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**Exploring the Role of EFL students' Digital Literacy in Online Learning:
The Case of third year technical English students at the University of Continuing Education
Bordj Bou Arreridj, Algeria**

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ABSTRACT

The current research attempts to explore the role of digital literacy in supporting the online learning process of third-year English for Specific Purposes (ESP) students at the University of Continuing Education in Bordj Bou Arreridj, Algeria. In light of the growing reliance on digital tools in education especially following the COVID-19 pandemic, the research aimed to explore how well students are equipped with digital skills and how these skills influence their success in an online learning environment. It also aimed to understand teachers' perspectives on students' digital readiness and the institutional conditions that affect digital integration. The study was conducted using a mixed-methods approach: quantitative data were gathered through a student questionnaire, while qualitative insights were collected from semi-structured interviews with EFL teachers. The results revealed that while many students have access to digital devices and platforms, a significant number lack the critical digital skills required for effective academic engagement such as content creation, online collaboration, and digital problem-solving. Teachers confirmed this gap and expressed the need for more structured digital training and institutional investment. The findings contribute to a growing body of research that emphasizes the importance of digital literacy in language learning. Based on the data, the study proposes several pedagogical implications: revising the EFL curriculum to include digital competencies, providing ongoing training for both students and teachers, and improving institutional infrastructure and policy support. The study concludes that digital literacy is not just a helpful addition but a necessary component of academic success in the modern Algerian university system.

Keywords: digital literacy; EFL students; higher education; online learning; technical English

DEDICATION I

To my beloved family, whose endless love and encouragement made this journey possible, and to my little cousin AmineHouamed may your dreams take flight, and may you one day celebrate your own graduation with pride.

Silia

DEDICATION II

I dedicate these words to the most precious people in my heart.

To My beloved parents, who have always been by my side in failure as in success; words cannot give enough credit to their love, support, and tenderness.

To my late grandfather, this achievement is a tribute to your memory and legacy you left behind.

To my dearest sisters and brothers: Maroua, Meriem, Seif Eddine and Nabil.

To my beloved nieces and nephew: Khadidja, Rokaia, Sarah, Hafsa and Abd Rahim.

To my entire family and dearest friends.

To myself.

Imene

DEDICATION III

To those who have been the foundation of every step I've taken...

To my father, my source of strength, and to my mother, who planted in me the seeds of love and determination from the very beginning...

To my siblings, who were always my support, and to my in-laws, who surrounded me with encouragement and respect...

To my beloved husband, my partner in life and my unwavering support who believed in me when I was weary and pushed me forward when I wanted to stop...

And to my little daughter, still growing inside me, whose presence gives me hope each and every day...

And finally... to myself.

To the woman who stayed up late and worked hard, who cried in silence, then rose and kept going.

To every moment of effort, resilience, and persistence in the face of fatigue and doubt I dedicate this work to you, for you truly deserve to be proud.

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LIST OF ACRONYMS

EFL: English as a foreign language

LMS: learning Management Systems

ESP: English for Specific Purposes

ICT:Information and Communication Technology

CBA:CompetencyBased Approach

TPACK:Technology Pedagogical Content Knowledge

MHESR: The Ministry of Higher Education and Scientific Research

TEFL: Teaching English as a foreign language

TESOL: Teaching English to Speaker of Other Languages

UFC: University of Continuing Education

ITTT: Information Technology Training Team

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General introduction

General introduction

In recent years, digital literacy has emerged as a crucial competency in the realm of education, particularly within English as a Foreign Language (EFL) learning contexts. As higher education institutions increasingly transition toward online and blended learning environments, students' ability to effectively navigate digital platforms has become essential for academic success. In Algeria, this digital shift has brought both opportunities and challenges, especially for learners in technical streams where English is taught as a foreign language.

Several Algerian researchers have highlighted the gap between students' digital skills and the demands of online learning. For instance, Belahbib (2017) explored the challenges EFL students face in adapting to technology-enhanced classrooms and emphasized the need for integrating digital literacy in language teaching. Similarly, Grazib (2023) examined the practical applications of the Task-Based Learning Approach in online environments and stressed that learners' digital readiness plays a significant role in the effectiveness of such approaches. Bouadjaj and Belhadj (2024) further emphasized that real-world task-based assessment and instruction in online EFL settings require both linguistic competence and a minimum level of digital fluency.

The University of Continuing Education in Bordj Bou Arreridj, like many institutions across the country, has witnessed a growing reliance on online platforms for course delivery, communication, and assessment. However, the digital readiness of students, particularly their capacity to critically and efficiently engage with digital tools varies widely. For third-year Technical English students, whose academic success depends not only on language proficiency but also on digital competence, this gap presents a significant area of concern.

Understanding the role digital literacy plays in shaping EFL students' online learning experiences is essential for developing more inclusive, responsive, and effective educational strategies. This study aims to explore how digital literacy influences learners' engagement,

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comprehension, and communication within online environments, with a focus on the specific academic and sociocultural context of Algerian higher education.

Despite the increasing integration of digital technologies in Algerian higher education, many EFL students continue to face challenges in navigating online learning environments effectively. While institutions have adopted various platforms and tools to facilitate online education, there remains a noticeable gap between the digital demands of these environments and the actual digital competencies of learners.

This issue is particularly evident among third-year Technical English students at the University of Continuing Education in Bordj Bou Arreridj. These students are expected to manage a dual challenge: mastering English as a foreign language and adapting to digitally mediated learning experiences. However, their ability to fully engage with, comprehend, and communicate through digital tools is often hindered by limited digital literacy skills, inconsistent access to technology, or a lack of prior training.

As a result, questions arise about the effectiveness of online learning for these learners and whether current digital education strategies are meeting their needs. There is a pressing need to investigate how students' digital literacy levels affect their overall learning experience, particularly in an EFL context where communication and comprehension are already layered with linguistic complexity.

This study addresses this gap by examining the relationship between digital literacy and the online learning experience of EFL students, aiming to generate insights that can inform more equitable and effective digital education practices.

Research Questions and Hypotheses

Research Questions:

1. What is the level of digital literacy among third-year Technical English students at the University of Continuing Education in Bordj Bou Arreridj?

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2. How does digital literacy influence EFL students' engagement and performance in online learning environments?
3. What are the challenges faced by EFL learners in adapting to online learning due to digital literacy limitations?
4. What strategies can be implemented to enhance digital literacy for more effective online EFL learning?

Hypotheses

- ✓ Students with higher levels of digital literacy demonstrate more active engagement and better performance in online EFL learning.
- ✓ A lack of digital literacy significantly hinders students' ability to benefit from online language instruction.
- ✓ Targeted digital literacy support can improve learners' confidence, participation, and outcomes in online EFL courses.

The primary objective of this study is to explore the relationship between digital literacy and online learning among EFL students in an Algerian university context. More specifically, the study aims to: The primary objective of this study is to explore the relationship between digital literacy and online learning among EFL students in an Algerian university context. More specifically, the study aims to:

1. Assess the current level of digital literacy among third-year Technical English students at the University of Continuing Education in Bordj Bou Arreridj.
2. Examine how digital literacy impacts students' engagement, communication, and academic performance in online EFL courses.

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3. Identify the key challenges faced by students with limited digital skills in adapting to online learning environments.

4. Suggest practical strategies and pedagogical implications for enhancing digital literacy and improving the effectiveness of online EFL instruction.

Language (EFL) education, particularly in the context of Algerian higher education. At the theoretical level, it contributes to the growing body of literature on digital literacy and its intersection with language learning, offering insights into how digital competencies shape students' ability to engage in online academic environments. On a practical level, the study provides valuable information for educators, curriculum designers, and policymakers seeking to improve online learning experiences for EFL learners. By identifying the specific digital challenges faced by third-year Technical English students at the University of Continuing Education in Bordj Bou Arreridj, this research highlights the urgent need for targeted digital literacy training and support. This study holds both theoretical and practical significance in the field of English as a Foreign language.

Moreover, the findings may guide the development of pedagogical strategies that integrate both language and digital skills, ensuring that students are not only linguistically competent but also digitally empowered. As online education becomes increasingly common, this study emphasizes the importance of bridging the digital gap to ensure equality.

This study adopts a mixed-methods approach to explore the role of digital literacy in the online learning experiences of third-year Technical English students. Combining both quantitative and qualitative data collection tools allows for a more comprehensive understanding of the issue. The population targeted in this research consists of third-year Technical English students at the University of Continuing Education in Bordj Bou Arreridj during the academic year 2024–2025. A purposive sampling technique was used to select participants who are actively engaged in online learning environments.

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Data was collected using two primary tools:

- A semi structured questionnaire distributed to students to assess their level of digital literacy, challenges faced, and engagement in online learning.
- Semi-structured interviews conducted with EFL instructors to gain deeper insights into their observations and perspectives regarding students' digital competence and classroom performance.

The collected data was analyzed using descriptive statistics for the questionnaire and thematic analysis for the interview responses. This dual analysis aims to highlight patterns, connections, and practical implications regarding digital literacy and its effect on EFL learning outcomes.

Definitions of Key Terms

To ensure clarity and consistency throughout the study, the following key terms are defined as they are used in this research:

- **Digital Literacy:** The ability to effectively find, evaluate, use, and communicate information through digital technologies. This includes basic computer skills, navigating online platforms, digital communication, and critical thinking in digital environments.
- **EFL (English as a Foreign Language):** Refers to the learning and teaching of English in a non-English-speaking country, such as Algeria, where English is not the primary language of communication.
- **Online Learning:** A mode of education in which instruction and interaction occur via digital platforms, often using tools such as video conferencing, learning management systems (LMS), forums, and digital content.
- **Technical English Students:** University students enrolled in programs that focus on English for Specific Purposes (ESP), particularly in technical and professional fields such as engineering, IT, or applied sciences.

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Organization of the Thesis

This thesis is structured into three main chapters in addition to the general introduction and conclusion. Each part addresses a key component of the research process:

General Introduction

Provides the background of the study, outlines the problem, research questions and hypotheses, objectives, significance, methodology overview, key definitions, and structure of the thesis.

Chapter One: Literature Review

Reviews the theoretical and empirical foundations of the study, including key concepts digital literacy and online learning such and the role of digital literacy in language education. It also explores previous Algerian and international studies on digital competence in EFL contexts.

Chapter Two: Research Methodology

Describes the research design, participants, tools used for data collection (questionnaire and interview), and the procedures followed. It also explains the rationale behind the mixed-methods approach.

Chapter Three: Data Analysis and Discussion

Presents the analysis of the collected data, interprets the findings in light of the research questions and literature, and discusses their implications for EFL teaching and digital education.

General Conclusion

Summarizes the main findings, highlights the contributions of the study, and provides recommendations for future research and pedagogical practices.

CHAPTER ONE LITERATURE REVIEW

1.1 Introduction

This chapter provides a review of the most relevant literature related to the two core concepts of this study: digital literacy and online learning in the context of EFL education.

The aim of this review is to build a theoretical and practical foundation that supports the investigation of how digital literacy affects third-year Technical English students' experiences with online learning at the University of Continuing Education in Bordj Bou Arreridj, Algeria.

Digital literacy has become an essential skill for learners in all academic disciplines, and especially in English as a Foreign Language (EFL) instruction. With the increased use of digital tools and online platforms in education, students are expected to navigate and interact with digital content efficiently. According to Ng (2012), digital literacy involves not only technical use of digital tools but also cognitive and social understanding of how to communicate and collaborate in online spaces. In Algeria, however, many students still struggle to meet the digital demands of higher education (Boussebha, 2023), which makes this issue particularly relevant.

This chapter is divided into two main sections. The first focuses on digital literacy, including its evolution, competencies, and relevance in Algerian EFL education. The second explores online learning, its types, challenges, and relationship with digital skills. The chapter concludes by identifying key gaps in the literature that justify the need for the current study.

1.2 Definition and Evolution of Digital Literacy

The term "digital literacy" has undergone significant transformation since its emergence in the late 20th century. Initially coined by Gilster (1997), digital literacy was described as "the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers." This early definition focused on navigating digital environments and locating relevant information. However, as digital technologies advanced, so did the concept. Scholars began to view digital literacy as a set of broader competencies that include critical thinking, ethical behavior, and creative content production (Bawden, 2008; Eshet-Alkalai, 2004).

Over time, different frameworks have shaped how we interpret digital literacy. For example, Martin and Grudziecki (2006) proposed a layered model where digital literacy is the

foundation for digital competence and digital transformation. Similarly, Ng (2012) suggested that digital literacy involves three key dimensions: technical proficiency, cognitive skills, and socio-emotional understanding. These approaches illustrate that being digitally literate is not only about using tools but also about navigating digital life thoughtfully and responsibly.

In the Algerian academic context, the evolution of digital literacy is still unfolding. Although universities have made efforts to integrate ICT, many students still equate digital literacy with basic computer use or internet browsing. Studies like those of Hedef (2021) and Touati (2023) argue that Algerian learners often lack critical and reflective engagement with digital content. This indicates the need for a pedagogical shift toward a more comprehensive view of digital literacy that aligns with global trends while remaining sensitive to local realities.

1.2.1 Digital Literacy Competencies and Frameworks

Digital literacy is not only about knowing how to use digital devices it also involves a broader set of competencies necessary for effective participation in a digital society. These competencies are often organized into frameworks that describe the knowledge, skills, and attitudes individuals need to thrive in various digital environments. According to the European Commission's DigComp Framework, digital competence includes five areas: information and data literacy, communication and collaboration, digital content creation, safety, and problem solving (Carretero et al., 2017). This framework has been adopted in many educational policies and teacher-training programs around the world.

Martin and Grudziecki (2006) argue that digital literacy should be seen as a "life-long competence" that evolves with the development of new technologies. They also emphasize that digital literacy is context-dependent, meaning that the required skills vary according to academic, professional, or everyday use. In the context of EFL education, this means students must not only use digital tools, but also critically evaluate digital content in a second language, which adds another layer of complexity.

In Algeria, some researchers have tried to adopt these frameworks into local educational settings. For example, Touati (2023) found that many Algerian EFL students struggle with advanced digital competencies, such as evaluating online sources or creating digital content, despite having access to smartphones and basic internet use. This gap between functional and critical digital skills indicates that more focus should be placed on implementing structured frameworks in Algerian universities.

While some international frameworks offer a comprehensive model, scholars like Ng (2012) highlight the need for culturally relevant adaptations. What works in Europe or the U.S. may not fully suit students in North Africa, where infrastructural and pedagogical conditions differ. Therefore, applying digital literacy frameworks in the Algerian EFL context must involve contextualization, teacher training, and the alignment of curriculum with local realities.

1.2.2 Digital Literacy in EFL Contexts

The integration of digital literacy into English as a Foreign Language (EFL) education has become increasingly significant due to the global shift towards technology-driven learning. Digital literacy, which encompasses the ability to use digital tools to find, evaluate, create, and communicate information effectively, is essential for EFL learners to access language materials, engage in interactive learning, and collaborate across borders. According to Yunus et al. (2013), digital tools enhance students' language development by offering access to authentic materials and interactive communication platforms. In EFL contexts, where exposure to English may be limited outside the classroom, digital literacy helps bridge this gap by providing learners with opportunities to engage with the language in real-world settings.

Moreover, research has shown that students with higher digital literacy levels are more likely to succeed in autonomous learning environments. For instance, Rahimi and Yadollahi (2017) found that EFL students who were digitally literate could better navigate online resources, evaluate content critically, and use technological tools for language

practice. This ability directly supports learner autonomy, a critical skill in EFL learning where students are expected to take responsibility for their progress.

In the Algerian EFL context, challenges such as uneven access to technology and limited digital training often hinder the effective use of digital resources. A study by Boudjadar (2021) reported that many Algerian university students lack sufficient training in digital tools, which reduces their ability to benefit from online learning platforms. However, with the growing implementation of ICT in Algerian universities, digital literacy is being increasingly recognized as a necessary skill for language learners.

Digital literacy in EFL contexts not only empowers learners but also transforms the role of teachers. Instructors must shift from being content deliverers to digital facilitators, supporting students in selecting, evaluating, and using digital tools meaningfully. This shift was emphasized by Erdem and Sönmez (2017), who argued that teachers should embed digital literacy into language pedagogy to enhance students' language acquisition and 21st-century competencies.

In conclusion, the development of digital literacy is crucial for effective EFL instruction. It enables learners to interact with authentic English, participate in digital communities, and become autonomous, critical users of technology. This is especially relevant in under-resourced contexts such as Algeria, where strategic integration of digital literacy in EFL education can close learning gaps and promote language proficiency in line with global standards.

1.2.3 Digital Literacy in Algerian Higher Education

In recent years, Algerian higher education has increasingly recognized the importance of digital literacy, particularly within English as a Foreign Language (EFL) programs. According to Hamouma and Menezla (2019), digital literacy has a significant impact on EFL students' academic writing performance, underlining its role in improving learners' academic

outcomes. This observation aligns with the point discussed earlier in section 1.2.2, where the need for strong digital competencies was highlighted as essential for effective EFL learning.

Despite this recognition, challenges persist in integrating digital literacy into Algerian higher education. Boussebha (2023) notes that while educational technology can enhance EFL learners' research skills, there is a need for more structured implementation strategies to fully realize its benefits. This observation complements our previous analysis in section 1.2.1, where we discussed various digital literacy frameworks and their applicability in different educational contexts.

Furthermore, the COVID-19 pandemic has underscored the critical role of digital literacy in ensuring the continuity of education. A study conducted at the University of Bejaia revealed that while students acknowledged the benefits of e-learning platforms, they also faced challenges related to accessibility and effective utilization (University of Bejaia, 2021). This situation highlights the need for comprehensive digital literacy training for both students and educators to navigate online learning environments effectively.

Addressing these challenges requires a multifaceted approach that includes curriculum reform, investment in digital infrastructure, and ongoing professional development for educators. Such measures would not only enhance digital literacy among EFL learners but also contribute to the overall quality of higher education in Algeria.

1.2.4 Challenges in Developing Digital Skills among EFL Learners

Developing digital skills among English as a Foreign Language (EFL) learners in Algeria presents several challenges that hinder the effective integration of technology into language learning. One significant issue is the lack of adequate infrastructure, including limited access to computers and reliable internet connections, which restricts students' ability to engage with digital learning resources (Belhouchet, 2021). This infrastructural deficiency is particularly pronounced in rural areas, exacerbating the digital divide between urban and rural learners.

Another challenge lies in the insufficient digital literacy training provided to both students and educators. Many EFL teachers lack the necessary skills to effectively incorporate technology into their teaching practices, leading to a reliance on traditional pedagogical methods (Boukhentache, 2019). This gap in teacher preparedness directly impacts students' opportunities to develop their digital competencies within the classroom setting. As we previously discussed in section 1.2.1, the absence of comprehensive digital literacy frameworks further complicates the integration of technology into EFL education

Moreover, students often exhibit a lack of motivation and confidence in using digital tools for language learning. This can be attributed to limited exposure to technology in their prior educational experiences and a lack of understanding of the potential benefits of digital learning (Boussebha, 2023). Fostering a positive attitude towards technology among students is crucial for enhancing their engagement and willingness to develop digital skills.

Additionally, the sudden shift to online learning during the COVID-19 pandemic exposed the unpreparedness of both institutions and learners in adapting to digital platforms. A study conducted at Mohamed Khider University of Biskra highlighted the difficulties faced by students in navigating online learning environments, citing issues such as limited technical support and inadequate digital literacy skills (Boudjella, 2021). This situation underscores the need for systematic digital literacy training programs to equip learners with the necessary skills to thrive in digital learning contexts.

In summary, addressing the challenges in developing digital skills among EFL learners in Algeria requires a multifaceted approach that includes improving infrastructure, providing comprehensive training for educators, fostering positive attitudes towards technology among students, and implementing robust digital literacy frameworks. As we have previously emphasized in sections 1.2.1 and 1.2.3, these measures are essential for enhancing the quality and effectiveness of EFL education in the digital age.

1.2.5 The Role of Teachers in Fostering Digital Literacy

Teachers serve as facilitators and role models in integrating digital tools into language instruction. By incorporating technology into their teaching methodologies, they not only enhance the learning experience but also equip students with essential digital competencies. This integration aligns with the Competency-Based Approach (CBA) adopted in Algerian education, which emphasizes the development of practical skills, including digital literacy.

However, the effectiveness of teachers in this role is contingent upon their own digital proficiency. Studies have highlighted a noticeable discrepancy between teachers' overall digital literacy and their ability to implement it within the CBA framework. This gap is often attributed to outdated curricula and a lack of emphasis on digital competencies in teacher training programs .

To address these challenges, it is imperative to provide teachers with ongoing professional development opportunities focused on digital literacy. Workshops, seminars, and practical training sessions can enhance their confidence and competence in utilizing digital tools effectively. Moreover, fostering a collaborative environment where teachers can share best practices and resources can contribute to a more cohesive integration of technology in EFL classrooms.

Empowering teachers with the necessary digital skills is crucial for the successful implementation of online learning platforms. As previously said in section 1.2.5, the role of digital literacy in online learning success cannot be overstated. Teachers who are adept at navigating digital environments can better support their students, leading to improved learning outcomes.

Furthermore, institutional support plays a significant role in this endeavor. Educational institutions must prioritize the integration of digital literacy into teacher education programs and provide the necessary infrastructure to facilitate this integration. By

doing so, they create an ecosystem where both teachers and students can thrive in a digitally enriched learning environment.

In conclusion, teachers are instrumental in fostering digital literacy among EFL students. Their ability to effectively integrate technology into language instruction not only enhances the learning experience but also prepares students for the demands of the digital age. As the educational landscape continues to evolve, investing in teachers' digital competencies remains a critical component of educational success

1.2.6 Impact of Digital Literacy on Language Autonomy

In the evolving landscape of English as a Foreign Language (EFL) education, digital literacy has emerged as a pivotal factor influencing learners' autonomy. As previously discussed in section 1.2.4, challenges in developing digital skills among EFL learners necessitate a deeper exploration of how digital competencies can empower students to take charge of their language learning journey.

Digital literacy equips learners with the ability to access, evaluate, and utilize information effectively, fostering an environment where they can independently navigate their learning processes. This autonomy is characterized by self-directed learning, critical thinking, and the capacity to make informed decisions about one's educational needs and goals. In the context of EFL, digital tools such as language learning apps, online dictionaries, and interactive platforms provide learners with immediate access to resources, enabling them to practice and refine their language skills outside the traditional classroom setting.

Studies have shown that the integration of digital literacy into EFL instruction enhances learners' motivation and engagement, leading to increased autonomy. For instance, the use of multimedia resources allows students to tailor their learning experiences to their individual preferences and learning styles, promoting a sense of ownership over their educational journey. Moreover, digital platforms facilitate collaborative learning, where

students can engage in peer-to-peer interactions, share knowledge, and receive feedback, further reinforcing autonomous learning behaviors.

In the Algerian EFL context, the incorporation of digital literacy has shown promising results in fostering learner autonomy. As previously discussed in section 1.2.3 , the integration of Information and Communication Technology (ICT) in Algerian classrooms has provided students with opportunities to engage in self-paced learning, access authentic language materials, and participate in virtual exchanges with native speakers. These experiences not only enhance linguistic competence but also build learners' confidence in managing their learning processes independently.

However, the successful implementation of digital literacy to promote autonomy is contingent upon several factors. Firstly, learners must possess a foundational level of digital competence to effectively utilize technological tools. Secondly, educators play a crucial role in guiding students to develop critical digital skills and in designing curricula that integrate technology meaningfully. Lastly, institutional support in terms of infrastructure, training, and resources is essential to create an environment conducive to autonomous learning.

Fostering digital literacy among EFL learners is not merely about teaching technical skills but about cultivating a mindset geared towards lifelong learning and self-efficacy. As previously said in section 1.2.5, the role of digital literacy in online learning success underscores the importance of empowering students to take initiative and responsibility for their learning outcomes. By embedding digital literacy into the fabric of EFL education, we can nurture autonomous learners who are adaptable, resourceful, and prepared to meet the demands of the digital age.

1.2.7 Digital Literacy and Critical Thinking in EFL Learning

In the contemporary landscape of English as a Foreign Language (EFL) education, digital literacy has emerged as a pivotal component in cultivating critical thinking skills among learners. As previously discussed in section 1.1.5, challenges in developing digital

skills among EFL learners necessitate a comprehensive understanding of how digital literacy can enhance critical thinking abilities.

Digital literacy encompasses the ability to access, evaluate, and utilize information effectively, which inherently involves critical thinking processes. In EFL learning, students are often required to navigate diverse digital resources, discern credible information, and apply linguistic knowledge in various contexts. This engagement with digital content fosters analytical skills, enabling learners to question assumptions, interpret data, and construct coherent arguments.

Moreover, the integration of digital tools in EFL instruction has been shown to promote higher-order thinking skills. For instance, activities such as digital storytelling encourage learners to synthesize information, reflect on their experiences, and present narratives that demonstrate critical engagement with content. Such practices not only enhance language proficiency but also develop learners' capacity for critical analysis and creative expression.

As previously said in section 1.2.5, the role of digital literacy in online learning success underscores the importance of equipping EFL learners with the skills necessary to critically engage with digital content. In my opinion, fostering digital literacy in EFL education is not merely about technical proficiency but about empowering learners to become discerning consumers and producers of information. This empowerment is crucial in an era where misinformation is prevalent, and the ability to critically assess digital content is essential for academic and real-world success.

Furthermore, educators play a significant role in facilitating the development of critical thinking through digital literacy. By designing curricula that incorporate critical digital literacy components, teachers can create learning environments that challenge students to question, analyze, and reflect upon the information they encounter. This approach aligns with the Competency-Based Approach (CBA) adopted in Algerian education, which

emphasizes the development of practical skills, including critical thinking and digital competencies.

In conclusion, digital literacy serves as a catalyst for enhancing critical thinking skills in EFL learning. By engaging with digital tools and content, learners develop the analytical abilities necessary to navigate complex information landscapes. As the educational paradigm continues to shift towards digital integration, prioritizing the development of critical digital literacy in EFL education becomes imperative for preparing learners to meet the demands of the 21st-century knowledge economy.

1.3 Definition and Types of Online Learning

Online learning, also known as e-learning, refers to the process of acquiring knowledge through digital platforms and internet-based technologies. It enables learners to access educational materials, interact with instructors, and engage with peers remotely, often at their own pace and convenience.

According to Ally (2004), online learning involves the use of the internet to access learning materials and facilitate interactions between learners and instructors. This mode of education has evolved significantly, offering diverse formats to cater to varying learner needs and preferences.

As previously discussed in section 1.2.1, digital literacy competencies are essential for effective participation in online learning environments. Understanding the different types of online learning can help educators and learners select the most suitable approach for their contexts. The primary types of online learning include:

1. **Synchronous Online Learning:** This format involves real-time interactions between instructors and learners through video conferencing, live chats, or virtual classrooms. It mirrors traditional classroom settings, allowing immediate feedback and fostering a sense of community among participants.

2. Asynchronous Online Learning: In this model, learners access pre-recorded lectures, discussion forums, and digital resources at their convenience. It offers flexibility, enabling students to learn at their own pace, which is particularly beneficial for those balancing studies with other commitments.
3. Blended Learning (Hybrid Learning): This approach combines online and face-to-face instruction, integrating the advantages of both methods. It provides flexibility while maintaining the benefits of in-person interactions, making it a popular choice in higher education settings .
4. Adaptive Online Learning: Utilizing artificial intelligence and data analytics, adaptive learning platforms tailor educational content to individual learner's needs, preferences, and performance. This personalized approach enhances learning efficiency and engagement .

Recognizing these various online learning formats is crucial for educators and institutions aiming to implement effective digital education strategies. Selecting the appropriate model can enhance learner engagement, accommodate diverse learning styles, and improve educational outcomes.

1.3.1 Benefits and Limitations of Online Learning

Online learning has emerged as a pivotal component in modern education, offering both opportunities and challenges. As previously discussed in section 1.3 , online learning encompasses various formats, each with its unique advantages and drawbacks. Understanding these facets is crucial for effective implementation, especially in the Algerian EFL context.

One significant benefit of online learning is its flexibility, allowing students to access materials at their convenience. This adaptability is particularly beneficial for learners balancing academic responsibilities with personal commitments (Ghounane, 2022).

Moreover, online platforms can facilitate access to a wide range of resources, enhancing the learning experience (Gouider, 2021).

However, online learning also presents limitations. A study by Ghounane (2022) highlighted that asynchronous modes of online education could lead to decreased motivation among EFL students, primarily due to reduced interaction and lack of immediate feedback. Similarly, Gouider (2021) noted that insufficient digital literacy among both students and instructors hampers the effectiveness of online learning in Algeria.

Based on these findings, while online learning offers considerable advantages, its success heavily depends on the digital readiness of both learners and educators. As we previously said in section 1.2.4, challenges in developing digital skills among EFL learners must be addressed to maximize the benefits of online education.

1.3.2 Online Learning in Algerian EFL Education

The integration of online learning into Algerian EFL education has been significantly influenced by the COVID-19 pandemic, prompting a rapid shift from traditional classroom settings to digital platforms. As previously discussed, this transition has brought both opportunities and challenges to the forefront of the educational landscape.

According to Ghounane (2022), the majority of Algerian universities adopted asynchronous online learning modes during the pandemic, utilizing platforms like Moodle to disseminate course materials. This approach allowed for flexibility in learning but also led to decreased motivation among students due to limited interaction and feedback. Similarly, Gouider (2023) found that while online learning provided continuity in education, it also exposed gaps in digital readiness among both students and instructors.

In my opinion, the effectiveness of online learning in Algerian EFL education is contingent upon the development of digital competencies among all stakeholders. As we

previously said in the section, challenges in developing digital skills among EFL learners must be addressed to maximize the benefits of online education.

Furthermore, Benmansour (2021) highlighted that synchronous online sessions, such as those conducted via Zoom, were perceived positively by students for fostering communication and collaboration. However, issues such as lack of interactivity and technical difficulties were also noted, indicating the need for improved infrastructure and training.

Overall, the experience of online learning in Algerian EFL education underscores the importance of strategic planning, investment in digital infrastructure, and ongoing support for both teachers and students to navigate the evolving educational environment effectively.

1.3.3 The Role of Digital Literacy in Online Learning Success

Digital literacy is a cornerstone of effective online learning, particularly in the context of Algerian higher education. As previously discussed in section 1.3.2, the rapid shift to online platforms has highlighted the critical need for students and educators to possess robust digital competencies.

According to Hamouma and Menezla (2019), there is a significant positive correlation between EFL students' digital literacy proficiency and their academic writing performance. This finding underscores the importance of digital skills in facilitating not only access to information but also the ability to critically engage with and produce academic content.

Furthermore, Boussebha (2023) emphasizes that the integration of educational technology enhances EFL learners' research skills, enabling them to navigate digital platforms effectively and construct knowledge autonomously. This aligns with the broader understanding that digital literacy encompasses not just technical skills but also the capacity for critical thinking and information evaluation.

Digital literacy serves as a pivotal factor in the success of online learning initiatives. As we previously said in section 1.2.4, addressing the challenges in developing digital skills

among EFL learners is essential for maximizing the benefits of online education. Without adequate digital competencies, students may struggle to engage with course materials, participate in virtual discussions, and complete assignments effectively.

Moreover, the role of educators cannot be overlooked. As highlighted by Ghounane (2022), teachers' digital readiness significantly influences the quality of online instruction. Educators equipped with digital skills can design interactive and engaging learning experiences, thereby enhancing student motivation and participation.

In conclusion, fostering digital literacy among both students and educators is paramount for the success of online learning in Algerian higher education. By investing in digital skills development, institutions can ensure that learners are well-equipped to navigate the digital landscape and achieve academic success.

1.3.4 Teachers' and Students' Perspectives on Online EFL Instruction

The transition to online English as a Foreign Language (EFL) instruction in Algerian higher education, particularly during the COVID-19 pandemic, has elicited a range of responses from both educators and learners. As previously discussed in section 1.2.2, digital literacy plays a crucial role in the success of online learning environments.

From the students' perspective, attitudes toward online learning have been mixed. A study conducted at the University of Bejaia, 2021 revealed that while some EFL Master students appreciated the flexibility and accessibility of online platforms, others expressed concerns about the lack of interaction and immediate feedback from instructors. Technical issues, such as unreliable internet connections and limited access to devices, further compounded these challenges.

Similarly, educators have faced their own set of challenges. Research by Bentaleb (2024) indicates that many EFL teachers at the University of Hassiba Ben Bouali were unprepared for the sudden shift to online instruction. The lack of prior training in digital tools

and pedagogical strategies for virtual classrooms led to difficulties in delivering effective lessons and maintaining student engagement.

In my opinion, these findings underscore the necessity for comprehensive training programs for both students and teachers to enhance digital competencies. As we previously said in section 1.2.4 , addressing the challenges in developing digital skills among EFL learners is essential for maximizing the benefits of online education. Furthermore, institutions should invest in infrastructure improvements to ensure equitable access to online learning resources.

Moreover, fostering a supportive online learning environment that encourages interaction and feedback can mitigate some of the drawbacks associated with virtual instruction. By implementing these measures, Algerian higher education institutions can better support both educators and learners in the evolving landscape of EFL instruction.

1.3.5 Pedagogical Models for Online EFL Learning

The integration of pedagogical models in online English as a Foreign Language (EFL) instruction has become increasingly significant in enhancing the effectiveness of language learning. As previously discussed in section 1.2.5, the role of digital literacy in online learning success underscores the necessity for well-structured pedagogical frameworks that cater to the unique demands of virtual EFL environments.

One prominent model is the Blended Learning approach, which combines traditional face-to-face instruction with online learning activities. This model leverages the strengths of both modalities, providing learners with flexibility and access to diverse resources while maintaining the benefits of direct teacher-student interaction. Studies have shown that blended learning can lead to improved language proficiency and learner autonomy, as it encourages students to take responsibility for their learning outside the classroom.

Another effective framework is the Flipped Classroom model, where instructional content is delivered online outside of class, and in-class time is dedicated to interactive activities that reinforce learning. This approach allows students to engage with the material at their own pace and come to class prepared to apply their knowledge through discussions, problem-solving, and collaborative tasks. The flipped classroom model has been associated with increased student engagement and better retention of language skills.

The TPACK (Technological Pedagogical Content Knowledge) framework is also instrumental in guiding EFL educators in integrating technology effectively into their teaching practices. TPACK emphasizes the intersection of technological knowledge, pedagogical strategies, and content expertise, enabling teachers to design and implement instruction that is both technologically sound and pedagogically effective. By developing competencies in all three areas, educators can create more engaging and meaningful online learning experiences for EFL students.

In the context of Algerian higher education, the adoption of these pedagogical models requires careful consideration of local challenges, such as limited technological infrastructure and varying levels of digital literacy among students and teachers. As previously said in section 1.3.2 , online learning in the Algerian university context faces obstacles that must be addressed to ensure the successful implementation of these frameworks. Providing professional development opportunities for educators, investing in technological resources, and fostering a culture that values innovation in teaching are essential steps toward enhancing online EFL instruction in Algeria.

The strategic application of pedagogical models like Blended Learning, Flipped Classroom, and TPACK can significantly improve the quality of online EFL education. By aligning instructional design with these frameworks, educators can create more interactive, student-centered learning environments that promote language acquisition and digital competence. As the landscape of education continues to evolve, embracing these models will be crucial in preparing EFL learners to thrive in a digitally connected world.

1.3.6 Institutional Support for Online Learning in Algeria

The evolution of online learning in Algeria has been significantly influenced by institutional support, particularly in the context of English as a Foreign Language (EFL) education. As previously discussed in section 1.2.5, the role of digital literacy in online learning success underscores the necessity for robust institutional frameworks to facilitate effective virtual learning environments.

The Ministry of Higher Education and Scientific Research (MHESR) in Algeria has played a pivotal role in promoting online learning. During the COVID-19 pandemic, the MHESR mandated the transition to online education across universities to ensure the continuity of academic programs. This directive led to the widespread adoption of Learning Management Systems (LMS) such as Moodle, enabling institutions to deliver course content remotely .

However, the rapid shift to online learning exposed several challenges related to institutional support. Many universities faced infrastructural limitations, including inadequate internet connectivity and insufficient digital resources. Additionally, both educators and students encountered difficulties in adapting to new technologies due to limited training and experience .

In response to these challenges, some institutions have initiated measures to enhance their online learning capabilities. For instance, the University of Batna 2, 2020 has developed an Open University platform, offering online courses through UB2 TV and Radio, as well as a dedicated e-learning platform . Such initiatives demonstrate a commitment to expanding access to digital education and supporting students in remote learning contexts.

Furthermore, the MHESR has emphasized the importance of professional development for educators to improve their digital competencies. Workshops and training programs have been organized to equip teachers with the necessary skills to design and

deliver effective online instruction. These efforts aim to bridge the digital divide and enhance the overall quality of online education in Algeria .

In my opinion, while significant strides have been made in institutional support for online learning in Algeria, ongoing efforts are required to address existing gaps. As previously said in section 1.3.4 , understanding teachers' and students' perspectives on online EFL instruction is crucial for developing responsive and effective support mechanisms. By investing in infrastructure, training, and resource development, Algerian institutions can foster a more resilient and inclusive online learning environment.

1.3.7 Student Engagement Strategies in Online EFL Courses

Student engagement is a critical determinant of success in online English as a Foreign Language (EFL) course. As previously discussed in section 1.3.5, pedagogical models for online EFL learning provide frameworks that can be leveraged to enhance student engagement. In this section, we explore specific strategies that educators can employ to foster active participation and sustained interest among EFL learners in virtual environments.

One effective approach is the incorporation of interactive activities that promote active learning. These include discussions, debates, and hands-on tasks that require students to apply language skills in meaningful contexts. Such activities not only reinforce linguistic competencies but also encourage critical thinking and collaboration among learners. Interactive learning has been shown to significantly enhance student motivation and participation, especially in language courses (Bonk & Zhang, 2006; Wang, 2021).

Utilizing technology is another key strategy. Integrating tools such as educational apps, interactive whiteboards, and online resources can provide diverse and dynamic avenues for content delivery. These technological enhancements cater to various learning styles and can make lessons more engaging. Research suggests that digital tools can positively influence learner engagement, autonomy, and performance in online EFL contexts (Yunus et al., 2021; Almarzooq et al., 2020).

Collaborative learning is also instrumental in fostering engagement. Group projects, peer editing, and collaborative discussions encourage students to work together, share ideas, and learn from one another. This sense of community can increase motivation and investment in the learning process. According to Vygotsky's socio-cultural theory, social interaction plays a fundamental role in language development, which supports the value of collaborative tasks in EFL learning (Shabani, 2016).

Providing real-world context to learning materials can make lessons more relevant and interesting for students. By incorporating authentic materials, such as news articles, videos, and interviews, teachers can demonstrate the practical applications of language skills. This approach not only motivates students but also helps them understand the relevance of English in their daily lives. Using authentic materials has been found to enhance both comprehension and engagement (Berardo, 2006; Gilmore, 2007).

Differentiated instruction is another strategy that can address the diverse needs and learning styles of students. By offering varied activities, assessments, and resources, educators can ensure that all students are challenged and supported in their learning journey. Differentiation fosters inclusivity and has a positive impact on engagement and achievement (Tomlinson, 2014; Hall, 2020).

Providing timely and constructive feedback is essential for promoting student growth and engagement. By offering specific praise and actionable suggestions, teachers help students understand their strengths and areas for improvement. Constructive feedback enhances learners' self-efficacy and encourages continued participation (Hattie & Timperley, 2007; Shute, 2008).

Fostering a positive and supportive learning environment is crucial for increasing student engagement. By creating a space where students feel safe, respected, and included, teachers can encourage learners to take risks and express themselves. A supportive

environment enhances students' motivation and emotional well-being, which are key to their persistence and success in online settings (Zepke & Leach, 2010; Martin & Bolliger, 2018).

As previously mentioned in section 1.3.6, institutional support plays a vital role in facilitating effective online learning. By implementing these engagement strategies within a supportive institutional framework such as professional development for teachers, reliable digital infrastructure, and student services educators can enhance the online EFL learning experience and promote student success (Baran et al., 2013; Sun & Chen, 2016).

1.4 The Role of EFL Students' Digital Literacy in Online Learning

This chapter has explored the multifaceted relationship between digital literacy and online learning within the context of Algerian EFL education. As previously discussed, digital literacy encompasses a range of skills and competencies that are essential for effective participation in online learning environments (Ng, 2012; Eshet-Alkalai, 2004).

In section 1.1, we examined the definition and evolution of digital literacy, highlighting its expansion beyond basic technical skills to include critical thinking, information evaluation, and ethical use of digital resources (Gilster, 1997; Bawden, 2008). Section 1.2.1 delved into various digital literacy frameworks, emphasizing the importance of integrating these competencies into EFL curricula. The DigComp Framework (Carretero et al., 2017) and the layered model proposed by Martin and Grudziecki (2006) were particularly relevant in showing how literacy spans technical, cognitive, and socio-emotional dimensions.

Furthermore, section 1.2.2 discussed the application of digital literacy in EFL contexts, underscoring its role in enhancing language acquisition and learner autonomy. Scholars such as Rahimi and Yadollahi (2017) have shown that digitally literate learners are more capable of independent language learning and critical engagement with digital resources.

Section 1.2.3 focused on the state of digital literacy in Algerian higher education, revealing both progress and persistent challenges. Studies have reported disparities in access to technology and a lack of structured digital training, especially in public universities

(Boussebha, 2023; Hamouma & Menezla, 2019). As discussed, developing digital skills among EFL learners remains a significant hurdle, often due to infrastructural limitations and insufficient teacher preparation.

Transitioning to online learning, section 1.3 provided definitions and typologies, setting the stage for understanding its implementation in Algerian universities. Section 1.3.1 analyzed the benefits and limitations of online learning, noting that while it offers flexibility and accessibility, it also presents challenges such as reduced interaction and technical difficulties (Ghounane, 2022; Gouider, 2021). Section 1.3.2 examined the specific context of online learning in Algerian EFL education, highlighting the rapid shift necessitated by the COVID-19 pandemic and its impact on unprepared institutions and learners.

In section 1.3.3, we explored the role of digital literacy in online learning success, establishing that students with higher digital competencies tend to perform better academically and engage more effectively in virtual classrooms (Hamouma & Menezla, 2019; Boudjella, 2021). Section 1.3.4 presented perspectives from both teachers and students, revealing a shared recognition of the importance of digital literacy, alongside concerns about preparedness, support, and institutional readiness (Bentaleb, 2024).

The synthesis of these findings underscores the critical role of digital literacy in facilitating successful online EFL instruction. As previously discussed, enhancing digital literacy among both students and educators is not merely beneficial but essential for the effective delivery and reception of online education (Martin & Bolliger, 2018). This necessitates targeted interventions, including comprehensive training programs, infrastructure development, and curriculum integration of digital competencies (Sun & Chen, 2016).

As we previously said, addressing these challenges is paramount for Algerian higher education institutions aiming to optimize online learning outcomes. By prioritizing digital literacy, universities can empower EFL learners to navigate the digital landscape confidently, thereby enhancing their academic performance and overall educational experience.

CHAPTER TWO RESEARCH METHODOLOGY

2.1 Introduction:

The purpose of this study is to determine the role of EFL students' digital literacy to online learning in the case of the Technical English third-year students at the University of Continuing Education in Bordj Bou Arreridj, Algeria. To develop a better understanding of the students' and teachers' views, a mixed-methods approach was applied. A semi-structured questionnaire was given to students, and interviews were administered to English teachers.

This chapter is divided into two main sections. The first section is dedicated to the students' questionnaire, and the second to the teachers' interview. Each section includes a description of the participants/population and sample, the tools used for data collection, and the procedures followed. The results of the questionnaire are statistically presented using figures, while the interview data are thematically analyzed. This chapter also discusses the methodological choices and their relevance to the research objectives.

2.2 Research approach:

In this research we used a mixed methods approach combining quantitative and qualitative methods to provide a richer and more comprehensive understanding of the research problem. In this study, quantitative data are gathered through a semi-structured questionnaire administered to 65 third-year Technical English students, while qualitative data are obtained via interviews with 7 English teachers using a nine-question interview guide. By interviewing teachers who instruct the same student cohort, the study captures instructional insights that complement the students' perspectives. Combining these methods allows collection of broad quantitative trends from the students' responses while also providing in-depth qualitative insights from the teachers.

2.3 Research paradigm:

This study is grounded in the pragmatic research paradigm, which offers a flexible and practical approach to investigating complex phenomena by integrating both quantitative and qualitative methods. Pragmatism rejects the strict dichotomy between positivism, which

emphasizes objective measurement and quantification, and interpretivism, which focuses on subjective meaning and social context. Instead, it prioritizes the research problem and the use of all available approaches to generate meaningful and actionable knowledge (Creswell & Plano Clark, 2011).

Pragmatism enables a thorough analysis of both quantifiable aspects of digital literacy through semi-structured questionnaires and the rich, contextual insights gained from semi-structured interviews with teachers in the context of this study, which examines the role of EFL students' digital literacy in online learning among third-year technical English students at the University of Continuing Education in Bordj Bou Arréridj.

This paradigm facilitates methodological diversity by allowing the integration of qualitative data that captures teachers' perspectives and experiences with numerical data that reflects students' digital competencies.

2.4 Research design:

The role of digital literacy in online learning is investigated in this study utilizing a convergent mixed-methods approach, with a focus on third-year technical English students at the University of Continuing Education, Bordj Bou Arréridj, Algeria.

Creswell & Creswell (2018) assert that by combining quantitative and qualitative data, mixed-methods research is an effective approach for developing a more comprehensive understanding of complicated research issues. Convergent design specifically entails gathering both kinds of data at the same time, evaluating them independently, and then combining the findings to make insightful comparisons.

2.5 Research settings:

The study was conducted at the Bordj Bou Arreridj centre of Algeria's University of Continuing Education (UFC), a national distance-learning institution that has evolved into a recognized higher-education university. The participants were third-year undergraduates enrolled in the centre's Technical English bachelor's programme (an English as a Foreign

Language curriculum tailored to technical fields). This programme serves primarily adult and non-traditional learners seeking to improve their professional English skills, consistent with the UFC's continuing-education mission. During the 2024–2025 academic year, all lectures and materials for this programme were delivered online, making students' digital literacy essential for effective engagement and success.

2.6 Sample and sampling procedures:

Purposive sampling was used to select a sample of 65 third-year Technical English students and 3 teachers from the University of Continuing Education, Bordj Bou Arreridj, Algeria. These participants were specifically chosen for their direct involvement in the Technical English program, which includes significant online learning components. Third-year students were targeted because they have completed the majority of their technical English curriculum and are therefore well-positioned to reflect on their digital literacy experiences in an academic setting. The inclusion of the 7 technical English teachers provides professional perspectives on the students' online learning and digital tool usage. This sample was considered appropriate for the study because all participants are directly relevant to understanding digital literacy within the context of EFL online learning.

2.7 Data collection procedures:

To gather the necessary information for the study, a questionnaire was given to the students, while interviews were carried out with the teachers. These tools were chosen based on the research goals and the overall methodology of the study.

2.8 Instrumentations

2.8.1 Students' Semi-structured Questionnaire

Google Forms was utilized to distribute the student survey online and collected responses within two weeks. To assess third-year Technical English students' digital literacy and experiences when studying online at the University of Continuing Education in Bordj Bou Arreridj, Algeria, a questionnaire was developed that included both qualitative and

quantitative data. The main goal was to achieve detailed information about students' digital literacy, their usual usage and comfort levels of digital resources when studying English, and their feelings towards online learning. The questionnaire has both open-ended and closed-ended questions, providing qualitative information about students' personal challenges and experiences along with a statistical analysis of their digital literacy levels.

There are four sections in the survey:

1. Background information: Collects basic demographic and academic data (age, gender, prior digital exposure).
2. Digital literacy :Assesses students' skills in using digital tools and platforms for online learning.
3. Online learning experience:Explores students' attitudes, confidence, and satisfaction with online English learning.
4. The role of digital literacy in EFL online learning:Examines how students perceive digital literacy's impact on their English skills and learning success.
5. Open-ended questions:Allows students to share personal experiences, challenges, and suggestions in their own words.

While a thematic analysis was used for the open-ended responses to express the variety of opinions, the quantitative data was analyzed using rudimentary descriptive statistics with the intent of providing an overview of students' digital literacy and their digital learning behaviours. The aim of this information is to guide effectively the decisions made toward the successful integration of digital literacy in the context of university EFL online learning. methodologies to assess trends and frequencies. Qualitative data from teacher interviews was transcribed and then analyzed for themes, to help identify the main trends and insights regarding students' digital literacy in online learning. In contrast, both sets of findings were compared and interpreted to give an overall understanding of the research question

2.8.2 Teacher interview:

Focusing on third-year Technical English students at the University of Continuing Education, Bordj Bou Arréridj, Algeria, the interview was developed as a qualitative data collection tool to collect detailed insight into teachers' views on the role of digital literacy in supporting EFL students' online learning. It looks into the challenges teachers face when incorporating digital literacy in online teaching, as well as their views on the relationship between digital literacy and online learning.

As the interview was semi-structured, it provided freedom to explore salient themes more fully while also covering the essential parts of the interview. The questions were primarily focused on teachers' experiences of online instruction, their discussions on their students' digital literacy, the use of digital tools for instruction, and institutional support for the development of digital literacy. Teachers shared varying perspectives on the changing role of digital literacy in EFL language instruction, depending on their years of teaching and technological competency.

A total of three educators were interviewed. There were nine questions in the online interview, and they were conducted in Google Forms to be considerate of participants' preferences, and to allow for an atmosphere to be created to elicit open conversation. With consent, all interviews were audio recorded and then transcribed for thematic analysis. This analysis also added qualitative findings to the quantitative findings from the student questionnaires by identifying common themes on the benefits, challenges, and needs of digital literacy in the context of online learning.

2.9 Data analysis procedures:

This section details how we have examined the data collected from the student questionnaires and teacher interviews. In order to develop a nuanced and comprehensive interpretation of the study, we used a mixed-methods approach to analyze those data using different additional and qualitative analysis approaches to build a comprehensive picture and identify meaningful trends and patterns about student digital literacy in online learning.

From there, a full understanding of the research question was validated by comparing and interpreting findings from both surveys.

Semi-structured interviews that allowed for honest and prolonged responses were used to maintain credibility and provide high-quality qualitative data. Clearly outlining the context of the study and providing a rich description of the participants identified the transferability of the data. To address dependability and confirmability, data collection was standardized, and all responses and codes were documented at all stages of analysis. The institution granted ethical approval, and prior to their participation, all participants were made aware of the study's objectives. Both professors and students gave their informed consent, and participation was entirely voluntary. Participants were guaranteed anonymity and confidentiality, and their information would only be utilised for scholarly research.

2.10 Limitations and delimitations:

The small sample size represents a limitation of this study: thus, the results cannot be generalized to all Algerian EFL learners. Additionally, some bias or inaccuracies are possible, especially since surveys and interviews utilize self-reported data. Lastly, the data collection process was limited by time constraints and restricted access to certain participants.

The study only focuses on third-year Technical English students and their teachers at the University of Continuing Education, Bordj Bou Arreridj during the 2024 -2025 academic year. It does not examine digital literacy outside the context of online learning in EFL. It is also not looking at students in other years or areas of study. These limitations are introduced to keep the research short and focused.

2.11 Conclusion:

In this chapter, we provided a complete account of the research design used to explore the role of EFL students' digital literacy in online learning. We focused on a specific group of third-year Technical English students at the University of Continuing Education, Bordj Bou Arreridj.. This study was conducted under a pragmatic research paradigm, which

allows for methodological flexibility and triangulation of data to address complex phenomena in education. Thus, a convergent parallel mixed-methods design was employed; this allowed the simultaneous collection and analysis of quantitative and qualitative data in order to gain a full and nuanced understanding of the research problem.

The research setting, target population, sampling procedures, and the data collection instruments were clearly delineated. The specific data collection instruments included a structured student questionnaire involving digital literacy levels and perceptions of impact on online learning one to few. Semi-structured interviews were conducted with teachers in order to better understand their observations and professional experiences. These instruments were specifically designed to address the research questions and objectives; they were developed with an existing literature base, and validated through expert review.

Alongside describing the processes for data collection and analysis, this chapter addressed the steps taken to confirm the validity and reliability, as well as the trustworthiness of the research findings. Ethical issues such as informed consent, confidentiality, and the voluntary nature of involvement were highlighted to ensure the honesty and integrity of the research project. This chapter also reported on the limitations and delimitations defining the study and its influence on the framing of the results.

Overall, the selected method sought to provide a comprehensive and trustworthy exploration of the way in which digital literacy competencies impact students' involvement, versatility, and performance in online English language learning contexts. This will set the stage for the next chapter which reports on, and interprets the findings derived from the data collected, bringing to light the patterns, relationships, and themes presented in the study.

Chapter Three Research Findings

3.1 Introduction:

This chapter represents and discusses the main findings thorough summary and critical analysis of the information gathered from teacher interviews and student surveys , The study examining the role of digital literacy in online learning for EFL students, with a focus on third-year Technical English students at the University of Continuing Education, Bordj Bou Arréridj, Algeria.

First, the chapter presents the results, offering a detailed account of students' digital literacy levels, their experiences with online learning, and teachers' perspectives on the integration of digital skills in EFL instruction. This is followed by an analysis and interpretation of the findings, where the results are examined in light of the research questions and objectives. The discussion section then compares the study's findings with existing literature, highlighting areas of agreement and divergence, and situating the results within the broader context of EFL and digital literacy research.

The chapter further addresses the pedagogical implications of the findings, outlining how the integration of digital literacy can enhance online language learning and suggesting practical strategies for educators and institutions. Based on the analysis, specific recommendations are proposed to improve digital literacy support and online EFL instruction at the university. Suggestions for future research are also provided, identifying gaps and potential directions for further investigation in this field.

The chapter concludes with a summary of the main findings and their significance, emphasizing the contribution of the study to the understanding of digital literacy's role in EFL online learning and its implications for educational practice and policy.

3.2 Presentation of Results:

This section presents the findings obtained from the semi-structured questionnaires administered to third-year Technical English students and the semi-structured interviews conducted with their teachers at the University of Continuing Education, Bordj Bou Arreridj.

The results are organized to reflect Quantitative data from the questionnaires are presented using tables and charts, while qualitative insights from the interviews are illustrated through thematic narratives and representative quotations.

3.3 Analysis of students’ semi structured questionnaire

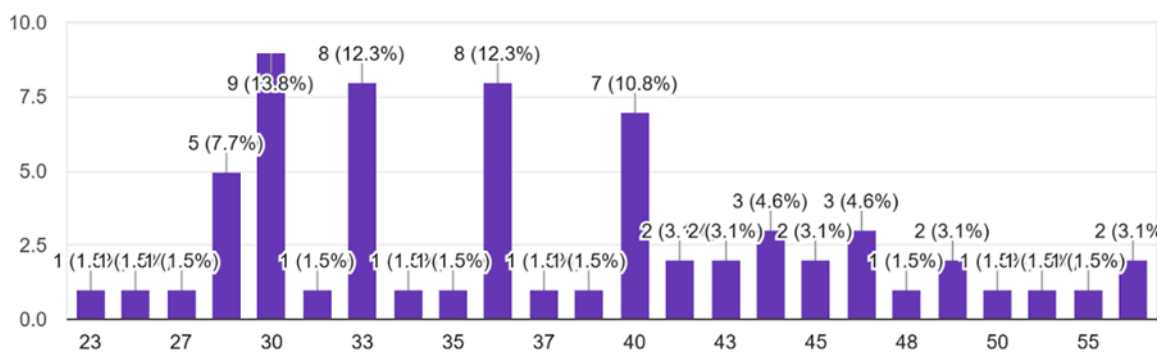
Rubric A: Background information

The first section of questions (Q1–Q5) aimed to collect basic background information about the participants, including their age, gender, internet access at home, the devices they use for online learning, and the frequency of attending online classes.

Question 1: Age

This question's aim was to identify the age group of the participants in order to identify the overall sample profile and whether or not age would have an impact on students' online behavior and their online learning engagement.

Figure (1.1): Students’age



The chart shows that the majority of the participants range from 30 to 40 years old, with the greatest rates including 30 years old (13.8%), followed by 33 and 35 years old (12.3% each), followed by 40 years old (10.8%). The students were less on either side of the age spectrum. This indicates that the majority of the participants are adult learners,

consistent with the nature of continuing education courses. The age profile would suggest that these students may also have varying levels of familiarity with technology, and this has implications for how they interact with online learning and digital tools.

Question 2: Gender

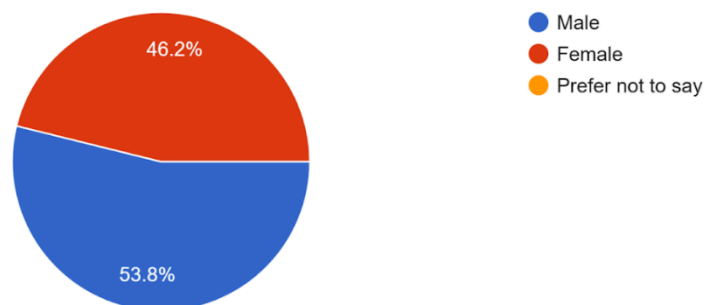
This question aimed to analyze the gender composition of the sample to know whether there can be any gender-oriented trends in digital literacy or participation in online learning. It assists in knowing if online learning environments are experienced differently by male and female students.

Figure (1.2): Students'gender.

53.8% of the participants were male and 46.2% were female. No respondent indicated "prefer not to say." This near-equal division between genders ensures the representativeness of the sample and allows for inclusive analysis. It also keeps open the question of whether or not gender impacts the use of digital tools, confidence, or online English learning preferences.

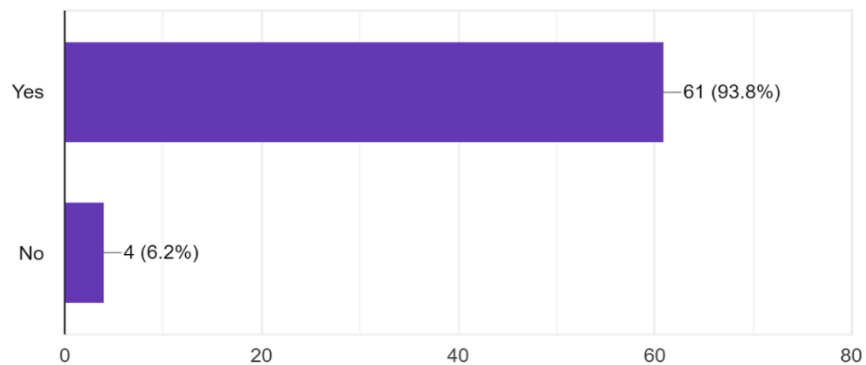
Question 3: Do you have access to the internet at home?

This question aimed to determine whether students have access to the internet at home,



which is necessary for accessing online learning activities.

Figure (1.3) :Internet Access at Home

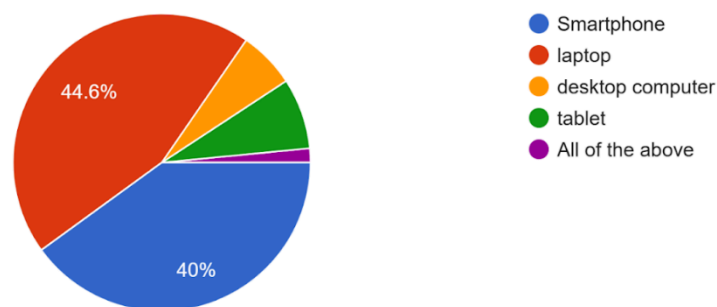


The majority of students (93.8%) reported that they have access to the internet in their homes, while few students (6.2%) reported that they do not. It is safe to say that the majority of the students can access online learning without any issues regarding connectivity. The extensive coverage of internet access also implies that students will have the opportunity to make use of online platforms and digital resources regularly, and this will enhance the development of digital literacy skills.

Question 4: What device(s) do you usually use for online learning?

The purpose of this question was to identify what types of digital devices are normally employed by students to access online learning in order to understand the degree of their access and use of various technological tools.

Figure (1.4): Devices Used for Online Learning

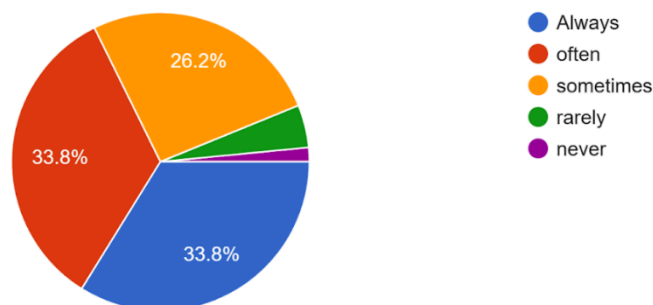


The most commonly used device for online learning is the laptop (44.6%), followed closely by the smartphone (40%). A lower number of participants reported using desktops, tablets, or all of the devices listed. This indicates that most students utilize mobile and personal devices, i.e., laptops and smartphones, which suggest an inclination towards mobile and flexible learning. The limited utilization of desktops and tablets can reflect their lower accessibility or usefulness for learning intentions within this group.

Question 5: How often do you attend online classes?

The aim of this question was to examine students' participation levels in online classes in order to assess their engagement with digital learning environments

Figure (1.5):Frequency of Attending Online Classes



According to the chart, 33.8% of the participants stated that they always attend online classes, while another 33.8% reported attending often. A smaller portion (26.2%) indicated that they sometimes attend, and very few reported attending rarely or never. These results show that the majority of students are consistently involved in online classes, which suggests a generally positive level of engagement with digital learning. However, the presence of

students who only attend sometimes or rarely may point to challenges such as motivation, connectivity, or other barriers affecting full participation.

Rubric B: Digital literacy skills

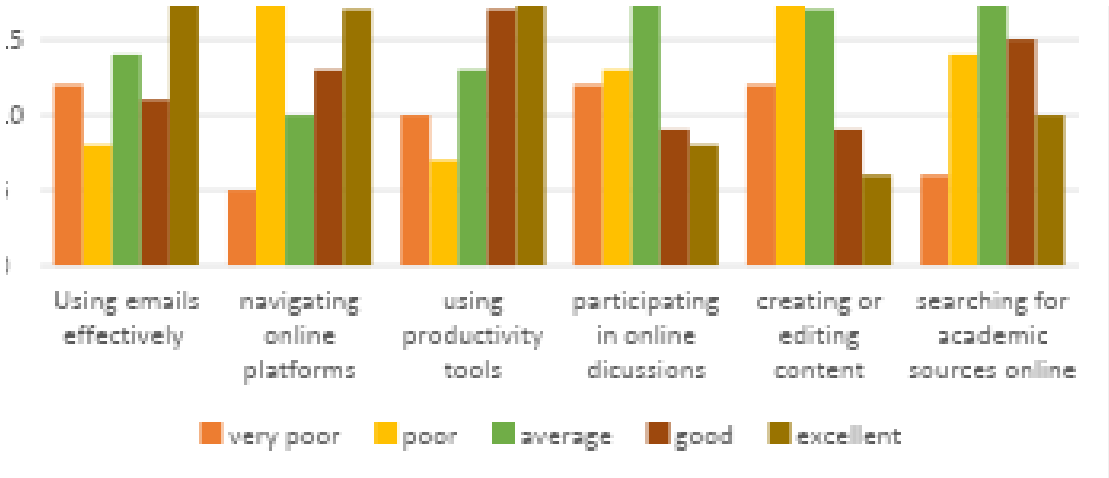
The second section of questions(Q6-Q7) aimed to evaluate the participants' digital literacy, focusing on both their self-assessed ability to perform essential digital tasks and their exposure to formal digital literacy training. The first question asked students to rate their proficiency in using various digital tools and platforms necessary for online learning. The second question examined whether students had received any formal instruction or training in digital literacy, which could influence their competence and confidence in navigating online learning environments.

Question6: Rate your ability to perform the following tasks :

(1= very poor, 5= excellent)

The aim of this question is to evaluate students' self-perceived proficiency in a range of essential digital skills relevant to online learning. By asking learners to rate their ability across specific tasks such as using emails, navigating platforms, creating content, and searching for academic resources.

Figure (1.6): self-rating of digital skills proficiency



The results of trends, modes and averages as well as percentages of excellent compared to poor are summarized below: (Table 1)

	Mean	Mode	% Excellent (5)	% Poor (1-2)
Using Emails Effectively	3.26	5	58.7%	61.7%
Navigating Online Platforms	3.45	2	26.1%	38.4%
Using Productivity Tools	3.4	5	27.6%	60.8%
Participating in Online Discussions	2.81	3	12.3%	38.4%
Creating or Editing Content	2.63	2	9.2%	50.7%
Searching for Academic Sources Online	3.13	3	15.3%	30.7%

Using Email skill stands out with a high proportion of participants (58.7%) rating themselves as excellent, suggesting confidence in using email for communication. However, a

high proportion also reported poor skills (61.7%), indicating a polarized distribution. That is to say, some individuals are highly skilled, while others struggle.

Participants demonstrated moderate competence in navigating platforms, with a mean of 3.45. The mode rating of 2 suggests that a sizable portion rated themselves as having low skills. The relatively low percentage of excellence (26.1%) and moderate rate of poor ratings (38.4%) indicate a need for targeted support in this skill. Although the mode of 5 suggests some participants feel highly confident, the high poor skills percentage (60.8%) shows a clear gap. Many participants struggle with productivity tools such as Canva, which are essential for academic and professional tasks.

Participating in online discussions has a low mean score, indicating that many participants feel underprepared in this area. It is also supported by the low percentage of excellent ratings (12.3%).

Creating and/or editing content online received the lowest mean score overall, suggesting it is the weakest area among participants. The very low excellence rate (9.2%) highlights a widespread lack of confidence in content creation, a skill increasingly vital in modern learning environments.

The respondents showcased moderate competence in researching resources online, a mean of 3.13 and a mode of 3. While fewer participants rate their skills as excellent (15.3%), the lower proportion of poor ratings (30.7%) suggests that most participants have at least a basic understanding of how to search for academic materials online.

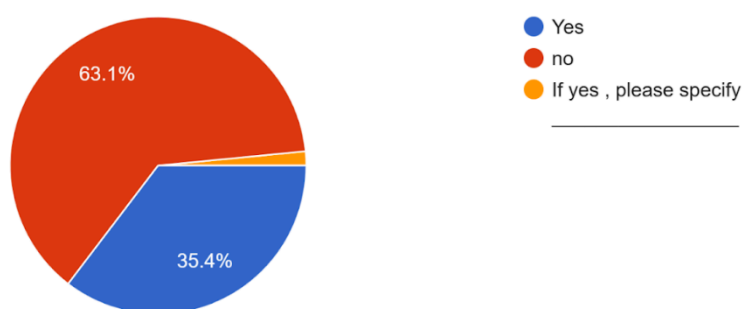
Overall, the wide gaps between very poor rates and excellent rates highlight an uneven level of competence in digital literacy skills. Yet, there is a noticeable variation of skill sets among the group. Weaknesses include content creation, participation in online discussions, and maximizing use of productivity tools. Email proficiency trumps the remaining skills despite being polarized. The results suggest a need for training to fully

engage in digital environments and maximize the benefits from the learning experiences and opportunities.

Question7:Have you received any formal training in digital literacy?

This question was essential for background information regarding the sample.

Figure (1.7): History in digital literacy training.



Out of 65 respondents, 41 individuals (63.1%) responded 'yes', while 24 individuals (35.40%) responded 'no'. These results indicate that while a majority of the respondents have undergone some form of formal training in digital literacy, a significant proportion have not.

Rubric C: Online learning experience

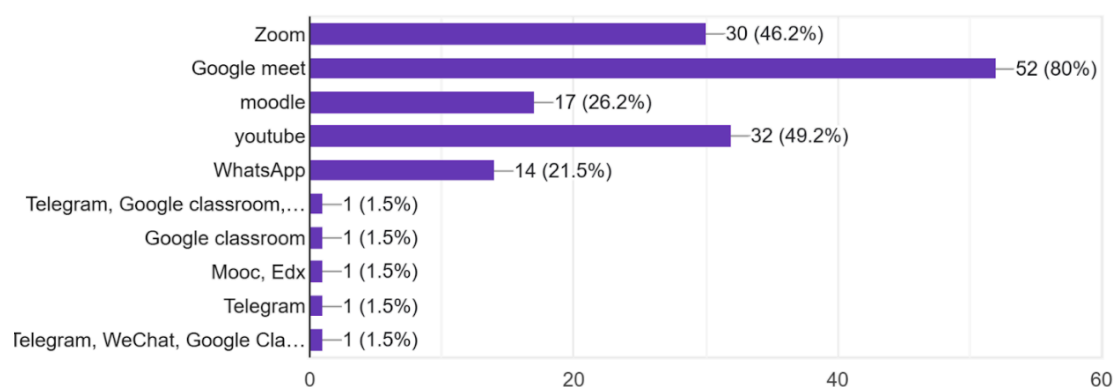
Questions in the third section (Q8–Q13) were designed to assess students' perceptions, satisfaction levels, and difficulties encountered during their overall online learning experience. Its goal is to assess the degree to which internet resources have made it easier for them to communicate with teachers, access learning materials, and participate in class. By gathering feedback in a number of online education domains, such as usability, interaction, engagement, and learning outcomes, this field offers practitioners and

educational institutions useful information that can assist them enhance the calibre and efficacy of remote learning environments.

Question 8: what online platforms or tools have you used in your English classes ?

The point of this question was to find out which digital tools students use most often to help them learn English, see how much exposure they have to different platforms, and help teachers improve the way they teach English online.

Figure (1.8): Online Platforms and Tools Used by Students in English Classes.

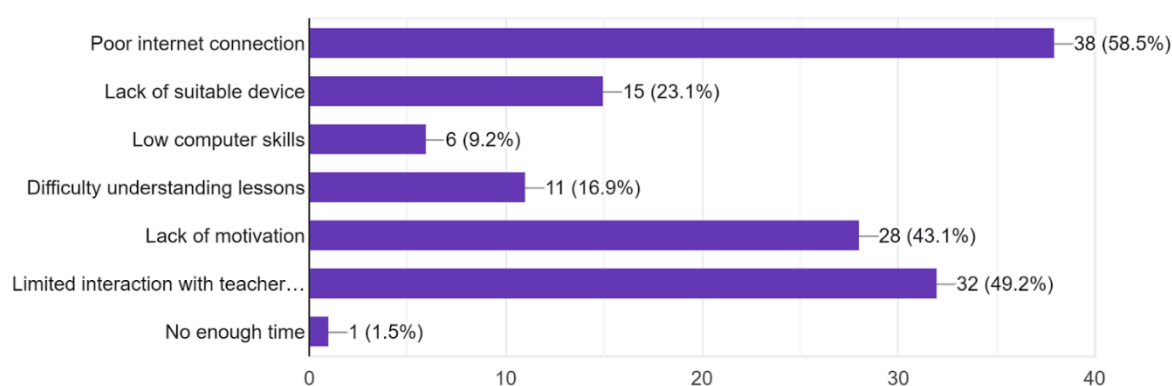


Based on the answers of 65 students, Google Meet is the most popular platform (80%), followed by YouTube (49.2%) and Zoom (46.2%). This shows that students really like platforms that let them connect with each other live and learn through videos. Moodle (26.2%) and WhatsApp (21.5%) are used at moderate levels, which shows that people rely on learning management systems and casual contact to some degree. In comparison, platforms like Google Classroom, MOOC/Edx, and Telegram were used by only 1.5% of students, reflecting either limited access, unfamiliarity, or a lack of integration in the learning environment. These data show that more training and help is needed to encourage a more balanced mix of synchronous and asynchronous learning tools in English language education and to use a wider range of educational technologies.

Question 9: What are the main challenges you face in online learning?

The aim of this question is to pinpoint the main problems students experience while participating in remote education. This assists educators and institutions in understanding the factors that inhibit participation, performance, and satisfaction regarding online learning.

Figure (1.9): Main Challenges Faced by Students in Online Learning.

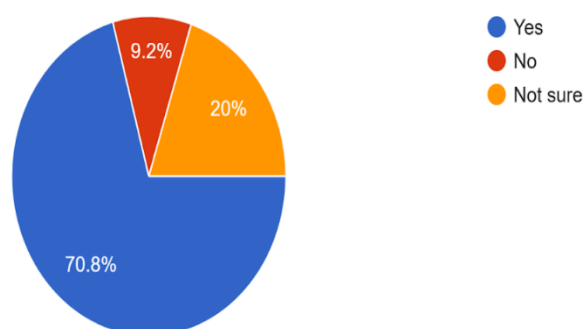


The most notable challenge reported was poor internet connectivity (58.5%) which underscored the impact of technical infrastructure on online education. This was followed by limited interaction (49.2%) and lack of motivation (43.1%) which illustrate the emotional and social challenges students experience in learning environments. Other significant challenges included difficulties understanding information (16.9%) and a lack of appropriate devices (23.1%), indicating that both hardware access and instructional clarity require improvement. While some students may be technologically competent, engagement issues and outside influences continue to be important, as seen by the lower percentage of students who reported having poor computer abilities (9.2%) and not enough time (1.5%). These findings emphasize the need to balance the technical and pedagogical facets of online learning to foster a more positive and inclusive educational environment.

Question 10: Do you think your digital literacy has improved since attending online classes?

The aim of this question is to explore whether the experience of attending online classes has contributed to the development of students' digital literacy skills

Figure (1.10):Students' Perceptions of Digital Literacy Improvement Through Online Classes



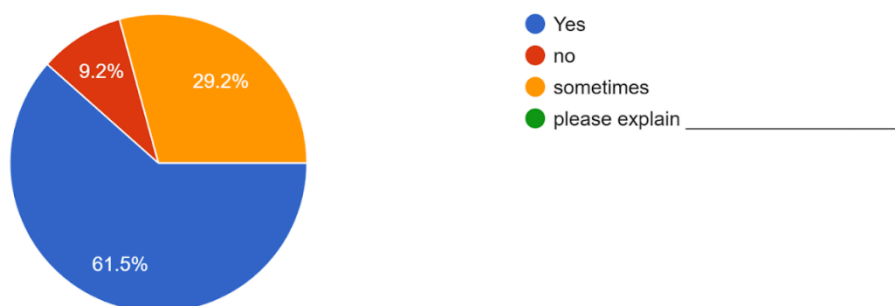
The findings reveal that 70.8% of respondents think they are now more digitally literate, suggesting that taking lessons online has significantly increased their digital literacy. 20% are uncertain, which may indicate a lack of feedback on their digital skills or modest, difficult-to-perceive changes. Only 9.2% indicated potentially because of factors such as intolerance to digital settings, learning disabilities, or technological access issues.

Overall, the results indicate that digital literacy is generally improved by online learning, but they also emphasise the necessity of support networks to help people who are unsure or having difficulties.

Question11: Do you feel confident using digital tools in English learning?

The question was devised to measure how confident students think they are in using digital resources, including platforms, websites, and applications, as part of their English language learning.

Figure (1.11):Students' Confidence in Using Digital Tools for English Learning.



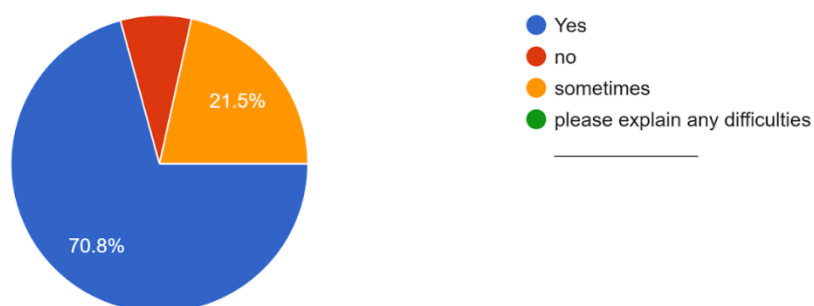
learning. 61.5% of 65 respondents said that they were confident in using digital resources for their studies, indicating that the majority of our students feel adequately people orientated. 29.2% of respondents selected sometimes indicating some hesitancy or inconsistency that could be caused by different expertise levels or technical difficulties, and 9.2% of respondents indicated

which represents a lack of confidence - possibly a result of exposure, poor education or training, or uncertainty speaking English in an online manner. These results show a generally favourable attitude towards digital tools for language learning, but they also emphasise how crucial it is to offer ongoing assistance, instruction, and easily available platforms to help apprehensive learners gain confidence.

Question12: Were you able to easily access online resources provided by your Technical English instructors (e.g., PDFs, videos, exercises) ?

The question aimed to assess the usefulness and accessibility of instructor shared digital teaching resources.

Figure (1.12):Students' Accessibility to Online Resources Provided by Technical English Instructors.

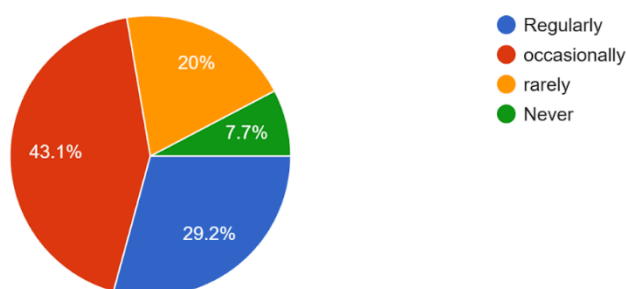


Most of the participants (65) did not report any significant problems with usability or technical issues in fact, 70.8% who said they could easily use the resources. However, Still, 21.5% of respondent's choses sometimes, indicating that occasional difficulty with file format intercompatibility, navigating platforms, or internet access would have prevented smooth, controlled access. 7.7%, indicating more significant accessibility problems that might affect their academic performance. Overall, while the data suggests that most students found the resources accessible, occasional and ongoing issues with access that must be addressed to ensure all students have equitable access to learning opportunities.

Question13:how often do you receive support or guidance from your instructors regarding online tools or platforms?

The aim of this question is to assess the frequency and consistency of instructional support provided to students in navigating online tools and platforms. It seeks to measure the level of pedagogical assistance students receive in a digital learning environment .

Figure (1.13):Frequency of Instructor Support for Online Tools and Platforms.



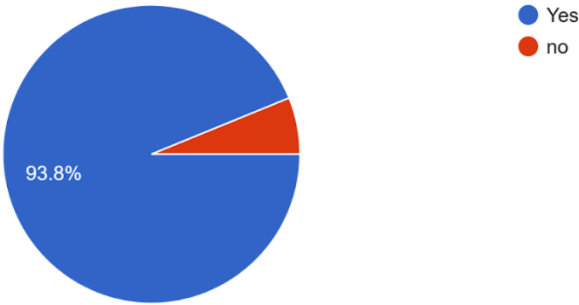
the largest group, 43.1%, receive support and 29.2% receive support regularly. 20% of the population is rarely supported, while 7.7% of the population is never supported. It seems that there is some room for improvement in providing reliable and more easily accessible instructor support for online tools and platforms. This distribution shows that while some students feel fully supported, a large number of students either rarely, or even never, receive the support they need.

Rubric D: The role of digital literacy in EFL online learning

Question 14: Do your digital skills help you navigate EFL learning websites or apps with ease?

This question aimed to determine whether students' digital literacy skills facilitate their ability to navigate EFL (learning platforms or applications effectively).

Figure (1.14): Students' Perceptions of the Role of Digital Skills in Navigating EFL Learning Websites or Apps

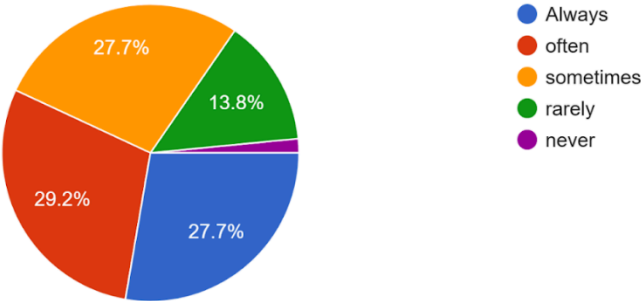


93.8% of the respondents answered ‘yes’ to the question, indicating a certain sense of confidence in digital literacy skills to access EFL learning resources. The remaining 6.2% suggested a need for further training required.

Question 15: How often do you communicate in English with your instructors or peers using digital tools (e.g., email, chats, and discussion forums)?

The question was to explore the frequency with which participants engage in English communication through digital platforms.

Figure (1.15): Frequency of Communication in English via Digital Tools

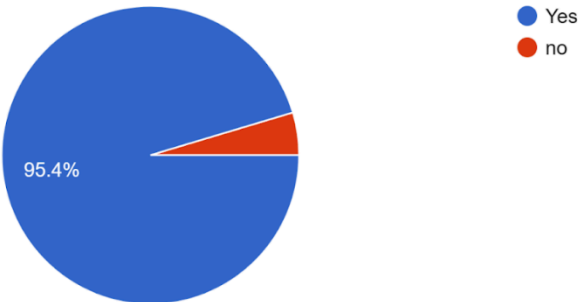


Out of the total number of respondents, 18 (27.7%) chose ‘always’ indicating a frequent use of English when engaging with peers via named digital platforms, while another 27.7% selected ‘sometimes’. Another majority of the sample, namely 19 respondents at 29.2% reported that they ‘often’ engage in English communication through digital platforms. In contrast, a minority of nine (13.8%) respondents claimed to ‘rarely’ use digital tools to commune in English, and one respondent chose ‘never’ (1.5%). It is evident that the vast majority, with over half the sample (84.6%), reported high and frequent use of digital tools to engage in communicative acts using English; as opposed to the remaining 15.3%. This suggests a wide integration of digital tools in language practices.

Question 16: Do you think your ability to use digital tools improves your language skills ?

This question was to assess respondents’ perceptions of the impact of digital tool use on their language skills development.

Figure (1.16):Students’ Perceptions of the Role of Digital Tools in Improving language skills



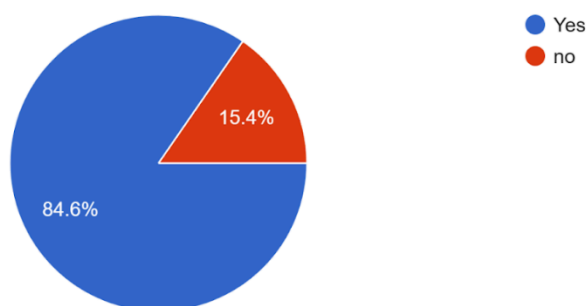
The vast majority of the respondents, namely 62 out of 65 (95.4%), answered ‘yes’ in contrast to the remaining three (4.6%) who chose ‘no’. This indicates a positive relationship

between digital literacy and language enhancement. The contradicting view of the remaining percentage suggests an underlying conception that the variables are unrelated.

Question 17: Do you feel more comfortable expressing yourself in English using multimedia (videos, recording)?

The question was to evaluate learners' comfort with multimedia as a means of English language expression.

Figure (1.17): Students' Comfort in Expressing Themselves in English Using Multimedia Tools

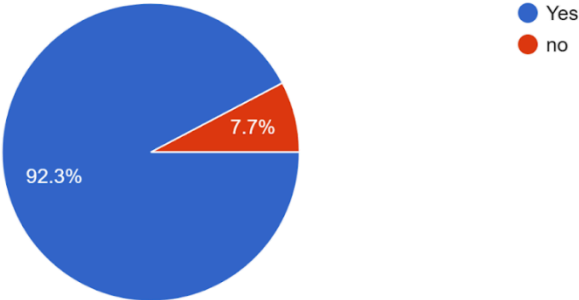


Out of the 65 respondents, 55 (84.6%) responded 'yes' indicating a strong preference for multimedia tools, including audiovisual formats such as recordings and videos, when expressing themselves in English. Only 10 participants (15.4%) answered 'no' reflecting a minority with tendencies to express oneself in means other than the digital tools.

Question 18: Have you ever recorded yourself speaking English for a class task or project.

This question aims to determine whether students have practical experience using digital tools to record themselves speaking English for academic purposes, such as class tasks or projects.

Figure (1.18): Students' Experience with Recording Themselves Speaking English for Class Tasks.

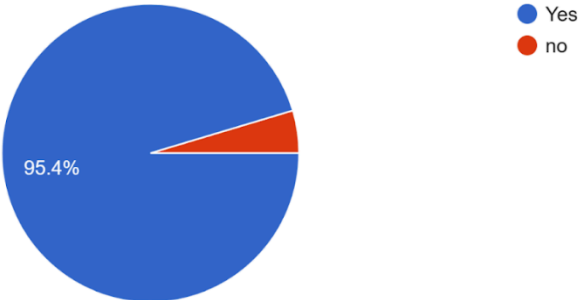


Out of 65 respondents, 60 individuals (92.3%) reported that they had previously recorded themselves speaking English for class tasks. Only five participants (7.7%) responded 'no' indicating limited or no exposure to such tasks. . This indicates that recording tools are widely used and likely form an important part of students' learning strategies

Question 19: Can you search for academic or language learning resources online in English?

This question aimed to evaluate students' ability to search for academic or language learning resources online.

Figure (1.19):Ability to search for Academic or Language Learning Resources Online in English



A significant majority of the respondents (95.4%) confirmed that they are able to search for academic or language learning resources online in English. Only a small fraction

(4.6%) indicated they are unable to do so. This result suggests that most students have developed sufficient digital literacy and language proficiency to independently access online educational materials, which can positively influence their EFL learning experience.

Question 20: How often do you revisit online lessons or videos for review and clarification?

The aim of this question is to explore how frequently students engage in self-directed learning by revisiting online lessons or videos for the purpose of reviewing content and clarifying misunderstandings.

Figure (1.20):*Frequency of Revisiting Online Lessons or Videos*

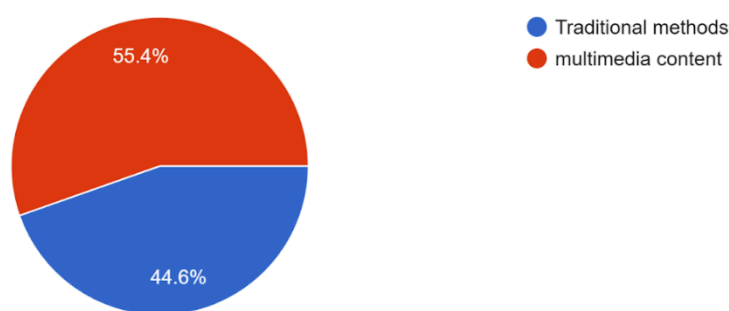
Response	Number of respondents (n)	Percentage (%)
Always	15	23.1%
Often	29	44.6%
Sometime s	17	26.2%
Rarely	4	6.2%
Never	0	0.0%
Total	65	100%

Out of the 65 respondents, 29 participants (44.6%) reported that they ‘often’ revisit such content, while 15 participants (23.1%) stated that they ‘always’ do so. An additional 17 learners (26.2%) indicated ‘Sometimes,’ and only four (6.2%) chose ‘rarely.’ Notably, none of the respondents selected ‘never.’ Ultimately, over two-thirds of the sample (67.7%) demonstrated a high tendency to revisit and review instructional content on multimedia platform, suggesting a hybrid approach to learning.

Question 21: Do you prefer learning English through traditional methods or through online multimedia content?

This question was to explore which digital tools learners found most helpful in learning English.

Figure (1.21): Learning tools preferences



Out of the 65 respondents, 36 individuals (58.1%) indicated a preference for online multimedia content, while 29 participants (44.6%) expressed a preference for traditional methods such as textbooks, worksheets, or in-person instruction. This suggests that a majority of learners favor technology-integrated instruction corresponding with their experience with digital tools.

Question 22: What type of digital tool has helped you most in learning English?

This question was to explore which digital tools learners found most helpful in learning English.

Figure (1.22): Most Helpful Digital Tools in Learning English According to Students' Perceptions.

Digital Tool Category	Number of Participants (n)	Percentage of Participants (n = 65)
Grammar checkers or writing assistants (e.g., Grammarly, Quillbot)	34	52.3%
Online dictionaries (e.g., WordReference, Cambridge)	36	55.4%
Language learning apps (e.g., Duolingo, Quizlet)	31	47.7%
Video platforms (e.g., YouTube, TED Talks)	40	61.5%
Online learning platforms (e.g., Moodle, Google Classroom)	27	41.5%
Communication tools (e.g., WhatsApp, email)	25	38.5%
Productivity tools (e.g., MS Word, Canva)	18	27.7%
Speech or pronunciation tools (e.g., Elsa Speak)	24	36.9%
Podcasts or audio platforms (e.g., Spotify)	24	36.9%
Social media (e.g., Instagram, TikTok)	29	44.6%
Movies	1	1.5%

There is a noticeable preference for video platforms which was selected by 61.5% i.e. 40 individuals out of 65. Online dictionaries were the next most popular, chosen by 36 participants (55.4%). Grammar checkers or writing assistants were selected by 34 participants (52.3%), and language learning apps by 31 participants (47.7%). Other

frequently selected tools included social media platforms (44.6%), online learning platforms (41.5%), communication tools (38.5%), speech or pronunciation tools (36.9%), and podcasts or audio platforms (36.9%). Less frequently mentioned tools were productivity tools (27.7%) and movies (1.5%).

These results demonstrate the effectiveness of a variety of digital tools in supporting learners' English language development.

Rubric E: Open-ended question

This section of the questionnaire was to collect detailed qualitative data from students about their experiences with online education and the part that digital literacy plays in their English language education. Five open-ended questions in this section gave participants the opportunity to freely share their thoughts, difficulties, and recommendations.

Question 23: In your opinion, how important is digital literacy in your learning of English as a foreign language?

This question aimed to determine students' perceptions of how students perceive the importance of digital skills in enhancing language proficiency, easing access to content, and interacting with modern learning environments.

The analysis of students' responses indicated that digital literacy is only seen as essential in learning English as foreign language. Most of participants emphasized the need for it in accessing differing and authentic materials, such as videos, podcasts, and language websites. For example, one student remarked, *"Digital literacy is very important in learning English... through various digital tools."* Others emphasized the need for language skill enhancement, adding that online platforms assisted them. *"Enhance speaking, listening, and writing skills."* Another recurrent theme was flexibility and autonomy that online learning provides. The students noted that digital literacy allows them to learn at their own pace and make the best use of their time. According to one of the participants, *"I think it's important and helpful for the person who doesn't have time to study traditionally."*

Furthermore, a number of students highlighted how digital literacy enables international communication, which enables interaction with native speakers and broadens exposure to English use. There were also conflicting opinions among some participants, who hesitated, sticking to traditional practices, e.g., *"It's not very important. I like the traditional way."* Overall, the answers indicate that although the majority of students acknowledge the importance of digital literacy, individual preferences and levels of digital readiness still vary.

Question 24: How has online learning influenced your language learning process (positively or negatively)?

This question aims to explore students' personal experiences and perceptions regarding the impact of online learning on their English language acquisition. It seeks to determine whether the influence was positive, negative, or mixed, and why.

As for the effect of online learning on the learning process of students' language, the majority of the students' responses were positive. Numerous students reported that it offered them easier access to various learning materials such as videos, podcasts, and online dictionaries that helped develop their skills. As one of the respondents explained: *"Online learning has improved my language skills by giving easy access to resources and practice."* Flexibility was also widely cited, with students having the freedom to learn whenever and at whatever pace they wanted. One of the students explained: *"Positively, because of the flexibility which it offers."*

Despite the benefits, some of the students also posed challenges, in particular a lack of motivation and fewer opportunities for face-to-face interaction that affected their speaking practice and engagement. For example, one of the participants complained: *"It made it easier to access material... but sometimes it was difficult to stay motivated without face-to-face interaction."* Another complained: *"Well it influenced me positively by improving my English language skills and, on the other hand, negatively as I did not practice well enough."* A few of the students provided balanced reviews, acknowledging strengths as well as weaknesses. One of them stated: *"There is a bit of a lack*

of communication and interaction between students and professionals."In general, the responses show that online learning had a largely positive effect on students' language development, mainly through improving accessibility and facilitating self-paced learning.

Question 25: What suggestions do you have to improve online learning and digital skill support at your university?

This question aimed to collect students' insights and practical suggestions regarding how their university can enhance the online learning experience and improve digital literacy support.

Students provided various practical and applicable suggestions for the improvement of online learning and digital skill assistance. The most frequent suggestion was requesting training workshops for students and teachers alike. These would be offered to advance digital competencies and improve usage of online learning systems. As a student described: *"I suggest offering more training workshops and providing better access to online learning tools."*

Another recurring theme was an imperative to bring more interactivity into online courses. Students suggested more live sessions, interactive tools, and group-based activities to offer more interactive and collaborative learning experience. One of the participants recommended: *"More interactive sessions and improved tech support."*

Some of the students had raised issues of infrastructure, including poor internet connectivity and the lack of digital equipment to use, which negatively affected their learning experience. Others called for the modernization of university platforms and more well-organized online sessions. Some even proposed an introduction of a module on digital skills at the beginning of the course of study to ready the students for online learning.

Although the majority of recommendations were towards enhancing online learning, a few students preferred classroom instruction and recommended that online learning supplement rather than substitute traditional instruction.

Question 26: Have online English classes helped you develop skills for your future career (e.g., writing technical emails, understanding manuals, using software in English)?

How?

This question aimed to investigate whether students perceive their online English classes as relevant and beneficial to the development of career-related language and digital skills.

Students primarily agree that online English courses assist them in enhancing professional skills. The majority of participants highlighted learning to write professional emails, reading technical reports, and working with software in English. One of the students stated: *understand technical documents, and use software in English, which are all important skills for my future career.* Some participants linked these skills with specific careers such as nursing, tourism, and technology. For example, one remark by one of the students was: *"Yes, like a nurse I can write a medical report and email."* Some remarked on improvements in vocabulary, writing, and speaking skills that they believed would be applicable in real workplace settings. Although most students indicated clear benefits, a few students only noted modest improvement feeling that the courses raised awareness of using English in a professional context, although they did not provide complete preparation for job related tasks. A number of students felt it had some impact, but limited, in part because little application practice or course content directly targeted the job. Overall, the responses show that online English teaching plays a major role in helping students gain language skills that can be used in their future working lives.

Question 27: What improvements would you suggest specifically for online Technical English instruction at your university?

This question sought to gather students' concrete suggestions to enhance the effectiveness and practicality of online Technical English instruction, particularly in aligning with professional and academic needs.

Students raised clear demand for further applied, more interactive, and employment focused content in online technical English instruction. Many students stressed the importance of using real world context such as writing technical reports, engaging in professional meetings, and interpreting manuals, as one participant recommended: *“Include more real-world tasks like writing reports, simulating meetings, and reading technical manuals. Also, more interactive exercises... would make classes more practical and engaging.”*

Additionally, participants emphasized the significance of enhancing instructor-student communication, utilizing AI tools for evaluation, and providing flexible scheduling to suit students with work schedules. Several students also emphasized the need for more thorough instruction on how to use digital platforms efficiently and improved internet connectivity. When taken as a whole, these recommendations indicate a desire for an online learning environment that is more engaging and practical, compatible with professional standards, and fully utilizes the technology at hand.

3.4 Analysis of teacher’interview:

This section offers a thematic analysis of the semi-structured interviews with three English teachers, to get their perspectives on students’ digital literacy, and how this impacts online learning. The analysis will illustrate the teachers' opinions on their students' current digital competencies, the barriers and opportunities they faced in online delivery of English, and what support was needed for the students in order to further develop their digital literacy in an educational context. The findings will be provided with direct quotes from the participants and framed by relevant academic literature, to get a holistic understanding of how digital skills impact the online learning experience of technical English students in Algeria.

Q1: How would you describe your students’ overall digital literacy skills

The digital literacy skills of students reflects a shared view that while students demonstrate some baseline digital capabilities, they are not yet able to use higher level tool.

Teacher one noted that “*most students are capable of using phones and computers for simple tasks but struggle when required to engage with more sophisticated applications.*”

Similar to teacher 2, the students' skills were “*acceptable yet in need of improvement,*” emphasizing that even fundamental skills such as “*writing and saving files*” are not always a source of concern within the increasingly digitalized learning environment. The third teacher's description of the students' skills as simply “*good*” indicates a general level of sufficiency without any reference to possible areas for improvement.

These findings are consistent with Van Deursen and Van Dijk's (2014) theoretical distinction between operational and formal digital skills. In their study, many young people demonstrate skills in common daily digital tasks (e.g., browsing the internet or using social media), yet they often lack the higher-order competencies to manage, judge, and practically use digital information in schools or workplaces. The teachers' observations in this research reflect this gap, in that the students are digitally present but not yet digitally literate in ways that fully contribute to their academic development.

Question 2 : What types of digital tools or platforms do you commonly use in your English classes?

In response to the question regarding the types of digital tools or platforms commonly used in English classes, teachers identified a small range of frequently utilized technologies. Teacher 1 indicated the regular use of platforms such as “*Google Classroom for assignments and Google Meet for online meetings,*” reflecting a reliance on integrated Google tools for both instructional delivery and task management. Similarly, Teacher 2 reported using “*Zoom, Google Classroom, [and] ChatGPT,*” demonstrating a broader incorporation of synchronous communication tools and emerging AI-based technologies into classroom practices.

These responses suggest that while teachers are making effective use of mainstream educational platforms to support teaching and learning, the variety of tools employed remains

somewhat limited. This aligns with findings by Ghounane (2022), who noted that instructors in EFL contexts often depend on accessible and user-friendly platforms like Google Classroom and Zoom, especially in post-pandemic blended or online environments. Moreover, the inclusion of ChatGPT, an AI language model, highlights a growing interest in integrating artificial intelligence into language learning settings a trend supported by recent studies that emphasize the pedagogical potential of AI in enhancing learner engagement, autonomy, and language practice (Zawacki-Richter et al., 2019).

Overall, the teachers' responses illustrate a functional but somewhat narrow approach to digital tool adoption, likely influenced by factors such as institutional infrastructure, training, and perceived effectiveness.

Question 3: From your experience, how do students' digital skills affect their participation and learning outcomes online?

The teacher responses emphasize a strong relationship between students' digital skills and their participation and success in online learning environments. One teacher observed that *"students with better digital skills participate more and finish their work on time. Those who have trouble with technology sometimes miss classes or don't submit assignments,"* indicating that digital competency directly influences students' ability to engage consistently and meet academic requirements. Another participant stated that *"students' digital skills greatly impact online participation and learning outcomes,"* affirming the role of digital literacy as a key determinant of academic performance in virtual settings.

These observations are consistent with findings by Siddiq, Gochyyev, and Wilson (2017), who demonstrated that students with higher digital skill levels tend to perform better in technology-enhanced learning contexts due to their ability to navigate platforms and complete digital tasks more efficiently. Moreover, Kim and Frick (2011) argue that digital competence supports greater learner autonomy and motivation, which in turn improves engagement and academic results in online courses. In the current study, one teacher also listed tools such as *"Google Docs, Microsoft Word, Microsoft PowerPoint, YouTube, Google*

Forms, [and] BBC Learning English,” suggesting that students familiar with these tools are better equipped to collaborate, access content, and complete tasks.

These findings underscore the importance of developing students' digital literacy to ensure equitable participation and improved learning outcomes in online education environments.

Question 4: What major challenges do your students face when engaging with online learning?

In addressing the question of the main obstacles that students encounter in their engagement in online learning, both educators identified several fundamental obstacles to productive participation. Another obstacle to their online learning experience is their differing access to technology along with their inadequate level of digital literacy. These observations reflect to a combination of technical, psychological, and motivational issues that tend to take effect within many online learning contexts.

In response to the question about the major challenges students face when engaging with online learning, both teachers identified several key barriers that hinder effective participation. Teacher 1 pointed out that *“the biggest problems are weak internet connections”*.healso noted that *“the biggest problems are weak internet connections and lack of good devices,”* emphasizing the effect of infrastructural constraints on students' access and participation in online courses. Teacher 2 elaborated further by stating that *“my students face challenges such as technical issues, distractions, and self-motivation when engaging with online learning. Limited digital literacy and inequitable access to technology also hinder their online learning experience.”*

These results are a mix of technical, cognitive, and motivational issues typical of most online learning settings. The findings lines up with Dhawan (2020), who stated the main challenges to effective online learning, particularly in poorly developed circumstances, include low access to the internet, a lack suitable devices, digital illiteracy, and a lack of motivation. Dhawan claims that these challenges lead to a decrease in students' engagement, inequity in learning outcomes and a sense of frustration.The teacher responses

in this study reinforce the importance of attention to both technical infrastructure and digital readiness to facilitate equal and effective online learning experiences.

Question 5 :Have you observed any improvement in your students’ digital literacy since the shift to online learning? How?

When asking teachers if they have observed any improvement in students digital literacy since shifting to online learning, a majority of teachers claimed that there is remarkable progress. Teacher 1 claimed that *“yes, many students have improved because they have to use online tools every day,”* Emphasizing the importance of daily exposure to technology in skill development. Teacher 2 supported this observation saying *“yes, I’ve observed significant improvement in students’ digital literacy since the shift to online learning. They’re more proficient in using digital tools and navigating online platforms.”*

These responses indicate that need and frequent use of technology have contributed to making students more digitally literate. However, Teacher 3 gave a more realistic perspective, mentioning ongoing challenges such as *“limited internet access, technical issues, unfamiliarity with platforms, [and] overload of written content,”* highlighting while progress has been noted, difficulties remain the situation. especially for students from less privileged environments.

These findings align with research by Broadbent and Lodge (2021), who claim that repeated use of digital tools in online learning environments can promote digital literacy; however, the extent of improvement is largely dependent on prior digital experience, support networks, and accessibility to resources. Thus, teacher observations highlight the beneficial effects as well as limitations of developing digital literacy in online learning contexts.

Question 6 : How often do you provide support or guidance to your students regarding the use of digital platforms and tools?

Responses to the question of how frequently teachers help students use digital platforms and tools indicate a consistent commitment to support students navigate in digital setting. Teacher 1 stated that *“ I give support almost every week, especially at the start of the*

semester. I explain how to use the platforms and answer questions during classes,”emphasizing its importance of continuous and organized guidance, particularly at the beginning of a course. Teacher 2 explained, *“I regularly provide support to my students on using digital platforms and tools. Whether it’s troubleshooting or showing them new features, I am always happy to lend a hand,*”Which highlights the teacher's role in helping students develop their digital confidence and adaptability. Teacher 3 only made reference to *“workshops,”* implying a more structured method of digital instruction.

These responses highlight how teachers actively promote students' digital literacy by providing continuous assistance and direct interaction. Tondeur et al. (2017) assert that when included into routine teaching practice, teacher support is especially important in assisting students in acquiring effective digital abilities. According to their research, when teachers demonstrate how to utilize digital tools, offer prompt support, and provide opportunities for experiential learning, students are more likely to interact with them successfully. The study's teachers' opinions reinforce this viewpoint, showing that consistent, useful assistance is essential to raising students’ confidence and level of digital involvement.

Question 7 : In your opinion, does digital literacy enhance students' English language skills? In what ways?

Teachers overwhelmingly agreed that digital literacy plays a significant role in enhancing students' English language skills. Teacher 1 observed that *“yes, it helps a lot. Using digital tools makes students read and write more in English,”* highlighting how frequent engagement with digital platforms encourages authentic language use. Teacher 2 elaborated further, stating that *“digital literacy is a game-changer for English language skills, offering access to diverse learning resources. It boosts reading, writing, listening, and speaking abilities through interactive tutorials and authentic online content.”* This view emphasizes the multimodal benefits of digital tools in supporting comprehensive language development. Teacher 3 also pointed to *“various ways and resources of learning English online,”* noting that such exposure contributes to *“developing the different skills,”* which reflects a belief in the richness and versatility of digital environments for language learning. These perspectives

align with the findings of Warschauer and Kern (2000), who argue that digital technologies support second language acquisition by offering increased opportunities for meaningful communication, exposure to authentic materials, and interactive learning experiences. The teachers' insights in this study reinforce the notion that digital literacy not only aids in accessing educational content but also directly contributes to improving learners' linguistic competence across all four language skills

Question 8 : What suggestions would you offer to improve students' digital literacy and online learning experiences in your institution?

When asked for suggestions to improve students' digital literacy and online learning experiences, teachers emphasized the importance of training, access, and strategic support. Teacher 1 recommended that *"we need more training sessions for students to learn how to use online platforms better,"* highlighting the need for structured digital skill development. Similarly, Teacher 2 suggested the institution should *"provide regular training and workshops on digital tools and platforms to boost students' confidence and competence in using technology for learning,"* reinforcing the role of consistent support in building students' technological capabilities. Teacher 3 proposed a broader approach, advocating for *"training teachers, access to devices and internet, fostering self-regulation and online learning strategies, [and a] focus on online interaction and collaboration,"* indicating that improvements must be holistic and include both infrastructure and pedagogical elements. These responses align with the recommendations of Ng (2012), who argues that developing digital literacy requires not only technical instruction but also pedagogical support, equitable access to technology, and strategies that promote independent learning and collaboration. According to Ng, effective digital literacy programs should address cognitive, technical, and socio-emotional dimensions of learning to ensure students are well-prepared to thrive in digitally mediated educational environments. The teachers' suggestions in this study reinforce the need for institutional efforts that go beyond tool training to create a sustainable and inclusive digital learning culture.

Question 9: How do you see the future of online English learning for technical students in Algeria?

Teachers expressed an optimistic outlook on the future of online English learning for technical students in Algeria, while also noting the need for technological improvements. Teacher 1 stated, “I believe online learning will continue to grow, but we need better technology,” emphasizing the importance of infrastructural enhancement to support this growth. Teacher 2 described the future as “promising, with potential for growth and innovation,” highlighting an expectation of ongoing development and adoption of new educational technologies. Teacher 3 succinctly described the future as “bright,” reflecting a positive attitude toward the sustainability and impact of online learning. These perspectives are consistent with the findings of Ally (2019), who argues that online learning, especially in technical and higher education contexts, holds significant promise for expanding access and enhancing learning outcomes, provided that technological infrastructure and digital competencies are adequately supported. Ally further notes that the success of online education depends on continual innovation and investment in both technology and pedagogy. Thus, the teachers’ responses suggest cautious optimism for the future of online English learning in Algeria, contingent on addressing existing technological challenges.

CHAPTER THREE
RESULTS,DISCUSSION, CONCLUSION
AND RECOMMENDATIONS

Chapter Three—

4.1 Introduction

This chapter discusses and interprets the main findings presented in Chapter Three. It aims to explain the significance of the results in relation to the research questions, the literature reviewed in Chapter One, and the context of Algerian EFL education. By comparing student and teacher perspectives, the chapter highlights key patterns and gaps related to digital literacy and online learning. The discussion also addresses how these findings align or differ from previous research and considers the practical implications for teaching English in digital environments. Through this, the chapter aims to provide a critical and reflective understanding of the role that digital literacy plays in shaping students' online learning experiences.

4.2 Interpretation of the Main Findings

This section provides a reflective analysis of the research findings presented in Chapter Three, offering insight into how the data aligns with the study's research questions and broader academic literature. The results from both student questionnaires and teacher interviews reveal significant patterns regarding digital literacy competencies, engagement with online learning, and the challenges EFL students face in Algerian higher education.

4.2.1 Digital Literacy Competencies and Gaps

One of the most critical observations was the uneven level of digital proficiency among students. While a majority reported improvements due to daily exposure to technology, deeper analysis showed serious gaps in skills such as content creation and participation in interactive online tasks. For instance, although over 70% of students felt that their digital literacy had improved, only 9.2% rated themselves highly in active tasks like contributing to online discussions. These findings point to a surface-level familiarity with digital tools, which is not necessarily matched by deeper digital competence.

Teachers echoed this observation, stating that students were often able to navigate platforms but lacked the confidence or ability to use them meaningfully for academic tasks.

These findings support previous literature by Van Deursen and Van Dijk (2014), who distinguished between operational skills and higher-order digital abilities. Students may be digitally present but are not yet fully digitally literate in ways that impact their academic progress.

4.2.2 Perceptions of Online Learning among Students

The perceptions of EFL students regarding online learning offer critical insights into the effectiveness, accessibility, and motivational impact of digital instruction. Data from the student questionnaire conducted at the University of Continuing Education in Bordj Bou Arreridj revealed a range of experiences that reflect both the potential and limitations of virtual education in the Algerian EFL context.

Many students expressed a generally positive attitude toward using digital tools, particularly favoring platforms such as Google Meet (80%) and YouTube (49.2%) for real-time interaction and access to multimedia content. These tools appeared to enhance engagement by simulating face-to-face communication and offering diverse instructional resources. However, the use of asynchronous platforms like Moodle and messaging apps such as WhatsApp remained moderate, suggesting a preference for interactive over static content delivery.

Despite these advantages, students also voiced several frustrations. Chief among them were poor internet connectivity (58.5%), lack of interaction (49.2%), and low motivation (43.1%). These challenges reflect broader infrastructural and emotional obstacles common in many Algerian universities. As Ghounane (2022) has noted, technical limitations often reduce students' participation in online settings, leading to feelings of isolation and disengagement. The absence of immediate feedback was also frequently mentioned, which aligns with previous studies warning that asynchronous learning environments can cause motivation to decline over time.

In terms of self-perception, 70.8% of students felt their digital literacy had improved thanks to online learning, yet 20% were unsure, and 9.2% did not believe they had progressed. This suggests that while exposure to digital platforms does encourage growth, not all learners benefit equally. Lack of clarity regarding their own progress may be linked to inconsistent support or absence of feedback on digital performance.

Additionally, students' confidence in using digital tools for learning English was relatively high (61.5%), yet a significant portion (29.2%) reported only "sometimes," and 9.2% were not confident at all. These statistics indicate that while most students are adapting, a portion still struggle, possibly due to unfamiliarity with platforms or linguistic insecurity in digital contexts. As noted earlier in section 1.1.5, challenges in developing digital skills remain a barrier that limits student engagement in online academic environments.

In my view, these mixed perceptions suggest that students are open to online learning but feel underprepared and unsupported in making the most of digital environments. Their responses highlight a crucial need for structured orientation programs, improved connectivity, and regular pedagogical interaction to make online learning more inclusive and effective.

4.2.3 Teachers' Observations on Digital Readiness

The insights gathered from the teacher interviews offer a practical lens through which to understand students' digital readiness in the context of Algerian higher education. The teachers consistently emphasized that while students are generally able to perform basic digital tasks such as opening emails or logging into platforms, they often fall short when required to engage in more complex activities such as managing digital files, editing documents, or participating in structured online learning environments.

One teacher noted, "Most students are capable of using phones and computers for simple tasks but struggle when required to engage with more sophisticated applications," pointing to a superficial digital familiarity that lacks depth. This was supported by another

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teacher, who commented that students' digital literacy was “acceptable yet in need of improvement,” citing difficulty with even essential functions like saving documents or navigating shared platforms. These observations suggest a concerning gap between digital exposure and operational digital fluency, an issue echoed in research by Van Deursen and Van Dijk (2014), who argue that digital literacy encompasses more than surface-level competence; it includes the ability to use tools critically and meaningfully.

Teachers also discussed the impact of digital literacy on classroom participation and learning outcomes. One participant observed, “Students with better digital skills participate more and finish their work on time. Those who have trouble with technology sometimes miss classes or don’t submit assignments,” highlighting how digital readiness correlates directly with academic consistency and success.

In terms of platforms, teachers reported frequent use of Google Meet, Google Classroom, and Zoom. One noted the integration of ChatGPT into lesson activities a progressive step that reflects emerging trends in AI-assisted education. However, the teachers acknowledged that their tool choices remained limited due to institutional constraints and students’ varying degrees of technical familiarity.

When asked whether they observed improvements in students’ digital skills over time, most teachers agreed there had been progress. “Yes, many students have improved because they have to use online tools every day,” one said, suggesting that regular exposure fosters development. Yet another teacher cautioned that issues such as poor internet, limited support, and a lack of structured training still held back many learners.

These findings align with broader pedagogical literature. Tondeur et al. (2017) emphasize that teacher-led digital support significantly improves student outcomes, especially when guidance is offered regularly and embedded into instructional routines. The teachers in this study reflected this approach, with most offering weekly technical assistance or digital orientation at the beginning of the semester.

In conclusion, the teachers' observations affirm that digital literacy plays a crucial role in shaping student engagement, autonomy, and achievement in online EFL learning. However, it also reveals that without sustained support and structured interventions, many students may remain trapped in a cycle of limited competence and low academic performance. These insights underscore the importance of equipping both learners and educators with the tools and training needed to thrive in increasingly digital learning environments.

4.2.4 Connecting Digital Literacy to Online Learning Success

There is a clear link between students' digital skills and their ability to succeed in online learning environments. As previously noted in Chapter One (sections 1.1.5 and 1.2.4), digital literacy influences not only access but also the ability to critically engage with materials, collaborate online, and complete tasks independently. The findings confirm this, showing that students who rated themselves higher in digital competence also expressed more confidence and satisfaction with online learning outcomes.

In line with Siddiq et al. (2017) and Kim & Frick (2011), the data demonstrates that digital competence enables greater learner autonomy and academic engagement. This was reinforced by teacher feedback, which repeatedly highlighted the need for structured digital literacy training to empower learners and close the competence gap.

4.3 Discussion in Light of the Literature Review

This section connects the main findings of the current study with the key themes discussed in the literature review presented in Chapter One. By comparing what students and teachers reported with existing theoretical and empirical research, this discussion highlights how the results confirm, extend, or challenge prior knowledge in the field of digital literacy and online EFL learning. It also reflects on how the Algerian context influences these outcomes, providing a grounded interpretation of the data within both local and international academic frameworks.

4.3.1 Confirmed Findings Compared to Previous Studies

The findings of this study confirm several well-established patterns reported in both international and Algerian literature regarding digital literacy and online learning in EFL contexts. One of the most consistent confirmations is the relationship between digital literacy and student success in online learning. This study found that students with higher levels of digital competence were more engaged, more confident, and better able to navigate online platforms echoing earlier work by Hamouma and Menezla (2019), who demonstrated that digital literacy significantly enhances academic writing and overall learning outcomes in Algerian EFL classrooms.

Similarly, the improvement of digital literacy through regular exposure to online platforms, as reported by over 70% of student respondents in this research, aligns with findings by Boussebha (2023), who emphasized that structured use of technology fosters autonomy and critical engagement in learning. These observations strengthen the argument that digital literacy is not a static skill but one that evolves with use, especially when learners are guided by digital tasks that mirror academic demands.

Another key confirmation is the gap between functional and critical digital skills. The present study showed that while many students could operate basic tools (e.g., email, messaging apps), fewer were confident in creating content or engaging in academic forums. This supports earlier findings by Touati (2023), who documented that Algerian EFL learners often rely on passive digital consumption and lack experience in active digital production or evaluation of online content.

Teachers' observations also matched those found in the literature. For example, Van Deursen and Van Dijk's (2014) model distinguishing between operational and strategic digital skills is mirrored in teachers' testimonies that students could "log in but not participate." Furthermore, the need for continuous teacher support to foster digital competencies was echoed in this study and confirms what Tondeur et al. (2017) emphasized regarding the impact of digital pedagogy on learner outcomes.

From an institutional perspective, challenges like internet instability, limited training, and lack of interaction, as reported by both teachers and students, resonate with the findings of Ghounane (2022) and Gouider (2021), who noted similar technical and pedagogical challenges in Algerian universities during the shift to remote learning.

In conclusion, the current study's findings strongly validate earlier research while providing updated empirical evidence from the post-pandemic Algerian higher education context. This consistency enhances the reliability of prior theoretical frameworks and confirms that addressing digital literacy gaps remains essential to improving online EFL learning outcomes in Algeria and similar educational systems.

4.3.2 Contributions to Algerian EFL Context

The findings of this study make several important contributions to the field of English as a Foreign Language (EFL) education in Algeria, particularly concerning the integration of digital literacy into university-level instruction. One of the key insights is the identification of a persistent digital literacy gap among third-year Technical English students, even though most have access to digital tools and platforms. This aligns with earlier Algerian research by Touati (2023) and Boudjadar (2021), which also revealed that digital access does not automatically translate into critical digital competence.

Another major contribution lies in highlighting the nuanced relationship between digital literacy and learner autonomy in EFL settings. Students with stronger digital skills were more confident, more engaged, and more capable of independent learning. This supports previous arguments made by Rahimi and Yadollahi (2017) and is especially significant in the Algerian context, where classroom instruction may be limited and learners often rely on self-directed engagement to build their English skills.

This research also emphasizes the evolving role of Algerian teachers as digital facilitators. Instructors are no longer just language providers; they are now expected to support students in developing digital literacy through task-based and interactive

approaches. This aligns with calls by Erdem and Sönmez (2017) to embed digital competence into language pedagogy and ideas that appear increasingly relevant for Algerian universities transitioning to digital modes of instruction.

Furthermore, the study exposes how institutional constraints such as lack of training, weak infrastructure, and uneven access continue to hamper the integration of digital tools into EFL instruction. As noted by Ghounane (2022) and Gouider (2021), without systemic support, even motivated teachers and students face limitations that hinder digital transformation in higher education.

The most valuable contribution of this study is its focus on the Algerian learner's digital reality. Rather than assuming that global digital literacy frameworks apply universally, this research calls for localized models that respect the specific socio-economic, linguistic, and institutional conditions of Algerian universities. By grounding its recommendations in real student and teacher experiences, the study provides a roadmap for improving online EFL education that is both practical and culturally responsive.

4.4 Pedagogical Implications

This section outlines the practical implications of the study's findings for teaching English as a Foreign Language in Algerian higher education. Based on the observed gaps in digital literacy and the challenges students and teachers face in online learning environments, several pedagogical considerations emerge. These implications are intended to support more effective instructional design, promote digital skill development, and foster better engagement and autonomy among EFL learners in digitally mediated classrooms.

4.4.1 Curriculum Design and Digital Skills

One of the central pedagogical implications emerging from this study is the need to redesign EFL curricula to integrate digital skills in a systematic and intentional manner. The findings demonstrate that while Algerian students often have access to basic technologies, their ability to use digital tools critically and independently remains limited. As a result,

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curriculum design should go beyond traditional language instruction and embed digital competencies as part of the core learning objectives.

Research suggests that students benefit most when digital literacy is not treated as a separate subject but is instead integrated into the language learning process itself. According to Martin and Grudziecki (2006), digital literacy should be framed as a lifelong and context-specific competence that evolves with both technology and the learner's environment. In the Algerian EFL context, this implies designing modules that incorporate real-world digital tasks such as creating blog posts, participating in online forums, or evaluating English-language web sources to reinforce both linguistic and technological skills.

Moreover, studies like those of Rahimi and Yadollahi (2017) have shown that digital literacy enhances learner autonomy, a crucial component of successful EFL education. Embedding such practices into the curriculum can help students become more responsible for their learning, especially in asynchronous online settings where teacher guidance is reduced. In our findings, students who possessed stronger digital literacy also reported higher confidence and engagement in online learning environments, further supporting this approach.

The gap between functional and critical digital skills, particularly in evaluating information and creating digital content, was also highlighted in this study. Touati (2023) and Boussebha (2023) note that while many Algerian students are familiar with devices like smartphones, they struggle with more advanced tasks such as academic research, file organization, or presentation design. This indicates a need to restructure course activities to include scaffolded training in these areas, gradually moving from basic to more complex tasks.

In my opinion, curriculum reform should begin by mapping digital competencies onto existing course outcomes. For example, writing assignments can require submission via collaborative platforms like Google Docs, and speaking tasks could include participation in recorded video discussions. Teachers should also be encouraged to adopt frameworks like

the TPACK model, which emphasizes the integration of technological, pedagogical, and content knowledge to deliver meaningful instruction.

To conclude, a reimagined EFL curriculum that blends language instruction with structured digital literacy development is essential for preparing Algerian students to succeed in modern academic and professional environments. This integration will not only close skill gaps but also empower learners to fully engage in digital learning ecosystems, both locally and globally.

4.4.2 Training Needs for Teachers and Students

The research findings clearly highlight the need for structured and continuous training programs to support both teachers and students in developing their digital literacy. This is especially urgent in the Algerian EFL context, where gaps in digital competence are a major barrier to effective online learning. Although many students and teachers are familiar with basic technology, their ability to use digital tools for educational purposes remains limited.

Teachers repeatedly mentioned that their students struggle with essential tasks such as formatting documents, navigating platforms like Moodle or Google Classroom, and using collaborative tools. These skills are vital not only for accessing course content but also for completing assignments and participating in virtual discussions. As Boudjella (2021) notes, digital challenges during the pandemic exposed the lack of preparedness among both learners and institutions. This indicates the need for proactive, rather than reactive, training programs that prepare users before challenges arise.

Teachers themselves also require targeted professional development. Several admitted in the interviews that while they use tools like Google Meet and Zoom, they had little to no training in digital pedagogy. Boukhentache (2019) similarly found that Algerian EFL instructors tend to default to traditional methods due to a lack of support in adopting

digital approaches. Without digital teaching strategies, educators cannot fully engage students or design activities that build digital competencies.

Effective training for both groups should go beyond technical instruction. As Ng (2012) explains, digital literacy includes cognitive and socio-emotional dimensions, such as evaluating information critically, engaging in ethical online behavior, and managing learning independently. Algerian training programs must therefore cover not only "how to use" digital tools, but also "how to think with" and "learn through" them.

Moreover, training must be ongoing. A one-time workshop is insufficient in a field that constantly evolves. Instead, universities should implement semester-based training cycles and provide support hubs where students and teachers can access guidance as needed. These programs should also be differentiated: while some students may need help with basic access, others may require instruction in academic research or multimedia content creation.

Training is not just a support mechanism; it is a critical component of educational equity. If some students or teachers are more digitally prepared than others, it leads to unequal learning opportunities. Investing in inclusive training ensures that all learners, regardless of their background, can participate meaningfully in online education. As this study shows, digital literacy is essential for engagement, performance, and success in the online classroom. Training is how we build that literacy.

4.4.3 Institutional Roles and Recommendations

The findings of this research underscore the significant role that institutional policies and infrastructure play in shaping the success of digital learning within Algerian EFL education. While individual efforts by teachers and students are critical, the broader educational environment must actively support digital transformation for meaningful, sustainable progress to occur.

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One of the major concerns identified in both the student questionnaire and teacher interviews is the insufficient infrastructure across Algerian universities. Inconsistent internet connectivity, limited access to modern computers, and poorly maintained digital platforms were common issues. This mirrors the findings of Ghounane (2022), who reported that these structural limitations are among the most persistent barriers to effective online learning across Algerian institutions.

To address these challenges, institutions must invest in long-term infrastructure improvements. As previously highlighted in Section 1.2.7, some initiatives, such as those at the University of Batna 2, demonstrate what is possible when universities adopt innovative tools like dedicated e-learning platforms and educational TV broadcasts. Expanding such efforts nationwide can help bridge access gaps and ensure that all learners benefit from a stable, engaging digital environment.

Additionally, institutional support should not stop at infrastructure. The Ministry of Higher Education and Scientific Research (MHESR) has taken steps toward providing professional development opportunities for teachers. However, these initiatives must become more frequent, better funded, and tailored to EFL-specific needs. As Boukhentache (2019) argues, digital readiness among teachers directly influences classroom outcomes, especially in online settings.

Institutions also have a responsibility to embed digital literacy into their official curricula. This study has shown that students often engage with digital tools informally, without structured guidance. Universities must mandate the inclusion of digital competencies as formal learning outcomes across programs, especially for language learners. Doing so would promote a consistent baseline of digital readiness and encourage curriculum alignment with modern pedagogical frameworks such as TPACK and the Competency-Based Approach (CBA).

Moreover, institutional culture must support experimentation and innovation. Teachers in this study described efforts to use tools like ChatGPT, Zoom, and Google

Classroom, but also voiced frustration about a lack of administrative encouragement and technical support. As Ally (2019) emphasizes, successful digital learning environments require not only tools and training but also leadership that values innovation and provides space for trial and error.

In my view, Algerian institutions need to evolve from being passive facilitators to becoming active enablers of digital pedagogy. This includes establishing digital support centers, funding research into educational technologies, and fostering collaboration between departments to share best practices. Institutions should also evaluate and revise their digital policies regularly to adapt to the evolving landscape of online education.

In summary, institutional roles are central to the success of digital learning in Algerian EFL contexts. Only through coordinated infrastructure investments, curriculum integration, professional development, and a culture of innovation can universities meet the digital demands of modern education and fully support students' and teachers' growth.

4.5 Limitations of the Study

While this study offers valuable insights into the role of digital literacy in online learning among Algerian EFL students, several limitations must be acknowledged. These limitations affect the scope, generalizability, and interpretive power of the findings and should be considered when drawing conclusions or applying the results in other contexts.

First, the sample size was relatively limited. Although 65 students and 4 teachers participated in the study, this number may not be fully representative of the broader population of Algerian university students. Additionally, all participants were from the University of Continuing Education in Bordj Bou Arreridj, which may have specific conditions, resources, or challenges that do not reflect the national landscape. Consequently, the findings may not generalize to other institutions with different technological infrastructures or pedagogical practices.

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Second, the study relied heavily on self-reported data. Student questionnaire responses about digital literacy and online learning experiences may be subject to bias, including overestimation or underestimation of skills and performance. Similarly, teachers' views were based on their own experiences and perceptions, which, while insightful, may not capture the full spectrum of digital readiness among the wider teaching body. These subjective accounts could limit the objectivity of the interpretations.

Third, the study did not include longitudinal data. Digital literacy is a dynamic and evolving skill set that may change significantly over time. This research captures a snapshot of the participants' digital practices during one academic term, but it does not measure how these practices develop or decline over longer periods. Future studies that track student progress over multiple semesters would offer a more comprehensive picture of growth and long-term impact.

Another limitation involves the absence of advanced technical analysis tools. While the research made use of basic statistical calculations for survey responses and thematic analysis for interviews, more rigorous quantitative or mixed-method analyses such as inferential statistics, correlations, or triangulated coding could have enhanced the depth of interpretation and provided stronger validation of the findings.

Lastly, the broader institutional and social context of Algeria presented limitations beyond the researcher's control. These include the inconsistent availability of internet access, limited digital equipment for participants, and broader systemic constraints in public higher education. While these challenges are central to the topic of study, they also made data collection more difficult and limited the types of activities that could be explored during the research.

Despite these limitations, the study offers meaningful and contextually grounded conclusions that contribute to both local and international conversations on digital literacy and EFL instruction. Acknowledging these constraints not only strengthens the credibility of the findings but also highlights important directions for future research.

4.6 Suggestions for Future Research

Building on the findings and limitations of this study, several important directions for future research can be proposed to expand our understanding of digital literacy and online learning within Algerian EFL contexts.

First, future research should consider adopting a broader and more diverse sample across multiple Algerian universities. Including students and teachers from various regions, rural and urban, large and small institutions would allow for more generalizable results and a better understanding of how contextual factors influence digital readiness and online learning outcomes. Comparative studies between institutions with different levels of technological infrastructure would also be valuable.

Second, longitudinal studies are needed to explore how students' digital literacy evolves over time, particularly in relation to their academic development and language proficiency. Monitoring students across multiple academic years or tracking their transition from traditional to blended or fully online learning environments would provide insight into long-term digital growth and its effect on learner autonomy, motivation, and success.

Third, future research could employ mixed methods designs with more advanced statistical tools. While this study primarily used descriptive statistics and thematic analysis, additional work could explore the relationships between variables (e.g., between digital literacy levels and academic performance) through correlation analysis, regression modeling, or structural equation modeling. These approaches would strengthen the analytical depth and validity of findings.

Fourth, researchers should explore the effectiveness of specific interventions, such as digital literacy training workshops or curriculum-integrated digital activities, to assess how targeted programs impact students' competence and engagement. Experimental or quasi-experimental designs could be especially helpful in determining the direct effects of such interventions on students' language development and digital confidence.

Another important area for exploration is teacher digital pedagogy. While this study included teacher perspectives, further research could focus more deeply on educators' preparedness, attitudes, and instructional strategies for integrating technology into language teaching. Investigating how teacher training programs equip instructors with digital tools and how these tools are actually used in practice would fill an important gap in the literature.

Finally, future research should consider the social and emotional dimensions of digital learning. Topics such as student motivation, anxiety, technostress, and the impact of isolation in virtual environments are increasingly relevant, especially in light of global shifts toward online education. Qualitative studies using interviews, focus groups, or classroom observations could provide rich insights into these human aspects of digital learning.

In conclusion, this study opens several pathways for future academic inquiry. By expanding the scope, improving the methodology, and focusing on both learners and teachers, future researchers can contribute more detailed and actionable knowledge to improve EFL education in digitally evolving contexts like Algeria.

4.7 Conclusion

This chapter has discussed and interpreted the main results of the study in relation to the existing literature, the Algerian context, and the realities of EFL instruction in online learning environments. The findings revealed that while many students have access to digital tools and platforms, their digital literacy remains uneven especially in areas requiring critical thinking, content creation, and online communication. Teacher feedback reinforced this observation, emphasizing both the progress and the persistent limitations faced by learners.

Throughout the discussion, it became evident that digital literacy plays a central role in online learning success. Students with higher competence in navigating digital environments were more confident, more engaged, and more likely to complete tasks effectively. Similarly, teachers who received support and training in digital pedagogy were

Chapter Three—

better positioned to guide students and integrate meaningful online activities into their instruction.

The chapter also highlighted how the findings align with, confirm, and occasionally diverge from previous studies. While many results echoed known challenges in Algerian higher education such as connectivity issues, lack of structured training, and institutional inertia this research added updated perspectives on how students and teachers are adapting post-pandemic and what specific skills remain underdeveloped.

Based on these insights, several pedagogical implications and practical recommendations were proposed, including the need to revise EFL curricula, implement ongoing training for both learners and instructors, and develop stronger institutional support systems that prioritize digital equity and innovation.

In sum, this chapter has provided a comprehensive interpretation of the study's results and their significance for the future of EFL instruction in Algeria. It reinforces the urgency of integrating digital literacy into all aspects of language learning to ensure that students are not only digitally present but also digitally prepared.

General conclusion

General conclusion

This thesis set out to explore the role of digital literacy in shaping the online learning experiences of third-year EFL students at the University of Continuing Education in Bordj Bou Arreridj, Algeria. In response to the challenges and opportunities presented by the shift toward virtual education, the study examined both student and teacher perspectives to better understand how digital competence affects language learning in an online context.

The literature review established that digital literacy is more than just technical know-how; it includes a set of evolving competencies that allow learners to navigate, evaluate, and create digital content effectively. Within EFL education, these skills are closely tied to learner autonomy, engagement, and academic success. However, the review also pointed out gaps in digital preparedness among students and educators, particularly in developing countries like Algeria.

Using a mixed-methods approach, the research collected quantitative data through a student questionnaire and qualitative insights through semi-structured teacher interviews. The results showed that while students are generally comfortable with basic technologies, many lack deeper digital literacy skills such as content creation, online interaction, and critical evaluation of information. Teachers confirmed these gaps, pointing to a need for more consistent training, institutional support, and curriculum reform.

The findings highlight several important implications for pedagogy and policy. First, digital skills must be embedded into the EFL curriculum rather than treated as add-ons. Second, both students and teachers require regular, structured training to develop and apply digital tools effectively. Third, institutions must play an active role in providing infrastructure, encouraging innovation, and supporting both learners and educators through clear policies and investments in educational technology.

Despite its limitations, including a localized sample and reliance on self-reported data, the study contributes valuable, context-specific insights into the current state of digital literacy and online learning in Algerian higher education. It also opens several avenues for future

General conclusion

research, including longitudinal studies, intervention-based designs, and deeper exploration into the social and emotional dimensions of digital learning.

The study affirms that digital literacy is not a luxury but a necessity in the modern educational landscape. For Algerian EFL students to thrive in online environments, a comprehensive strategy that combines curriculum innovation, teacher training, institutional support, and ongoing evaluation is essential. By addressing these areas, universities can better equip learners with the skills they need not only to succeed academically but also to participate fully in a digitally connected world.

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Appendices

Appendix A: Teachers' interview

- 1-How would you describe your students' overall digital literacy skills
- 2-What types of digital tools or platforms do you commonly use in your English classes?
- 3- From your experience, how do students' digital skills affect their participation and learning outcomes online?
- 4- What major challenges do your students face when engaging with online learning?
- 5-Have you observed any improvement in your students' digital literacy since the shift to online learning? How?
- 6-How often do you provide support or guidance to your students regarding the use of digital platforms and tools?
- 7- In your opinion, does digital literacy enhance students' English language skills? In what ways?
- 8-What suggestions would you offer to improve students' digital literacy and online learning experiences in your institution?
- 9-How do you see the future of online English learning for technical students in Algeria?

Appendices

Appendix B: Students' Questionnaire

Section A: Background Information

1. Age: _____

2. Gender:

Male

Female

Prefer not to say

3. Do you have access to the internet at home?

Yes

No

4. What device(s) do you usually use for online learning? (You can select more than one)

Smartphone

Laptop

Desktop Computer

Tablet

Other: _____

5. How often do you attend online classes?

Always

Often

Sometimes

Rarely

Never

Appendices

Section B: Digital Literacy Skills

1. Rate your ability to perform the following tasks:

(1 = Very Poor, 5 = Excellent)

Task	1	2	3	4	5
Using email effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Navigating online learning platforms (e.g., Moodle, Google Classroom)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using productivity tools (e.g., Word, PowerPoint)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participating in online discussions or forums	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creating or editing digital content	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Searching for academic resources online	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Have you received any formal training in digital literacy?

Yes

No

If yes, please specify: _____

Section C: Online Learning Experience

1. What online platforms or tools have you used in your English classes?

(e.g., Zoom, Google Meet, Moodle, YouTube, WhatsApp, etc.)

2. What are the main challenges you face in online learning?

(You may tick more than one)

Poor internet connection

Lack of suitable device

Low computer skills

Appendices

- Difficulty understanding lessons
- Lack of motivation
- Limited interaction with teachers/classmates
- Other: _____

3. Do you think your digital literacy has improved since attending online classes?

- Yes
- No
- Not sure

4. Do you feel confident using digital tools in English learning?

- Yes
- No
- Sometimes

Please explain: _____

5. Were you able to easily access online resources provided by your Technical English instructors (e.g., PDFs, videos, exercises)?

- Yes
- Sometimes
- No

Please explain any difficulties: _____

6. How often do you receive support or guidance from your instructors regarding online tools or platforms?

- Regularly

Appendices

- Occasionally
- Rarely
- Never

Section D: The Roles of Digital Literacy in EFL Online Learning

1-Do your digital skills help you navigate EFL learning websites or apps with ease?

- a. Yes
- b. No

2.How often do you communicate in English with your instructors or peers using digital tools (e.g., email, chats, discussion forums)?

- a. Always
- b. Often
- c. Sometimes
- d. Rarely
- e. Never

3.Do you think your ability to use digital tools improves your language skills?

- a. Yes
- b. No

4.Do you feel more comfortable expressing yourself in English using multimedia (videos, recordings)?

- a. Yes
- b. No

5.Have you ever recorded yourself speaking English for a class task or project?

Appendices

a. Yes

b. No

6. Can you search for academic or language learning resources online in English?

a. Yes

b. No

7. How often do you revisit online lessons or videos for review and clarification?

a. Always

b. Often

c. Sometimes

d. Rarely

e. Never

8. Do you prefer learning English through traditional methods or through online multimedia content?

a. Traditional methods

b. Multimedia content

9. What type of digital tool has helped you most in learning English?

Online dictionaries (e.g., WordReference, Cambridge Dictionary)

Grammar checkers or writing assistants (e.g., Grammarly, Quillbot)

Language learning apps (e.g., Duolingo, Memrise, Quizlet)

Video platforms (e.g., YouTube, TED Talks, BBC Learning English)

Online learning platforms (e.g., Moodle, Google Classroom)

Communication tools (e.g., WhatsApp, email, discussion forums)

Appendices

- Productivity tools (e.g., Microsoft Word, PowerPoint, Canva)
- Speech or pronunciation tools (e.g., Google Translate's voice, Elsa Speak)
- Podcasts or audio platforms (e.g., Spotify, BBC Podcasts)
- Social media (e.g., Instagram reels, TikTok for language learning)
- Other: _____

Section E: Open-Ended Questions

1. In your opinion, how important is digital literacy in your learning of English as a foreign language?
2. How has online learning influenced your language learning process (positively or negatively)?
3. What suggestions do you have to improve online learning and digital skill support at your university?
4. Have online English classes helped you develop skills for your future career (e.g., writing technical emails, understanding manuals, using software in English)? How?
5. What improvements would you suggest specifically for online Technical English instruction at your university?

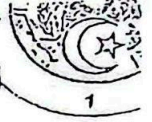
الملخص

تتناول هذه الرسالة البحث في دور الكفاءة الرقمية في دعم عملية التعليم عن بعد لدى طلبة السنة الثالثة في تخصص اللغة الإنجليزية لأغراض تقنية بجامعة التعليم المستمر في برج بوعريريج، الجزائر. في ظل التحول الكبير نحو التعليم الرقمي، خاصة بعد جائحة كوفيد-19، هدفت الدراسة إلى الكشف عن مدى جاهزية الطلبة من حيث المهارات الرقمية، ومدى تأثير هذه المهارات على نجاحهم الأكاديمي في بيئة تعليمية رقمية. كما سعت إلى رصد آراء الأساتذة حول واقع الكفاءة الرقمية لدى الطلبة وظروف المؤسسة الجامعية التي تؤثر على فعالية استخدام التكنولوجيا في التعليم. اعتمدت الدراسة على منهج مختلط، إذ تم جمع البيانات الكمية من خلال استبيان موجه للطلبة، وتم دعمها بمعطيات نوعية تم الحصول عليها عبر مقابلات شبه مهيكلة مع أساتذة اللغة الإنجليزية. كشفت النتائج أن الطلبة، رغم امتلاكهم للأجهزة الرقمية والوصول إلى المنصات التعليمية، يعانون من نقص في المهارات الرقمية الضرورية، كتحرير المحتوى، التفاعل في المناقشات، وتنظيم المعلومات الرقمية. وقد أكد الأساتذة هذا النقص، مشيرين إلى غياب التكوين المنظم والدعم المؤسسي المناسب.

تُسهّم هذه الدراسة في تعزيز الأدبيات السابقة التي تؤكد أهمية الكفاءة الرقمية في تعلم اللغات الأجنبية. وقد خلصت إلى عدد من التوصيات التربوية، أبرزها: ضرورة إدماج المهارات الرقمية في المناهج الدراسية، توفير التكوين المستمر للطلبة والأساتذة، وتحسين البنية التحتية والسياسات التعليمية الداعمة للتعليم الرقمي. وتخلص الرسالة إلى أن الكفاءة الرقمية لم تعد اختيارية، بل ضرورة حتمية لضمان نجاح الطلبة في النظام الجامعي الجزائري المعاصر.

27 ضد 2020

* ملحق بالقرار رقم 10821... المؤرخ في
الذي يحدد القواعد المتعلقة بالوقاية من السرقة العلمية ومكافحتها



الجمهورية الجزائرية الديمقراطية الشعبية
وزارة التعليم العالي والبحث العلمي

مؤسسة التعليم العالي والبحث العلمي:

نموذج التصريح الشرقي
الخاص بالالتزام بقواعد النزاهة العلمية لإجازة بحث

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عنوانها: Exploring the role of EFL students' digital literacy in

online learning: the case of third year technical students at the University

of continuing education
أصرح بشرفي أنني ألتم بمراعاة المعايير العلمية والمنهجية ومعايير الأخلاقيات المهنية والنزاهة الأكاديمية

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رئيس المجلس الشعبي البلدي
منصوري عبد الرزاق

27 ص 2020

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الذي يحدد القواعد المتعلقة بالوقاية من السرقة العلمية ومكافحتها



الجمهورية الجزائرية الديمقراطية الشعبية
وزارة التعليم العالي والبحث العلمي

مؤسسة التعليم العالي والبحث العلمي:

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عنوانها: Exploring the role of EFL student's digital literacy in online learning: The case study of 3rd year technical English students at the university of continuing education
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توقيع المعني(ة)

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الحامل(ة) لبطاقة التعريف الوطنية رقم: 408014905 والصادرة بتاريخ: 2013 12 01

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والمكلف(ة) بإنجاز أعمال بحث (مذكرة التخرج، مذكرة ماستر، مذكرة ماجستير، أطروحة دكتوراه).

عنوانها: Exploring the role of EFL students' digital literacy online learning the case of third year technical students at the University of continuing education

أصرح بشرفي أنني التزم بمراعاة المعايير العلمية والمنهجية ومعايير الأخلاقيات المهنية والنزاهة الأكاديمية

المطلوبة في إنجاز البحث المذكور أعلاه.

توقيع السيد: جمال أماني

التاريخ: 05 JUN 2025

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