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The Role of Smart Technologies in Enhancing Students' Language Skills: First Year Master's Students at the English Department, Saida University

Dissertation submitted as partial fulfilment of the requirements for the degree of *Master* in Didactics.

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Declaration of Originality

I hereby declare that this submission is my work and that, it contains no material previously published or written by another person nor material which has been accepted for the qualification of any other degree or diploma of a university or other institution.

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Dedication

To my beloved parents

To my dear grandparents

To my aunts Karima and Souhila

To my beautiful sisters,

Thank you for the support you gave me throughout the stages of my life.

And finally, to my friends Fouad, Mohamed and Marouane with whom I spent great moments.

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Abstract

The use of technology was once limited solely to entertainment, but now it permeates all aspects of life, including education. Thanks to technological advancements, students can construct knowledge themselves without relying heavily on their teachers, especially EFL students who can easily improve their integrative skills. The objective of this academic study, conducted at the English department of Saida University, is to explore the role of smart technologies in enhancing EFL learners' language skills, including speaking, listening, reading, and writing. To achieve this objective, the researcher employed a mixed-method approach, combining qualitative methods through teacher interviews with quantitative methods through the design of a student questionnaire. Findings reveal that learners are motivated when using smart technologies in their learning process, as they believe technology enhances their academic performance and improves the quality of the learning process in classes. At the conclusion of the investigation, the researcher provides recommendations for the effective use of smart technologies in learning to both EFL teachers and learners.

Keywords: Academic performance, EFL students, integrative skills, learning process, Saida University, technology.

The use of technology was once limited solely to entertainment, but now it permeates all aspects of life, including education. Thanks to technological advancements, students can now construct knowledge independently, without relying heavily on their teachers. This is particularly beneficial for EFL students, who can easily improve their integrative skills. The objective of this academic study, conducted at the English Department of Saida University, is to explore the role of smart technologies in enhancing EFL learners' language skills, including speaking, listening, reading, and writing. To achieve this objective, the researcher employed a mixed-method approach, combining qualitative methods through teacher interviews with quantitative methods through the design of a student questionnaire. The findings reveal that learners are motivated when using smart technologies in their learning process, as they believe technology enhances their academic performance and improves the quality of learning in classes. At the conclusion of the investigation, the researcher provides recommendations for the effective use of smart technologies in learning to both EFL teachers and learners.

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List of Abbreviations

LMS: Learning management system.

MALL: Mobile assisted language learning.

M-learning: Mobile learning .

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General Introduction

No one can deny that the methods of learning new languages have evolved in recent years. In the past, students had to embark on long journeys to access different sources from various libraries or even different cities to improve their linguistic competence. Nowadays, thanks to technological advancements, students can improve their performance in any language they want through various smart technologies like YouTube video channels, smartphones, laptops, iPads, etc. These technologies allow them to learn more efficiently without wasting time collecting diverse sources.

The use of various available smart technologies in learning language integrative skills has become crucial today, especially for self-directed students who don't rely on teacher guidance. However, while technology offers numerous benefits in language learning, it also presents challenges. Students' overdependence on technology may lead to a lack of critical thinking skills, as they might avoid any mental effort to search for the needed information. Nevertheless, the correct use of technology in learning language skills helps students become more motivated to improve their integrative skills of listening, speaking, reading, and writing. Popular technologies used in language learning include YouTube videos, smartphones, audio/visual multimedia content, and learning apps.

In light of the above, this study conducted at the Department of English with first-year master's students has three main aims. First, it seeks to investigate whether integrating technology into learning impacts the performance of EFL students. Second, it aims to understand EFL teachers' attitudes towards their students' use of technology in learning the language's integrative skills. Finally, this investigation attempts to explore whether using these smart technologies enhances the learning process.

To achieve these aims, three research questions have been formulated:

1. How can the integration of technology in learning impact EFL students' performance?
2. What is the EFL teachers' attitude towards students' implementation of smart technologies in learning the EFL integrative skills?
3. Does the use of smart technologies in learning the integrative skills improve the learning process?

To answer these questions, three research hypotheses are formulated as follows:

1. Students exposed to technology will improve their academic performance compared to those who rely solely on traditional learning methods.
2. EFL teachers have a positive attitude towards their students' use of smart technologies because they see it as an engaging and effective method to improve the four integrative skills.
3. The use of smart technologies in learning a foreign language assists learners in developing their level and performance, thereby improving the quality of their learning process.

To answer these questions, the researcher designed a case study involving EFL teachers and students at the Department of English, Saida University. To collect data, the researcher relied on a mixed-method approach, using interviews with teachers and a questionnaire for first-year master's students in both literature and didactics specialties. The results were then analyzed quantitatively and qualitatively.

This research is divided into three chapters. The first chapter is primarily theoretical. It introduces the use of smart technology in the educational sector, its history, and how it impacts language learning theories. Additionally, the chapter explores popular technologies and online platforms used in language learning, challenges faced when using technology in the EFL classroom, and the importance of smart technology in learning EFL integrative skills.

The research design and methodology are discussed in the second chapter. It describes the study tools in depth, including the participants' profiles, research processes, and data processing methodologies.

The third chapter focuses on analyzing the obtained data. Finally, it summarizes the most relevant findings and provides suggestions for EFL teachers and students regarding using smart technologies to improve learners' integrative skills. These recommendations are made in response to the findings.

Chapter One: Literature Review

1.1. Introduction

Nowadays, smart technologies have revolutionized students' learning methods, becoming an integral part of the EFL learning process in the 21st century by facilitating how students grasp their learning. This chapter is primarily theoretical. It aims first to introduce the use of smart technology in the educational sector and its history. It also presents language learning theories and the impact of technology on them. Additionally, the chapter explores the most used smart technologies and online platforms in language learning. It also addresses the challenges faced while using technology in the EFL classroom and the importance of smart technology in learning EFL integrative skills.

1.2. The Use of Technology in Education

The twenty-first century is viewed as an era of advancement in all fields, making everyday life easier and more comfortable. Education is one of the fields that technology has penetrated. According to Budhware (2017), technology is a critical factor, with new software and devices enhancing the quality of people's lives every day. It has a tremendous influence on numerous industries, notably the educational sector. It has also allowed for wider education, with continuing research and development aimed at making learning more enjoyable and accessible.

Educational technology, also known as pedagogic technology, refers to a collection of programs, methods, and instruments that help with the educational process. It includes both sensible implementation and positive learning outcomes (Murati & Ceka, 2017). According to the pedagogy dictionary (1967), procedures are employed to describe topics such as pedagogy, learning, reading, and research. On the other hand, Pedagogical Encyclopedia II (1989) defined the phrase "scientific and technological revolution in education" as substantial changes in the structure and dynamics of production, as well as the content and techniques of education employed to qualify workers.

The widespread adoption of audiovisuals in education coincides with the rapid advancement of technology and its accessibility at various points. Teaching tools are any items that assist teachers and students in meeting educational goals. These learning aids function as didactic tools, improving academic achievement and efficiency. This suggests that a multimodal learning strategy that incorporates many media might boost students' engagement and ultimately lead to higher achievement. Similarly, Murati and Ceka (2017) concluded that

combining many senses into the instructional process improved learning efficiency. Furthermore, Trnavac and Djordjevic (1995) argued that using several sensory modalities (visual, aural, and tactile) during learning leads to a more thorough understanding of the topic. This indicates that this methodology is thought to be more effective for long-term information retention than traditional ways.

In addition, the efficient use of advanced learning instruments in classrooms may boost student engagement, help instructors customize their activity designs, and support individualized learning. It also assists students in building essential 21st-century abilities. The COVID-19 outbreak has quickly illustrated why online education should be an integral part of teaching and learning. Educators may use web-based learning as an outstanding teaching tool by incorporating it into existing educational programs rather than treating it as an emergency remedy. Virtual classrooms, video, augmented reality (AR), robots, and other cutting-edge tools can not only make classes more engaging but also create more comprehensive learning environments that encourage collaborative effort and curiosity, as well as allow educators to collect data on student performance (Gupta, Katiyar & Goel et al., 2021).

1.3. The History of Language Learning Technology Development

The use of technology in language training dates back to at least 1900. Tape recorders, overhead projectors, DVD players, computers, and smartboards have all been employed to help people develop their language skills over time. This technology has altered education, replacing chalkboards with digital boards and paper and pencil with writing software. Further, it has been demonstrated to enhance classroom authenticity and satisfaction, particularly for digital native learners who prefer digital communication to face-to-face involvement. In recent years, mobile-assisted language learning (MALL) has grown in popularity as an effective approach for improving language learners' writing skills. Furthermore, technology has been used in foreign language teaching to help students enhance their listening and speaking skills with tools such as blogs, digital pens, quizzes, and podcasts.

According to Abou Shabaan (2020), the use of technology in language teaching and learning has been common for a long time; for example, in the grammar translation method, both teachers and students relied on the first type of technology, the blackboard, to interpret phrases. Later, they used overhead projectors and early software computer programs for drilling. During the 1970s, audiotaped materials were deployed in the Audio Lingual approach, which forced children to perform repeating pattern exercises. The use of technology in classrooms shifted

dramatically in the late 1980s and early 1990s, owing to the advent of cognitive and sociolinguistic approaches to language instruction, as well as an emphasis on student participation with real, relevant, and contextualized speech (as cited in, Baleghizadeh ,Oladrostam, 2011).

According to Hockly (2014), prior to the digital era, technology in the classroom frequently included the use of television and video materials, language laboratories, cassettes, and, on occasion, an overhead projector. It could have required the use of a photocopier. In many schools and teaching centers, these are still the most commonly used tools for both preparation and teaching, but the quiet revolution of technology has meant that many teachers around the world are now more likely to be found blogging and updating their wikis than lining up the next listening exercise on cassettes or CDs.

Following that, computer-assisted language learning (CALL) was launched as an endeavor to integrate computer technology into language training. According to Chapelle and Jamieson (2008), it is a discipline of applied linguistics that deals with the use of computers to teach and learn a second language. Indeed, the research shows that technology is used in language instruction in a variety of ways, from well-established computer-based programs to relatively recent ones (John, 2018).

Mobile devices were first created in 1973, and as these new technology became more widespread in modern life, the desire for their inclusion in language training grew. The use of mobile devices to facilitate language learning has increased dramatically since Chinnery (2006) created the term mobile-assisted language learning (MALL) (as cited in Heyong&Yeonhee, 2012).MALL was previously regarded to be a subset of m-learning and computer-assisted language learning (CALL).

Mobile-assisted language learning (MALL) uses personal mobile devices, which distinguishes it from computer-assisted language learning (CALL). This opens up new learning possibilities that stress access and interaction in a variety of contexts. Laurillard (2007) believes that MALL may include additional characteristics such as location-based activities with digital support and more student control over their learning experience.

As a result, Kukulska-Hulme (2009) argued that a quick transition from CALL to MALL had happened, leading in a significant shift in foreign language learners' perspectives on language acquisition (as cited in Akir, 2016).

Recent study conducted a research about the impact of mobile learning and mobile-assisted language learning (MALL). Despite the smartphone's connection, multimedia support, and

growing ubiquity, MALL is still considered "on the fringes" of language learning (Burston, 2014, p. 115).

1.4. Language Learning Theories and The Use of Technology

Language teaching and teacher education have emphasized the use of technology to enhance language acquisition and learning. Several computer-based training programmes for teaching foreign languages have arisen over time. Since the introduction of the Internet in the early 1980s and IT-based language education programs in the 1990s, e-learning platforms, online language learning, and Web 2.0 technologies have advanced significantly. Ally (2004) highlighted three approaches to education and learning theory: behaviorist, cognitive, and constructivist. Several researchers, including Chapelle (2009), Gass and Selinker (2008), Wang and Vasquez (2013), and Warschauer (1996), have investigated the effects of behaviorist, cognitivist, and sociocultural methods on second language acquisition and development.

1.4.1. Behaviourism

The behaviorist approach to education and second language acquisition emphasizes behavior and describes the mind as a "black box" whose responses to stimuli can be statistically tracked (Ally, 2004). He also believed that behaviorist tactics sometimes overlooked cognitive aspects of learning, such as the influence of mental processes. A behaviorist approach focuses on observable and quantitative indicators of learning. Second language acquisition theories have significantly depended on behaviorist methodologies, especially Skinner's 1957 study of "*verbal behavior*" (Gass&Selinker, 2008).

Furthermore, Warschauer (1996) observed that the first computer systems for language acquisition relied on behaviorist strategies such as drill and practice assignments. Warschauer invented the term "*Behaviorist CALL*" to characterize the initial phases of computer-assisted language acquisition. The latter highlights the significance of repeating the same content in order to learn it effectively. The computer is perfect for repeat exercises because it provides instant feedback and prevents monotony.

1.4.2. Constructivism

The use of smartphones in language learning is consistent with constructivist and socio-cultural methods, which emphasize learners' active creation of knowledge and the relevance of social situations in learning. Constructivist and sociocultural theories emphasize learners as active actors in knowledge development. Ally (2004) defines constructivists as learners who evaluate and process information to construct their own understanding, emphasizing the relevance of context in situated learning. Similarly, sociocultural theories emphasize the social

production of language knowledge, highlighting the importance of social circumstances in language learning. According to studies, online language learning settings can be especially successful when learners are given the ability to develop knowledge and engage with both instructors and peers (Ally, 2004; Chapelle & Thomas, 2009). The use of cellphones in language acquisition is consistent with this viewpoint. Mobile devices offer the ability to support context-driven and placed learning. This is because cellphones allow learning to extend beyond the classroom, bridging the gap between in-class and out-of-class experiences. Mobile-assisted language learning (MALL) has the potential to become an invaluable tool for learners if it is smoothly integrated into daily life.

1.4.3. Cognitivism

Cognitivist approaches to education and second language acquisition emphasize the importance of mental processes in learning, such as memory, thought, reflection, abstraction, and metacognition (Ally, 2004; Mitchell & Myles, 2002). This viewpoint contrasts with behaviorist tactics, which emphasize ongoing analysis of student activities. In contrast, cognitivist methods, such as computer or internet-based approaches, seek to present learning material and activities in a variety of ways in order to improve long-term memory storage (Warschauer 1996). By following these concepts, online language teaching approaches may be built to improve learners' capacity to absorb input and retain learning over time.

1.5. Smart Technologies Used in Language Learning

The use of smart technology in the learning process is becoming increasingly important, particularly with the advent of new ways that assist learners in developing self-control. Similarly, the use of technology in EFL teaching influences the development of language skills. Several academics (Beauvois, 1998; Merç&Liton, 2015; Orden & Sandolo, 2010; Shyamlee& Phil, 2012) have highlighted the significance of incorporating technology into foreign language learning situations. These technologies may be summarized as follows:

1.5.1. Computer-Assisted language learning

Teachers must be aware with EFL technology in order to properly support language learners. While technology is vital for CALL, teachers must also create a collaborative learning environment for their students (Egbert, 2005). The computer should not be used to replace a teacher, but rather to improve language acquisition. When employing computers in the classroom, it is critical to engage students in authentic learning experiences.

According to Murati and Ceka (2017), computers have greatly aided the transmission of educational materials. Teachers use popular products such as PowerPoint, FlashPlayer, Word,

Excel, Access, and Adobe to improve their teaching. "Microsoft Office" is more than simply an educational tool; it offers a wide variety of computer-related options. Information and communication technologies (ICT) play a transformative role in various social spheres particularly education. By incorporating ICT into the learning process, educators may provide students with the necessary skills and knowledge to flourish in today's information-driven world. Thus, learners will be more engaged in their courses.

The image below illustrates a classroom with computers for all students. By incorporating technology, students may improve their talents, knowledge, and flexibility while learning new things.



Figure 1.1. Students' use of computers

Tinio (2002) argued that Computer has a huge impact on education in terms of knowledge acquisition and absorption for both instructors and students by promoting:

Dynamic learning: computer technologies help in the processing and assessment of exam-related data, as well as the computerization and accessibility of student performance reports. In contrast to memorization-based or rote learning, ICT encourages learner engagement by allowing students to study what they choose at their own pace and work on real-world problems.

Creative Learning: The Use Computers stimulate the manipulation of current information as well as the production of new knowledge in order to achieve a physical output or a specific educational goal.

Integrated Learning : It promotes an integrated approach to teaching and learning by removing the synthetic border between theory and practice, as opposed to the typical classroom, which focuses on only one aspect.

Critical learning: the use of computer enables student-centered learning and delivers valuable feedback through interactive elements. Instead of pupils doing memorization and rote learning,

ICT allows them to investigate and learn through innovative approaches of teaching and learning that are supported by constructivist learning theories.

1.5.2. Mobile-Assisted Language Learning

Mobile-assisted language learning (MALL) has evolved as a popular strategy in language teaching, with applications and websites supporting student learning activities (Nuraeni et al., 2020). MALL, a term coined by Chinnery (2006), has advanced alongside mobile technology. However, it is critical to note that MALL is not a distinct field, but rather a subset of both mobile learning (m-learning) and computer-assisted language learning (CALL) (Heyoung & Yeonhee, 2012).

While comparable to CALL, mobile-assisted language learning has specific benefits due to its emphasis on personal, portable devices. As Kukulska-Hulme and Shield (2008) correctly point out, mobile-assisted language learning differs from computer-assisted language learning in that it employs personal, portable devices to enable new ways of learning, emphasizing continuity and spontaneity of access and interaction across different contexts of use.

Mobile learning (m-learning) is a popular strategy in education that uses portable technology to assist learning in a variety of settings (Sharples et al., 2007). It involves engaging in interactive learning activities using mobile devices such as smartphones, tablets, and MP3 players (Sharples et al., 2007). Kukulska-Hulme (2013) underlines that mobile technology provides particular benefits in language learning owing to its intrinsic mobility.

Several critical qualities set m-learning apart from traditional learning approaches. Ogata and Yano (2005) emphasize accessibility as a key characteristic, noting that mobile devices are frequently available to learners regardless of location. This ubiquity promotes immediacy, allowing students to access learning resources and communicate with peers or instructors instantly. Furthermore, mobile technology encourages engagement with features such as communication applications and collaboration tools, which facilitate knowledge exchange and active learning experiences. Finally, m-learning facilitates context-based learning by allowing students to interact with learning materials and activities while in the appropriate location (Ogata & Yano, 2005).

In essence, mobile learning uses easily available and portable technology to provide a dynamic and interactive learning environment. This technique allows students to participate in learning activities at any time and from any location, resulting in a more immediate, dynamic, and contextually relevant learning experience.

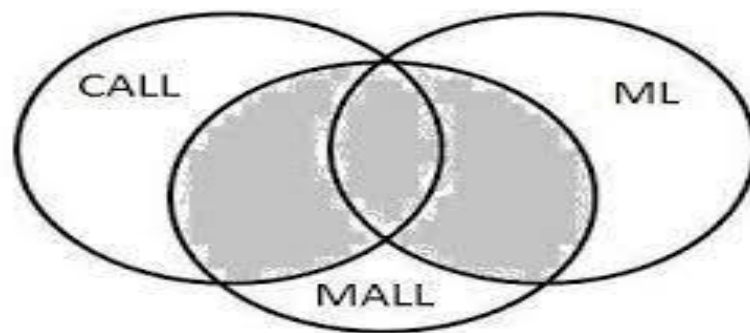


Figure 1.2. The synergy between computer-assisted language learning, mobile-assisted language learning and mobile-learning

1.5.3. Smartboards and Tablets

According to Andrade (2014), tablets and smart boards as educational tools offer significant benefits for student-centered pedagogy and authentic learning experiences. These benefits can be summarized as follows:

Tablets

- Tablets provide flexibility and personalized learning, leading to increased engagement and motivation among students.
- They enable diverse learning methods and encourage cooperation and communication by offering access to a range of instructional resources.

Smartboards

- Smartboards increase student interaction and engagement.
- They accommodate different learning methods and improve note-taking and brainstorming.
- They enable remote and hybrid classrooms and enhance instructor efficiency and effectiveness.

Preston and Mowbray's (2008) study stressed the importance of smart boards in boosting teaching and learning, as well as the challenges associated with their implementation, such as cost and accessibility for certain students.

In conclusion, tablets and smart boards are useful instruments in modern education, providing a variety of benefits that promote student-centered pedagogy and realistic learning experiences.



Figure 1.3. Students' use of smart boards

1.6. Online Language Learning Technologies

The e-learning becomes a necessity today, especially in the recent few years when the world was immersed in the calamity of Covid-19 virus. For this reason, some popular online language platforms used are as follow :

1.6.1. YouTube Video Channels

YouTube has become a popular resource in various teaching and learning settings (Garcia et al., 2011; Milliken et al., 2008; Redecker, 2009). Instructors and students use YouTube's features for multiple purposes, including presenting subjects, devising classroom activities, incorporating video resources, and learning digital skills (Bonk et al., 2008; Snelson & Perkins, 2009).

The platform's attractiveness stems from its capacity to accommodate the digital learning methods of the internet age (Burke & Snyder, 2008). YouTube videos effectively capture attention because of their intrinsic audiovisual nature, activating both the logical and creative hemispheres of the brain through linguistic and visual elements (Berk, 2009; Burke et al., 2008; Martinez, 2010). This bimodal technique is thought to improve information retention.

The pedagogical benefits of YouTube go beyond passive content consumption. YouTube promotes active, productive, and interactive learning (Bennaceur & Allali, 2021). Studying using YouTube videos can lead to better learning outcomes. Furthermore, the platform supports collaborative projects by allowing students to exchange and discuss videos, enhancing the learning experience through shared viewing (Bennaceur & Allali, 2021). Finally, YouTube's engaging style creates a fun and interactive learning environment that encourages information retention.

The four essential skills of listening, speaking, reading, and writing are critical for EFL students. Fortunately, the internet era has provided various opportunities for developing these skills, with YouTube channels playing an important role (Brook, 2011). Research indicates that YouTube can be an effective tool for language learning and teaching, offering learners authentic language resources, building confidence, and stimulating student involvement (ibid). Furthermore, Sherman (2003) emphasizes the rising dominance of video as a learning medium, with users devoting more time to audiovisual content than textual materials.

1.6.2 Social Media

Social media platforms have become an integral part of modern life, promoting communication and building online communities. Scholars describe social media as internet-based applications that follow Web 2.0 concepts (Huang & Benyoucef, 2013). Web 2.0 can be viewed as both a technology framework and a philosophical notion centered on user-generated content and collaborative intelligence. Magrets et al. (2015) highlight the creation and sharing of user-generated content as a key component of social media platforms, frequently facilitated by mobile or web-based technology.

In recent years, the popularity of social media has increased significantly, with a greater percentage of Algerians becoming involved in these online platforms. This rise in popularity is due in part to increasing internet connectivity and the widespread adoption of low-cost mobile

data plans for 3G and 4G networks. The table below demonstrates the state of social media use in Algeria in 2020:

Table 1.1. Social media stats in Algeria (as cited in , Boussettane, Boussad, 2020)

Rank	Social media	Stats
1	Facebook	56.77%
2	YouTube	31.53%
3	Twitter	3.69%
4	Instagram	3.17%
6	Others	0.19%

Based on this data, Facebook is the most popular social media platform in Algeria, with over half of the users (56.77%) on the platform. YouTube follows closely behind with 31.53% of users. Twitter, Instagram, and other platforms have a significantly lower user base in Algeria compared to Facebook and YouTube.

Social networking, like any other human-created technology, has both advantages and disadvantages. This implies that it might have both beneficial and bad effects on students and instructors. According to Faizi et al. (2013), good communication is critical to a successful teaching-learning experience. Social media platforms may help students communicate with

their lecturers and among themselves. This enables professors to help students outside of class hours, while students may provide peer-to-peer support. Furthermore, McLoughlin and Lee (2007) propose that social learning platforms might help students who are afraid to engage in class express themselves and share resources more freely. Social media may also motivate students to spend more time on schoolwork.

To summarize, social media may be an effective instrument for promoting collaboration across educational institutions. For example, students and instructors can collaborate to develop online forums and wikis in which everyone contributes to a common knowledge base on a certain topic. Social media also allows for group conversations, which students and instructors may arrange and engage in to give mutual aid.

1.6.3.Podcasts

Podcasts, which were originally intended for amusement and information distribution, have evolved into an effective teaching tool (Ramli, 2017). Educators have realized the opportunity to change English language learning by providing flexible, engaging, and easily available tools for both teachers and students.

Podcasts enable learners to take control of their education by allowing them to access knowledge at their own speed, anytime and whenever they choose (Ramli, 2017). Podcasts' downloadable and shared nature offers for greater learning flexibility as well as peer-to-peer collaborative opportunities. Podcasts may also be adapted to individual interests and learning styles, which may increase student motivation and engagement (ibid). According to research, podcasts can improve numerous areas of language learning, such as listening comprehension, vocabulary expansion, pronunciation, and even speaking skills.

While podcasts have many advantages, it is crucial to recognize their limitations. Unlike typical classroom learning, podcasts frequently lack visual clues, which may provide difficulties for some students. Furthermore, further study is needed to determine how students effectively use podcasts and the long-term influence on their learning results.

In conclusion, podcasts have emerged as an effective method for improving English language acquisition. Their adaptability, accessibility, and possibility for individualized instruction make them a valuable addition to the language learning toolset. However, further

study is needed to properly understand their usefulness and how to effectively include them into language learning programs.

1.7. Challenges of Technology Use in Classroom

Technology has clearly had a strong influence on modern schooling. School districts throughout the world are progressively expressing their commitment to technology integration by offering resources such as tablets, laptop computers, increased internet access, and programs that promote both teacher and student digital literacy. Although instructors recognize technology's potential to shift their teaching techniques from traditional to more modern, they also face challenges in applying it (Bedreddine, 2020).

One significant challenge is providing continuous access to technology for all kids. Limited computer lab time and insufficient one-on-one computing efforts might impede continual technology use in the learning process (Warschauer et al., 2014). This discrepancy in access might make it difficult for teachers to incorporate technology into their lesson preparations. As Hakim's (2020) study in Saudi Arabia demonstrates, even in online EFL classrooms, instructors face challenges such as inconsistent internet connections ,LMS

attendance link difficulties, and a lack of appropriate evaluation tools. Irdianto et al. (2023) underline the importance of professional growth in addressing these problems. Providing educators with advanced training on specific technology applications and pedagogical techniques for online contexts is critical for successful technology integration. Similarly, Onalan and Kurt's (2020) study in Turkey emphasizes the necessity for extensive support networks. This involves providing instructors with suitable technology, continuing technical and administrative assistance, and constant professional development targeted to their individual technology integration requirements.

While technology provides tremendous opportunity to improve the learning experience, addressing these difficulties is critical to its effective deployment. Schools can realize the revolutionary potential of technology in education by emphasizing fair access, offering proper professional development, and assuring continual support for instructors.

On the other hand, Erben et al. (2009) underline the need of teachers being aware of possible disappointments when incorporating technology into the classroom. Some of these problems may be characterized as:

- Classroom management concerns, such as broken website links or temporary server downtime.
- Some schools have security measures in place to prevent students from accessing inappropriate websites on school computers.
- Ensure high-quality and appropriate technology, software, and websites.
- Insufficient broadband bandwidth in some schools may cause pixelated video while video conferencing.
- To maintain classroom management, teachers should prioritize learner-centeredness and freedom.

1.8. The Importance of Smart Technology Use in Learning EFL Language Skills

Technology has four functions in education: it is integrated into the curriculum, acts as an educational delivery mechanism, assists instruction, and improves the entire learning process (Raja & Nagasubramani, 2018). Furthermore, the use of technology in the educational context offers a chance to improve the pedagogical process for both students and instructors (Brown, 2019).

Obari & Lambacher (2014), Tanveer & Mejia (2016), Baleghizadeh & Oladrostam (2011), and Stockwell, Hubbard, & Al-Saleem (2013) conducted a literature analysis and identified the following benefits of using smart devices in TEFL in three categories:

Advantages for EFL Tutors :

Smart gadgets allow EFL teachers to :

- Quickly access several materials.
- Incorporate digital media, including text, video clips, and audio files.
- Reuse board notes and record class sessions.
- Maintain effective teaching throughout the lesson.
- Encourage students' curiosity and inventiveness.
- Organize information to boost self-efficacy.
- Enhance instructional content, collaboration, and engagement.
- Encourage and enhance a variety of EFL activities and games.

Advantages for EFL Students :

Innovative technologies benefit students by :

- Facilitating hands-on learning through multimedia and increasing classroom engagement.
- Boosting learners' enthusiasm in learning.
- Developing more engaging activities and games.
- Providing both speed and depth in learning.
- Recording and listening to lessons as required.

For the Learning Community:

- Changing classroom dynamics.
- Promoting student participation and interaction throughout learning.
- Engaging students in the learning and teaching process.

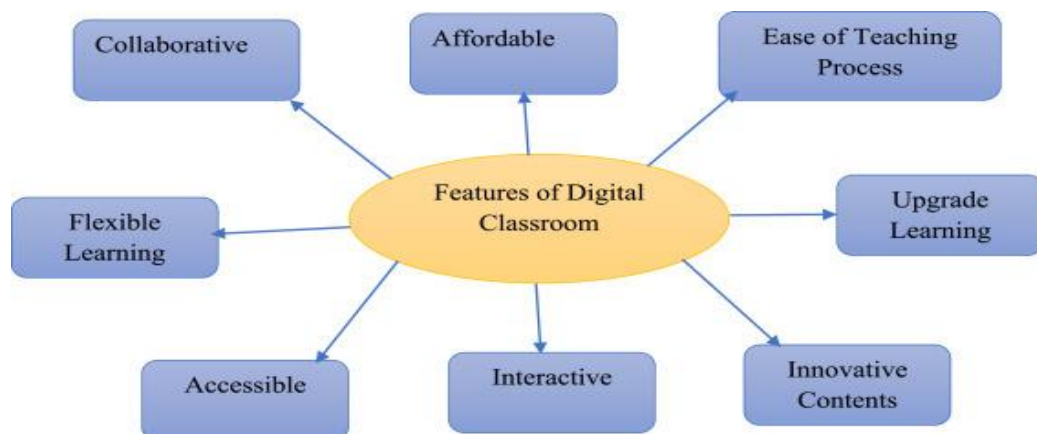


Figure 1.4. The role of smart technologies in education

According to research, effective English language learning (EFL) environments are language-rich and encourage frequent contact among learners (Liaw, as cited in Hoque, 2005). This aligns with the notion of communication-based learning, where students actively use the language to

engage and learn new skills. Technology can be an effective tool in creating such an environment. Interactive computer programs can significantly enhance verbal communication skills. One example is the adoption of interactive narratives (e-books) that include text, pictures, and audio elements (Liaw, as cited in Hoque, 2005). These programs provide learners with exciting opportunities to explore stories, potentially boosting their vocabulary, pronunciation, and fluency.

Computers can also help EFL learners strengthen their reading skills. Educational software can adapt to different age groups by delivering material in an engaging and age-appropriate way. Furthermore, computer-based applications can provide real-time feedback on performance and individualized practice options. Studies have demonstrated that such programs can enhance sight word vocabulary, reading fluency, and comprehension (Case & Truscott, 1999). Additionally, technology can encourage more engagement with texts, allowing students to explore subjects that might otherwise be unavailable, and promoting autonomous learning (ibid).

Writing can be challenging for EFL beginners. Lewis (1997) emphasizes the need for structured writing tasks to avoid discouragement. Technology can help create more engaging writing experiences. For example, rather than just describing concepts, integrating multimedia components such as photos and clip art can help learners visually portray their ideas and improve their overall communication.

Listening is an important communication skill that accounts for a significant portion of daily conversation (Adnan, 2016). In his research titled "The Importance of Technology in Teaching Listening," Adnan noted that EFL learners frequently struggle with techniques to enhance their listening skills. Technology can provide immersive listening experiences that expose students to different accents, pronunciations, and speech patterns. Educational software applications can be tailored to address specific listening skills such as sound detection, stress patterns, intonation, and dialect understanding (ibid).

The digital revolution is reshaping education, and instructors must embrace technology to meet students' changing requirements (Abou Shaaban, 2020). Teachers can create rich learning environments in EFL classrooms by strategically integrating technology, promoting active communication and improving language acquisition across all four skills: speaking, reading, writing, and listening. Similarly, D'Angelo (2018) believes that incorporating technology into

the curriculum offers educators a unique opportunity to enhance student engagement and academic achievement.

1.9. Conclusion

In conclusion, this chapter discussed the role of technology in EFL classrooms. By incorporating interactive programs and software, educators can create engaging learning environments that promote the development of all four language skills: speaking, reading, writing, and listening. This investigation revealed an important discovery about the cooperative interaction between technology and existing learning theories. Technology enables educators to apply communication-based learning and scaffolded writing processes, resulting in a more engaging learning environment that supports effective language acquisition.

Chapter Two: Research Methodology and Design

2.1. Introduction

After reviewing the relevant literature in the previous chapter, this section takes a descriptive approach. It begins by outlining the study's objectives to recapitulate earlier elements. Furthermore, it introduces the concept of methodology and the specific tactics employed by the researcher to investigate how smart technology can enhance EFL integrative skills. The chapter also details the sample population that participated in this study, along with the tools used by the researcher to conduct the investigation. Finally, it discusses the ethical principles that guided the research, as well as the limitations encountered by the investigator during the study.

2.2. The Aim of The Study

The primary purpose of this research is to explore the effectiveness of smart technologies in improving learners' four skills. Specifically, this academic endeavor aims to:

- Assess the impact of integrating videos on EFL students' performance.
- Understand EFL teachers' attitudes towards their students' use of technology in learning the four skills of the English language.
- Investigate whether the use of these smart technologies enhances the learning process.

2.3. Methodology

According to Sreekumar (2023), research methodology is a systematic and scientific strategy for gathering, analyzing, and interpreting quantitative and qualitative data to answer research questions or test hypotheses. Before choosing an appropriate research approach, several factors need consideration, including research limitations and ethical considerations that may arise. Research methods can broadly be categorized into three types depending on the nature of investigation and data required: quantitative research, qualitative research, and mixed methods approach.

The methodology chapter of a thesis, dissertation, or research paper delves into the "how" and "what" of the investigation. It describes the research methods employed and the steps taken. This is crucial as it allows readers to evaluate the reliability and validity of the findings and the research topic itself. It should cover: the type of research conducted, how data were collected

and analyzed, the tools or materials used during the research, measures taken to minimize or eliminate research biases, and reasons for selecting these methods (McComb & George, 2022).

This investigation employs a mixed methods approach, integrating both quantitative and qualitative research methodologies. This enhances the study's robustness and strengthens the findings.

2.3.1. Mixed-Methods Research

Mixed methods research combines quantitative and qualitative research approaches to address the research problem. This approach provides a comprehensive view that combines the strengths of both quantitative and qualitative data (George, 2021). It allows researchers to corroborate findings, determine if results obtained using both methods complement each other, and explain any unexpected outcomes resulting from combining the two approaches (Sreekumar, 2023).

Mixed methods research requires integration of data collection, processing, and interpretation methods. The term "mixed" is crucial, as timely integration of data during the research process is essential in mixed methods research. Purposeful integration of data helps researchers gain a comprehensive understanding of their research topic by examining phenomena from multiple perspectives and through different research lenses (Shorten & Smith, 2017).

Combining both types of data provides researchers with both contextualized insights from qualitative data and generalizable insights from quantitative data. The strengths of one type of data often compensate for the limitations of the other. For instance, while quantitative studies may not capture participants' lived experiences comprehensively, qualitative data enriches and deepens the findings. Conversely, qualitative studies may lack generalizability, reflecting only participants' specific experiences, and integrating quantitative data can help validate qualitative findings (George, 2021).

However, inconsistencies in findings between quantitative and qualitative data or concerns about confounding variables can pose challenges in interpreting results in mixed methods research. Harmonizing different types of data can be complex, potentially introducing bias during the interpretation stage (ibid).

2.3.2. Qualitative Research

Qualitative research is descriptive in nature, aiming to understand concepts, thoughts, and experiences. It enables researchers to gain in-depth insights into issues that are not well understood. Qualitative research employs various methods, such as in-depth interviews, open-ended surveys, detailed observations, and comprehensive literature reviews, to explore established concepts and generate new hypotheses (Streefkerk, 2019).

Another perspective by Tenny, Brannan, and Brannan (2022) posits that qualitative research investigates and provides deeper insights into real-world challenges. Unlike quantitative research, which focuses on numerical data, qualitative research prioritizes understanding experiences, meanings, and processes. It plays a crucial role in generating hypotheses and enriching the interpretation of quantitative data.

Qualitative research collects data on individuals' experiences, attitudes, and behaviors. It can stand alone as a study using only qualitative data or be part of mixed methods research combining both qualitative and quantitative data.

Qualitative research excels in providing detailed accounts of people's experiences related to the study topic. It provides insights into the human aspects of issues, including participants' diverse behaviors, thoughts, emotions, and relationships. Qualitative approaches delve into intangible aspects such as social norms, economic status, gender roles, race, and religion, which quantitative research may not fully capture. When combined with quantitative methodologies, qualitative research enriches our understanding of complex situations and their implications.

2.3.3. Quantitative Research

Table 2.1. *Quantitative vs Qualitative research*

Quantitative Methodology	Qualitative Methodology
Preference for precise hypotheses stated at the outset	Preference for hypotheses that emerge as study develops.
Much attention to assessing and improving reliability of scores obtained from instruments.	Preference for assuming that reliability of inferences is adequate.

Preference for statistical summary of results.	Preference for narrative summary of results.
Preference for breaking down complex phenomena into specific parts for analysis.	Preference for holistic description of complex phenomena.
Data reduced to numerical scores.	Preference for narrative description.
Preference for precise definitions stated at the outset.	Preference for definitions in context or as study progresses.

Note 2.1. Adopted from (Fraenkel, Hyun, & Wallen, 2012).

2.4. Sample Population

In research, researchers often deal with large groups, called populations, that are impractical to study in their entirety. Instead, they use a smaller, manageable group, called a sample. This sample acts as a microcosm of the larger population, accurately reflecting its key characteristics. Importantly, the sample should be chosen fairly and randomly, representing the whole population without bias (Ravikiran, 2023). Similarly, Bhandari (2020) emphasized focusing on a smaller group to gather information about a larger group, known as the population. This population can be anything the researcher wants to learn about, not just people, but also animals, objects, or even events. Researchers use a sample population when dealing with a large population, when data collection is not feasible, and when the population is hypothetical and unlimited in size (ibid).

This study took place in the academic year 2023/2024 at Dr. Moulay Taher University in Saida city. The participants in this study were EFL instructors and master's students from two specialties: Didactics and Literature. They were randomly selected to contribute to this research. From the larger pool, the researcher chose four teachers and thirty-five learners to represent the entire population for conducting the study.

As mentioned earlier, the researcher employed simple random sampling, as "no simpler approach exists to collect a study sample from a larger population than simple random selection" (DePersio, 2018, p.7).

2.4.1. Description of the Learners' Profile

To achieve the objectives of this study, the researcher involved thirty EFL students from two different specializations: Didactics and Literature, predominantly female. These students were randomly selected to respond to the questionnaire, which was distributed online via Google Docs. Due to time constraints, the online questionnaire was the best solution, leveraging technological advancements to facilitate the research process.

2.4.2. Description of the Teachers' Profile

Four teachers were selected to provide insights into their attitudes towards integrating technological tools into their teaching practices. They are responsible for various courses and have extensive experience in the field of teaching, staying updated with technological advancements. Therefore, the researcher sought their assistance in addressing specific aspects of the study.

2.5. Research Tools

Researchers have an array of tools at their disposal, including resources, methods, software, and techniques, which assist them at every stage of their research—from information gathering and data collection to analysis, interpretation, and dissemination. These tools streamline the research process, making it more efficient and effective academically.

This means that any research requires reliable research tools to make it academically more tangible. To this end, the current research relies on two tools: a semi-structured questionnaire and structured interviews through which the researcher collected necessary data for a comprehensive analysis of the importance of smart technologies in optimizing EFL skills.

2.5.1. The Questionnaire

In the context of research methodology, a questionnaire serves as a data collection instrument comprising a series of written or oral questions. These instruments can gather both qualitative and quantitative data and can be administered in various formats, including online, telephone, and paper-based formats. Questionnaires typically use open-ended questions, allowing respondents to elaborate in their own words, or closed-ended questions, such as dichotomous

questions that provide predetermined response options. Additionally, a mix of both question types may be employed to achieve a balance between detailed responses and quantifiable data.

The questionnaire aids researchers at every step of their research, from gathering and collecting information to analyzing and interpreting it, and sharing it with others. However, designing a poorly constructed questionnaire can lead to misleading results. Researchers often struggle to create clear, user-friendly questionnaires that ask the right questions. These challenges can introduce errors and bias into the study (Taherdoost, 2022).

2.5.1.1. Benefits of the Questionnaire

Questionnaires offer several advantages for researchers, including:

- **Strategic Management:** They enable researchers to precisely target specific demographics while controlling the content and format of questions, facilitating large dataset collection on various topics.
- **Cost-Effectiveness:** Compared to traditional survey methods requiring personnel, questionnaires can be distributed online or via email at minimal to no cost.
- **Expedient Data Collection:** Mobile technology facilitates rapid, effortless data acquisition, potentially yielding responses and insights within 24 hours.
- **Longitudinal Analysis:** Questionnaire standardization allows repeated use over time periods, enabling comparisons and identifying trends while minimizing translation errors.
- **Scalability:** Adaptable questionnaires can be distributed globally to geographically dispersed populations, enhancing research findings' generalizability.
- **Flexible Standardization:** Questionnaires can vary in length to cover diverse topics comprehensively.

2.5.1.2. Disadvantages of the Questionnaire

Despite its benefits, the questionnaire has drawbacks, including:

- **Social Desirability Bias:** Respondents may provide socially acceptable answers instead of truthful reflections.
- **Missing Data:** Incomplete responses, where questions are skipped, can compromise data integrity.

- Misinterpretation: Unclear wording can confuse respondents, leading to inaccurate responses.
- Qualitative Analysis Burden: Open-ended questions require time-consuming manual coding, potentially delaying research progress.
- Inattentiveness Bias: Respondents who do not read carefully might offer inaccurate responses, compromising data validity.

2.5.1.3. The Students' Questionnaire

The students' questionnaire is semi-structured, aiming to gather data on learners' perspectives regarding technology use in learning English integrative skills, addressing the first and third research questions. The questionnaire consists of twelve questions, combining open-ended and closed-ended questions. As previously mentioned, it was distributed to students via Google Docs.

The questionnaire includes three sections (see Appendix A). The first section aims to collect general information about participants, comprising three questions: two dichotomous questions and one multiple-choice question. The second section aims to understand students' technology use in EFL learning, consisting of five questions: four multiple-choice questions and one dichotomous question. The third section seeks students' perspectives on the relationship between technology use and learning improvement, including two dichotomous questions, a Likert scale question, and an open-ended question designed to elicit detailed responses.

2.5.2. The Interview

Interviews serve as a data collection method employing a question-and-answer format. Interviews involve at least two participants: the interviewer, posing questions, and one or more interviewees providing responses. The interview's level of structure defines its type. Structured interviews adhere to a predetermined list of questions in a specific order. In contrast, unstructured interviews allow for a more conversational approach, while semi-structured interviews strike a balance, using a pre-defined question set with flexibility for follow-up inquiries (George, 2023).

2.5.2.1. The Teachers' Interview

In this research, structured interviews were conducted with four EFL teachers from Saida University, each with extensive teaching experience. The interviews were conducted virtually via email, based on the teachers' availability. This choice of structured interview format aimed to comprehensively cover all aspects related to the study, addressing the second and third research questions through seven questions (see Appendix B).

2.6. Limitations of the Study

Research is a challenging journey filled with obstacles. Like other researchers, the investigator of this study faced a significant limitation: balancing external commitments with conducting research. Additionally, the researcher encountered difficulties with uncooperative participants initially reluctant to respond to the questionnaire. These challenges undoubtedly impacted the research process but did not prevent the researcher from completing the study.

2.7. Ethics in Research

According to Bhandari (2023), the field of research adheres to ethical principles governing research design and conduct. Researchers must uphold a specific code of ethics when collecting data from human participants. Human subjects research aims to understand real-world phenomena, evaluate treatment effectiveness, investigate human behavior, and ultimately improve lives. Researchers must consider several key ethical principles when selecting research topics and methodologies. Bhandari emphasized that these principles safeguard participants' rights and well-being, enhance research validity, and uphold scientific and academic integrity.

2.8. Conclusion

By the end of this chapter, the researcher outlined the key components of the research methodology. This included defining "methodology" and its different types. Furthermore, the practical aspects of the study were detailed. The chosen methodology was specified, accompanied by a detailed description of the target population. Additionally, the chapter introduced the research tools used for data collection. Finally, the chapter addressed two major elements related to the research: ethical considerations and challenges encountered throughout the research journey.

Chapter Three: Data Analysis and Interpret

3.1. Introduction

The previous chapter described the procedures adopted by the researcher to conduct this study. This chapter is divided into two sections. The first section is analytical, delving into the analysis and interpretation of the data collected from the students' questionnaire and the teachers' interviews. The second section is suggestive, presenting a series of recommendations for both EFL learners and teachers for the effective integration of technology in their classes.

Section One: Data Analysis and Interpretation

3.2. Findings

The findings of this research will be analyzed both qualitatively and quantitatively. The students' questionnaire will be analyzed quantitatively, while the teachers' interviews will be analyzed qualitatively.

3.2.1. Teachers' Interview

Question One: How long have you been teaching English?

Teacher 'A' replied, "I have been teaching for six years." Teachers 'B', 'C', and 'D' claimed to have been teaching for ten years.

Question Two: Are you familiar with the use of smart technologies in your classes?

Teacher 'A' and 'B' admitted they are not familiar with using technology. Teacher 'C' explained, "In my Phonetics sessions, I use mobile phones with smart applications such as e-dictionaries for checking transcriptions and native pronunciation apps to confirm word pronunciations." Teacher 'D' added, "I am very familiar with technology in my classes; I don't conduct any lessons without using my PC and data projector."

Question Three: Do you support your students' use of these technologies for learning EFL integrative skills?

All four teachers affirmed their support for students' use of smart technology in learning. Teacher 'C' elaborated, "I encourage them to be proficient in using these tools both inside and outside the classroom. This generation is growing up in a digital world, so they should be skilled in it."

Question Four: During the lockdown period, how did you convey lessons to your learners (e.g., recording videos, podcasts, audio files, etc.)?

Teachers 'A', 'B', 'C', and 'D' agreed they used the Moodle platform mandated by the university to post lessons. Teacher 'C' mentioned adding sessions via Google Meet to clarify some lessons, while Teacher 'D' confirmed using recorded videos.

Question Five: Do you believe using technology in learning a foreign language positively impacts students' performance? How?

Teacher 'A' noted, "Using technology positively impacts students' performance as it enhances acquisition of the target language." Teacher 'B' stated, "Yes, it positively affects performance. Learners need to be familiar with using technology in learning English as a foreign language and take responsibility for their learning." Teacher 'C' expressed, "Absolutely. Technology motivates learners to learn a new language, facilitates learning through various tools for vocabulary, grammar, listening, and speaking skills. It provides opportunities to practice with native or proficient English speakers, which is not always feasible locally. In short, technology allows autonomous foreign language learning." Teacher 'D' added, "Using smart technologies in learning a foreign language positively impacts student performance by enabling interactive and engaging activities, instant feedback, and access to a wide range of resources."

Question Six: Can these smart technologies replace traditional teaching methods and reduce the burden on teachers?

Teachers 'A' and 'C' shared the view that technologies cannot replace teachers' roles fully due to students' varying motivation and engagement levels. Teacher 'B' affirmed, "In developing countries, future scenarios might involve smart robots replacing teachers. However, in our context, this is unrealistic. Technology may complement teaching, where teachers perform 60%

of the work and technology handles the remaining tasks to achieve lesson objectives." Teacher 'D' added, "While smart technologies enhance traditional teaching methods, they cannot entirely replace them. A combination of both is ideal for a comprehensive learning experience."

Question Seven: In your opinion, how can technology enhance students' learning processes?

Teacher 'A' replied, "Technology can amplify the learning process if students are motivated to achieve their goals, as exposure to technology alone does not necessarily improve academic performance." Teacher 'B' stated, "It enhances learning if students are motivated. Technology facilitates access to information on the internet and assists introverted students in participating through platforms like YouTube and various apps." Teacher 'C' noted, "Technology revolutionizes language learning, making it an engaging adventure. With a multitude of apps, learners can interactively learn vocabulary, grammar, listening, and speaking skills. Technology empowers learners to become independent language learners, simplifying complexities and achieving fluency at their own pace." Teacher 'D' added, "Technology enhances students' learning processes by making lessons interactive, providing immediate feedback, offering authentic resources, and increasing motivation and engagement."

3.2.2. Students' Questionnaire

Section One: General Information

Question One: What is your gender?

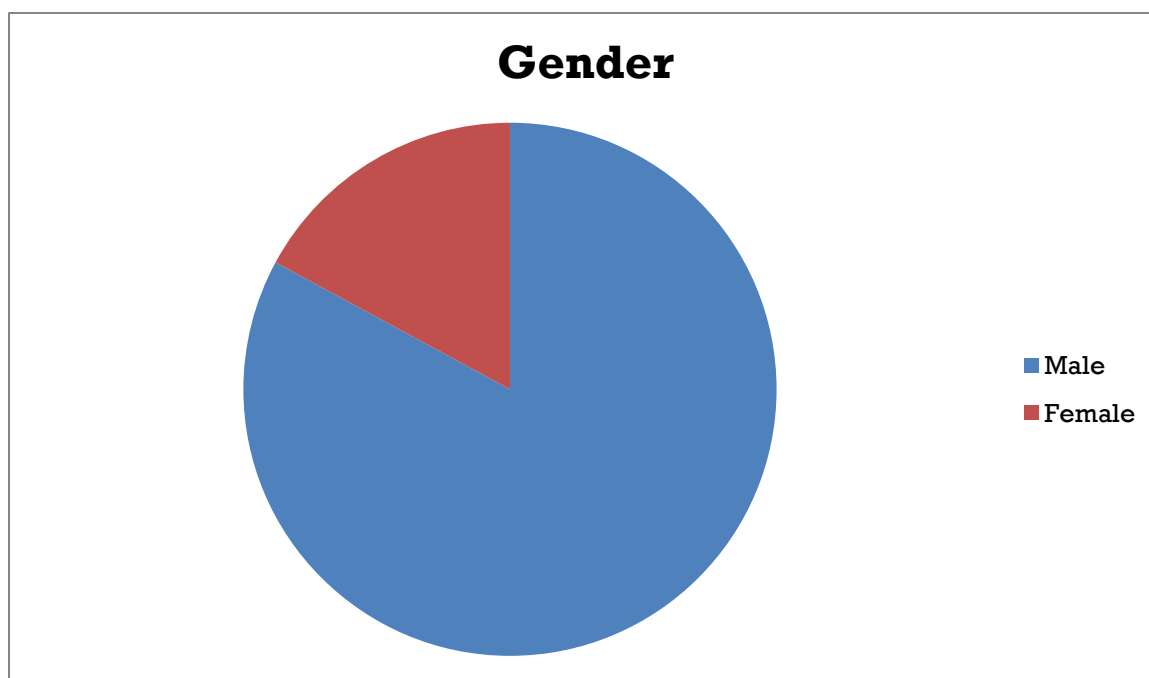


Figure 3.1. Participants' gender

This pie chart shows the gender of the learners. Most of the informants are female which forms 82,9%. On the other hand, the rest of the respondents who form 17,1% are males. This implies that females were more collaborative than the males.

Question Two :How is your level in English ?

Level	Learners' responses
Bad	00
Intermediate	05
Good	28
Excellent	02
Total	35

Table 3.1. Participants' level in English

The table above demonstrates the different levels of the learners. As noticed in the table, 28 students claim that their level is good in English. Besides, five (05) learners reveal they have an intermediate level in English and two (02) other students see that they have an excellent level while no one reveal he has a bad level in English.

Question Three :Do you enjoy learning English ?

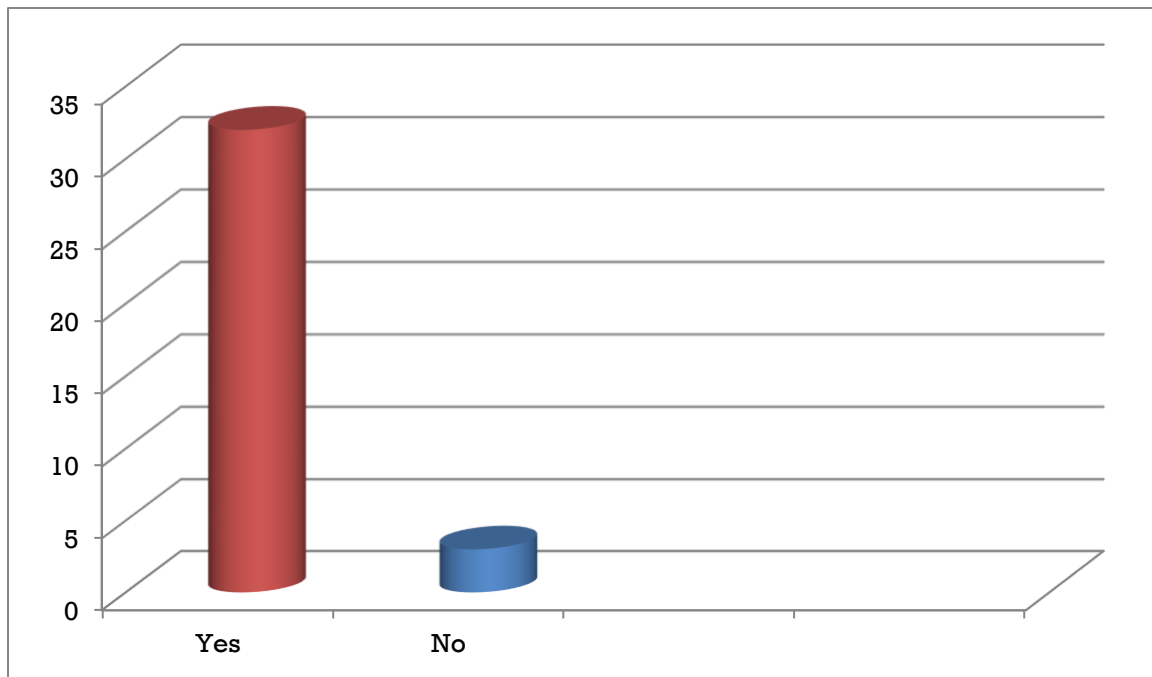


Figure 3.2. Students' enjoyment of learning English

The graph above shows the responses of the participants concerning their enjoyment of learning English. Findings reveal that the majority finds pleasure when learning the language, in which 32 students answered by 'yes'. On the contrary, three (3) learners do not enjoy the process of learning this language since they answered by 'no'.

Section Two : The use of smart technologies

Question One :Do you use smart technologies while learning the EFL integrative skills ?

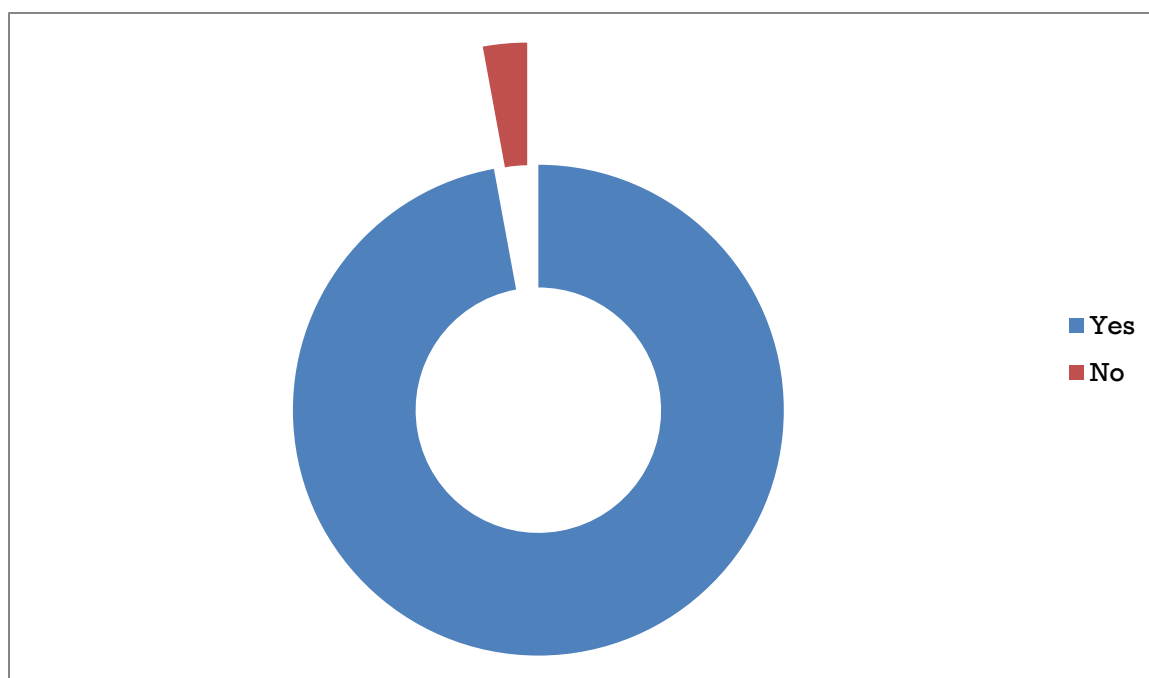


Figure 3.3. Students’ use of smart technologies in learning

The graph above shows the participants’ use of smart technologies in learning the EFL integrative skills. Findings unveil that the majority –which forms 97,1% of the wide range- employ smart technologies in their learning process. This implies that these participants belong to the technology generation who are brought up in a digital world. However, 2,9% of the participants reveal that they do not resort to the use of technology to learn the integrative skills of the language, this category still relies on the traditional way of learning or they do not like to bother themselves to use different and creative ways of learning.

Question Two : Do you support the traditional methods or the modern ones in learning a language ? Why

The method	The Response
Traditional way	29
Modern Way	6
Total	35

Table 3.2. The students’ preferable method of learning a language

The table demonstrates the participants’ preferable way of learning English. Results show that 29 out of 35 tend to choose the modern method which depends on the use of smart technology.

This result is logical when talking about today's generation who grew up in a digital world. On the other hand, only 6 participants still prefer to resort to the traditional way of learning.

When they were asked about the reason behind their choice, some of their answers were as follows :

- ✓ Because traditional methods provide a structured approach, emphasizing grammar and vocabulary, suitable for learners who prefer systematic and formal instruction.
- ✓ I think both traditional and modern have their own advantages yet the modern method is good for autonomous learners.
- ✓ There are more interesting and useful methods for learning English with the development of technology, this would help students for better improving their language.
- ✓ In my opinion, the traditional method is better, it takes a long time to learn, and at the same time, the experiences you learn are deeply ingrained in the mind, making them difficult to be forgotten .
- ✓ Technology helps in developing our academic language and facilitating comprehension without any problems.
- ✓ I think the modern methods make the process of learning much easier than it is as it enhances our performance, especially in terms of speaking and listening .
- ✓ I think this is what our generation is used to, and it is much easier.
- ✓ I like the modern one because people always search for fun and the traditional way is boring, so when they find a modern way the results are better.

Question Three : Which device/s do you use the most in your learning process ?

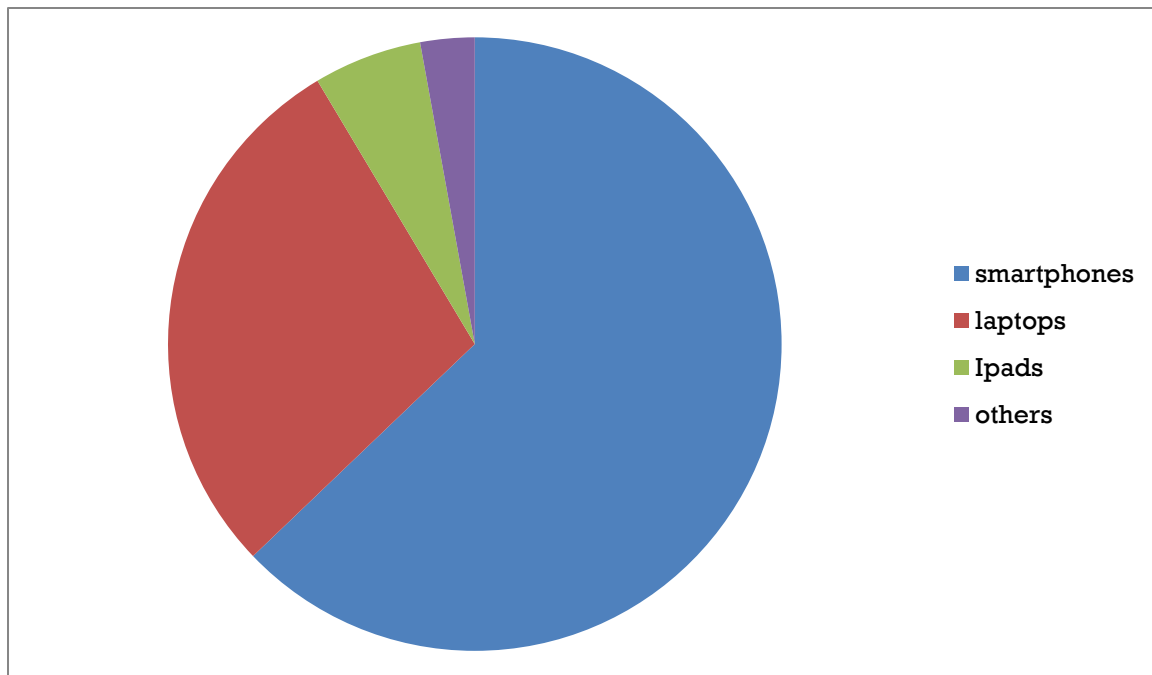


Figure 3.4. The most used device in learning

The pie-chart illustrates the most used device among the students in their learning process. Findings show that 62,9% of the participants which forms 22 participants out of 35- count on their smartphones in learning. This implies that the students rely heavily on their cellphones since they use it the whole day. Moreover, 10 participants out of 35 use their laptops in learning, only 2 participants resort to the Ipad while only one reveals he relies on another device, maybe it is mp3, tablets or computers.

Question four :In which skill do you see that the use of e-learning is important ?

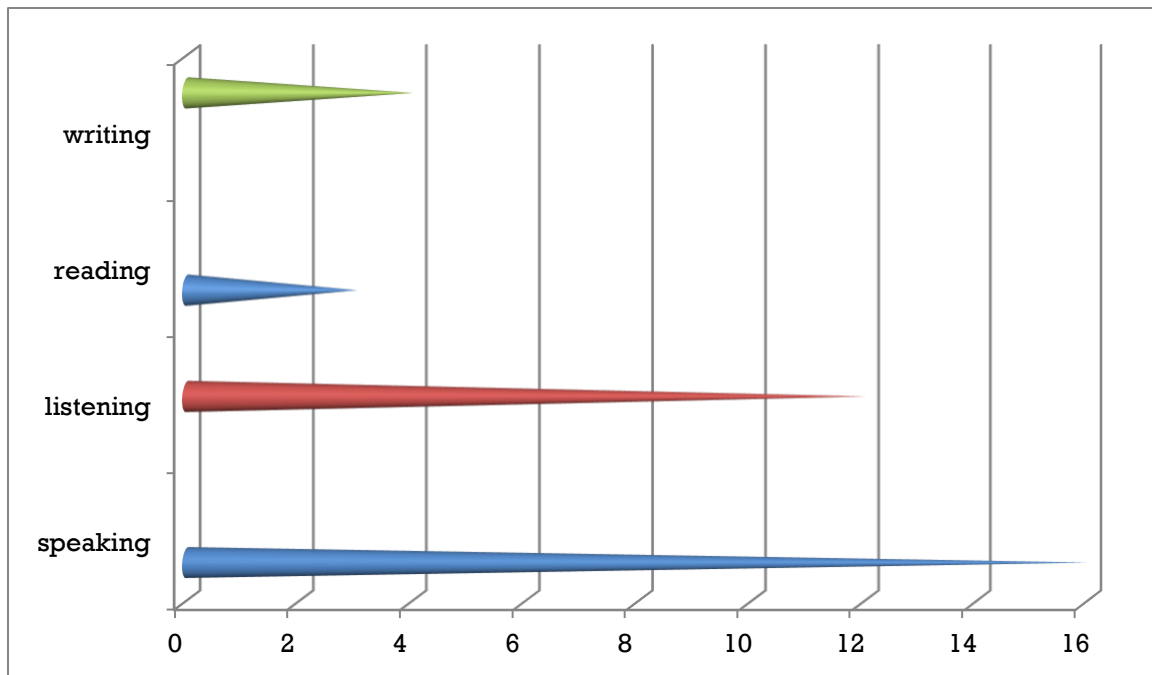


Figure 3.5. Skills best suited for e-learning

The figure above demonstrates the skills that suit for e-learning according to the participants. Results unveil that 16 students out of 35 believe that the productive skill of speaking is what really needs the use of e-learning. Moreover, 12 students out of 35 think that the use of e-learning is required with the receptive skill of listening. On the other side, 04 informants support the use of e-learning with the productive skill of writing while 03 of them support the implementation of technology with reading.

Question Five : Which way do you resort to when learning any of the four skills ?

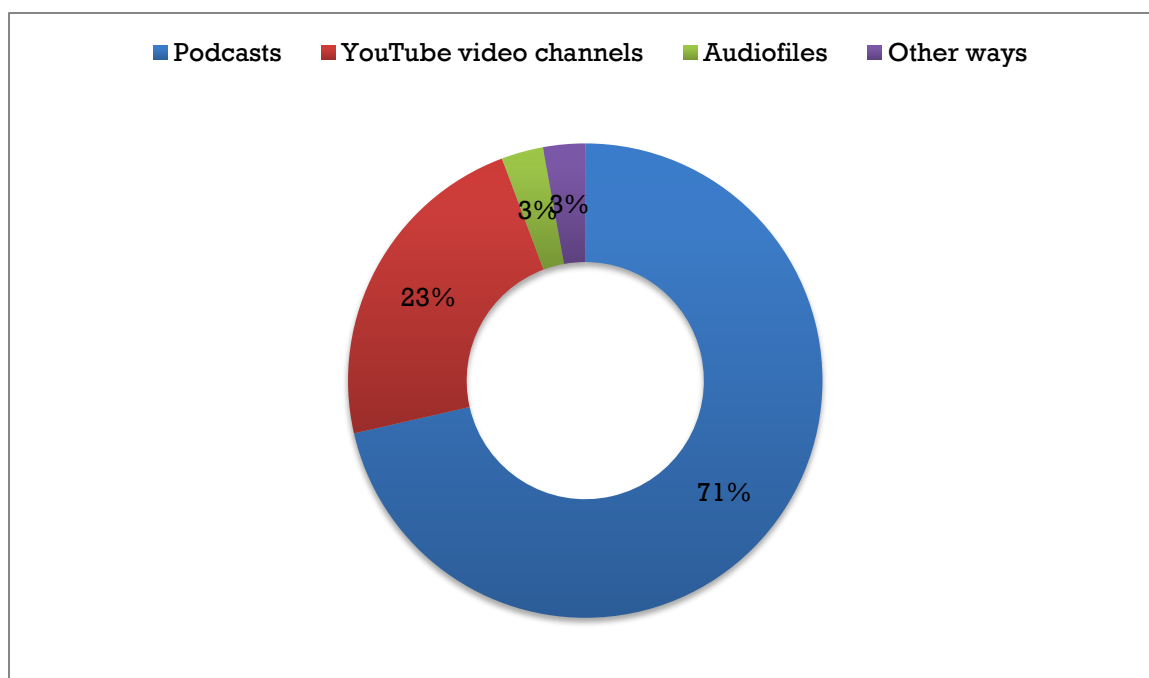


Figure 3.6. The ways of learning the integrative skills

The pie-chart shows the different ways that the participants resort to in learning the EFL skills. Findings show that the majority of the participants (71%) resorts to the different youtube video channels . Basically, these participants search for ways to master the speaking skill through listening to native speakers . Besides, 23% of the participants like to learn the EFL skills from the podcasts available on the several platforms of Google. Generally, these participants like to get support from these podcasts which aims to motivate the learners. Additionally, 3% of the informants count on the audiofiles ; these participants tend to focus more on the speaking and listening skills . The remaining 3% of the informants affirm that they resort to other ways to learn the EFL skills. These ways may be TikTok reels, Instagram reels, e-dictionaries..etc.

Section Three : The implementation of smart technologies in learning

Question One :Do your teachers use technical devices in their classes ?

Answer	Respondants
Yes	25
No	10
Total	35

Table 3.3. Teachers' use of technical devices in their classes

The table above displays the teachers’ use of technical devices in their classes. Results show that most of the participants’ teachers depend on the use of smart technology in their classes since 25 participants out of 35 answer with ‘yes’. These teachers believe that their students who are the technology generation get more motivated with the assistance of technology which creates a good atmosphere for learning. However, the remaining 10 participants claim that their teachers do not use technical devices in their classes , maybe these teachers are not familiar with the use of technology or they belong to the older generation who still count on the use of dictionaries and monotonous textbooks.

Question Two :On a scale of 1 to 10, how can you rate your experience with e-learning during the lockdown period ?

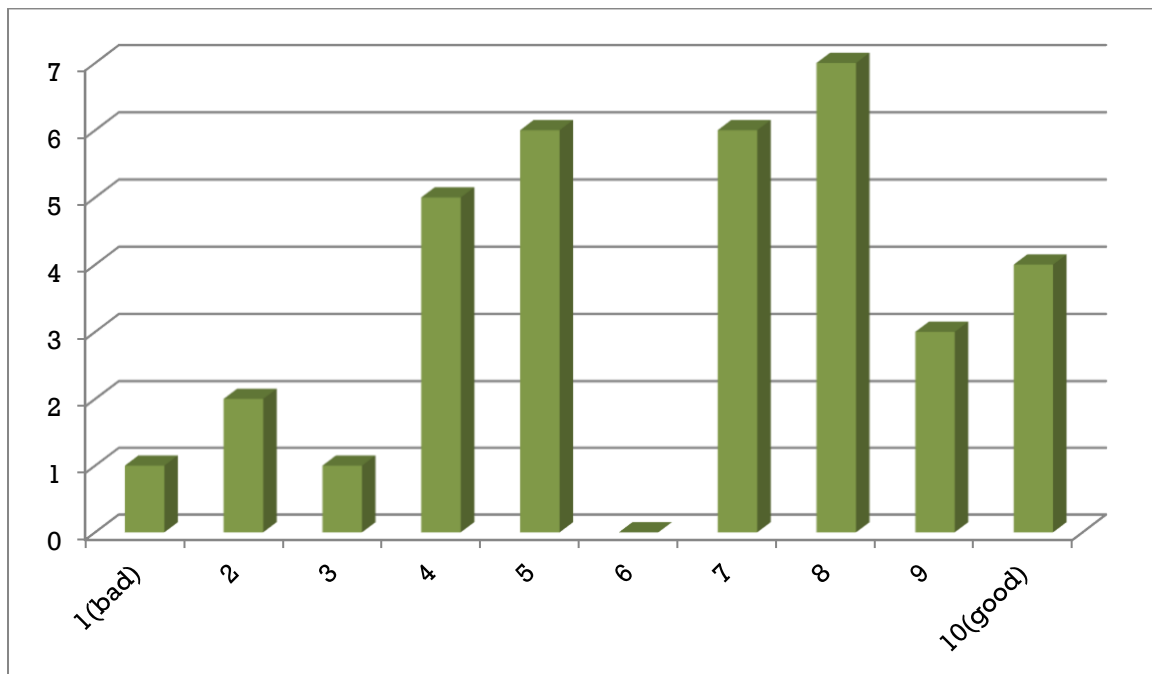


Figure 3.7. Students’ experience with e-learning during the lockdown period

The diagram above displays the students’ experience with e-learning during the lockdown period. The results show that one student claims that his/her experience was so bad , s/he rates it on 1 out of 10. Additionally, two students rate their experience on 2 out of 10 and one student rates it on 3. In the same vein, five students rate their experience on 4 out of 10, six students rate it on 5 and other six students rate it on 7 out of 10. Moreover, seven students rate their experience on 8 out of 10. Three students rate it on 9 out of 10 and 4 students rate it on 10, which implies that they enjoyed the remote learning.

Question Three :Do your teachers support you to use technology for learning a specific skill ?

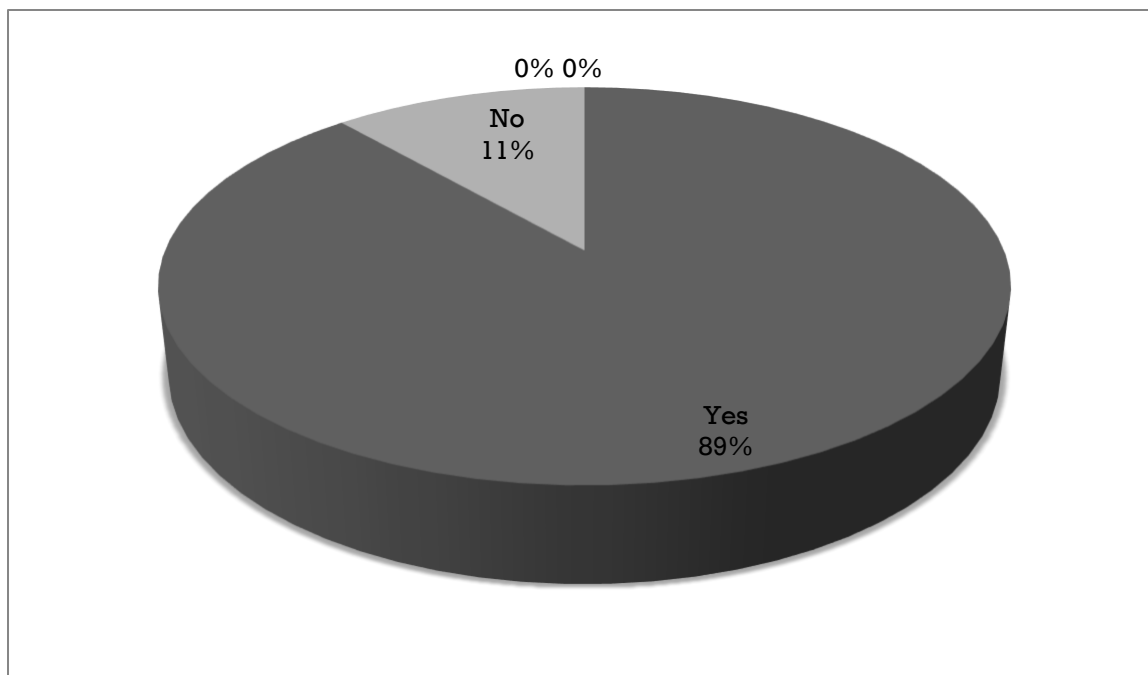


Figure 3.8. Teachers' support of technology use

The pie chart reveals that a large majority (31 out of 35) of the participants receive support from their teachers for using technology in learning. This indicates that their EFL teachers like to integrate technology into their teaching methods. However, only 4 of the participants lack their teachers' support to use technology in their learning process ; these teachers may have pedagogical reasons or some limitation which cause them not to integrate technology in their classes. For those participants who answered 'yes', they claim that their teachers advise them to use technology to learn speaking and pronunciation.

Question Four :In your opinion, does the use of technology improve the learning process ?Justify your answer, please

The participants' answers can be summarized as follows :

- ✓ Yes, it does because it encourages a lifelong learning and resources became more available and easy to access.
- ✓ Absolutely yes , it allows us to access a wide range of information so we can have a better understanding and also it improves our critical thinking.
- ✓ Yes, it can improve the learning proces by applying the technological methods in the classrooms.
- ✓ Technology enhances learning through interactive tools, personalized experiences, and immersive environments, offering flexibility and real-time feedback.

- ✓ Yes, it does since it helps the learners to get a plenty of information related to language. In addition to that, it increases their level and gives them the opportunity to be fluent and more likely to master the language.
- ✓ Actually it does because it helps the learners to find anything they want whenever and wherever they are. Also, it assists them to solve any academic problems by providing them with the source they need.
- ✓ It does in many ways but mostly as I mentioned before, technology made learning much easier as it allows us to access different types of information by just searching for it.
- ✓ Generally speaking, technology has both positive and negative impacts. I can say that it helps to improve the learning process because it is related to each field, which encourages students to develop. Besides, it is important not to forget that technology also plays a significant role in advancing academic education in general.
- ✓ Yes, it does because it boosts learner's motivation, enhances student's autonomy and provides innovative data to the field.
- ✓ Technology provides access to vast amounts of information, facilitates interactive and engaging learning experiences as it allows for promoting collaboration and communication among students and teachers, and fosters critical thinking and problem-solving skills through the use of educational apps, simulations, and multimedia resources.

3.3. Discussion and Interpretation

As it was mentioned in the general introduction, the aim behind undertaking this study is to investigate whether integrating technology into learning impacts the performance of EFL students, to understand EFL teachers' attitudes towards their students' use of technology in learning the language's integrative skills, as to explore whether using these smart technologies enhances the learning process.

To achieve these aims, the researcher asked three research questions, the first one is: How can the integration of technology in learning impact EFL students' performance? The second one is : What is the EFL teachers' attitude towards students' implementation of smart technologies in learning the EFL integrative skills? And the last one is : Does the use of smart technologies in learning the integrative skills improve the learning process? These three research questions have helped the researcher to find plausible answers for his investigation after analyzing the

data collected from the two research tools he has used; the students' questionnaire and the teachers' interview.

Indeed, the students' questionnaire along with the teachers' interview were blended to answer the three research questions together, which means: they were pouring in the same vessel. Starting with the questionnaire which played a paramount role in collecting valuable data that the analyser needed to reach the truth. Regarding the students' answers, almost 83% of the participants chose the modern way of learning (the use of technology) rather than the traditional one. When they were asked for justification, they affirmed that the use of technology improve their academic performance as it facilitates the process of learning and helps the learners to be more engaged in their classes and be self-made (see answers to question two, section two) . Similarly, the teachers claimed in the interview that technology is a good choice for the learners to acquire the language since it helps them in learning the EFL skills. Besides, teachers revealed that this technology helps the students to construct their own language as to be autonomous rather than depending merely on their instructors (see answers to questions five and seven). This result is similar to a study which revealed that when teachers strategically include technology in their lessons, students become more engaged, which can significantly improve their academic performance (D'Angelo, 2018). Thus, using the appropriate technology in EFL classes allows teachers to build engaging learning spaces. These spaces encourage students to actively talk, read, write, and listen, improving their overall language skills (Abou Shaaban , 2020). Therefore, the first research hypothesis raised by the investigator is proved.

Moving to the second research question, the teachers' interview aimed to understand their attitude towards the use of technology in the learning process. According to the interview, the four tutors clarified their perspectives towards technology use. They support their students to be more familiar with ICTs since they know that this generation is brought up in a digital way (see answers to question three). However, teachers emphasized the fact that technology will never take the place of the teacher and that they remain the main source of knowledge for their learners (see answers to question six). The students' answers to question one, section three is typical to the teachers' answers since 71% of the learners claimed that they get the support of their teachers of benefit from these technical tools. This result is supported by Bedreddine's study (2020) which deduced that the teachers have a positive attitude towards use of technology because it is regarded as an impetus to transform their way of teaching from a traditional to a modern one. Therefore, the second hypothesis is also proved.

On the other hand, the majority of the students' answers in the questionnaire show how these participants enjoy the remote learning, in which, almost 87% of them claimed that the use of technology improves their academic performance, promotes a lifelong learning, gives them access to a large amount of sources and makes them more comfortable with their learning process since it makes it more easy and much funny (see answers to question four, section three). In the same line of thoughts, the interviewees viewed the same things. They saw that technology helps the students to a large extent with the availability of massive amount of information and activities and thus, it improves the quality of their learning process (see answers to question seven). This is identical to Brown's saying (2019) when she said that the integration of technology in learning presents an opportunity to enhance the pedagogical process for students and teachers as well. Hence, the third research hypothesis is proved to some extent.

In brief, the research instruments that the investigators opted for have helped him to a large extent to prove the research hypothesis he has raised.

Section Two : Suggestions and Recommendations

3.4. Recommendations

Recommendations are a set of suggestions made by the investigator to solve the problem he was seeking for its solution , at the level of this section the researcher addressed some recommendations to the EFL teachers and learners.

For Teachers

Implementing Video and Podcasts

YouTube channels and instructional podcasts may introduce learners to a range of accents and native speakers. Thus, teachers need to introduce their students to various movies in order to familiarize them with the accents of native speakers, which enhances their speaking skills

Following Social Media

Teachers might encourage their pupils to follow EFL social media pages. These often feature reels of brief lectures, cultural insights, and opportunities for students to interact with one another.

Creating Digital Storytelling

Teachers must offer EFL students with instruments to create texts and picture digital stories. This may be an entertaining way to improve the students' writing skills. Gamification Use.

Gamification Use

It is preferable for the instructor to include instructional activities that focus on improving grammar, pronunciation, and vocabulary. Gamification method allows students to compete or interact with one another, enhancing the learning experience.

Guiding Students to the Successful Application of Technology

Despite the amazing tools provided by technology, the educator remains a critical component in the learning process. To that end, instructors need to assist their students in making effective use of technology; by doing so, teachers may bridge the gap between app-based learning and real-world application.

For Learners

The Use of Podcasts and Audiobooks

Learners should listen to podcasts or audiobooks on topics that interest them. In this approach, kids will be exposed to common English speaking patterns and pronunciations.

The adoption of Language Learning Applications

The daily use of various language application tools may offer learners with quick feedback on how to pronounce words, allowing them to identify and correct faults.

Make it fun!

Students can combine their EFL study with their interests and hobbies. They can actively practice the language by watching English-language movies or television shows, reading comic books, or listening to their favorite music.

Online English Reading and Articles

Students may read and engage with English-language blogs or online news sources. Reading about subjects they find interesting will naturally introduce them to new words and writing styles.

The Use of Language Exchange Applications

Using language exchange tools such as *'HelloTalk', 'Tandem', or 'Italki'* helps learners establish conversation with native speakers. This allows students to experience communicating with diverse individuals in actual life situations while also learning about different cultures.

3.5. Conclusion

This was the last chapter of the dissertation. It was divided into two sections, the first one was analytical since it decoded the data gathered from the teachers' interviews and the students' questionnaire, while the second one was suggestive. Indeed, palpable findings emerged in the chapter. Findings reveal that the students who are exposed to technology can improve their academic performance and learning process. Findings also reveal that teachers have a positive attitude towards the use of technology in the learning process as they encourage their learners to effectively use this technology in the EFL skills' improvement. Finally, results show that the use of technology in learning the integrative skills of English enhances the quality of learning since it strengthens the learners' academic performance. At the end of the chapter, some recommendations were suggested for an effective use of technology in the process of learning.

General Conclusion

General Conclusion

Undoubtedly, today's generation is a digital generation since it found itself involved in the internet world from the first day it opened its eyes. At the beginning, the use of the smart technologies was limited only to entertainment but later, it includes all the domains of life. Therefore, technology becomes an indispensable thing in people's everyday life.

When it comes to the domain of education, the majority of the students enjoy using technology because they were raised in a digital society. However, these students do not use this technology appropriately to meet their learning needs and goals which rest on enhancing the four integrative skills of English. To this end, this study was carried out to investigate the students' use of smart technologies in improving the English skills. Essentially, the study attempted to explore the effectiveness of technology in enhancing the learning process.

The use of technology in learning is one of the fundamental subjects that need to be taken into consideration as to be studied seriously since technology has two-sided effect. For this reason, this research's objective is to understand the appropriate use of technology in the educational career of learners as well as the teachers to meet the target needs of these students.

The answers that the researcher has found are the results of data analysis. These answers are that the students who are exposed to technology will improve their academic performance and learning process, teachers have a positive attitude towards the use of technology in the learning process as they encourage their learners to effectively use this technology in the EFL skills' improvement and finally, the use of technology in learning the integrative skills of English enhances the quality of learning since it strengthens the learners' academic performance.

To find these answers, the researcher raised three research questions. Further, he mixed a students' questionnaire with a teachers' interview. Both of these research tools helped the investigator to deduce the results he was seeking for. At the first place, the questionnaire revealed that the learners enjoy the use of technology not only for entertainment but also in studying. These learners claimed that the use of technology in the sphere of education raises the quality of their performance as it helps them to be autonomous learners and the interview confirmed that. The interview also revealed that the teachers have a positive attitude towards their students' use of technology in learning as they support them for it. These two tools were very significant in the collection of satisfying results, as they assisted the investigator in

checking his hypothesis. The findings were similar to the hypothesis raised. Hence, they were proved.

At the end of the research, the investigator provided series of recommendations to help in solving the problem raised. These recommendations were addressed to the teachers and learners alike. Through these recommendations, he asked the teachers to integrate educational videos and podcasts in their classroom to help their students in developing their skills as to guide them for the correct use of technology. Besides, he asked the learners to choose wisely the sites and application which may help them in enhancing their language as to make the process of learning funny rather than boring.

For sure, this study has faced some impediments namely: the non collaboration of the target population as well as the researcher's time constraints due to his work commitment. However, those obstacles did not impede the researcher to complete his investigation.

This research can pave the way to other studies that can be conducted, namely; “ The Impact of ChatGPT Use on The Students' Cognitive Ability” and ‘The Adoption of a FLIPPED CLASSROOM in The EFL Context’.

References

- About Shabaan, S. S. (2020). The uses of Smart Devices in Teaching English for Palestine. *International Journal of Studies in English Language and Literature*, 8(2).
<https://doi.org/10.20431/2347-3134.0802002>
- Adnan, A. (2016). The role of technology in Teaching listening. *ISLA*. Retrieved from <http://repository.unp.ac.id/22481/1/ISLA%202016%20%28Paper%29%20PDF.pdf>
- Allali, L., & Bennaceur, S. (2021). *The Role of Educational YouTube Channels in Increasing Students' Self-Confidence. Case study: Master One students of the Department of English at MMUTO*. [MA thesis]. <https://dspace.ummto.dz/handle/ummto/16961>
- Bachore, M. M. (2015). Language Learning through Mobile Technologies: An Opportunity for Language Learners and Teachers. *Journal of Education and Practice*, 6(31), 50–53. <http://files.eric.ed.gov/fulltext/EJ1083417.pdf>
- Bedreddine, O. (2020). *Teachers' attitudes towards the use of technology in teaching The case of teachers at the Department of English, University of Bejaia* [MA thesis, University of Bejaia]. <https://www.univ-bejaia.dz/xmlui/bitstream/handle/123456789/14473/Teachers%E2%80%99attitudes%20towards%20the%20use%20of%20technology%20in%20teaching%20the%20case%20of%20teachers%20at%20the%20department%20of%20english%20university%20of%20Bejaia.pdf?sequence=1&isAllowed=y>
- Benouaou, M. (2023). *The Use of Mobile Assisted Language Learning in the Algerien EFL Context: Case Study of First Year LMD Student at Saida University* [MA thesis]. University of Saida.
- Bhandari, P. (2023). *Ethical Considerations in Research | Types & Examples*. Scribbr. <https://www.scribbr.com/methodology/research-ethics/>

- Bhandari, P. (2023). *Population vs. Sample | Definitions, Differences & Examples*. Scribbr.
<https://www.scribbr.com/methodology/population-vs-sample/>
- Bousseltane, M. H., & Bousaad, S. (2020). *Teachers' and Students' Attitudes Toward the Use of Social Media to Develop the Students' Speaking Skill: The Case of Third Year Students of the Department of English at Mouloud Mammeri University of Tizi Ouzou* [MA thesis]. <https://dspace.ummtto.dz/handle/ummtto/16756>
- Brown, C. (2019). *How technology can help improve education - Resource hub for schools and districts*. Classcraft. <https://www.classcraft.com/blog/how-has-technology-improved-education/>
- D'Angelo, C. (2018, July 9). *The Impact of Technology: Student engagement and success*. Pressbooks. <https://pressbooks.pub/techandcurriculum/chapter/engagement-and-success/>
- De Lourdes Andrade, M. (2014). *Role of Technology in Supporting English Language Learners in Today's Classrooms. The Role of Technology in Supporting English Language*.
https://tspace.library.utoronto.ca/bitstream/1807/66995/1/Andrade_MariadeLourdes_201406_MT_MTRP.pdf
- EvalCommunity. (2023). *Research tools - EvalCommunity*.
<https://www.evalcommunity.com/career-center/research-tools/#:~:text=Examples%20of%20research%20tools%20include,and%20requirements%20of%20the%20study.>
- Fleetwood, D. (2023). *Quantitative Research: What It Is, Practices & Methods*. QuestionPro.
https://www.questionpro.com/blog/quantitative-research/#Quantitative_Research_Characteristics

- George, T. (2023). *Mixed Methods Research | Definition, Guide & Examples*. Scribbr.
<https://www.scribbr.com/methodology/mixed-methods-research/#when-to-use-mixed-methods-research>
- George, T. (2023). *Types of interviews in research | Guide & Examples*. Scribbr.
<https://www.scribbr.com/methodology/interviews-research/>
- Godwin-Jones, R. (2017). Smartphones and language learning. *Language Learning & Technology*, 21(2), 3–17. <http://lt.msu.edu/issues/june2017/emerging.pdf>
- Gupta, S. (2021). An overview of technology in education sector. *International Journal for Research in Applied Science and Engineering Technology*, 9(9), 152–156.
<https://doi.org/10.22214/ijraset.2021.37943>
- Hockly, N. (2014). A potted history of technology in language teaching – the past. *Theconsultants-e*.
https://www.academia.edu/2005195/A_potted_history_of_technology_in_language_teaching_the_past
- Hoque, E. (2005). Develop Language Skills through Technology. *Journal of Language and Learning*, 5(1).
https://www.academia.edu/33319686/Develop_Language_Skills_through_Technology
- Irdianto, W., Lazareva, I., & Yaniafari, R. P. (2023). The Challenge of EFL Teachers in Technology-Integrated Learning in the Society 5.0. In *Advances in social science, education and humanities research* (pp. 749–758). https://doi.org/10.2991/978-2-38476-054-1_64
- John, C. (2018). *The evolution and impact of technology in language education*. Pressbooks.
<https://pressbooks.pub/techandcurriculum/chapter/technology-assisted-language-learning/>

- Johnson, A. M., Jacovina, M. E., Russell, D. G., & Soto, C. (2016). Challenges and Solutions when Using Technologies in the Classroom. In *Routledge eBooks* (pp. 13–30).
<https://doi.org/10.4324/9781315647500-2>
- McCombes, S. (2023). *What is a research methodology? | Steps & tips*. Scribbr.
<https://www.scribbr.com/dissertation/methodology/>
- Murati, R., & Ceka, A. (2017). The use of technology in educational teaching. *Journal of Education and Practice*, 8(6), 197–199. <http://files.eric.ed.gov/fulltext/EJ1133000.pdf>
- Petersen, K. B. (2014). LEARNING THEORIES AND SKILLS IN ONLINE SECOND LANGUAGE TEACHING AND LEARNING: DILEMMAS AND CHALLENGES. *JISTE*, 8(02). <https://files.eric.ed.gov/fulltext/EJ1087588.pdf>
- Qualitative Research Methods: A Data Collector's Field Guide*. (n.d.).
<https://course.ccs.neu.edu/is4800sp12/resources/qualmethods.pdf>
- Raja, R., & Nagasubramani, P. C. (2018). Impact of modern technology in education. *Journal of Applied and Advanced Research*, S33–S35.
<https://doi.org/10.21839/jaar.2018.v3is1.165>
- Ramli, R. (2018). The use of podcast to improve students' listening and speaking skills for EFL learners. *Journal of Applied Linguistics and Language Research*, 5(2), 1–10.
<http://www.jallr.com/index.php/JALLR/article/download/796/pdf796>
- S, R. A. (2023). *Population vs Sample: Definitions, Differences and Examples*. Simplilearn.com. <https://www.simplilearn.com/tutorials/machine-learning-tutorial/population-vs-sample>
- Sreekumar, D. (2023). *What is Research Methodology? Definition, Types, and Examples*. Paperpal Blog. <https://paperpal.com/blog/academic-writing-guides/what-is-research-methodology>

Streefkerk, R. (2023). *Qualitative vs. Quantitative Research | Differences, Examples & Methods*. Scribbr. <https://www.scribbr.com/methodology/qualitative-quantitative-research/>

Subject and Course Guides: Quantitative and Qualitative Research: What is Quantitative Research? (n.d.). https://libguides.uta.edu/quantitative_and_qualitative_research/quant

Taherdoost, H. (2022). Designing a questionnaire for a research paper: A comprehensive guide to design and develop an effective questionnaire. *Asian Journal of Electrical Sciences*, 11(1), 8–16. <https://doi.org/10.51983/ajms-2022.11.1.3087>

Tenny, S., Brannan, J. M., & Brannan, G. D. (2022). *Qualitative study*. StatPearls - NCBI Bookshelf. <https://www.ncbi.nlm.nih.gov/books/NBK470395/>

What is a questionnaire | Types of questionnaires in research.(2022). Cint™. <https://www.cint.com/blog/what-is-a-questionnaire-and-how-is-it-used-in-research>

Appendices

Appendix A

Students' Questionnaire

Dear participants,

This academic undertaken is an endeavour to explore the role of smart technologies in learning language skills. For this end, you are kindly invited to answer this questionnaire which will not take more than 10 minutes. Your answers are highly appreciated.

Thank you in advance

Section One : General information

Question One :What is your gender ?

a-Male.....

b-Female.....

Question Two :How is your level in English ?

a-Bad.....

b-Intermediate.....

c-Good.....

d-Excellent.....

Question Three :Do you enjoy learning English ?

a-Yes.....

b-No.....

Section Two : The use of smart technologies

Question One :Do you use smart technologies while learning the EFL integrative skills ?

a-Yes.....

b-No.....

Question Two : Do you support the traditional methods or the modern ones in learning a language ?

a-I support the traditional methods.....

b-I support the modern methods.....

Why ?.....

Question Three :Which device/s do you use the most in your learning process ? (you can tick more than one option)

a-Laptop.....

b-Smartphone.....

c-iPad.....

d-Another device.....

Question four :In which skill do you see that the use of e-learning is important ?

a-Listening.....

b-Speaking.....

c-Reading.....

d-Writing.....

Question Five : Which way do you resort to when learning any of the four skills ?

a-Podcasts.....

b-YouTube video channels.....

c-Auditory Files (mp3).....

d-Another way (mention it, please).....

Section Three : The implementation of smart technologies in learning

Question One :Do your teachers use technical devices in their classes ?

a-Yes.....

b-No.....

Question Two :On a scale of 1 to 10, how can you rate your experience with e-learning during the lockdown period ?

01	02	03	04	05	06	07	08	09	10
Bad					Good				

Question Three :Do your teachers support you to use technology for learning a specific skill ?

a-Yes.....

b-No.....

Question Four :In your opinion, does the use of technology improve the learning process ?Justify your answer, please.....

Appendix B

Teachers' Interview

- 1.How long have you been teaching English ?
2. Are you familiar with the use of smart technologies in your classes?
3. Do you support your students to use these technologies for learning EFL integrative skills ?
4. During the lockdown period, what are the means that you resort to for conveying the lessons to your learners (e.g : recording videos, podcasts, auditory files..etc) ?
5. Do you think that using technology in learning a foreign language has a good effect on the students' performance ? How so ?
- 6.Can these smart technologies take the place of the traditional way of teaching and reduce burdens on the teacher's shoulders?
7. In you opinion, how can this technology boost the students' learning process ?