses on how IMTs help students develop their digital literacy skills. It includes nine questions about whether students are familiar with the concept or not, how they evaluate their own digital skills, and if they believe their skills have improved during university. It also explores how much IMTs have helped in developing these skills, what motivates students to use them, and the benefits they have experienced. The final question gives students an additional space to add any comments or suggestions.

2.5. Analysis of Students' Questionnaire

2.5.1. Section One: General Information (Q1-Q3)

Question 01: How old are you?

Table 2.1.*Students' Age*

Age	Number of responses	Percentages (%)
20 years old	5	10%
21 years old	31	62%
22 years old	12	24%
23 years old	2	4%
Total	50	100%

Based on the Table 2.1, the first question's responses ranged from twenty (20) years old to twenty-three years old (23). The majority of them (62%) were 21 years old, followed by (24%) who were twenty-two (22) years old. A smaller number (10%) were twenty (20) years old, while only (4%) were twenty-three (23) years old, representing the smallest age group. This variation in age greatly contributed to gather varied perspectives, to provide deeper insights across different age groups, and to increase the possibility of generalizing the findings.

Question 02: How long have you been studying English?

Table 2.2.*Students' Years of Studying English*

Years	Number of responses	Percentages (%)
10 years	36	72%
11 years	12	24%
12 years	2	4%
Total	50	100%

As indicated in table 2.2, students' English learning backgrounds varied. The majority of respondents (72%) studied English for 10 years, (24%) studied English for 11 years and finally, only (4%) studied it for 12 years. These findings suggest that students have a sufficient

understanding of the target language. The different lengths of time students studied English reflect differing levels of English language learning experience among participants.

Question 03: How do you describe your level of English?

Table 2.3.

Students' Perceptions about Their Level of English Language Mastery

Options	Number of responses	Percentages (%)
Pre-intermediate	1	2%
Intermediate	36	72%
Advanced	13	26%
Total	50	100%

According to Table 2.3, many of the students (72 %) reported having an intermediate level of English proficiency. In contrast, (26%) indicated having an advanced level, and (2%) of them reported having a pre-intermediate level. These results indicate that the majority of learners have positive self-perceptions about their level of English, which may positively contribute to the successful completion of this questionnaire and ensure that their responses about the use of IMTs and the development of digital literacy skills are reliable.

2.5.2. Section Two: Learners' Perceptions and Practices towards Interactive Multimedia Tools (Q4-Q15)

Question 04: How often do you use Multimedia Tools for English learning?

Table 2.4.*Students' Use of Multimedia Tools*

Options	Number of responses	Percentages (%)
Daily	31	62%
Weekly	10	20%
Rarely	9	18%
Never	0	0%
Total	50	100%

The data retrieved from Table 2.4 shows the frequency of using IMTs in learning. The vast majority of the students (62%) stated that they rely on IMTs regularly each day. Additionally, (20%) indicated using them on a weekly basis. In contrast, (18%) of the students reported that they rarely use IMTs, and none of them claimed to never use such tools. According to the results, it can be concluded that the majority of the students use IMTs regularly and the fact that no respondents opted for the choice of "never", highlights that IMTs became a necessary part of learners' routines

Question 05: Which Multimedia Tools do you use most?

Table 2.5.*Most Frequently Used Multimedia Tools*

Options	Number of responses	Percentages (%)
Educational videos	13	26%
Language learning apps	9	18%
Online quizzes/games	10	20%
Podcasts	7	14%
E-learning platforms	6	12%
Other	5	10%
Total	50	100%

The results obtained from Table 2.5, aim to identify the most frequently used IMTs among EFL students. These findings indicate that the majority of learners (26%) chose educational applications as their most used multimedia tool. Subsequently, (20%) selected online quizzes and games, while (18%) opted for language learning apps. In addition, (14%) of the students selected podcasts and (12%) of them chose e-learning platforms. Some students also suggested additional tools like social media videos (2%), music applications (2%), video games (4%), and communication apps like "Discord" (2%). The results demonstrate that visual and IMTs like educational apps and games are the most commonly used multimedia tools among students. This shows students' preference for flexible learning methods that address their learning needs.

Question 06: When do you mostly use IMTs?

Table 2.6.

Contexts for Using Interactive Multimedia Tools

Options	Number of responses	Percentages (%)
During class	4	8%
After class for revision	5	10%
When preparing homework/ projects	15	30%
Just for fun and practice	20	40%
I do not use them	6	12%
Total	50	100%

According to Table 2.6, a considerable number of students (40%) reported using IMTs mainly just for fun and practice. Additionally, (30%) of the participants reported using them when preparing homework, while (10%) mentioned using them after class for revision. A smaller percentage (8%) indicated that they use IMTs during class. Meanwhile, (12%) of students stated that they do not use them at all. Based on the data retrieved, students tend to

use IMTs outside the classroom, mainly for personal use and homework tasks. This suggests that IMTs are primarily used in informal contexts rather than in formal classroom settings.

Question 07: Can you identify your learning style?

Table 2.7.

Students' Ability to Identify Their Learning Styles

Options	Number of responses	Percentages (%)
Yes	48	96%
No	2	4%
Total	50	100%

According to the findings, (96%) of students answered on this question with “yes”, as shown in Table 2.7, whereas only (4%) of them answered with “no”. This stresses that the majority of students are able to identify their learning styles and demonstrates their metacognitive awareness. However, the remaining students who reported being unable to identify their learning styles may lack this awareness.

Question 08: If yes, which of the following best describes your preferred learning style?

Table 2.8.

Students' Views about Their Own Learning Styles

Options	Number of responses	Percentages (%)
Visual	26	52%
Auditory	10	20%
Reading and Writing	9	18%
Kinesthetic	5	10%
Total	50	100%

In this question, students who had answered "yes" previously were asked to select their preferred learning style. Therefore, the data retrieved from Table 2.8 show that the majority of

students (52%) identified visual as their preferred learning style, mainly because it helps them understand and retain information more effectively. In contrast, (20%) of the students preferred auditory and (18%) preferred reading and writing, highlighting that many students find it helpful to receive information through audio input or written materials. On the other hand, only (10%) of the students chose kinesthetic as their preferred learning style because they rely on physical activities to process information. This variation in learning styles stresses the importance of using different teaching methods to address students' learning needs.

Question 09: Do you think that Interactive Multimedia Tools support your learning style?

Table 2.9.

IMTs and Learners' Learning Styles

Options	Number of responses	Percentages (%)
Yes	47	94%
No	3	6%
Total	50	100%

Question 9 aims to discover whether or not IMTs support EFL students' learning styles. The results presented in Table 2.9 show that an overwhelming majority (94%) of students reported that IMTs effectively support their learning styles. This highlights the important role of IMTs in addressing the needs of students. However, only (6%) of the students expressed a negative response and stated that they do not find IMTs beneficial for their individual needs, this could be due to a lack of familiarity with using such tools or because they prefer relying on traditional educational methods like pen and paper.

Question 10: Have IMTs become part of your learning practices?

Table 2.10.*Integration of Interactive Multimedia Tools in Students' Learning Practices*

Options	Number of responses	Percentages (%)
Yes	44	88%
No	6	2%
Total	50	100%

This question aims to investigate whether or not IMTs have become part of students' learning practices. Table 2.10 demonstrates that (88%) of students have incorporated IMTs into their learning process, whereas only (12%) of students indicated that they have not. These results suggest that IMTs are now widely used among EFL students, ensuring their increasing role in the modern educational context and reflecting the trend toward more technology-based learning.

Question 11: Do you think that using Interactive Multimedia Tools helps in learning English?

Table 2.11.*Students' Views on the Use of Multimedia Tools in Learning English*

Options	Number of responses	Percentages (%)
Yes	50	100%
No	0	0%
Total	50	100%

Table 2.11 shows that all of the students (100%) responded with “yes”, indicating that they find IMTs supportive of the English learning process. None of the students opposed the idea since the percentage of disagreement was (0%). This complete agreement strongly suggests that students find these tools clearly helpful and effective in English language learning, stressing the importance of integrating such tools into modern teaching practices.

After this question, students were asked to justify their responses. Therefore, many indicated that IMTs boost students' motivation and engagement by making lessons more

enjoyable and less repetitive. Additionally, others stated that IMTs make learning more interesting by providing real content like games, videos, and actual conversations, which helps them learn new vocabulary and pronounce words correctly. Furthermore, several students pointed out that these tools facilitate both receptive and productive skills through the use of visual and auditory materials designed to suit different learning preferences. Besides, others stated that IMTs support independent learning since they allow them to access materials anytime and anywhere, help them identify their areas of weakness, and structure their ideas more effectively. In addition, some students noted that using multimedia in learning helps them remember information better and enhances their general comprehension. Finally, few learners reported that although IMTs are useful and effective, they give better results when combined with traditional teaching methods and reflective thinking.

To sum up, these responses show a shared agreement on the contribution of IMTs in improving English language skills and ensure that their integration into modern teaching practices is essential for an effective learning process.

Question 12: To what extent do you think Interactive Multimedia Tools help you understand your course content?

Table 2.12.

Impact of Interactive Multimedia Tools on Learning Comprehension

Options	Number of responses	Percentages (%)
To a very great extent	2	4%
To a great extent	34	68%
To some extent	12	24%
To a small extent	1	2%
Not at all	1	2%
Total	50	100%

As it is displayed in Table 2.12, (68%) of students stated that IMTs improved their comprehension “to a great extent”, which implies that these tools were perceived as helpful in enhancing students’ understanding of course content. (24%) of students stated that IMTs were helpful “to some extent”, indicating that they had a moderate influence on their understanding. Furthermore, some students (4%) reported that they find these tools helpful to a very great extent, underlining their participation in enhancing students’ understanding of educational content. However, only (1%) of students reported that these tools helped “to a small extent” and another (1%) stated that they had no impact at all, indicating a small to no educational impact. Generally, these results suggest that most of the students have a positive perception towards the effectiveness of IMTs in developing their comprehension of the subject matter.

Question 13: On a scale of 1 to 5, how often do your teachers use IMTs in classroom?

Table 2.13.

Reported Frequency of Teachers’ Use of Interactive Multimedia Tools

Options	Number of responses	Percentages (%)
1	7	14%
2	17	34%
3	25	50%
4	1	2%
5	0	0%
Total	50	100%

As presented in Table 2.13 regarding the reported frequency of teachers’ use of IMTs, half of the students (50%) indicated that the use of these tools in their classes is moderate (rated 3). Additionally, (34%) stated that IMTs are used rarely (rated 2), while some students indicated very limited use (rated 1). Finally, only (2%) of them stated that these tools are frequently used (rated 4), and none (0%) of the students reported using them on a regular basis (rated 5). These

results reveal that the majority of participants have experienced limited to moderate use of IMTs in their learning, suggesting that such tools are not yet fully integrated into educators' classroom practices.

Question 14: Please read the following statements and tick the box that best reflects your opinion

Table 2.14.

Students' Attitudes towards the Use of Multimedia in the EFL Classroom

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
I believe multimedia tools make learning English more interesting	25 (50%)	23 (46%)	2 (4%)	0 (0%)	0 (0%)	50 (100%)
Multimedia tools help me understand lessons better	22 (44%)	23 (46%)	4 (8%)	0 (0%)	1 (2%)	50 (100%)
I feel more motivated when using multimedia tools in class	25 (50%)	17 (34%)	7 (14%)	1 (2%)	0 (0%)	50 (100%)
Teachers should use more multimedia tools during lessons	23 (46%)	13 (26%)	11 (22%)	1 (2%)	2 (4%)	50 (100%)
I prefer traditional teaching over multimedia based learning	5 (10%)	6 (12%)	17 (34%)	12 (24%)	10 (20%)	50 (100%)
I think multimedia tools improve my language skills	23 (46%)	21 (42%)	6 (12%)	0 (0%)	0 (0%)	50 (100%)
Multimedia tools help me retain information better than printed materials	15 (30%)	20 (40%)	14 (28%)	1 (2%)	0 (0%)	50 (100%)

Table 2.14 indicates that 50% of students totally agreed that IMTs make learning English more interesting. Similarly, 46% of respondents agreed, while 4% showed a neutral disposition. Notably, none of the participants expressed disagreement, which shows that the majority of students perceive IMTs as effective in enhancing learning English. Moreover, 44% of participants strongly agreed and 46% agreed that IMTs help them understand lessons better,

and 8% gave a neutral response. Only 2% of respondents chose the option of strongly disagreed. These results indicate a significant impact of IMTs on students' understanding of their lessons.

Furthermore, 50% of students strongly agreed and 34% agreed that they feel more motivated when IMTs are used in the classroom. 14% gave a neutral response, and only 2% disagreed, which demonstrates that the majority of students perceive IMTs as beneficial in enhancing their motivation for learning. In addition, 46% of participants strongly agreed that teachers should use more IMTs during lessons, and (56%) agreed. A significant proportion of respondents 22% showed a neutral disposition, while only 2% of students disagreed and 4% strongly disagreed. Although a small minority expressed disagreement, the majority of students supported the application of IMTs in their learning.

In addition, 10% of participants strongly agreed and 12% agreed that they prefer traditional teaching over multimedia based learning, while 34% gave a neutral response. In contrast 24% of participants disagreed and 20% strongly disagreed. These results suggest that multimedia based learning was generally more favored by students. Besides, 46% of participants strongly agreed and 42% agreed that IMTs improve their language skills. 12% remained neutral, and none of the respondents disagreed, suggesting that students perceive IMTs as a useful resource for developing their language proficiency. Lastly, 30% of students strongly agreed and 40% agreed that IMTs help them remember information more effectively. (28%) remained neutral, and only (2%) disagreed. These results emphasize that IMTs are effective in reinforcing students' memory. Overall, the results show that students perceive IMTs as helpful for boosting their motivation, understanding, memory and engagement, which matches modern teaching approaches that support using technology to improve language learning and participation.

Question 15: What challenges do you think limit the effective use of Interactive Multimedia Tools in education?

Table 2.15.*Challenges Limiting the Effective Use of Interactive Multimedia Tools in Education*

Options	Number of responses	Percentage (%)
Lack of technological resources	13	26%
Financial limitations	9	18%
Lack of digital competencies	11	22%
Difficulty in moving from traditional to digital teaching methods	6	12%
Multimedia content is not always adaptable to different learning needs	8	16%
Poorly structured or overwhelming content	1	2%
Other	2	4%
Total	50	100%

Table 2.15 highlights the lack of technological resources turned out to be the most significant challenge, with (26%) of participants finding it to be a major barrier. This reveals that many institutions still face basic infrastructure issues, such as weak internet. Another main challenge for (22%) of participants was a lack of digital skills. This demonstrates the significance of digital literacy training for educators. Moreover, other respondents (18%) noted financial limitations like the high cost of tools, as a key barrier particularly in educational settings with limited funding. Some students (16%) stated that multimedia content is not always adaptable to different learning needs, which means that even when technology is available, it may not succeed in meeting different learning needs.

In addition, about (12%) of participants mentioned that shifting from traditional to digital teaching methods was a real limitation for them, this highlights that some educators may struggle with adapting to new teaching methods or lack the confidence to use them. Lastly,

there is a need to develop educational planning and content design since a small percentage of participants (2%) cited that poorly structured and excessive content as a difficulty.

2.5.3. Section Three: Impact of IMTs on enhancing Digital Literacy Skills (Q16-Q24)

Question 16: Are you familiar with the term Digital Literacy Skills?

Table 2.16.

Students' Familiarity with the Term 'Digital Literacy Skills'

Options	Number of responses	Percentage (%)
Yes	29	58%
No	13	26%
Not sure	8	16%
Total	50	100%

With regard to the results displayed in Table 2.16, the majority of students (58%) reported being familiar with the term of digital literacy skills. Additionally, (26%) of participants stated that they are not familiar with the term, whereas only (16%) of respondents indicated that they were not sure. Therefore, this confirms the need for more emphasis on defining and implementing digital literacy within educational systems.

Question17: Which of the following Digital Skills do you feel you currently have?

Table 2.17.*Students' Perceived Digital Skills*

Options	Number of responses	Percentage (%)
Searching for and evaluating online information	12	24%
Using digital tools for communication	19	38%
Creating digital content	4	8%
Understanding digital safety and privacy	1	2%
Using educational platforms or software	11	22%
None of the above	3	6%
Total	50	100%

The table 2.17 represents a series of digital skills students possess. As displayed above, using digital tools for communication is the most commonly reported skill among the sample, as it was chosen by 19 participants (38%). A significant number of students also feel confident in “searching for and evaluating online information” with a percentage of (24%), and using educational platforms or software with a percentage of (22%). These three skills appear to be the most common among the students. Moreover, (8%) of the sample reported having the skill of creating digital content, and (2%) selected understanding digital safety and privacy, which indicates that these are uncommon skills. Additionally, (6%) of students selected none of the above, which may imply a lack of confidence or unfamiliarity with digital tools.

Question 18: How would you rate your overall Digital Literacy Skills?

Table 2.18.*Students' Overall Levels of Digital Literacy Skills*

Options	Number of responses	Percentage (%)
Good	20	40%
Average	25	50%
Poor	5	10%
Total	50	100%

The findings in Table 2.18 shows that half of the respondents (50%) rated their digital literacy as average, (40%) rated it as good, and only (10%) rated it as poor. This indicates that most students perceive themselves as having average digital literacy skills. In addition, the (10%) who rated their skills as poor may be facing some obstacles in accessing digital learning opportunities.

Question 19: Have your Digital Literacy Skills improved during your university studies?

Table 2.19.*Development of Digital Literacy Skills during University Studies*

Options	Number of responses	Percentage (%)
Yes	42	84%
No	8	16%
Total	50	100%

Table 2.19, show that the majority of students (84%) answered "yes", which highlights that the university environment and curriculum have had a crucial role on students' digital literacy development. In contrast, (16%) chose "no", which reveals that they experienced no enhancement in their digital literacy skills. This distribution may suggest that the academic programs did not efficiently encourage their digital development.

Question 20: How have Interactive Multimedia Tools helped you improve your Digital Skills?

Table 2.20.

Students' Perceptions of Interactive Multimedia Tools in Enhancing Digital Skills

Options	Number of responses	Percentage (%)
Significantly improved	14	28%
Moderately improved	35	70%
Remained unchanged	1	2%
Total	50	100%

According to the above displayed answers, it is showed that the majority of students (70%) reported that their digital skills were moderately improved, whereas (28%) of the overall participants stated that their skills were significantly improved. While, only (2%) of the participant stated that their digital skills remained neutral. These findings highlight the importance of IMTs in developing digital literacy among students.

Question 21: What motivates you to use Multimedia Tools to develop your Digital Skills?

Table 2.21.

Students' Motivation for Using Multimedia Tools to Develop Digital Skills

Options	Number of responses	Percentage (%)
Engaging and interactive content	15	30%
Ease of access and flexibility	17	34%
Peer or teacher recommendation	3	6%
Curiosity and self-improvement	15	30%
Total	50	100%

As shown in table 2.21, the majority of participants (34%) reported that ease of access and flexibility was the most motivating factor. Moreover, engaging and interactive content (30%) and curiosity and self-improvement (30%) were equally significant. Additionally, peer or teacher recommendation (6%) was the smallest influential factor. These findings stress that digital literacy skills should highlight engaging content, promote self-directed learning, and focus on tools that cater to individual needs.

Question 22: Which Digital Skills have you improved through multimedia tools?

Table 2.22.

Digital Skills Improved by Multimedia Tools

Options	Number of responses	Percentage (%)
Use educational applications	11	22%
Search for information online	19	38%
Create videos or digital content	7	14%
Participate in online discussions	9	18%
Access learning platforms	4	8%
Total	50	100%

As indicated in Table 2.22, the majority of students chose searching for information online, with a percentage of (38%), which highlights that students are effectively using multimedia to enhance their information literacy. Moreover, (22%) of participants chose using educational apps, demonstrating that a significant number of students are becoming more proficient in utilizing digital applications to support their learning. Participating in online discussions was selected by (18%), suggesting an improvement in communication and collaboration skills. Furthermore, creating videos or digital content follows with (14%), highlighting the presence of multimedia use for expressive and creative purposes. The lowest percentage (8%), chose

navigating learning platforms, showing that while there may be existing familiarity with these platforms, students need further support in using them effectively.

Question 23: In your opinion, what are the main benefits of using Interactive Multimedia Tools to develop Digital Literacy Skills?

Table 2.23.

Students' Perceptions of the Advantages of Interactive Multimedia Tools in Developing Digital Literacy Skills

Options	Number of responses	Percentage (%)
They boost engagement and motivation	13	26%
They support individual learning needs	9	18%
They improve memory retention and comprehension	14	28%
They help develop long-term memory	5	10%
They support active learning and reflective thinking	6	12%
They encourage collaboration and communication	1	2%
All the above	2	4%
Total	50	100%

According to the data in Table 2.23, (28%) of participants state "they improve knowledge retention and comprehension" as the principal benefit. This stresses that learners find IMTs most effective in helping them learn and remember information effectively. (26%) of respondents opted for "they enhance engagement and motivation". (18%) of students chose "they support personalized and adaptive learning", which implies that learners value tools that cater to individual learning styles. (12%) of students chose "they promote active learning and

critical thinking", and (10%) selected "they help develop long-term memory", as the benefit that helped them the most. (2%) of students chose "they encourage collaboration and communication", which underlines the fact that the tools employed were more individually focused or students have not fully explored collaborative features. Only (4%) of students chose all of the above, which may reflect that students tend to identify with specific benefits rather than a holistic view.

Question 24: Please read the following statements and tick the box that best reflects your opinion

Table 2.24.

Students' Opinions on the Impact of Interactive Multimedia Tools on Enhancing Digital Literacy Skills

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
IMTs have helped me develop Digital Literacy Skills including the ability to create digital content	14 (28%)	24 (48%)	8 (16%)	3 (6%)	1 (2%)	50 (100%)
I know how to evaluate the reliability of online learning resources	10 (20%)	28 (56%)	12 (24%)	0 (0%)	0 (0%)	50 (100%)
IMTs help me think more critically about the information I find online	18 (36%)	22 (44%)	9 (18%)	1 (2%)	0 (0%)	50 (100%)
IMTs improved my communication skills through digital platforms	17 (34%)	28 (56%)	3 (6%)	2 (4%)	0 (0%)	50 (100%)
Since using IMTs, I have become more aware of how to stay safe online	13 (26%)	18 (36%)	18 (36%)	1 (2%)	0 (0%)	50 (100%)

Table 2.24 indicates that 28% of students totally agreed that IMTs facilitated the enhancement of their digital literacy skills, including the ability to generate digital material. Likewise, (48%) of respondents agreed with the idea. A significant proportion of students (16%) showed a neutral disposition, while only (6%) of respondents disagreed and (2%) strongly disagreed. Moreover, (20%) of students strongly agreed and (56%) agreed that they know how to evaluate the reliability of online learning resources. A significant proportion of students (24%) remained neutral, and none of the respondents disagreed, indicating a strong perceived value of IMTs in developing evaluative skills. Furthermore, (36%) of students strongly agreed and (44%) agreed that IMTs helped them think more critically about online information, and (18%) gave a neutral response. Only (2%) of respondents chose the option of disagree. These results indicate that IMTs significantly improved critical thinking.

Additionally, (34%) of students strongly agreed that IMTs have improved their ability to communicate through digital platforms. Likewise, (56%) of respondents expressed agreement. A small number of students (6%) expressed neutral response, and only (4%) disagreed. These findings highlight that IMTs particularly develop students' communication abilities. Lastly, (26%) of students strongly agreed and (36%) agreed that IMTs made them more aware of how to stay safe online. (36%) remained neutral, and only (2%) disagreed, which suggests that there is a need for improvement in this area. These results emphasize that IMTs have a great impact on developing various aspects of digital literacy among learners, particularly in communication, critical thinking, and content creation.

Question 25: If you have any further comments or suggestions, please mention them below

The questionnaire concluded by asking students to provide any additional insights or recommendations about the topic. Out of fifty (50) students, only 20% answered this question and also shared warm wishes and compliments on the choice of the topic. Their responses can be summarized as follows:

- A student mentioned that IMTs should be applied across all educational settings.
- One respondent expressed concern about the state of technology in education, suggesting that it is still less developed.
- Some students noticed that many educators have not yet adapted to modern teaching technologies and continue to rely heavily on traditional methods, stressing the need to integrate IMTs into teaching practices.
- Some participants stated that IMTs enhance their English learning by integrating visuals, audio, and interactive elements, which are especially beneficial for improving listening and speaking skills, as well as for developing essential digital skills.

These suggestions highlight students' awareness of the effectiveness of IMTs and digital literacy skills in enhancing their learning process.

2.6. Summary of Results and Findings from Students' Questionnaire

The questionnaire was administered as a data collection tool to investigate EFL students' perceptions and practices towards the use of IMTs to develop digital literacy skills, and particularly to gain deeper understanding into how students perceive their impact on the learning process. The survey was distributed to a sample of 50 third-year students. Accordingly, the findings are reported, analyzed and discussed.

The first section of this questionnaire was devoted to gathering general data about students' age, how many years they have been studying English during their learning experience as well as inquiring about their perceptions of their English level. The overall results showed that most of the participants were aged between twenty (20) and twenty-three (23) years old. It also revealed that the surveyed students had studied English for about ten to twelve years, and that most of the sample had an intermediate level of English, which qualifies them as appropriate respondents for this questionnaire.

The second section was designed to explore EFL learners' perceptions and practices regarding the use of IMTs via a compilation of twelve (12) questions. First, it was evident that most of the students demonstrated familiarity with IMTs and reported using them frequently as part of their learning practices. In addition, the results demonstrate that IMTs have become commonly used in students' language learning processes, particularly for revising, doing homework and practicing language skills. Educational videos, online games and language learning apps were identified as the most frequently used resources, indicating that students prefer tools that are both interactive and flexible. These findings suggest a strong preference for visual, interactive, and engaging resources.

Furthermore, learners showed a clear awareness of their preferred learning styles, with many of them preferring visual and interactive approaches that correspond to the features offered by IMTs. Similarly, students stated that these tools helped them maintain their motivation and engagement, and were also helpful in effectively understanding and retaining the content. Besides, students acknowledged the importance of IMTs in boosting their receptive and productive language skills, and expressed a strong appreciation for the benefits of these tools in educational settings, stressing their role in encouraging independent learning and the need for their application across all educational institutions. However, despite this positive reception, students reported that their real use in classroom activities remains limited. This may be due to a lack of training, resources, or awareness among educators. Finally, this section revealed the main challenges that affect the use of IMTs, including limited technological resources and a lack of digital literacy training. These challenges reveal the necessity of improving technological resources and developing digital skills.

The purpose of the third section was to investigate the impact of IMTs on enhancing digital literacy skills. The findings show that most students are already familiar with the term digital literacy skills. Among the most relevant skills identified was the use of digital tools for

communication, the ability to search for and evaluate online information, and the use of educational platforms and software. These three skills appear to be the most common among the students. Furthermore, in terms of overall self-assessment, most students perceive their competencies as either average or good. In line with this, the vast majority believed that such skills had improved during their university studies, which indicates that the university environment plays a significant role in developing these competencies.

Additionally, IMTs were generally considered effective in enhancing digital literacy. Most students reported that these tools had moderately or significantly improved their abilities. Moreover, the main motivations for using IMTs in order to develop digital literacy skills included their ease of access and flexibility, engaging and interactive content, as well as curiosity and a desire for self-improvement. As for the skills developed through IMTs students reported improvements in their ability to search for online information. Others noticed developments in using educational applications, participating in online discussions, and creating videos or digital content. This highlights that students are effectively using multimedia to enhance their learning and digital abilities.

Consequently, in relation to the perceived advantages of IMTs in developing digital literacy skills, students identified their effectiveness in improving knowledge retention and comprehension, as well as in increasing engagement and motivation. Some students also appreciated their ability to support different individual learning needs. Finally, the students' overall opinions about the impact of IMTs further confirmed their positive influence on developing various aspects of digital literacy among learners, especially in communication, critical thinking and content creation.

To conclude, the analysis of the questionnaire highlights that most of the students reported positive perceptions regarding the application of IMTs in their language learning process. The majority stated that these tools are valuable resources that not only improve engagement and

motivation, but also contribute to language acquisition and digital skills development. These findings show that using IMTs in educational contexts is an effective strategy to meet students' diverse needs, preferences, and digital skill gaps. Besides, they emphasize the importance of providing educators with effective training and access to technological resources, which indicates the need to apply such tools within educational contexts to equip students with the competencies required to succeed in digital education. However, some students also reported limited use of IMTs in their classrooms, which may be due to a lack of teacher training, traditional preferences, and lack of technological resources. Accordingly, while IMTs can develop the quality of learning, several challenges must be addressed to ensure their successful implementation in the educational contexts.

Conclusion

This chapter deals with the practical part of the research by analyzing and discussing the questionnaire results. The research hypothesis was put under examination through the administration of the online survey questionnaire. The findings strongly supported the effectiveness of using IMTs in enhancing digital literacy skills. In addition, the findings demonstrate that by providing students with a dynamic and engaging environment where they can interact with different forms of IMTs, including videos, animations, quizzes, and interactive texts, their classroom engagement and involvement can be enhanced. In multimedia-based classrooms, students are not only acquiring language content but also building essential digital skills through their use of technology as a learning medium. This consequently may contribute to the development of essential digital competencies, including the ability to evaluate online information, navigate multimedia content effectively, and communicate through multiple digital platforms. Accordingly, based on the results of the questionnaire, it can be concluded that students believed IMTs supported the enhancement of their digital literacy skills.

CHAPTER THREE: CHAT ONLINE FOCUS GROUP

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Introduction

In order to gain deeper insights into EFL students' perceptions and practices towards the use of IMTs in enhancing their digital literacy skills, a qualitative exploratory approach was adopted using an online chat focus group. This group consisted of seven (7) participants from the Department of Letters and English Language at the University of 8 Mai 1945 Guelma, who were selected and invited to participate in the discussion via the "Messenger" platform. Accordingly, this chapter includes an analysis of the focus group discussion, followed by a summary of the key research findings based on that analysis.

3.1 Chat Online Focus Group

In order to explore EFL students' perceptions of whether their digital literacy skills are enhanced through the use of IMTs or not, an exploratory qualitative method was adopted. Eventually, an online chat focus group consisting of seven (7) participants was conducted via the "Messenger" platform to explore the use and impact of IMTs on their digital competencies.

3.1.1 Administration of Students Chat Online Focus Group

The focus group was conducted online through a group created on the "Messenger application", in which seven (7) participants were invited to discuss their use of IMTs. The discussion was facilitated by an administrator who acted as the moderator and guided the conversation. The questions were clearly understood, and the research topic was generally well received. As a result, the session lasted for two hours, from 6:00pm until 8:00pm, and included a total of one hundred fifty-three (153) exchanged messages.

3.1.2 Description of Students' Chat Online Focus Group

This online focus group represents a synchronous discussion among seven (7) participants. In particular, it is designed to explore their engagement regarding the use of IMTs and their perceived effectiveness in increasing English language learning and digital literacy skills. After greeting them, the participants were immediately informed that their online contributions would

be included in an academic investigation. The participants then started the scheduled conversation by responding to the research questions. With respect to the main discussed theme, participants responded to the structured questions by first highlighting their familiarity with both the use of such tools and the concept of digital literacy skills that helped them provide thoughtful and relevant insights.

Throughout the discussion, participants shared their views on the role of IMTs in supporting language learning, described the types of IMTs they regularly use, and reflected on how often they incorporate these tools into their learning routines. They also discussed the extent to which they believed IMTs had contributed to the development of their digital literacy skills. In addition, the participants provided suggestions for improving the integration of IMTs in English language education.

3.1.3 Analysis of Students' Chat Online Focus Group

Digital tools have become an essential part of modern education, as they have transformed teaching and learning practices, as well as the way education is delivered, especially in foreign language learning. In particular, it is believed that IMTs support students in enhancing their comprehension, engagement and their digital literacy skills, which are essential to succeed in both academic and professional settings (El Gazi & Ibrahim, 2024). Therefore, this study aims to examine students' real experiences and views regarding the use of these tools to enhance their digital skills by addressing the following core questions based on the analysis of the online chat focus group:

- 1- What are EFL students' perceptions towards the use of IMTs in language learning?
- 2- Which IMTs do they commonly use, and how frequently?
- 3- Do students think that IMTs have improved their digital literacy skills?
- 4- What recommendations do EFL students suggest regarding the integration of such tools in English language learning?

The initial review of the online chat focus group discussion demonstrated that students generally had positive opinions regarding the use of IMTs. Their responses presented common views on the impact of these tools, including active participation, improved comprehension, increased motivation, and the development of digital literacy skills. The following section offers a detailed analysis of their responses, supported by selected examples from the discussion.

1. EFL Students' Perceptions of IMTs

Exploring students' perceptions regarding the use of IMTs is essential for understanding how these tools affect their learning experiences and the development of their digital skills. This theme presents diverse perspectives on how students perceive and engage with multimedia resources, which highlights key factors that either encourage or hinder their usage through an analysis of their feedback.

Figure 3.1.

Perceived Usefulness of IMTs for Engagement and Memory Retention

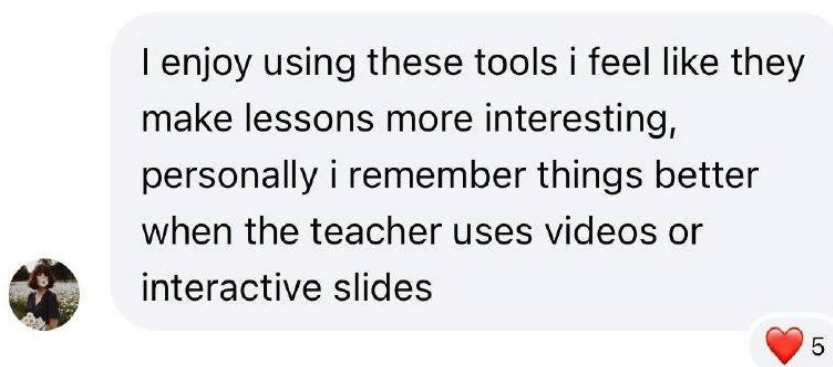


Figure 3.2.

Flexibility of IMTs in Language Learning

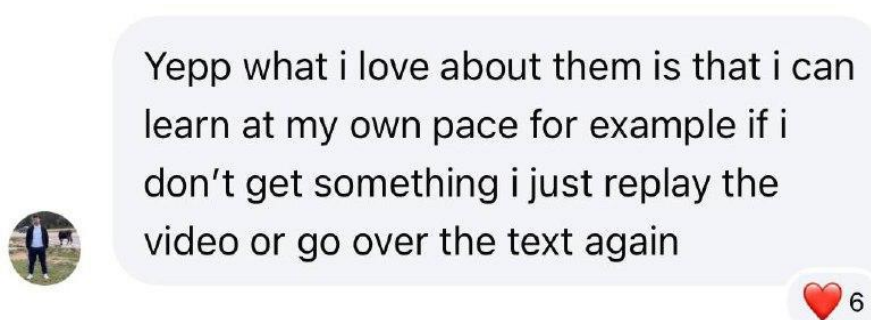
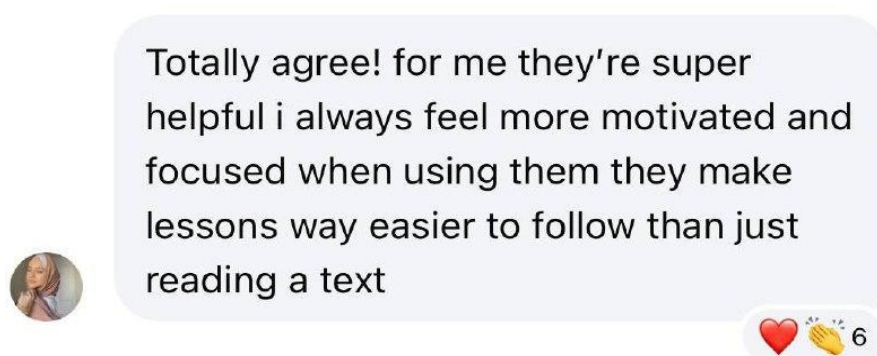
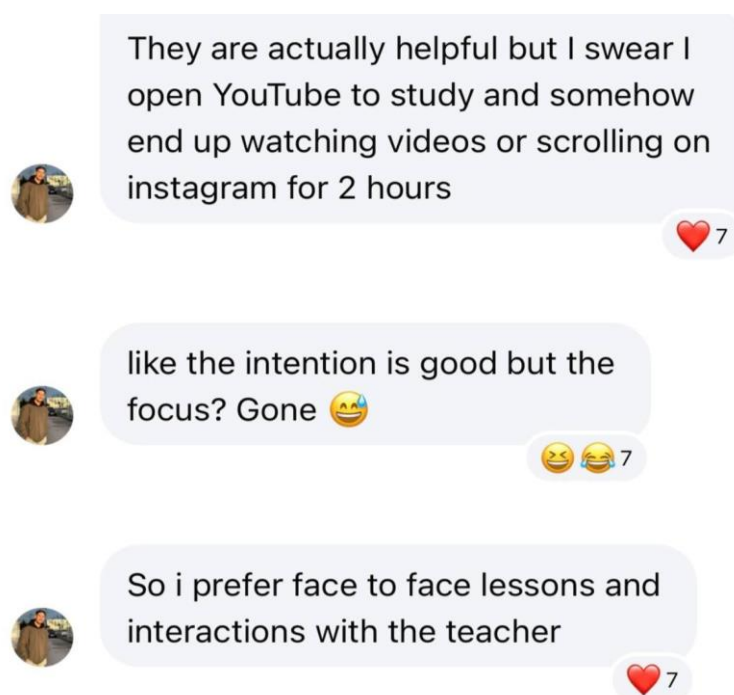


Figure 3.3.*Role of IMTs in Boosting Student Motivation and Focus***Figure 3.4.***Distraction Risks in Multimedia Learning*

Most of the participants expressed positive perceptions regarding the use of IMTs in language learning. As shown in Figure 3.1, one student stated that these tools enhance students' engagement and reinforce their memory retention. Figure 3.2 shows that another student appreciated the flexibility of IMTs, indicating that they help students learn in ways that suit their individual needs. Similarly, students reported that they feel more motivated and focused when using IMTs, particularly as displayed in Figure 3.3. One student highlighted the

effectiveness of these tools in boosting students' motivation and concentration. Figure 3.4 shows that while the overall responses were positive, one student expressed a contrasting opinion, stressing that although these tools are useful, they can also have some limitations like distraction. To sum up, these responses suggest that EFL learners perceive IMTs as helpful for English language learning.

2. Usage of Interactive Multimedia Tools

This theme explores which IMTs EFL students commonly use to support their English learning and how often. Their responses showed a variety of digital applications and platforms that indicate their individual preferences.

Figure 3.5.

Use of Duolingo for Daily Practice

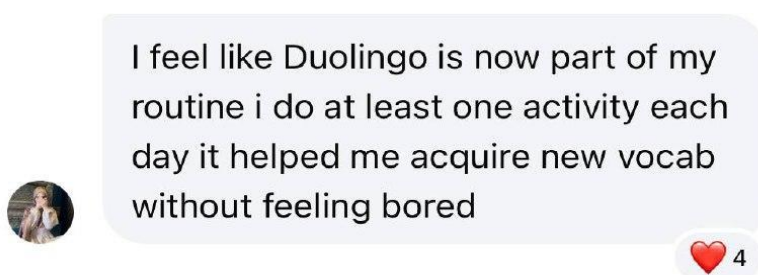
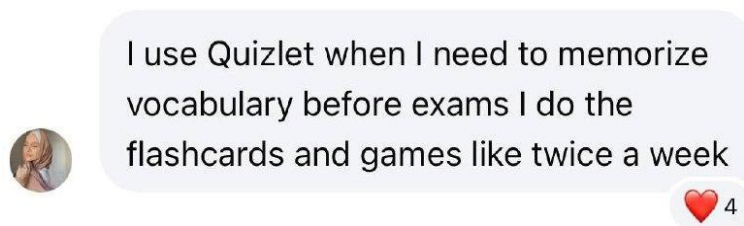
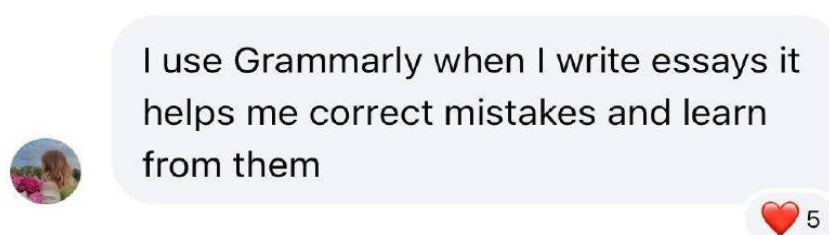
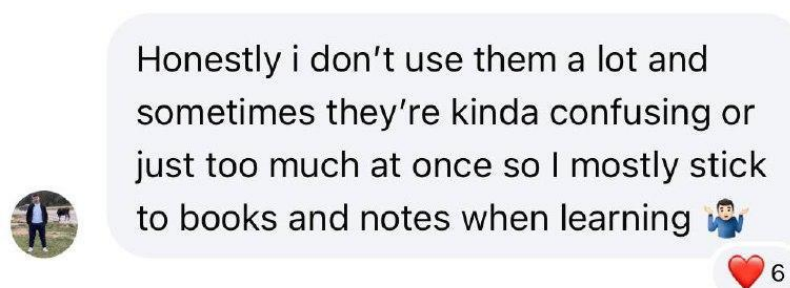


Figure 3.6.

Use of YouTube for Language Learning



Figure 3.7.*Use of Quizlet for Exam Revision***Figure 3.8.***Use of Grammarly for Writing Support***Figure 3.9.***Preference for Traditional Learning Materials*

Most participants reported using a variety of IMTs to support their English learning. As shown in Figure 3.5, Duolingo was perceived by one student as a helpful tool that could easily become part of the student's daily routine to learn new vocabulary. It provides engaging activities that keep learners interested. Other students mentioned YouTube as their preferred learning tool. In particular, Figure 3.6 illustrates how one student used YouTube as a primary source for improving pronunciation and speaking by watching English videos such as TED Talks and interviews, in addition to grammar explanations. In Figure 3.7, another student used

Quizlet to memorize vocabulary before exams through flashcards and games for regular practice. Figure 3.8 emphasizes the use of Grammarly during essay writing, where one student appreciated its role in identifying and correcting mistakes in writing. In contrast, Figure 3.9 presents a student who found these tools confusing and preferred studying from books and handwritten notes. These answers show that learners use IMTs in different ways, based on the digital platforms that suit their personal needs.

3. Development of Digital Literacy Skills

This theme explores students' opinions about the impact of IMTs on their digital literacy skills. Students mentioned an increase of confidence when using digital platforms for different purposes, such as communication, content creation, and online learning tasks.

Figure 3.10.

Improved Digital Skills through Apps

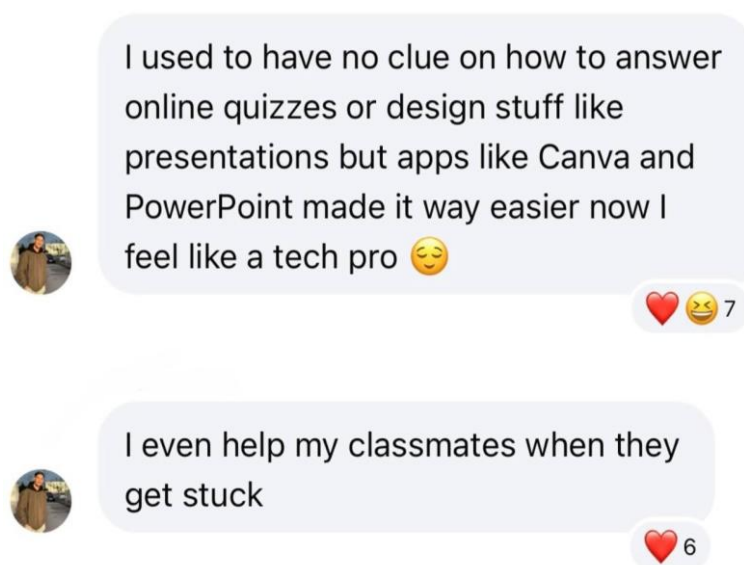
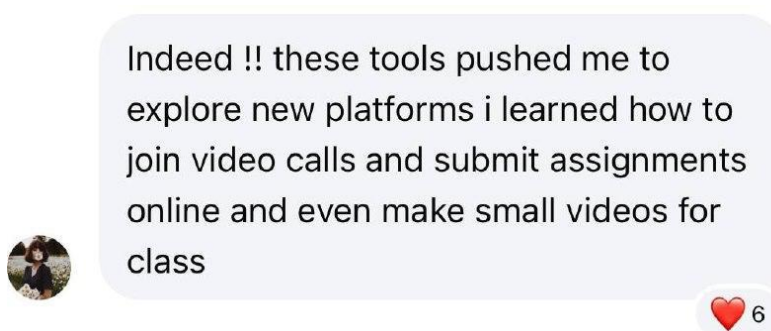


Figure 3.11.

Improved Digital Skills in Video Calls and Assignments Submission

**Figure 3.12.**

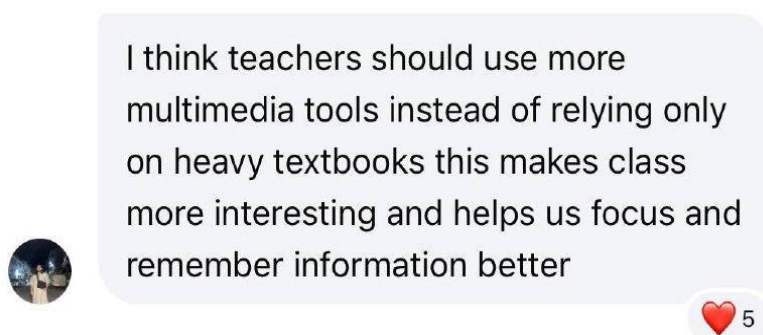
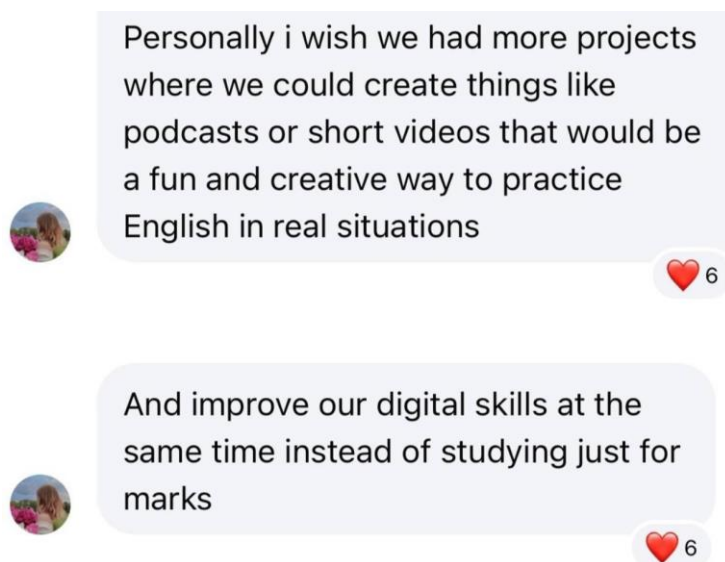
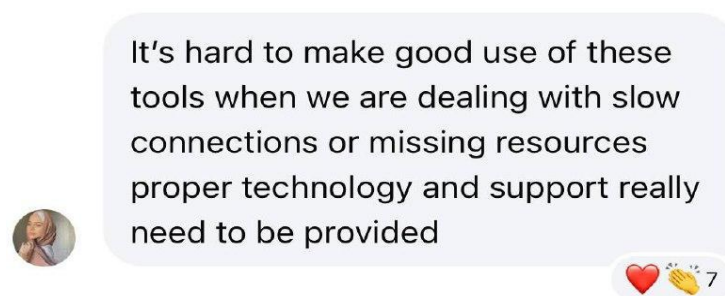
Enhanced Confidence in Digital Communication



Students expressed agreement on the use of IMTs in developing their digital literacy skills. As displayed in Figure 3.10, one participant reported that such tools improved their ability to answer online quizzes and design presentations using apps. As shown in Figure 3.11, another participant indicated progress in some skills, particularly in video calls and submitting assignments online. Figure 3.12 highlights a student who mentioned that these tools helped enhance their confidence in digital communication. Overall, these responses demonstrate that IMTs had a significant impact on the development of essential digital skills.

4. Students Recommendations for Integrating Interactive Multimedia Tools

This theme focuses on students recommendations on how to improve the integration of IMTs in English language classrooms. Their suggestions involve using more engaging content, supportive creative digital projects, and stressing technical limitations.

Figure 3.13.*Promoting Multimedia Use over Traditional Textbooks***Figure 3.14.***Support Creative Projects Including Podcasts***Figure 3.15.***Strengthen Technology and Support*

Students provided several suggestions for effective integration of IMTs in language learning. As shown in Figure 3.13, one participant proposed that teachers should incorporate such tools in learning instead of traditional textbooks. In Figure 3.14, one student suggested that teachers include more creative projects such as podcasts in lessons. Similarly, Figure 3.15 indicates that not all recommendations were about content. One participant emphasized the poor of technological resources and proposed offering reliable internet access and adequate digital tools. These responses show that learners want more interactive and authentic activities, but also highlight the need for technological support in order to ensure effective implementation.

3.1.4 Summary of Results and Findings from Students' Chat Online Focus Group

In order to explore EFL students' perceptions and practices towards the use of IMTs to enhance their digital literacy skills. An exploratory qualitative research approach was adopted using an online chat focus group, which consisted of seven (7) third-year students, who were invited to participate in the discussion via the "Messenger" platform. Students' responses offered thoughtful views on the use of IMTs in English language learning. Accordingly, the findings were structured based on four central themes.

The extracted data in the first theme, which focuses on EFL students' perceptions regarding the use of IMTs, showed that most of the participants expressed positive views on the use of such tools, highlighting their role in reinforcing memory retention, boosting motivation and making lessons more engaging. Students also appreciated how these tools support different learning needs, offer flexibility, and improve concentration. However, only one student stated a potential limitation, stressing that these tools could lead to distractions when not used appropriately. Building on the first theme, the second theme identifies which IMTs students commonly use to support their English learning and how often. Participants stated that they use a variety of IMTs, including Duolingo, YouTube, Quizlet, and Grammarly. Each tool addressed specific learning need such as obtaining new vocabulary, practicing pronunciation,

supporting writing, and preparing for exams. Although the majority of them used these tools regularly in their learning routines, one participant reported limited use, expressing a sense of overwhelm and a preference for traditional learning methods like textbooks. The third theme investigates the effectiveness of IMTs in developing digital literacy skills. Learners agreed that these tools helped them improve practical digital skills such as creating presentations, submitting assignments, completing online quizzes, and participating in virtual meetings. In addition, one student indicated feeling more confident in online communication, highlighting that IMTs support both language learning and digital skills development. The fourth and final theme focuses on students' suggestions on the integration of IMTs in education. Participants offered beneficial recommendations for more effective implementation. They proposed replacing traditional textbooks with digital tools, incorporating creative tasks such as podcasts and multimedia projects, and ensuring access to reliable internet and core digital resources. These responses reflect students' preferences for interactive learning experiences supported by appropriate digital materials.

To conclude, the focus group findings prove that students perceive IMTs as helpful for promoting language learning, developing digital skills, and boosting motivation and engagement, while also stressing the need for effective integration and appropriate technological support.

Conclusion

The current chapter discussed the analysis, interpretation, and description of the findings from the students' focus group. It is clearly concluded that third-year EFL learners served as a suitable sample to express their awareness of and attitudes towards the use of IMTs tools in language learning. The retrieved results clearly indicate a strong relationship between the use of IMTs and the development of digital literacy skills. In particular, this practical chapter emphasized learners' perceptions of the effectiveness of using IMTs to enhance their digital

skills and to increase their engagement in English language learning. It also addressed the benefits of these tools for learning and digital development, the challenges students face, and their suggestions for effective future implementation. Accordingly, when carefully designed and appropriately integrated, IMTs can serve as essential support to help learners successfully develop their digital skills within the modern educational context.

GENERAL CONCLUSION

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1. Summary of the Findings

The objective of the study was to explore the perceptions and practices of EFL students' regarding the use of IMTs. Research variables were delved into, both theoretically and practically, to answer research questions. Consequently, three chapters were established; one theoretical and two practical. The initial chapter explored the two research variables, detailing their notions, related concepts and theories. As for the practical chapters, research questions were investigate thoroughly in order to validate the main hypothesis, which stated that IMTs enhance EFL students' digital literacy skills.

To achieve the aforementioned goal, an exploratory research approach was applied, including a survey questionnaire and a focus group. A sample of fifty (50) third-year students of English at the Department of Letters and English Language, University of 8 Mai 1945, Guelma, responded to an online survey. The primarily purpose of the survey was to find out their views and behaviors towards IMTs in developing their literacy skills. Moreover, a discussion was conducted via the "Messenger" platform with a group of seven (7) third-year students to gain a deeper understanding of the research topic.

The results of the data analysis have made a substantial contribution to answering the main research questions and assessing research hypothesis. The first question aimed to investigate how EFL students view the use of IMTs in their language learning process. As per data collected, the vast majority of students indicated a favourable opinion of the use of IMTs in the learning process. Many students reported that these tools enhanced the enjoyment of learning and facilitated the content retention, whereas a small percentage of participants noted challenges and distractions.

The second question focused on identifying strategies to improve the effective integration of IMTs in EFL education. Based on students' responses, most respondents suggested adding more interactive and authentic content, encouraging innovative digital projects, and offering suitable technological resources and assistance.

Overall, it can be said that most students have a positive opinion of using IMTs based on the results of the precedent search gathered from the survey and focus groups. They see these tools as supportive for language learning, digital skills development and increased motivation and engagement.

2. Pedagogical Implications

The results of the current study have significant pedagogical implications for EFL educators; policy makers, and academic institutions regarding the use of IMTs in enhancing EFL student's digital literacy skills, following a comprehensible practical analysis of the collected data from students' questionnaire and focus group. These implications seek to develop the practical dimensions of the study and deepen the understanding of the topic under examination.

First, the successful integration of IMTs in educational settings relies on the educators' ability to effectively incorporate these tools into their pedagogical practices. Thus, embracing modern teaching methods, becoming more proficient with digital tools, and pursuing a continual professional development and training is pivotal to seamlessly integrate technology within classroom environment.

Second, it is paramount that technology is used to enhance and support the designated learning objectives of the curriculum. Therefore, educators should thoughtfully choose digital resources that support learning objectives and make a significant contribution to the process.

Correspondingly, educators can adapt flexible student-centered teaching strategies to accommodate various learning needs and styles. This approach includes the integration of several different digital resources, such as videos and educational games. To effectively implement appropriate strategies and design tasks that cater to both language acquisition and digital skills development, it is essential for educators to identify the specific needs and preferences of their students.

In addition to language development, students' digital skills are immensely influenced by the efficient use of IMTs in the classroom. When these tools are embedded into the curriculum, students can navigate educational platforms, evaluate online information, produce digital content, and engage effectively in an online environment.

Moreover, IMTs can be used to assess students' performance by providing immediate feedback, which helps learners understand their progress in real time. Therefore, educators should adopt new methods of assessment to promote active participation and engagement among students.

Furthermore, to help teachers and learners resolve any technological issues and maintain the continuity of the educational process, educational institutions should ensure the availability of both technical support and necessary digital resources.

In summary, the integration of IMTs has the potential to enhance educational outcomes through cooperation between teachers, institutions and policymakers. The successful use of these tools relies upon consistent regular training; strategic planning, and institutional support.

3. Limitations of the study

Through the process of conducting this research, numerous limitations and challenges were faced, including a few noteworthy factors that might have impacted its progress, especially in terms of practical implementation.

First, several ideas in Chapter 1 and Chapter 2 were repeated, and there was a clear redundancy, especially in the discussion of their relevance and challenges, because both variables; IMTs and digital literacy skills, are closely tied to technology. Consequently, we combined the theoretical sections of the two chapters into one, which may represent an additional limitation of the study, as it impacted the traditional structure of the research.

Moreover, the process of distributing the online survey questionnaire was challenging because it was difficult to reach the target population, unlike the traditional distribution method

where all participants are present. Also, to gather a substantial amount of responses, the survey needed to be individually resent multiple times, resulting an extended duration for the study.

Besides that, interviews were supposed to be the second method of data collection of this research. However, due to time constraints, it was necessary to shift to an online chat-based focus group.

Additionally, it was challenging to find reliable and authentic sources that cover both variables, given that the research topic is relatively recent and not thoroughly examined. As a consequence, there was a notable availability of free books and academic articles online about the studied topic.

4. Recommendations for Further Research

This study has provided significant insights into the use of IMTs to enhance digital literacy skills. Future researchers interested in exploring the same area of study can into consideration further pedagogical recommendations.

First and foremost, it is crucial to conduct additional researches aimed at examining EFL teachers' perceptions, experiences and challenges regarding the integration of IMTs into the classroom. Identifying and understanding these factors would provide a valuable feedback and contribute to a more thorough view of the integration process.

To achieve a better understanding of the effects of IMTs on the development of language proficiency and digital literacy skills, researchers can carry out longitudinal studies to investigate the results and progress of using these tools over an extended period of time. In addition, through using this method, researchers can gather comprehensive data about how students use these technologies to enhance their digital literacy and learning process.

Moreover, researchers can compare the effects of multimedia applications like Quizlet, Duolingo, Canva on specific language skills like speaking, writing or digital literacy elements

as content creation and digital cooperation. Such investigations require studying the implementation of these techniques, the obstacles encountered, and the outcomes obtained.

In addition, in order to identify contextual influences and broader trends, researchers could also analyze how students use IMTs across various universities, institutions, and educational levels or geographical areas.

Finally, Future research can examine specific classroom activities that integrate IMTs in order to identify which types of multimedia-based tasks are most effective for language acquisition and digital literacy development.

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A Questionnaire for Third-Year EFL Students at the University of 8 May 1945 Guelma

Exploring EFL Students' Perceptions and Practices towards the Use of Interactive Multimedia Tools to Enhance Digital Literacy Skills

Dear participants,

You are kindly invited to answer this questionnaire, which is part of a research study carried out at the Department of English, University of 08 Mai 1945 Guelma. The purpose of the current study is to explore EFL Students' Perceptions and Practices towards the use of Interactive Multimedia Tools to enhance Digital Literacy Skills. We will be grateful if you could tick your choice in the corresponding boxes or elaborate with full statements whenever necessary. Your responses will remain confidential and contribute to the successful completion of this dissertation, so please feel free to answer accurately and honestly.

Thank you in advance for your time and cooperation.

Second-year Master Students:

Ms. Zaimen Imene

Ms. Yahyaoui Ghada

Faculty of Letters and Languages

Department of Letters and English Language

University of 8 Mai 1945, Guelma

Section One: General Information

1. How old are you?

.....

2. How long have you been studying English?

.....

3. How do you describe your level of English?

a. Pre-intermediate ☐

b. Intermediate ☐

c. Upper-intermediate ☐

Section Two: Learners' Perceptions and Practices towards Interactive Multimedia Tools

4. How often do you use Multimedia Tools (images, videos, apps, games, etc.) for

English learning?

a. Daily ☐

b. Weekly ☐

c. Rarely ☐

d. Never ☐

5. Which Multimedia Tools do you use most? (You may tick more than one option)

a. Educational videos ☐

b. Language learning apps ☐

c. Online quizzes/games ☐

d. Podcasts ☐

e. E-learning platforms ☐

Other.....

6. When do you mostly use IMTs?

- a. During class ☐
- b. After class for revision ☐
- c. When preparing homework/projects ☐
- d. Just for fun and practice ☐
- e. I don't use them ☐

7. Can you identify your learning style?

- a. Yes ☐
- b. No ☐

8. If yes, which of the following best describes your preferred learning style?

- a. Visual ☐
- b. Auditory ☐
- c. Reading and Writing ☐
- d. Kinesthetic ☐

9. Do you think that Interactive Multimedia Tools support your learning style effectively?

- a. Yes ☐
- b. No ☐

10. Have IMTs become part of your learning practices?

- a. Yes ☐
- b. No ☐

11. Do you think that using Interactive Multimedia Tools helps in learning English?

- a. Yes ☐
- b. No ☐

Please, justify.....

.....

12. To what extent do you think Interactive Multimedia Tools help you understand your course content?

- a. To a very great extent ☐
- b. To a great extent ☐
- c. To some extent ☐
- d. To a small extent ☐
- e. Not at all ☐

13. On a scale of 1 to 5, how often do your teachers use IMTs in classroom?

01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐

14. Please read the following statements and tick the box that best reflects your opinion

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I believe multimedia tools make learning English more interesting					
Multimedia tools help me understand lessons better					
I feel more motivated when using multimedia tools in class					
Teachers should use more multimedia tools during lessons					
I prefer traditional teaching over multimedia based learning					
I think multimedia tools improve my language skills					
Multimedia tools help me retain information better than printed materials					

15. What challenges do you think limit the effective use of Interactive Multimedia Tools in education? (You may tick more than one option)

- a. Lack of technological resources (e.g., weak internet) ☐

- b. Financial limitations (high cost of tools) ☐
- c. Lack of digital skills (e.g., difficulty creating or using IMTs) ☐
- d. Difficulty shifting from traditional to digital teaching methods ☐
- e. Multimedia content is not always adaptable to different learning needs ☐
- f. Poorly structured or overwhelming content ☐

Other.....

Section Three: Impact of IMTs on enhancing Digital Literacy Skills

16. Are you familiar with the term Digital Literacy Skills?

- a. Yes ☐ b. No ☐ c. Not sure ☐

17. Which of the following Digital Skills do you feel you currently have?

(You may tick more than one option)

- a. Searching for and evaluating online information ☐
- b. Using digital tools for communication ☐
- c. Creating digital content ☐
- d. Understanding digital safety and privacy ☐
- e. Using educational platforms or software ☐
- d. None of the above ☐

18. How would you rate your overall Digital Literacy Skills?

- b. Good ☐
- c. Average ☐
- d. Poor ☐

19. Have your Digital Literacy Skills improved during your university studies?

- a. Yes ☐ b. No ☐

20. How have Interactive Multimedia Tools helped you improve your Digital Skills?

- a. Significantly improved ☐
- b. Moderately improved ☐
- c. Remained unchanged ☐

21. What motivates you to use Multimedia Tools to develop your Digital Skills?

- a. Engaging and interactive content ☐
- b. Ease of access and flexibility ☐
- c. Peer or teacher recommendation ☐
- d. Curiosity and self-improvement ☐

22. Which Digital Skills have you improved through multimedia tools?

- a. Use educational applications ☐
- b. Search for information online ☐
- c. Create videos or digital content ☐
- d. Participate in online discussions ☐
- e. Access learning platforms ☐

Other.....

23. In your opinion, what are the main advantages of using Interactive Multimedia Tools to develop Digital Literacy Skills?

- a. They boost engagement and motivation ☐
- b. They support individual learning needs ☐
- c. They improve memory retention and comprehension ☐
- d. They help develop long-term memory ☐
- e. They support active learning and reflective thinking ☐
- f. They encourage collaboration and communication ☐

g. All the above

☐

24. Please read the following statements and tick the box that best reflects your opinion

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
IMTs have helped me develop Digital Literacy Skills including the ability to create digital content					
I know how to evaluate the reliability of online learning resources					
IMTs help me think more critically about the information I find online					
IMTs improved my communication skills through digital platforms					
Since using IMTs, I have become more aware of how to stay safe online					

25. If you have any further comments or suggestions, please mention them below

.....

.....

.....

Thank you for your collaboration! Your responses will be greatly appreciated.

الملخص

في السياق التعليمي الحديث، أصبحت أدوات الوسائط المتعددة التفاعلية استراتيجية رئيسية في عملية التعليم والتعلم لتنمية كفاءات الطلاب في تصفح المحتوى الرقمي وتقييمه وإنشائه والهدف الأساسي من هذه الدراسة هو استكشاف موقف الطلاب تجاه فاعلية هذه الأدوات في تنمية مهارات محو الأمية الرقمية، لا سيما محو الأمية المعلوماتية ومحو الأمية الإعلامية والتواصل الرقمي وحل المشكلات الرقمية. أُستخدِم في هذا البحث الاستكشافي أدوات بحث كمية ونوعية لجمع البيانات ذات الصلة حول أدوات الوسائط المتعددة الأكثر استخدامًا من قبل طلاب اللغة الإنجليزية كلغة أجنبية، وكذلك حول تصوراتهم عبر نماذج جوجل بشأن دور هذه الأدوات في تشكيل كفاءات متعلمي القرن الحادي والعشرين. فمن جهة، وُزِع استبيان لجمع البيانات من خمسين طالبًا من السنة الثالثة لغة إنجليزية كلغة أجنبية بجامعة 8 ماي 1945 Google Forms فورمز قالمة. ومن جهة أخرى، أُجريت مناقشة لجماعة بؤرية عبر تطبيق ماسنجر مع سبعة مشاركين من نفس المجتمع الإحصائي. وأظهرت النتائج أن أغلب المتعلمين لديهم تصورات إيجابية حول استخدام أدوات الوسائط المتعددة التفاعلية معتبرين إياها وسيلة فعالة في تطوير مهارات محو الأمية الرقمية. ومع ذلك، أشار العديد منهم إلى أن أدوات الوسائط المتعددة التفاعلية تعاني من قيود حقيقية في استخدامها، مثل نقص الموارد التقنية وضعف الكفاءات الرقمية، بالإضافة إلى التشتت واستهلاك الوقت. ولذلك، أُقترحت توصيات عملية لضمان التكامل الفعّال لهذه الأدوات في عملية التعليم والتعلم.

الكلمات المفتاحية

البحث الاستكشافي؛ الكفاءات الرقمية؛ الكفاءات في القرن الحادي والعشرين؛ محو الأمية الإعلامية؛ محو الأمية المعلوماتية؛ وسائل الوسائط المتعددة التفاعلي.

Résumé

Dans le contexte actuel de l'éducation , l'intégration d'outils multimédias interactifs est devenue une stratégie fondamentale dans le processus d'enseignement et d'apprentissage, pour améliorer les compétences des étudiants dans la création , l'évaluation et la navigation du contenu digital, le but de cette étude est d'explorer les attitudes des étudiants envers l'efficacité de ces outils pour améliorer leurs compétences en littératie numérique, particulièrement la littératie informationnelle, la littératie médiatique, la communication numérique et la résolution des problèmes numériques. Cette recherche exploratoire utilise à la fois des outils quantitatifs et qualitatifs pour collecter des données pertinentes sur les outils multimédias les plus couramment utilisés par les étudiants en anglais langue étrangère (ALE), ainsi que sur leur perception du rôle de ces outils dans la formation des compétences des apprenants du 21e siècle. D'une part, un questionnaire a été administré via Google Forms afin de recueillir des données auprès de cinquante étudiants de troisième année (ALE) à l'université 8 Mai 1945 de Guelma. D'une autre part un groupe de discussion en ligne via Messenger a été organisé avec sept participants issus de la même population. Les résultats révèlent que la majorité des étudiants perçoivent positivement concernant l'utilisation des outils multimédias interactifs et les jugent efficacement pour améliorer leurs compétences en littératie numérique. Cependant, les étudiants ont constaté que ces outils présentaient de graves limites dans leur utilisation, telles que le manque de ressources technologiques, le manque de compétences numériques, la distraction et la perte de temps. Par conséquent, des recommandations concrètes ont été proposées pour une intégration plus efficace de ces outils dans le processus d'enseignement et d'apprentissage.

Mots-clés :

Compétences du 21-siècle; Culture de l'information; Culture médiatique; Littératie numérique; Outils multimédias interactifs; Recherche exploratoire.