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Exploring Teachers' and Learners' Perceptions towards the Use of Technology-Based Instruction in Promoting Learners' Autonomy

The Case of Third-Year Students of English at Biskra University

Dissertation submitted to the Department of English Language

Board of examiners

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Declaration

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DECLARATION OF INTEGRITY

I, **Achwak KARFA**, solemnly declare that the dissertation titled & quoted "Exploring Teachers' and Learners' Perceptions towards the Use of Technology-Based Instruction in Promoting Learners' Autonomy "submitted to the Department of the English language and Literature at Biskra University is entirely my own work, free from plagiarism, and has not been submitted to any other educational institution. I have appropriately acknowledged and cited all sources used, and I have conducted myself with academic integrity throughout the process. I understand the severe consequences of academic misconduct and affirm the authenticity of my dissertation.

Signature

Dedication

I express my deepest gratitude to Allah for His unwavering blessings throughout this journey and for granting me the strength and patience to achieve my goals.

I am forever indebted to my beloved parents, without whom my life would be incomplete. Their unconditional support, love, sacrifices, and encouragement have been instrumental in my success. I love you both immensely, beyond measure.

To my older brother, I am profoundly grateful for your constant companionship in life. Your sincere support has pushed me forward, and I am grateful to have you by my side.

To my young brother, may Allah bestow upon you success and blessings.

To my young sister, despite the fights, you have been my mate through good, bad and craziness.

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To the souls of my departed grandfathers, may Allah grant you a place in Jannah.

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Abstract

Adopting traditional teaching approach or even employing traditional teaching methods lead EFL learners to show a passive learning behaviour translated into lack of autonomy. Due to the fundamental role autonomy plays in promoting language learning success, recent educational reforms call for the integration of technology in education as it has the potential to foster learner autonomy. Highlighting the need for further investigation to explore the relationship between technology integration and learner autonomy in higher education, this research aims capture the development of learner autonomy in the context of a modern educational system. To achieve this, the research attempts to examine the level of autonomy among 3rd-year English students, the impact of TBI on learner autonomy, and the perceptions of EFL learners and teachers regarding TBI. The research hypotheses suggest a positive impact of TBI on learner autonomy that would lead to positive teachers' and learners' perception towards TBI integration. To test the validity of the hypotheses, a mixed-methods approach was adopted employing three data collection tools: classroom observations, a student questionnaire, and semi-structured interviews with teachers. The findings revealed that EFL students exhibit motivation and potential for autonomy, perceiving TBI as beneficial in empowering learning. Teachers also were found to be aware of the effectiveness of TBI in enhancing learner autonomy and emphasize their role in fostering language proficiency and engagement. Ultimately, the study recommends equipping classrooms with appropriate ICT resources, promoting a learner-centered environment, and providing a wider range of resources to foster learner autonomy.

Keywords: learner autonomy, technology-based instruction, ICT, learner-centered environment.

List of Abbreviations and Acronyms

ADHD: Attention-Deficit/Hyperactivity Disorder

AI: Artificial Intelligence

BL: Blended learning

CALL: Computer-Assisted Language Learning

EFL: English as a Foreign Language

LMS: Learning Management System

MALL: Mobile-Assisted Language Learning

MOOCs: Massive Open Online Courses

N: Number of Students

SDL: Self-Directed Learning

SDLL: Self-Directed Language Learning

SRL: Self-Regulated Learning

TBI: Technology-Based Instruction

WWW: World Wide Web

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General Introduction

1. Background of the Study

Learner autonomy has become an assumed goal of language education in many parts of the world. In the last 20 years and since the launch of Language Learning and Technology (LLT), the relationship between computer-assisted language learning (CALL) research practice and autonomy has become both more complex and more promising.

Early thinking is often considered a direct and one-directional impact of the use of technology on learners' independence by providing them with access to resources and the possibility of working at times and in locations of their own choice (Reinders & White, 2016).

Autonomy is considered a personal human attribute, a political measure or an educational move that transformed traditional language teaching practices and created open-access language learning centers around the world. Moreover, technology is often part of the discourse on autonomy since its debut in the field of language education back in the 1970s. The relationship between technology and autonomy is a dynamic, bidirectional one where autonomy influences how learners perceive and position technology in relation to language learning, and technology impacts the exercise and development of autonomy (Lai, 2019).

2. Statement of the Problem

The traditional way of teaching is a regular feeding-teaching and the students are in a completely passive form; that is, the knowledge is passively accepted by the learners. The traditional role of the teacher is being the guide for the students and the class designer. It is also standardised with the education of one-way communication and considered a closed education where students do not have free space for development, and they are often exposed to orderly teaching content with a unified space, time, process and speed. Moreover, the way

students obtain information in the traditional classroom or in the teacher-centred method is mainly from the teacher's explanation or being given handouts.

The past few years have changed education due to multiple reasons such as the revolution of technology and the development of technological social networks. Therefore, the Internet has shifted from an information resource to an interactive medium. As a result, the integration of technology which is highly encouraged by the learner-centred method has been a holding hand for students to be fully autonomous and independent. Although various studies investigated the use of technology in promoting learner autonomy, a paucity of research is on teachers' and learners' perceptions towards the aforementioned subject. Further research needs to be conducted to study university teachers' and learners' perceptions about learner autonomy; in addition to, the integration of technology to enhance. Thus, the development of learner autonomy in higher education can be captured well, particularly when the freedom of learning has become the icon in the education system.

3. Significance of the Study

This study will be, hopefully, of great importance to all stakeholders (teachers, students, etc.). Specifically, it will shed light on students' and teachers' perceptions toward integrating Technology-Based Instruction (hereafter TBI) to enhance learner autonomy. Additionally, it highlights the concept of autonomy in education and its impact on foreign language teaching and the learning process. It attempts to make both teachers and students aware of the importance of this concept in English teaching and learning. This can provide EFL learners with an opportunity to be self-directed, depending on their efforts to acquire knowledge besides the guidance of their teacher. Furthermore, this research contributes to improving the participation, motivation, performance, and achievement of EFL learners through the integration of TBI and that is by relying on themselves in using online learning methods.

4. Aims of the Study

The study aims to:

- Explore the use of technology in the learning process.
- Shed light on EFL students' and teachers' perceptions regarding the integration of TBI into their classrooms.
- Highlight the importance and the relationship between TBI and learner autonomy.

5. Research Questions

This study seeks to answer the following questions:

1- Are 3rd-year students at the Department of English autonomous learners?

2- Does the integration of TBI in EFL classrooms promote learner autonomy?

3- What are EFL learners' and teachers' perceptions towards the use of TBI in the classroom?

6. Research Hypotheses

Based on the above-mentioned questions, we hypothesise that:

1- The integration of TBI in EFL classrooms positively impacts learner autonomy.

2- EFL students and teachers perceive TBI as a beneficial tool for promoting learner autonomy.

7. Research Methodology

This study seeks to investigate teachers' and learners' perceptions towards the use of TBI in raising the learner's autonomy. The mixed method approach is adopted throughout the study since it gives equal priority to both quantitative and qualitative, it uses each to the same degree in order to gain better insights into the research. It also eases the process of connecting interviews, classroom observation, and fully understanding the problem before developing the parameters for the quantitative

data collection such as the questionnaire. It seeks to obtain a mixture of different perspectives, opinions, and personal experiences concerning autonomous learning In order to analyse the obtained data, the present research opts for an exploratory research methodology as long as it is suitable for the nature of this study.

7.1 Sample of the Study

Forty (40) 3rd year students of English at Mohamed Kheider University were randomly chosen to participate in the study. The level of the students is purposefully selected because the researcher assumes that 3rd-year students have adequate proficiency level that allows them to use technology in foreign language learning. In addition to that, ten (10) teachers of English from the same department have taken part in the present research.

7.2 Data Gathering Tools

For the purpose of data collection, three specific tools have been selected. Firstly, classroom observation was conducted to gather firsthand information about the teaching and learning practices within the EFL classroom and track learner autonomy. Secondly, a questionnaire has been administered to the students, aiming to gather their perspectives and experiences related to the integration of Technology-Based Instruction (TBI). Lastly, a semi-structured interview was conducted with the teachers to gain valuable insights into their perceptions, challenges, and experiences regarding the implementation of TBI. These data collection tools have been chosen strategically to provide a comprehensive and multifaceted understanding of the research area. The classroom observation allows for direct observation of instructional practices while the questionnaire provides a quantitative perspective from the students' point of view. The semi-structured interview enables a more in-depth exploration of the teachers' insights and experiences.

7.3 Data Analysis Procedure

Upon completion of the data collection process, a thorough analysis was undertaken. The collected data have been carefully examined, coded, and categorized to identify emerging themes, patterns, and trends. Following that, the process of thematic analysis was involved in analysing open-ended questions and interview questions. In short, both qualitative and quantitative analysis techniques were employed to ensure a robust and comprehensive analysis. The findings derived from this analysis offer deep and clear insights into the integration of TBI in EFL classrooms contributing to the existing knowledge in the field.

8. Structure of the Dissertation

The following outline represents the dissertation's organisational structure:

Chapter one provides an overview of autonomy in language learning, including its origin, definitions by scholars, and its significance in fostering lifelong learning and critical thinking. It explores the characteristics of autonomous learners, such as self-regulation and self-assessment, and examines factors that influence learner autonomy, including motivation and attitude. The evolving roles of teachers and learners in promoting autonomy are discussed, along with the impact of digital technology on autonomous learning in online environments.

Chapter two explores Technology-Based Instruction (TBI) in both EFL classrooms and beyond. It defines TBI and emphasizes its importance in language education. The different forms of technology used in language instruction, such as Mobile-Assisted Language Learning, Computer-Assisted Language Learning, and E-Learning, are discussed. Additionally, the chapter covers the use of the Internet, MOOCs, social media, Moodle, YouTube, and multimedia in EFL classes. The effectiveness of Blended Learning and the Flipped Classroom

model is also highlighted. Finally, the advantages and drawbacks of using multimedia in language teaching and learning are examined.

Chapter three serves as a foundational pillar for the study, as it outlines the research methodology employed to gather data, the tools utilized, and the subsequent analysis techniques employed to draw meaningful conclusions. It delves into various aspects, including the research method and approach, the population and sample, and the data gathering tools utilized. The chapter provides a detailed account of the specific data collection procedures and techniques employed, namely classroom observation, students' questionnaire, and teachers' semi-structured interviews. Furthermore, it highlights the data analysis techniques employed and offers an interpretation of the findings.

Chapter One: Learner Autonomy

Introduction

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Introduction

The present chapter intends at providing a general overview on the notion of autonomy in language learning. It highlights the origin and history of autonomy in addition to the various definitions provided by different scholars concerning autonomy. The importance of autonomy in learning is discussed, emphasizing its potential to foster lifelong learning and critical thinking. The characteristics of autonomous learners are also examined, with a focus on key traits such as self-regulation, self-directness, self-assessment, self-monitoring, and responsibility for learning. Factors that influence learner autonomy are also analyzed, including motivation, self-esteem, and attitude. The evolving roles of both teachers and learners in promoting autonomy are explored, with a historical perspective on how these roles have changed over time. Finally, the chapter examines the impact of digital technology on learner autonomy, exploring how online learning environments and digital tools can facilitate or hinder autonomous learning. In conclusion, this chapter provides a comprehensive overview of the concept of learner autonomy, its importance, and the various factors and roles that affect its development in the current digital era.

1.1. Origin and History of Autonomy

The origin of this term roots back to the Greek word “auto_nomus”, autos stands for “self” and “nomos” means “law” i.e., self-law. the two parts together (self and law) form what refers to something or someone who lives by his/her own rule. As it refers to self-determination too. The concept of autonomy has philosophical, religious, social, and political dimensions. (Sergma, 2021). It is emerged from the ancient Greek philosophers Aristotle and Socrates who claimed for the right of citizens to self-government; where individuals are not subjected to the authority of others and are considered free. For both Aristotle and Plato self-sufficiency is seen

as the ideal for humanity; the less dependent on others and external conditions the happier a person may become. (Sergma, 2021).

During the European enlightenment, autonomy was understood as a property of persons. The concept of autonomy has a number of factors that contributed to its emergence in the educational field. To begin with, the wave of minority rights movement, led to the spread of this idea and the focus of it on learning, schooling and education. The next factor is the reaction against behaviourism; behaviourists used animals in experiments assuming that what is learned using animal models could be applied to human behaviour. This belief was rejected by western societies, they gave value and meaning to personal experience. Those who worked outside the behaviouristic paradigm were philosophers, educationalists, and linguists. The latter shared the same approach to language which provided reasoning to both language teaching and learning, focusing on each individual needs, social norms, communicative competence, and autonomy. The other factor contributing to the appearance of to the contemporary language teaching and learning is the interest in minority rights. Holec's paper "Autonomy and foreign language learning" was published in the Council of Europe's modern language project, the latter being established in 1971. Autonomy was an essential element from the beginning of the Council's work. Since 1979 The concept of learner autonomy has been central to the Council of Europe's thinking about language teaching and learning.

Moreover, another factor that contributed to the spread of autonomy and self-success is the development in technology such as, TV, fax, e-mail, computer… etc. It facilitated the implementation of self-directed learning. In addition, as a result of political development, demanding foreign languages has increased since World War Two which caused another factor. The last factor is the increase of the population of schools and universities; new educational structures were developed due to the access to education in many countries. This encouraged

some institutions to form self-directed learning by allowing students to decide when, where, and what to study. (Holec 1981)

The word autonomy continued to develop in the modern period; however, since it has been used repeatedly in the educational discussion and diverse groups of publications, the chance to trace the concept back to a date of origin or a solo source was complicated. In other words, thinking and acting independently has always been regarded by most of the world's societies, it has also been a privilege of an elite even in practice, stretching back many centuries in some cases.

1.2. Definition of Autonomy

The term autonomy is a slippery term because it is widely confused with self-instruction and independent learning. It is also a multifaceted concept whose meaning has been discussed from many perspectives by theoreticians. Therefore, there is no consensus on the aforementioned concept in education. Although there have been some debates on its definition in the last 30 years, it is generally agreed that autonomy is about learners taking responsibilities to their learning. As the concept went viral, there were a number of misconceptions about autonomy. Firstly, autonomous learners are completely independent and can do well without the guidance of the teacher. Another misconception is that learners work entirely on their own, but in fact, learners can learn from other learners and still be autonomous. In the same sense, with training and support, they will potentially become autonomous.

Primarily, autonomous learners take responsibility for what they learn and how they learn. This is confirmed by Holec's view, he explains that autonomous learning is a two-step process. It requires studying the foreign language on the one hand and learning how to learn it on the other. Autonomous learners have the freedom to use their knowledge and abilities outside of the immediate learning environment. Shortly, it is a lifelong process of continuously expanding awareness; hence, it goes beyond the environment of the classroom. On the contrary, researchers

do not always share the same view of autonomy and independence nor do they necessarily agree on the means of achieving it. In some cases, there are critical of methods and approaches with which they are themselves closely associated. For instance, Sinclair (as cited in Borg and Al-Busaidi, 2012) suggests13 aspects of learner autonomy which "appear to have been recognised and broadly accepted by the language teaching profession":

Table 1. 1
Defining learning autonomy (Sinclair, 2000)

1. Autonomy is a construct of capacity.
2. Autonomy involves a willingness on the part of the learner to take responsibility for their own learning.
3. The capacity and willingness of learners to take such responsibility is not necessarily innate.
4. Complete autonomy is an idealistic goal.
5. There are degrees of autonomy.
6. The degrees of autonomy are unstable and variable.
7. Autonomy is not simply a matter of placing learners in situations where they have to be independent.
8. Developing autonomy requires conscious awareness of the learning process i.e., conscious reflection and decision-making.
9. Promoting autonomy is not simply a matter of teaching strategies.
10. Autonomy can take place both inside and outside the classroom.
11. Autonomy has a social as well as an individual dimension.
12. The promotion of autonomy has a political as well as psychological dimension.
13. Autonomy is interpreted differently by different cultures.

Note. Adapted from "Learner Autonomy: English Language Teachers' Beliefs and Practices", by Borg, S., & Al-Busaidi, S., 2012., p.5, London, England: British Council.

Building autonomous learning can be suitable in both inside and beyond classroom. Therefore, learners are required to follow certain stages for that. To start with, they need to set a goal for themselves under the condition of being realistic, relevant, and useful to them. For example, learning sixty new idiomatic expressions at the end of the month to reach a certain level of fluency. Next, once they have established their goals, they need to select an appropriate process; in order to be able to work toward achieving their goals. The support and the assistance of the teacher have a crucial role in these steps. For example, with the teacher encouragement, the learner would decide to memorise 15 idiomatic expressions per week until the end of the month. Progressively, within the process they decide to carry on, learners have to be able to select suitable materials and tools e.g., educational technology tools. Plus, teachers may aid learners with the selection. Additionally, after being able to use the selected tool, learners are required to choose the technique that fit it. As a final step, learners have to regularly reflect on their own learning process, evaluate their performance, and then adjust their goals; recognize when they will be achieved and set new ones (O'Dwyer & Runnels, 2014).

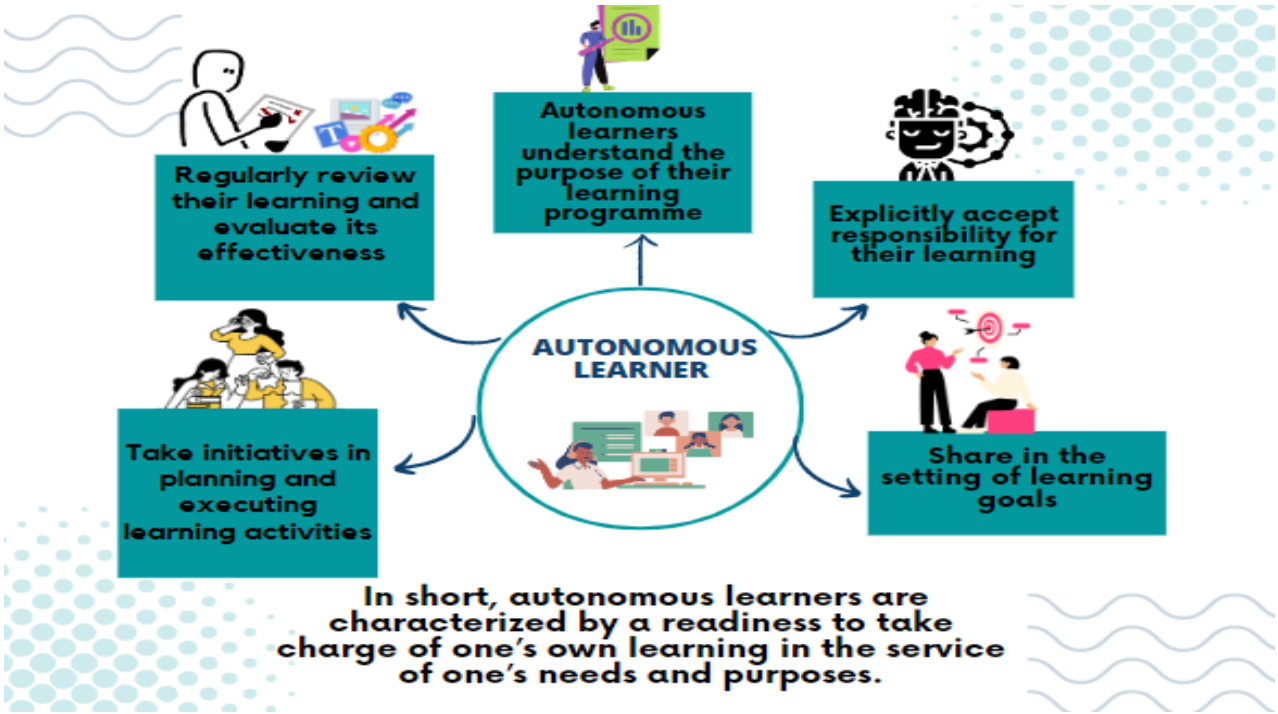

Figure 1. 1 Requirements of an Autonomous Learner

Note: the above figure is a personal effort that summarises the cyclic process to be an autonomous learner.

1.3. The Importance of Autonomy

The notion of autonomy has come to assume a place of great importance in several areas including practical ethics, medical ethics, constitutional lawn business ethics, and social policy. It played a key role in the debate over animal rights too. Furthermore, autonomy assumed a prominent role in language learning and teaching. This concept is now closely associated with the essence of human dignity.

In addition, the autonomous practices open widely learner's sight and awareness of their preferred learning styles and strategies in achieving learning objectives, addressing the selected learning styles and strategies are in favour of autonomous learning. "For encouraging learners to improve their learning processes and products it is important that teachers and lecturers recognize the learning styles and strategies of their learners" (Ramli, Darus, & Bakar,

2011, p. 83). Constant success of learners' present autonomy needs a supportive involvement. The latter is seen as an essential foundation.

Accordingly, the implementation of autonomous learning in higher education is more likely a necessary objective. As a result, students will be able to master a number of skills. Starting with, being capable to relate the acquired language to the real world, take responsibility of their own learning; taking charge of the latter assist students to examine their learning on a regular basis. Besides, autonomy raises learners' awareness., reflecting and willing to function in interactions and self-management. Eventually, students would be able to maintain their academic progress. Also, comprehend how the education process is working.

1.4. Characteristics of Autonomous Learners

Several researchers have suggested various characteristics related to autonomous learners. Over time, theorists and practitioners have sought to define autonomous learners' characteristics and specify what might be expected of them. Holec (1981) provides one of the more detailed descriptions, and his point can be summed up as follows:

Learner autonomy arises when the learner is willing to take charge of his/her own learning by independently:

- choosing particular aims and purposes.
- choosing materials, methods and tasks.
- exercising choice and purpose in organizing and carrying out the tasks.
- choosing and applying criteria for evaluation.

In short, autonomous learners are characterized by a readiness to take charge of one's own learning in the service of one's needs and purposes.

1.4.1 Self-Regulation.

Derrick (2001) maintains that self-regulation is the learner's ability to orient their thoughts, feelings, and actions toward their learning goals. Human autonomy is essential for performance and self-regulation. Regardless of the behavioural domain, motivation increases feelings of engagement, diligence, and stamina. Instead of being forced or controlled, a goal or act is autonomous or self-endorsed. Goal-related performance consequently tends to be better. Researchers believe that because autonomy embodies choice and group coherence in action, it has a positive impact on goal-regulation. In other words, the sense of autonomous conduct,

which motivates and sustains goal-striving, is underpinned by sensations of choice, curiosity, profound personal importance, and internal causation.

By way of contrast, one of the main issues with the human condition is the failure of self-regulation. For example, self-regulation failures are present in a wide range of psychological diseases, including ADHD, or attention-deficit/hyperactivity disorder. The initial symptoms of this disease include hyperactivity, restlessness, distractibility, an inability to focus, and poor impulse control. therefore, the symptoms were thought to arise out of poor volitional inhibition and defective moral regulation of behaviour (Barkley, 1997).

According to self-determination theory, autonomous motivation is a useful strategy for self-regulation since it is started and directed by decisions that are consistent with one's needs, values, and self-selected goals. Similar to this, people who are autonomously functioning look for choices and self-direction and generally feel free from interpersonal pressure. For example, a high school student who is autonomously driven might finish their homework every night after school because they find the work to be pleasurable and fascinating (i.e., intrinsic motivation) or because they think it is a crucial part of learning (i.e., a personally endorsed value) (Legault & Inzlicht, 2013).

1.4.2 Self-Directness.

Self-directed learning (SDL), rooted in Knowles' early work in 1975, is a humanistic approach to learning that has gained significant attention in the field of adult education, particularly in North America. Hiemstra (2013) defines SDL as a method designed to facilitate adults in making independent decisions to achieve their personal learning goals. SDL encompasses cognitive, metacognitive, and affective knowledge, along with lifelong learning skills, and can be adapted to language learning, also known as self-directed language learning (SDLL).

Furthermore, a highly self-directed learner possesses several qualities. They take the initiative, are independent and persistent in their learning, and take responsibility for their learning while viewing obstacles as challenges. Besides, they demonstrate self-discipline and curiosity, possess a strong desire to learn and are self-assured. They can organize their time, use basic study skills, set a pace for learning, and create a plan to complete their work. They enjoy learning and are focused on achieving goals**.** These characteristics shape the autonomous learner; they seem to represent the intrinsic desire to learn.

Hence, researchers have aimed to investigate this desire in more depth. Meyer (2001) identified seven components that contribute to an individual's desire to learn, including the individual's circumstances, expression, group identity, growth and balance, love issues, communication skills, and change skills. First, the circumstances are the individual's inherited beliefs from family, environment, and life experiences regarding their perception of who they are and their place in the world. Second, expression is the individual's capacity to express their thoughts, goals, and needs. Third, group identity which refers to the individual's perception of their place within a group and the belief that their skills and abilities are beneficial to the group. Forth, growth and balance, it entails the individual's ability to make informed decisions based on the available options, which is gained through trial and adversity. Love issues relate to the

individual's ability to experience peace, serenity, and power simultaneously. Communication skills refer to the ability to create an environment of open communication that is welcoming to others. Finally, change skills refer to the individual's ability to adjust to new problems as they arise. These components are shaped by an individual's perceptions of self, environment, and life experiences, as well as their ability to make informed decisions and adapt to new challenges. However, Park and Confessore (2002) suggested that these components should be viewed as precursors to the development of intentions related to learning.

1.4.3 Self-Assessment.

The use of self-assessment and goal-setting activities is widely accepted in language classrooms as a way to encourage autonomous learning (Dörnyei, 2001). While there are concerns about the accuracy and reliability of self-assessments, they are useful in identifying strengths and weaknesses and setting goals. Instructors can incorporate these activities into their teaching practices to promote autonomous learning and sustain students' motivation levels. Therefore, self-assessment and goal-setting activities can play a vital role in enhancing autonomous learning and motivation in language classrooms. Nevertheless, the autonomous learner has the option of using assessment as a potentially valuable source of feedback or eliminating it if they feel it is irrelevant or unhelpful.

Research suggests that self-assessment in language learning can have a variety of positive outcomes, including increased productivity, autonomy, motivation, active learning, and awareness of progress. They can also provide opportunities for individualization, reflection, evaluation, and support (Saito, 2009; Harris, 1997; Rivers, 2001; Gardner, 2000). Self-assessment is considered a vital strategy for autonomous learning as it enables students to monitor their progress and identify their individual needs (Harris, 1997; Reinders, 2010). However, concerns remain regarding the reliability and validity of self-assessment, and more

research is needed to compare students' self-assessment with that of instructors (Stauffer, 2011).

In consonance with Gipps (2002), students become more self-directed and able to learn throughout their lives by working with their peers to set goals and standards, and by practicing self-assessment beside receiving feedback. Though, some researchers such as Marshall and Drummond (2006) and Willis (2007) argue that the relationship between Assessment for Learning and learner autonomy is ambiguous because teachers need to be trained to understand what independent learning means and how it relates to assessment for learning. Self-assessment is related to autonomous learning, because it helps students develop more advanced thoughts and perspectives, which can enhance their learning. As a result, learners often appreciate the freedom and motivation that comes with being autonomous (Gardner, 2007).

1.4.4 Self-Monitoring.

A crucial component of self-regulation is self-monitoring, which entails students' capacity to keep track of how well they are doing in terms of their learning objectives through self-awareness. As a result, intervention tactics may be managed more effectively and quickly, which helps students stay on task and finish their assignments during learning activities. Empirical research has demonstrated that teaching pupils self-monitoring techniques has positive effects on adaptive goal-setting and learning. Self-monitoring regularly results in better academic performance, better classroom behaviour, and increased learner self-efficacy. Self-monitoring is one of the crucial abilities students must develop when they transition to a more flexible method of postsecondary education (Coleman & Webber, 2002; Zimmerman, 1995).

Self-monitoring involves several monitoring strategies, including attention tracking, self-testing, and test-taking strategies that alert learners to breakdowns in attention or

comprehension that can then be repaired through the use of regulating strategies (Garcia & Pintrich, 1994; Chang, 2010). Distance learners use monitoring strategies more than classroom learners, and self-monitoring activities give students a sense of personal control that is a major source of intrinsic motivation to continue learning on their own. Researchers have claimed that self-monitoring skills aid learning in any instructional method (e.g., Linder & Harris, 1993; Zimmerman, 1990)

Several studies have shown that self-monitoring skills aid learning, and researchers recommend that self-monitoring is one of the essential skills that students must acquire,

particularly as they move towards a more flexible mode of tertiary education. Numerous monitoring techniques are used in self-monitoring exercises to inform students of attentional or comprehension lapses that can be fixed with the use of regulating mechanisms. Students gain a sense of personal control through self-monitoring exercises, which is a significant source of intrinsic motivation to keep studying on their own. (White, 1995; Chang, 2010).

1.4.5 Responsibility for Learning.

According to Holec (1981, p. 3), autonomy in language learning is "the ability to take charge of one's own learning. “Which means to take complete responsibility for all decisions regarding every aspect of the learning process, i.e., determining the objectives of the learning experience, defining the contents and progressions of the material to be covered, selecting appropriate methods and techniques for teaching, monitoring the process of acquisition including the timing, location and pace of learning, and evaluating what has been acquired.

In traditional education systems, the responsibility for learning has been held by the teacher, who acts as a representative of various higher authorities such as schools, educational bodies, and governments. Consequently, the curriculum is imposed on the learner from the outside, without regard for their individual needs, experiences, interests, and aspirations. The

transfer of responsibility for learning from the teacher to the learner has significant implications, not only for the structure of education but also for the power dynamics that underlie our social structure. The learner now takes charge of their own learning, determines the content and mode of learning, and assumes responsibility for their learning outcomes. This means that the curriculum is generated from within the learner, based on their past experiences and present and future needs, making learning a deinstitutionalized process. However, Holec emphasizes that the capacity for autonomous learning is not innate and requires expert help. This redefines the role of the teacher in adult education, as they must now act as facilitators to help learners develop their autonomous learning skills (Little, 1999, p. 19).

1.5. Factors Affecting Learner's Autonomy

Several factors can affect learner autonomy, including motivation, self-esteem and attitude.

1.5.1 Motivation.

Autonomy is a critical need for learners, and it is sustained by their innate motivation and active interest in the world around them. This dynamic relationship highlights how learner autonomy can address the issue of motivation: autonomous learners draw upon their intrinsic motivation to take ownership of their learning and commit to mastering reflective self-management in the classroom. As autonomous learners experience success, their intrinsic motivation is further strengthened, enabling them to learn effectively and efficiently. Conversely, learning can only be successful if the learner is independent. Autonomous learners are highly efficient and effective, which allows them to apply their knowledge and skills to real-world situations outside of the classroom.

Benson (2011) argues that the attainment of leaner autonomy can enhance the effectiveness and efficiency of learning. This is due to the fact that when learners are given the opportunity to work autonomously, they tend to become more committed to their learning,

which in turn increases their motivation levels. The drive to achieve their goals enables learners to acknowledge their progress and consequently, spurs them on to further their pursuit of knowledge. As a result of this process, learners gradually build up their self-assurance by witnessing the positive impact their work has on their learning.

Nevertheless, researchers do not always share the same view of autonomy and independence nor do they necessarily agree on the means of achieving it. In some cases, they are critical of methods and approaches with which they are themselves closely associated. Despite the various advantages of autonomous language learning and its widespread usage in foreign language teaching, there are also some drawbacks that can hinder its effectiveness. One such challenge is the difficulty in getting students to make their own decisions regarding what and how to learn, as they are traditionally used to being guided by the teacher. Additionally, students may make wrong decisions, which can slow down their progress towards their goals.

However, teachers can guide them and correct their mistakes. Another obstacle is the potential time-consuming nature of creating or adapting materials for autonomous learning, although this can lead to a valuable activity portfolio that can be reused for future classes. Moreover, teachers may find it challenging to let go of their traditional authoritative teaching habits and trust in the students' ability to take control. This may lead to the criticism of students for not appreciating the opportunity of autonomous learning and a return to a more teacher-centered classroom in order to maintain control. Overall, while there are some challenges to conducting effective autonomous language learning, they can be overcome with proper guidance and patience.

1.5.2 Self-Esteem.

In agreement with Brown (1987), self-esteem is the learner's evaluation of themselves with regard to learning or the target language. Coopersmith (1967) defines self-esteem as a

personal judgment of worthiness that is reflected in the attitudes held towards oneself. Benson and Voller (1997) argue that learners with a strong sense of self are less likely to be negatively affected by a teacher's assessments. Conversely, those with low self-esteem may develop negative attitudes towards their abilities and cognitive performance, thus reinforcing their belief that they cannot learn (Wenden, 1998). Therefore, it is crucial for teachers to consider the impact of self-esteem on students' attitudes and cognitive performance in the language learning process.

1.5.3 Attitude.

Attitude is a theoretical concept that explains human behavior based on the direction and persistence of actions (Baker, 1995). According to Bem (1968, cited in Baker, 1995), attitudes are self-descriptions or self-perceptions that individuals can recognize by observing their own behavior. Learning-related attitudes can change through self-directed and purposefully planned activity, as well as through the need for security and status within a group and societal demands. Attitude change is a cognitive activity determined through social activity (Baker, 1995).

Attitude has three components: cognition, affect, and readiness for action (Baker, 1995). The cognitive component involves thoughts and beliefs, while the affective component concerns feelings about the attitude object. The cognitive and affective components of attitude may not always be in harmony, as a person may have a favorable attitude toward something but negative feelings about it. The affective component occurs from the cognitive element, and these feelings can be evaluated as good or bad. Eventually, these feeling appraisals are turned into the behavioral component or the readiness for action (Smith, 1971), which concerns the intention or plan of action under defined context and circumstances.

For instance, if students feel that they fit a personality type that is thought to be incapable of learning a foreign language, they may feel as though learning the language is a "lost battle" they are fighting. Furthermore, students who believe that learning is only successful in the "traditional classroom," where the teacher manages the learning activity and directs instruction, are more likely to be resistant to learner-centered strategies that promote autonomy and to believe that learning is only successful in that environment.

To promote learner autonomy, teachers need to hold positive attitudes toward autonomy and believe that every learner can become autonomous (Breen & Mann, 1997; Johnson et al., 1990; Little, 1990). Weak or strong learners are capable of developing their awareness of their own learning responsibility and practical knowledge of how to handle their learning, which is beneficial for other contexts besides foreign language learning (Little, 1990). Teachers should be clear about their attitudes and beliefs that underpin their views about autonomy and autonomous language learning.

1.6. Roles in Autonomous Learning

Autonomous learning involves both the learner and the teacher playing specific roles in the learning process.

1.6.1 Teacher's Role.

The goal of the instructor is to create and maintain a learning environment where pupils can develop their independence. When the learning environment is accessible, students are more likely to take initiative and ask for help when they need it. In order to improve their capacity to discern what is and is not important, instructors must teach students how to discover information and resources even outside of the classroom.

Likewise, teachers prefer speaking in the target language in the classroom, and they expect their students to do the same. Firstly, they engage their students in a constant search for effective learning activities that are shared, debated, analysed, and evaluated with the entire class initially in the target language in the most basic terms. Secondly, they demand their learners to identify individual goals but pursue them through collaborative work in small groups; let their learners set their own learning targets and create their own learning activities. Further, they subject them to discussion, analysis, and evaluation in the target language. Thirdly, engage them in regular evaluations of their progress as individual learners and as a class in the target language. Lastly, urge their learners to preserve a written record of their

learning plans of lessons and projects, lists of helpful vocabulary, whichever texts they themselves produce.

In order for learners to effectively engage in self-access work, it is important to conduct an initial analysis of their needs so that short- and long-term objectives can be established, a plan of action can be developed, and appropriate materials and activities can be selected. As self-access work progresses, learners require assistance in evaluating their progress, reanalysing their needs, and establishing new objectives.

Teachers play a vital role in launching learners into self-access and supporting them as they progress. Nonetheless, it is important for teachers to avoid dominating their roles as facilitators or consultants. Teachers must strike a balance between providing guidance and support, while also gradually encouraging learners to become more independent in their decision making. If teachers take on all decision-making responsibilities, learners may be working unsupervised but not independently.

On the other hand, if teachers withhold support and advice too soon, learners may become frustrated, isolated, and discouraged, and may ultimately abandon their attempts to

learn. Teachers must therefore assess learners' language needs as well as their readiness to become independent learners, and encourage them towards greater independence at an appropriate pace. Professional guidance and support from teachers or advisers is essential for learners to make informed decisions for themselves (Benson & Voller, 2014).

1.6.1.1 Evolution of the Teacher's Role.

In early days, teachers were seen as facilitators whose primary role was to guide and advise learners on the selection of materials and provide language support as needed. However, as the concept of self-access learning evolved, it became clear that learners required more assistance to work independently effectively. This led to the development of learner development programs, where facilitators helped learners improve their own learning skills.

If the classroom becomes obsolete in the future, the facilitator's role may change to that of a personal tutor who provides more focused advice and develops tutoring skills. The facilitator would still be familiar with materials and technology but would apply this knowledge more actively to support learners. Tutorial time, rather than class time, may be provided to center users, and learners would need to learn how to make the best use of the facilitator's expertise. The facilitator's role is, therefore, evolving towards a more personalized and learner-centered approach, where the facilitator acts as a resource to learners rather than a traditional teacher (Benson & Voller, 2014).

1.6.2 Learner’s Role.

Little (1993) claims that autonomy is universal human capacity, that is all learners are autonomous unless they are prevented by any kind of restrictions. Hence, learners attempt to take a part of the responsibility to grasp knowledge by themselves. This affects their learning outcome since they learn better when they take an active role in their learning process.

Autonomous learners need to be motivated and ready to take charge of their learning bearing in mind the benefits of this on their learning. Furthermore, autonomous learning requires learners' active involvement through working independently and in cooperation with others. This involvement also includes their planning, monitoring, and evaluation of their learning. Thus, autonomous learners need to reflect continuously on their learning and take the necessary decisions to improve it.

(Candy, 1991, p.102) indicates that in order to achieve autonomy, learners must engage in a set of actions that are based on their cognitive factors, as well as their beliefs, principles, and views on language learning. As a result, learners must not only be motivated and make

sense of the language and its learning process, but they must also be aware of their own needs, preferences, and difficulties.

1.6.2.1. Evolution of the Learner's Role.

The arrival of new learning materials necessitates that learners expand their strategies for independent study. Language learning centres now offer video and computer-based materials, which provide learners with not only exposure to the language spoken in its natural environment, but also access to supplementary tools such as soundtracks, transcripts, translations, and explanations. Nevertheless, many of these materials are highly teacher-centred, with the materials serving as the directive force rather than a live teacher, giving the impression of learner autonomy without actually providing it.

Moreover, some materials simply provide the student with a solution key and insufficient justification for errors, providing little to no feedback on their performance. As a result, students must learn to recognize inappropriate materials, find alternatives to use them for best results, and know when to stop using them. Successful students should have similar skills to pick and use things to their own advantage, just as a teacher has the responsibility of

doing so for the benefit of students. The necessity of setting personal goals, keeping track of progress, and evaluating one's own performance are already stressed in learner development or training courses, which were traditionally the sole purview of instructors. I suggest including an understanding of learning resources and materials in this list of abilities (Benson & Voller, 2014).

1.7. Learner Autonomy in Digital Era

Throughout history, technological advancement has played a crucial role in the development of autonomy, particularly when technologies have been specifically designed for self-directed use. It has provided opportunities for learners to access and interact with English language resources and materials in new and innovative ways. However, the digital era also presents challenges for English language learners, particularly in terms of learner autonomy. In this context, promoting learner autonomy is essential for ensuring successful English language learning outcomes.

One way to promote learner autonomy in the digital era is through the use of online language learning platforms. These platforms provide access to a range of English language resources and materials, as well as interactive learning tools that can support autonomous learning. The use of online language learning platforms can help to enhance learner autonomy by providing students with opportunities for self-paced learning, personalized learning, and self-assessment.

However, it is important to note that the use of digital technologies to support learner autonomy can also present challenges. For example, students may struggle with information overload or may not have the digital literacy skills necessary to navigate online learning environments effectively. In other words, promoting learner autonomy in the digital era requires support and guidance from educators. The provision of teacher guidance and support

was crucial for promoting learner autonomy in online language learning environments. This includes providing opportunities for feedback, assessment, and peer collaboration, as well as supporting students to develop the skills necessary for self-regulated learning i.e., creating a supportive learning environment that encourages experimentation and exploration (Benson & Reinders, 2011).

Eventually, promoting learner autonomy in English language learning in the digital era requires the use of online language learning platforms, mobile devices, and providing opportunities for autonomous learning. Hence, educators can create a learning atmosphere that is engaging, interactive, and supportive of learner agency.

Conclusion

To sum up, autonomy is a critical aspect of effective learning that has been discussed in this chapter. It attempted to gain in-depth view on the concept of autonomy starting with exploring its origin and history, followed by its definition that differ from one scholar to another. Afterwards, each of the importance and the characteristics of autonomous learners, including self-regulation, self-direction, self-evaluation, self-monitoring, and responsibility for learning were reviewed. Additionally, a number of factors that influence learner autonomy were examined such as, motivation, self-esteem, and attitude. Another point was also addressed is the roles of both the teacher and the learner in autonomous learning and how these roles have evolved over time. Furthermore, it underlined the impact of the digital era on learner autonomy. Understanding autonomy and the factors that influence it is critical for educators to create learning environments that support and encourage learners to become autonomous learners.

The upcoming chapter will review the literature related to technology-based instruction, its definition, importance of it in EFL classrooms, and the various modes of instruction like MALL, CALL, and E-learning in language learning.

Chapter Two: Technology-Based Instruction

Introduction

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Conclusion

Introduction

This chapter focuses on Technology-Based Instruction (TBI) inside and outside English as a Foreign Language (EFL) classes. It explores the different aspects of TBI, including its definition, importance, and various forms of technology that can be utilized in language learning. The chapter begins by defining TBI and highlighting its significance in language education. Then, it delves into the different forms of technology that can be used in language instruction, such as Mobile-Assisted Language Learning, Computer-Assisted Language Learning, and E-Learning. The section on Computer-Assisted Language Learning provides an overview of how the Internet and the World Wide Web can be used in language instruction. The chapter also covers the use of MOOCs, social media, Moodle, YouTube, and multimedia in EFL classes. Furthermore, this chapter discusses the effectiveness of Blended Learning and the Flipped Classroom model, which are growing in popularity in language education. Lastly, the chapter concludes with a discussion of the advantages and drawbacks of using multimedia in language teaching and learning.

2.1. Definition of Technology-Based Instruction

Technology-based instruction specifically refers to the use of technology to improve and deliver education. Various technological tools, including interactive whiteboards, virtual and augmented reality, educational apps, simulations, and online courses, may be used for this. In the same vein, TBI is an umbrella term that encompasses various training methods delivered primarily through technology. These methods range from interactive video systems to virtual reality training and differ in their level of instructor, learner, and content centrality. While technology-based instruction has the potential to enhance learning experiences, the effectiveness of these methods depends on various factors such as the design of the instruction, the level of interactivity, and the learners' prior knowledge and skills. On top of that, it is crucial to note that technology-based instruction should not be seen as a replacement for traditional

instructor-led training, but rather as a complementary tool that can facilitate learning in various settings (Koller, Harvey, & Magnotta, 2006).

In other words, the degree to which the instruction is centered on instructors, learners, or the content itself can vary depending on the specific technology-based instruction used. In some cases, an expert may deliver the material, in other cases, the learner may direct the training experience, and in some instances, the learner may interact directly with the content.

DeRouin, Fritzsche, and Salas (2004) suggested that technology-based instruction (TBI) is more demanding on learners than traditional methods. This is particularly true for older adults who may experience cognitive decline, including reduced cognitive speed, working memory capacity, and coordination skills. Therefore, adults (or older learners) may face additional challenges in adapting to TBI compared to younger learners. These findings highlight the importance of designing technology-based instructional materials that are accessible and accommodating to the needs of older learners.

Besides, while it is difficult to generalize about TBI due to the wide variety of methods used, TBI can pose challenges for trainees. This is because TBI often requires learners to perform a range of seemingly straightforward tasks that are interconnected and must be completed in order to advance in the training program, all while retaining the main learning material (Wolfson et al., 2014). In other words, TBI can be complex and demanding, requiring learners to multitask and integrate information in ways that can be difficult for some learners. As such, TBI must be designed carefully to ensure that it is accessible and effective for a diverse range of learners.

In short, with the increasing use of artificial intelligence (AI) and machine learning in instructional design, there is a risk of perpetuating biases and perpetuating inequality in learning outcomes. Therefore, it is essential to ensure that technology-based instruction is

designed in an ethical and inclusive manner that considers the diverse needs and backgrounds of learners.

2.2. The Importance of TBI in EFL Classes

Numerous researches discussed the use of technology in education and language learning. Isman (2012) and Aghaei et al. (2020) defined technology as the practical use of information in a particular field involving technical procedures, tools, devices, and human interaction. Moreover, technology merging, as defined by Gilakjani (2017), refers to using technology to enhance academic settings. Dockstader (2008) explained that technology merging can be used to allow students to complete tasks on computers rather than on paper. Using technology in education is essential in current times, according to Richards (2014), to meet the demands of technologically clever students.

In the same sense, Prensky (2008) described digital natives as being skilled and reliant on computers and Internet-based tools. Alsied and Pathan (2013) suggested that using technology in language learning can provide opportunities for students to practice and evaluate their language competencies, especially in EFL settings where opportunities may be limited.

Also, Günüç and Kuzu (2014) argued that technology can enhance learning engagement, while Lin (2009) discussed the use of well-prepared and organized tasks in language learning classes to improve learners' motivation. Hough et al. (2004) explained that computer-assisted communication can facilitate electronic communication among educators to improve professional development. Wenger et al. (2009) suggested that technology expands and reshapes how societies prepare and state borders and relations, which modifies the engagement, peripherality, and legality dynamics.

Additionally, Harmer (2007) argued that technology-based English language education tasks can enhance collaborative language learning and allow students to proficiently apply

language in communication. Furthermore, Gençlter (2015) noted that technology can provide students with rapid access to data and valid content.

Likewise, Freeman and Anderson (2011) suggested that technology makes education easy and offers educators proper education resources, presenting language learning experiences to the students' world. Wang (2017) and Altun and Khurshid Ahmad (2021) explained that technology is a crucial and vital part of the education and learning experience. Shyamlee and Phil (2012) noted that language education and learning approaches have been altered due to progress in technology. Gilakjani (2017) suggested that language education and learning approaches are altered due to technology development.

Overall, the authors agreed that using technology in education and language learning has many benefits, such as enhancing learning engagement, providing rapid access to data and valid content, and allowing for collaborative language learning. They also highlighted the importance of technology for educators to meet the demands of technologically clever students, improve professional development, and enhance language learning experiences.

2.3. Mobile-Assisted Language Learning

As digital media becomes increasingly available and accepted in people's daily lives. Ngọc Linh, Bạch Lê, and Tấn Tín (2020) assure that Mobile-Assisted Language Learning (MALL) has emerged as a promising approach to language education due to the rapid advancement of technology and widespread internet access. MALL involves using mobile devices, such as smartphones, tablets, and MP3 players, to support and integrate language skills. This technology-based approach allows learners to access learning materials and communicate with instructors and other learners anytime and anywhere. As a result, MALL has gained recognition as an effective language learning and teaching method that can enhance students' engagement, motivation, and autonomy.

Next, Kukulska-Hulme and Shield (2008) point out the difference between Mobile-Assisted Language Learning (MALL) and Computer-Assisted Language Learning (CALL) is the use of personal and portable devices, which allows for new language learning methods that prioritize accessibility and interaction in diverse contexts. Therefore, language educators and trainers must be equipped with the necessary skills to utilize mobile technology for effective language teaching. So, by understanding the potential of mobile devices and developing innovative language learning strategies, MALL can enable learners to engage with the language in more natural and authentic ways, which enhances their motivation and learning outcomes.

Also, Ogata and Yano (2005) illustrate five key features of MALL that require careful consideration include accessibility, interactivity, immediacy, permanency, and situating of instructional activities. To put it another way, MALL should be created in such a way that learners can easily access learning materials, interact with the content, receive timely feedback, easily access and review previously learned material, and relate the learning activities to their real-world situations. These elements can help MALL be more useful and interesting for language learners.

On one hand, the study of Wankel and Blessinger (2013) show that Students view their mobile devices as a fundamental aspect of their lives, which can motivate them to use these devices in unique ways to enhance their language learning experience. Additionally, the use of mobile technology empowers students by giving them a voice and a sense of community, leading to increased participation and motivation. Consequently, incorporating mobile technology in language learning can enhance the development and improvement of students' learning outcomes. Thus, leveraging the benefits of mobile technology, language educators can create an inclusive and engaging learning environment that fosters collaboration and encourages students to take an active role in their own learning.

On the other hand, Trinder (2017) argues, language research studies have not adequately addressed the issue of how learners decide to utilize mobile devices for language learning and the effectiveness of MALL in facilitating writing activities on small screens. There seems to be a gap in knowledge regarding the ways in which learners perceive and use mobile devices to support their language learning, particularly when it comes to writing activities that require a small screen. Therefore, there is a need for further investigation to explore the potential benefits and limitations of MALL for language learning, and to better understand how learners can optimize their use of mobile devices to support their language learning activities.

Still, MALL can primarily be utilized in four ways: firstly, as a means of providing learners with immediate access to content through video sharing platforms like YouTube. Secondly, MALL can be used to aid learners in reviewing previously learned language materials through the use of educational games like Kahoot. Thirdly, MALL can empower language students to create and curate their own personalized learning content. Finally, MALL can be used to promote collaboration among language learners, enabling them to share their learning experiences and work together on language-related projects (Pereira, 2015).

2.4. Computer-Assisted Language Learning

Computer-Assisted Language Learning (CALL) is a subject closely related to other areas of applied linguistics, such as autonomy, and to other branches of knowledge, including computer science. However, some CALL programs are not much more than mere tools that replicate traditional textbooks, teachers, or peers. To move beyond this traditional approach, it is essential to explore innovative applications and practices in CALL that take advantage of new technological opportunities for teaching and learning. (Beatty, 2013). Such innovative applications could revolutionize the way students learn new languages and encourage more autonomy and creativity in their learning process. Therefore, there is a need for CALL research

and practice to move beyond the traditional textbook-based approach and explore new possibilities that technology can offer in language learning.

In the same vein, Beatty (2013, p.7) defines CALL as “any process in which a learner uses a computer and, as a result, improves his or her language”. This statement refers to the concept of computer-assisted language learning (CALL) and the general idea that using technology can facilitate language learning and help learners improve their skills. However, it is a broad statement and lacks specific details on how technology can be used in language learning.

Similarly, Mohamed (2022) explains in one hand the advantages of CALL such as, providing valuable sources of materials, enhancing communication between teachers and learners, and enabling distance learning. It also offers tools for communication and collaboration, exposes learners to a wide range of resources, and facilitates the integration of authentic materials into language lessons. Plus, it provides learners with skills such as online communication, problem analysis, and negotiation of meaning, while improving their language skills, cultural knowledge, and understanding of the language.

Contrarily, the researcher lists a number of CALL’ disadvantages. For instance, the primary challenge is access to technology, as students must have computer and internet access, which may not be available or affordable for all. Additionally, content considerations, technical features, and pedagogical perspectives may pose challenges, and the use of technology may lead to decreased face-to-face interaction, less personal engagement, and increased social isolation. It may also lead to technical difficulties and require training for both teachers and learners. Therefore, while computer network technology has significant benefits, it is important to address these challenges and obstacles when incorporating it into language teaching and learning.

2.4.1 The Internet.

The emergence of the internet can be traced back to the early 1970s, marking a technological breakthrough that has revolutionized communication. Over the years, since 1973, the internet has demonstrated its efficiency and noteworthy contribution as a means of global interaction (Teeler & Gray, 2000). To put it simply, the internet has become an indispensable tool for international communication.

To start with, Teeler and Gray (2000) define the internet as a worldwide network that connects people and information through telephone lines and computers. The internet is also referred to as cyberspace, online community, and digital revolution, highlighting its effectiveness as a technology. Its ability to facilitate communication and the transmission of knowledge across the globe has made it a significant development in communication tools, comparable to the invention of the printing press. The internet has had a tremendous impact on individuals' lives, creating opportunities to improve living conditions. Essentially, the internet is a global collection of computer networks used for communication and exchanging information on a global scale.

In addition to, the internet offers a wealth of educational resources that can enhance the learning experience and provide access to a wide range of knowledge. It has proven to be a valuable tool for improving the teaching and learning process, with teachers utilizing online materials to supplement their instruction and facilitate student learning. In traditional classroom settings, students may have limited access to resources beyond what is provided by the teacher, but the internet offers a vast array of materials that can expand and enrich their learning opportunities (Teeler & Gray, 2000).

On top of that, Soliman (2014) reveal that The Internet plays a significant role in enhancing language learning skills among learners, especially in the four essential areas of

listening, speaking, reading, and writing. Improving language skills can be a challenging task, but the Internet provides a wide range of materials that can help learners achieve their language learning goals. The internet serves as a valuable source of language resources, enabling English learners to access useful materials and directly communicate with native English speakers, thereby facilitating language acquisition.

Last but not least, using the Internet both in and outside the classroom can benefit students greatly since it provides a vast amount of information with various media types, making it an authentic and engaging source for learning. As a result, teachers can utilize this advantage by creating lessons that incorporate the Internet and encouraging students to work collaboratively to solve linguistic problems and compare information (Teeler & Gray, 2000). Yet, relying too heavily on the internet for learning can detract from important in-person interactions and socialization opportunities in the classroom.

2.4.2 The World Wide Web.

The evolution of the World Wide Web (WWW) can be divided into three generations: web 1.0, 2.0, and 3.0. Web 1.0 was static and focused on hyperlinking. In contrast, web 2.0 introduced interactive features such as social media and videos, making it more complex. Web 3.0, also known as the semantic web, builds on the previous generations but is still an emerging concept. Unlike web 2.0, which is centralized and controlled by authorities, web 3.0 is decentralized, using technologies such as edge computing and peer-to-peer networks. Web 3.0 will incorporate Metaverse worlds to combine physical, verbal, and augmented realities, moving beyond social networking (Eye on Tech, 2022).

According to Jarvis (2002) web is divided into nondedicated web-sites and dedicated web-sites. Primarily, non-dedicated websites as those that do not cater specifically to language learners or teachers, and instead post authentic materials. Both students and teachers can access

these websites to gain knowledge about various topics. Hence, Carrier (1997) signifies that the purpose of using non-dedicated websites in language teaching is to enable students to understand and respond to authentic materials. The goal is for students to improve their reading and comprehension skills by engaging with real-world content found on these websites. By using non-dedicated websites, students can learn how to react and respond to genuine materials that they may encounter outside of the classroom, in real-life situations.

Contrarily, Scharle, Szabó, and Ur (2000) indicate that dedicated language learning websites provide information in a non-linear sequence, allowing students to choose which items they want to practice at their own pace. These websites offer instant feedback to students, who can monitor their own progress and identify areas that require extra attention. With the help of feedback, students can take responsibility for their own learning, as they are the only ones aware of their successes and failures. Dedicated language learning websites offer a personalized learning experience that allows students to work at their own pace and focus on their individual needs.

2.5. E-Learning and Foreign Language Learning

In the present day, there is an unprecedented technological revolution occurring globally, characterized by the rapid development and widespread utilization of technology. This technological revolution has transformed human lives by catering to their varied and numerous requirements, and providing an incredibly valuable resources and tools that can help in achieving a variety of objectives. Furthermore, technology provides easy access to all kinds of information.

The terms "E-learning" and "online learning" are commonly believed to have the same definition. According to Bates (2005, p.23), there is a distinction between e-learning and online learning. Although the terms "e-learning" and "online learning" are frequently used interchangeably, e-learning can refer to any type of computer-based or telecommunications-

based learning, while online learning specifically involves utilizing the Internet and the Web. The distinction between e-learning and online learning highlights the importance of considering a variety of computer-based and telecommunications-based tools when designing language learning programs.

As technology continues to develop, it is likely that e-learning will play an essential role in foreign language education can offer a wide range of tools and resources that may not be available in traditional classroom settings. Laachir (2019) indicate that e-learning is frequently utilized by students as it helps them develop various language skills, including communication and problem-solving skills in addition to the four language skills.

Moreover, he discusses that the majority of students, regardless of gender, age, and university level, prefer e-learning over traditional learning, especially in foreign language learning. E-learning provides various benefits, such as the flexibility to learn at their own pace and time, access to various resources, and collaborative learning opportunities. Students use different e-learning strategies, including e-books, social media, virtual classes, e-learning communities, and collaborative learning. Additionally, the study shows that students are highly satisfied with e-learning, which is often used by traditional learning students to bridge gaps in their education.

Nevertheless, having sufficient knowledge of how to use technological devices during e-learning is crucial because inadequate technical knowledge may have a negative impact on the quality and equality of the knowledge obtained. For example, Solak and Cakir (as cited in Laachir, 2019) found that “the absence of face-to-face interaction between the student and his instructor is one of the unpleasant characteristics of the foreign language learning through e-learning.”

2.5.1 MOOCS.

The term MOOC, which stands for Massive Open Online Course, was coined in 2008. Despite being a relatively recent concept, there is still some ambiguity regarding its definition. In 2013, the emergence of several courses that deviated from the traditional definition of MOOCs led to changes in the original definition. Some even question whether MOOCs are really courses or just an advanced version of textbooks. Essentially, MOOCs can be defined as online courses that are open to anyone, have no formal entry requirements, no limits on participation, and are free of charge (Sanchez-Gordon & Luján-Mora, 2014).

Previous studies have supported empirically the variability and the crucial role learner autonomy plays in Massive Open Online Courses. Littlejohn, Hood, Milligan, and Mustain (2016b) found that the learners who took a more open and flexible approach to MOOCs had to be more self-regulated in their learning since they did not view the MOOC as a traditional course with pre-established goals. They determined independently what content to engage with and evaluated their learning based on its relevance to their professional roles. This finding highlights the importance of recognizing the varied goals and motivations of MOOC learners, as well as the need to develop new forms of assessing learning outcomes in these contexts.

Indeed, MOOCs can offer a unique opportunity for learners to exercise proactive autonomy (Ding & Shen, 2019). This is evidenced by the participants' deliberate control over their learning content and their thoughtful selection of materials and tasks based on their personal needs and preferences. That is to say, the potential of MOOCs is to encourage learners' sense of engagement and ownership, which may result in more fruitful and significant learning results. However, it is important to keep in mind that not all students may be equally capable or motivated to exercise proactive autonomy and that the design and pedagogy of MOOCs may need to encourage students in acquiring these abilities.

2.5.2 Social Media.

Various social media platforms like Facebook, Snapchat, WhatsApp, Line, Instagram, Twitter and others have made communication and connection-building more accessible. These platforms enable individuals to link with strangers from across the globe and join groups for communication and collaboration purposes. The prevalence of social media in the lives of students have a positive impact on language learning. It has become an integral part of people's daily routines, and students are among the most frequent users of these sites. They use these platforms to update their followers on their daily activities, emotions, and expectations. In the digital age, students are highly engaged in various technology-assisted literacy activities outside of school, such as sending text messages, emailing, playing online games, and communicating through social networking sites (Zheng & Warschauer, 2017).

Correspondingly, Sari (2019) indicates that social media can serve as a useful tool to promote autonomous learning, leading to improved learning outcomes for students. Thus, it is recommended that social media be used as a means of encouraging students to develop their writing skills and fostering their creativity. Indeed, it can enhance student-centered learning and improve language complexity in education by facilitating collaborative activities and information exchange. L2 teachers can also use social media for interactive activities, and professional development and training are necessary for educators and students. in other words, social media provides opportunities for extensive reading and vocabulary learning. E-learning educationists should conduct awareness campaigns to promote the benefits of online learning, mobile learning, and mixed teaching (Muftah, 2022).

Although social media has been shown to have an inevitable positive effect on language learning and proficiency, some researchers are more focused on the potential negative effects of these networking sites on the interlanguage of L2 learners (Baldwin, 2012) because traditional teaching methods and learning techniques may not be effective for today's students

who are more likely to be resistant to them. Therefore, it is essential to use social media responsibly and teach students how to navigate the digital world safely and ethically. i.e., it is crucial to ensure that the its use is guided by appropriate guidelines and policies to mitigate potential risks associated with online learning.

2.5.3 Moodle.

Moodle is a widely recognized and used Learning Management System (LMS) with a global presence due to its open-source nature. It is favored by institutions with limited resources as it is readily available and customizable with add-ons and plugins to fit their specific needs. Moodle's success is attributed to its combination of strong pedagogical principles and continuous technological advancements. This has made it a flexible and personalized platform, which is widely accepted and applied across various regions (Manzanares et al., 2020).

Furthermore, Manzanares, Sánchez, and García-Osorio (2020) point out that Learning Management Systems (LMSs) like Moodle are collaborative digital environments. The later facilitate the development of metacognitive skills and enhance learning acquisition. These environments allow learners to construct conceptual and procedural content while providing mental scaffolding for task resolution. Additionally, hypermedia resources within LMSs promote Self-Regulated Learning (SRL) by enabling learners to plan, supervise, control, and reflect on their own learning practices. These approaches encourage learners to participate in their own learning processes, resulting in added motivation. However, to fully realize these benefits, a well-designed pedagogical plan is required for effective curricular planning. On the other side, a key objective of a modern university that strives to meet the demands of the 2030 Horizon is to ensure that teachers have access to user-friendly tools for monitoring student progress and performance.

Another research by Benadla and Hadji (2021) who argue that distance education serves as a means of supporting students who are unable to participate in traditional classroom settings

in attaining their academic goals. The core characteristics of distance education are adaptability, flexibility, and a focus on student-centered learning, which have the potential to foster greater student interaction through both synchronous and asynchronous technological tools.

2.5.4 YouTube.

Research indicates that video is a type of media that utilizes both visual and auditory components to communicate information, and can employ various modes of presentation, such as spoken language and images, including on-screen text and closed captioning (Mayar ,2001, as cited in Cruse, 2011) i.e., videos are a vital tool that can help bridge the gap between students and their target language. They serve multiple purposes in English as a Foreign Language (EFL) classes, e.g., aiding knowledge construction, facilitating and enhancing teacher activity, and accommodating diverse learning styles.

Besides, videos are beneficial to both learners who may encounter various obstacles in language learning and teachers who can utilize them as a comfortable and effective teaching aid. In the recent years, with the advancement of information and communication technology (ICT), video has become a popular alternative to traditional learning methods and occupies a significant role in the educational landscape. This is due to the abundance of educational resources that ICT offers, which can cater to the diverse needs of learners.

In their study Supendra and Amilia (2021) demonstrate that YouTube has become a popular learning tool for students to study various academic topics. Due to the outbreak of Covid-19, there has been a shift in how course material is delivered, and students are encouraged to increase their knowledge and understanding through learning platforms and applications. This has resulted in an increase in student autonomy and the use of online resources, particularly YouTube videos.

Despite that, challenges such as poor internet quality and limited data can decrease student motivation to learn from YouTube. Additionally, some learners may be hesitant to post comments due to their fear of making mistakes in English. In such cases, teachers can encourage students to create multiple drafts or seek help from peers, promoting collaborative learning.

In short, the use of social networking, including educational resources such as YouTube videos, should be encouraged for learning purposes. In particular, teachers delivering online lessons to students should take advantage of these tools. The role of textbooks in the future may be reduced or even eliminated, as YouTube videos offer powerful learning opportunities, especially for L2 learners who lack direct communication with native speakers. Authentic videos on YouTube channels can serve as an alternative way to promote language development in all skills (Trang, 2022).

2.6. Blended Learning.

Blended learning (BL) is a teaching model that combines face-to-face and online learning. Smith and Baber (2005, p.13) define it as a model that merges traditional classroom instruction with online learning. Likewise, Colis and Moonen (2001) define it as a combination of face-to-face and online learning. BL aims to overcome the limitations of traditional classroom and e-learning models by merging diverse learning approaches. Plus, it grants students greater autonomy, and the online part of BL allows flexibility of time and place. This helps in planning, preparing, and studying for students. Teachers also benefit from BL, as it provides opportunities for innovation and engagement using different mediums.

Further, Due to the Covid19 lockdown, BL and asynchronous learning in the digital environment were explored more than ever before. As institutions prepare to reopen, BL has evolved tremendously in a short time and will continue to be used as a teaching and learning

process. Evetually, the digitalisation of education has transformed face-to-face interactions, which are being rapidly replaced and the accelerated adoption of technology in education is well-received by the millennial digital native student force (Hasan, 2019).

In conclusion, the convenience and adaptability of online learning can be useful. Nevertheless, it might cause some students to be isolated and disconnected. Besides, incorporating technology into the classroom might occasionally cause distractions and a decline in attention span. Thus, to generate meaningful connections between students and teachers, foster a sense of community, and maintain high levels of motivation and engagement, blended learning must be carefully planned. To ensure that students feel engaged and supported throughout the learning process, this may entail utilising a range of instructional tactics, including project-based learning, collaborative activities, and frequent check-ins with students.

2.7. Flipped Classroom.

The flipped teaching method was introduced in 2012 by the two teachers Bergman and Sam. Initially, this approach was focused on students' homework and was not widely recognized. However, over time, it gained credibility among researchers and experts. Despite this new approach to teaching, the primary philosophy of the flipped teaching method is similar to that of traditional teaching methods. Both methods emphasize the importance of students' homework and their engagement with the material outside of the classroom (Izadpanah, 2022).

Moreover, flipped classroom or flipped learning, they both refer to the same instructional approach and generally used to describe the same approach to teaching and learning. Flipped learning is a teaching approach that involves reversing the traditional order

of a course's lecture and homework components; students watch brief video lectures or complete readings at home before class, and then use in-class time for more interactive and engaging activities such as exercises, projects, or discussions. This allows students to gain the

necessary knowledge before class, and then use class time to actively clarify and apply that knowledge with the guidance of their instructor. Besides, class time can be used for collaborative learning and mastery concept exercises to expand upon the content (Atef, 2015).

In his research, Izadpanah (2022) aimed to investigate how the implementation of flipped classrooms impacts the academic resilience, self-directed learning, and learner autonomy of EFL students. The findings show that flipped teaching can have a significant positive impact on academic resilience, self-directed learning, and learner autonomy. Based on the positive impact of flipped education on students' academic resilience, self-directed learning, and learner autonomy, it is recommended that teachers incorporate this teaching method in their classrooms. To support this, school principals should ensure that relevant resources on flipped education and the associated variables are readily available in the school's library for teachers to access.

2.8. Multimedia.

The definition of multimedia can vary depending on the individual's perspective. Generally, multimedia refers to computer programs that combine text with one or more of the following: audio, music, video, photographs, 3-D graphics, animation, or high-resolution graphics. Essentially, multimedia is any information presented in the form of audio, video, graphics or movies. A multimedia document contains at least one type of media element, in addition to plain text. By incorporating multiple forms of media, multimedia provides a rich and engaging experience for users (Grzeszczyk, 2016).

Multimedia has become an integral part of our daily lives, and it offers exciting and innovative opportunities for language teaching. Thus, it is recommended for teachers to incorporate multimedia into their lesson plans and assessments. The use of multimedia technology can be highly effective in teaching English to non-native speakers, and offers many

advantages over traditional teaching methods. These advantages include: increased student engagement, individualized learning, immediate feedback, and the integration of various media elements such as audio, video, and graphics (Pun, 2013).

The utilization of multimedia technology seems to offer many benefits. Nontheless, it is important to acknowledge that there may also be drawbacks. One of the main issues is the risk of over-reliance on multimedia, which can lead to its dominance in the classroom. Teachers should remember that multimedia is a tool to enhance learning, not replace their role in teaching. Some teachers may become overly dependent on multimedia, which can result in it taking over the teaching process (Grzeszczyk, 2016).

Finally, Using multimedia can simplify content and enhance teaching, but it may limit students' imagination and reduce abstract and logical thinking. This is evident in the reduction of students' reading abilities due to the use of sound and images, and the decrease in handwriting skills as a result of keyboard input. It is important to recognize that multimedia is only a tool and cannot replace the role of a teacher in the classroom (Patel, 2013).

Conclusion

In conclusion, this chapter has provided an overview of technology-based instruction (TBI) in the context of English as a Foreign Language (EFL) classes. The chapter began with a definition of TBI and highlighted its importance in EFL classes. It then explored different types of TBI, including mobile-assisted language learning, computer-assisted language learning, e-learning, blended learning, and flipped classroom. Additionally, the chapter

discussed the role of multimedia in TBI and the various tools and platforms that can be used to support TBI.

As technology continues to evolve, it is becoming increasingly important for teachers to incorporate TBI into their language instruction. By doing so, they can provide learners with

more opportunities to practice and improve their language skills in a more interactive and engaging manner. However, the success of TBI ultimately depends on the attitudes and perceptions of both teachers and learners towards its use. The next chapter will focus on the fieldwork of this study, which explores teachers' and learners' perceptions towards the use of TBI in promoting learners' autonomy.

Chapter Three: The Fieldwork and Data Analysis

Introduction

3.1. Review of Research Methodology

3.1.1. Research Method

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3.4. Teachers' Semi-Structured Interview

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Conclusion

Introduction

The fieldwork and data analysis chapter plays a crucial role in any research study as it provides a comprehensive overview of the research methodology employed and the subsequent analysis and interpretation of the collected data. This chapter serves as the backbone of the study, outlining the methods utilized to gather data, the tools employed, and the subsequent analysis techniques employed to draw meaningful conclusions. In this chapter, we will delve into the research methodology, including the research method and approach, the population and sample, and the data gathering tools utilized. Additionally, we will discuss the specific data collection procedures and techniques employed for classroom observation, students' questionnaire, and teachers' semi-structured interviews. Finally, we will present the data analysis techniques used and provide an interpretation of the findings. This chapter aims to provide a comprehensive understanding of the research process and shed light on the insights gained through data analysis.

3.1 Review of Research Methodology

This review includes the research method, research approach, population and sample of the study, and data-gathering tools.

3.1.1 Research Method.

The selection of a research methodology is influenced by the nature of the study. This research work attempted to collect data to investigate the use of TBI in enhancing learners' autonomy. Therefore, an exploratory method was chosen as it allowed for exploring and gaining insights into both teachers’ and learners’ perceptions of the use of TBI in fostering learners' autonomy. The exploratory method was deemed appropriate as it helped to attain the necessary results to determine the validity of the hypotheses. In summary, the choice of an

exploratory method was based on its suitability for the research questions and the need for an in-depth investigation into teachers' and learners' perceptions of TBI and its impact on learners' autonomy. Besides, this method is utilized throughout the study to ensure that the investigation uncovers the full range of participants' experiences and perspectives.

3.1.2 Research Approach.

The nature of a research study heavily influences the selection of its approach. According to Creswell and Creswell (2018, p. 40), a research approach encompasses the plans and procedures for research, including the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation. Three types of research approaches are identified: qualitative, quantitative, and mixed-method. Initially, quantitative research is deductive and seeks to examine and measure data in terms of frequency, amount, and numbers to establish and investigate relationships between variables. Next, qualitative research is inductive and attempts to explore and understand naturally occurring phenomena with an identification and description of its characteristics from multiple perspectives. Eventually, the mixed-method approach involves the integration of qualitative and quantitative data to fill gaps in research findings (Jonker & Pennick, 2010). Proper selection and implementation of the research approach facilitate the attainment of reliable and valid research findings.

Thus, the mixed method approach was adopted throughout the study. This approach gives equal priority to both quantitative and qualitative and uses each to the same degree; in addition, "the integration of qualitative and quantitative data yields additional insight the information provided by either the quantitative or qualitative data alone" (Creswell & Creswell, 2010, pp. 41-42). The chosen approach influences the selection of other methodological elements in the research process.

3.1.3 Population and Sample of the Study.

Subsequent to the previous methodological considerations, the next step in this research is to determine the appropriate population and sampling methods that align with the research goals and methodology. Sampling is a crucial aspect of any research, as it involves carefully selecting a relevant subset of individuals from the larger population to be studied (Igwenagu, 2016). Likewise, the choice of sampling technique depends on the study's objectives, purpose, and nature.

Respectively and due to the mixed method approach of the study, the non-probability convenience sampling technique was considered to be the most appropriate. This sampling method places importance on the availability and accessibility of specific subjects within the chosen population. Furthermore, the convenience sampling technique can be particularly beneficial when conducting exploratory research that may lead to the generation of new theoretical ideas (Bryman, 2012, p. 204).

Correspondingly, a classroom observation was carried out with four (04) EFL teachers in two different third-year groups in the same department. Plus, the overall number of attended sessions was six (6) sessions. As it is not possible to deal with all the learners, a sample of forty (40) 3rd-year students of English at Mohamed Kheider University were randomly chosen to participate in the study. The level of the students is purposefully selected because the researcher assumes that 3rd-year students have adequate proficiency level that allows them to use technology in foreign language learning. In addition to that, ten (10) teachers from the same department were interviewed and comprised the present investigation sample.

3.1.4 Data Gathering Tools.

The phase of instrumentation in data collection is an essential component of the research process, as it provides guidance and shapes the method for generating data. It is regarded as the foundation of research since it involves the systematic gathering and aggregation of pertinent data on the variables of interest to address the research questions, confirm or refute the hypothesis, and investigate the phenomenon under study (Kabir, 2016). The selection of appropriate tools for the study must be done carefully and accurately to ensure reliable and relevant results. As Kasper and Dahl (1991, p. 216) pointed out, the data collection process is "a more powerful determinant of the final product...if raw data are flawed because the instrument or observation procedure was inadequate, the repair is often not feasible, and the value of the study is questionable". Therefore, it is crucial to choose the most suitable instruments to ensure the accuracy and validity of the research findings.

In accordance with the mixed-method approach and the specific research questions formulated for our study, the researcher has chosen to utilize three data collection tools. These tools include classroom observation, a questionnaire to be completed by the students, and a semi-structured interview with the teachers. This combination of tools offers a diverse range of information and perspectives, which aid in obtaining a comprehensive understanding to fill in particular gaps in knowledge and get teachers' and learners' views regarding our research problem. The use of multiple data collection tools aligns with the mixed-methods approach, providing a more comprehensive and nuanced understanding of the phenomenon under study.

3.2 Classroom Observation

3.2.1 Aim of the Observation.

To further investigate the topic of interest, classroom observation was opted for as a first research instrument. As noted by Cohen (1997, as cited in Bassou, 2008), a classroom observation is effective in identifying behaviours such as autonomy. In other words, classroom observation is a powerful tool for gathering authentic data in real time, offering the researcher the chance to observe and document the learners' autonomous behaviour.

The aim of using this method was to gather genuine data that could help in understanding how students interact and whether they exhibit autonomy in their learning by utilising various techniques. Notably, it attempted to address the first research question: “are 3rd-year students at the Department of English autonomous learners?”. The goal was to determine whether students are self-directed in their learning or not; track their autonomy when learning English as a foreign language, as well as, to get a closer look at teachers’ practices to develop learners’ autonomy. It also aimed to provide information about the different materials used by the teacher. It is worth mentioning that in this study both teachers and students were targeted. The purpose was not to evaluate their performance, but rather to collect information on the degree of autonomy, motivation and engagement present in the observed classroom, and whether the classroom environment is conducive to the use of TBI.

3.2.2 Description of Classroom Observation.

Classroom observation provides valuable tasks and opportunities to collect data for reflection on the area of focus (Wajnryb, 1992; Wallace, 1991). In the present research, classroom observation was carried out using seven (07) sections. The first four sections include one to two checklist tables of a five-point scale; each table contains from three (03) to six (06)

items, the remained sections comprised open-ended questions; each of the last three sections encompassed three (03) questions except for the last section that ended with adding some notes. To start with, the first section was entitled learner autonomy and it was divided into two items,

the first one was about learner autonomy and the second was observation indicators which were initiation and collaboration. The second section tackled the teacher's support and it contained six (06) items. The next section was mainly for four (04) items that describe the classroom environment. Further, the following section contained five (05) items about the use of TBI. The last three sections were named teacher talk, learner talk, and finally overall observations.

3.2.3 Data Collection Procedure.

To collect the required data, we attended multiple sessions, the number of sessions was supposed to be nine (09) sessions, but due to time constraints only six (06) sessions were attained; three (03) sessions for the literature module and other three ones for writing module, the remained sessions were supposed to be for oral expression module and it was unfortunate to not be able to carry out the missed sessions. The choice of these modules gave us the opportunity to observe numerous behaviours that are related to autonomy. Initially, in the writing module learners were typically expected to produce written work independently. Secondly, in the literature module learners were expected to analyse and interpret literary texts independently. The aforementioned activities in both modules require a high level of autonomy. Eventually, in the oral expression module learners also are supposed to engage in group discussions, debates, and oral presentations.

The observation was carried out with four (04) EFL teachers in two different third-year groups at the Department of English, Mohamed Kheider University, Biskra. Five sessions started from "March 14th 2023" until "March 21st 2023", the last session was postponed until "May 2nd 2023" due to some circumstances. We opted for a longer observation period because

observing the concept of autonomy in the classroom requires adequate time. It is necessary to have enough time to determine if learner autonomy is incorporated into the learning strategies employed during classroom activities.

3.2.4 Data Analysis and Interpretation

Section One: Learner Autonomy

Table 3. 1

Learner Autonomy

Item	Frequency				
	Always	Usually	Sometimes	Rarely	Never
1-Do learners ask questions to clarify their understanding?	0%	50.00%	33.30%	16.70%	0%
2-Do learners seek help from peers before asking the teacher?	0%	33.30%	66.70%	0%	0%
3-Do learners use available resources to support their learning?	33.30%	33.30%	33.30%	0%	0%
4-Do learners participate in collaborative learning activities?	0%	83.30%	16.70%	0%	0%
5-Does the learner initiate work without prompting?	0%	16.70%	50.00%	33.30%	0%
6-Does the learner ask questions and seek clarification when needed?	0%	50.00%	50.00%	0%	0%
7-Does the learner contribute ideas and suggestions during class discussions?	0%	33.30%	33.30%	33.30%	0%
8-Does the learner participate actively in group work?	0%	83.30%	0%	16.70%	0%

9-Does the learner contribute to the success of the group?	16.70%	33.30%	33.30%	16.70%	0%
10-Does the learner respect the opinions and perspectives of others?	0%	100%	0%	0%	0%

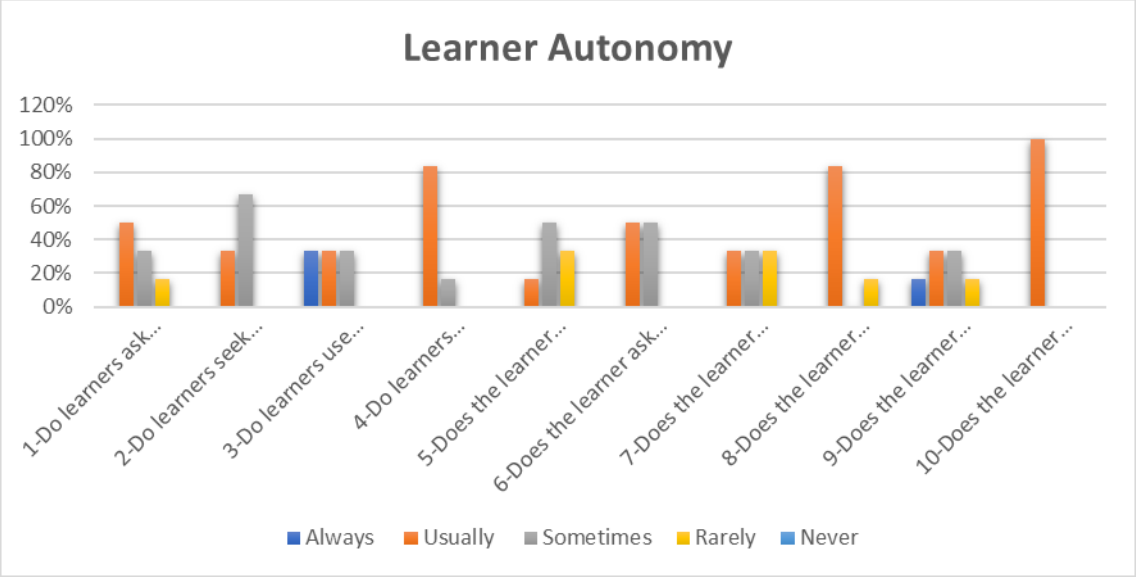

Figure 3. 1 Learner Autonomy

Based on the analysis of the classroom observation checklists on learner autonomy, we concluded the following:

1. **Questioning:** half of learners (50%) usually ask questions to clarify their understanding. However, there is also a significant portion who only sometimes (33.30%) or rarely (16.70%) ask questions.

2. **Seeking Help:** A higher percentage of learners (66.70%) sometimes seek help from their peers before asking the teacher. However, a notable portion (33.30%) usually seeks help from peers.

3. **Resource Utilization:** Learners show varied levels of resource utilization. A third of the learners always (33.30%) and usually (33.30%) use available resources to support their learning, while another third sometimes (33.30%) utilizes resources.

4. **Collaborative Learning:** The majority of learners (83.30%) usually participate in collaborative learning activities. However, a smaller portion (16.70%) only sometimes participates.

5. **Initiative:** Learners show mixed levels of initiating work without prompting. Some learners usually (16.70%) initiate work, while others sometimes (50.00%) or rarely (33.30%) take the initiative.

6. **Seeking Clarification:** Learners display a balanced approach to seeking clarification. Half of them usually (50.00%) ask questions and seek clarification when needed, while the other half sometimes (50.00%) do so.

7. **Contribution in Class Discussions:** Learners have a similar distribution of contributions during class discussions. Approximately one-third usually (33.30%) contribute ideas and suggestions, one-third sometimes (33.30%) contribute, and one-third rarely (33.30%) contribute.

8. **Active Participation in Group Work:** The majority of learners (83.30%) usually participate actively in group work, indicating a high level of engagement. However, a small portion (16.70%) rarely participates.

9. **Contribution to Group Success:** Learners show varied levels of contributing to the success of the group. A small percentage (16.70%) always contributes, while the majority usually (33.30%) or sometimes (33.30%) contribute. Another small portion (16.70%) rarely contributes.

Finally, the analysis indicates that while learners demonstrate certain aspects of learner autonomy, there is room for improvement in areas such as consistent questioning, resource utilization and consistent initiative. Encouraging more active participation, both individually and in groups, can enhance learner autonomy further.

Section Two Teacher Support

Table 3. 2

Teacher's Support

Item	Frequency				
	Always	Usually	Sometimes	Rarely	Never
1-Does the teacher encourage learner autonomy?	33.30%	50.00%	16.70%	0%	0%
2-Does the teacher provide opportunities for learners to practice autonomy?	50.00%	33.30%	16.70%	0%	0%
3-Does the teacher allow learners to make choices and decisions?	16.70%	83.30%	0%	0%	0%
4-Does the teacher provide resources for learners to support their autonomy?	0%	66.70%	33.30%	0%	0%
5-Does the teacher provide clear instructions and expectations for autonomous learning?	0%	50.00%	33.30%	16.70%	0%
6-Does the teacher use ICTs and different teaching aids?	16.70%	16.70%	16.70%	0%	50.00%

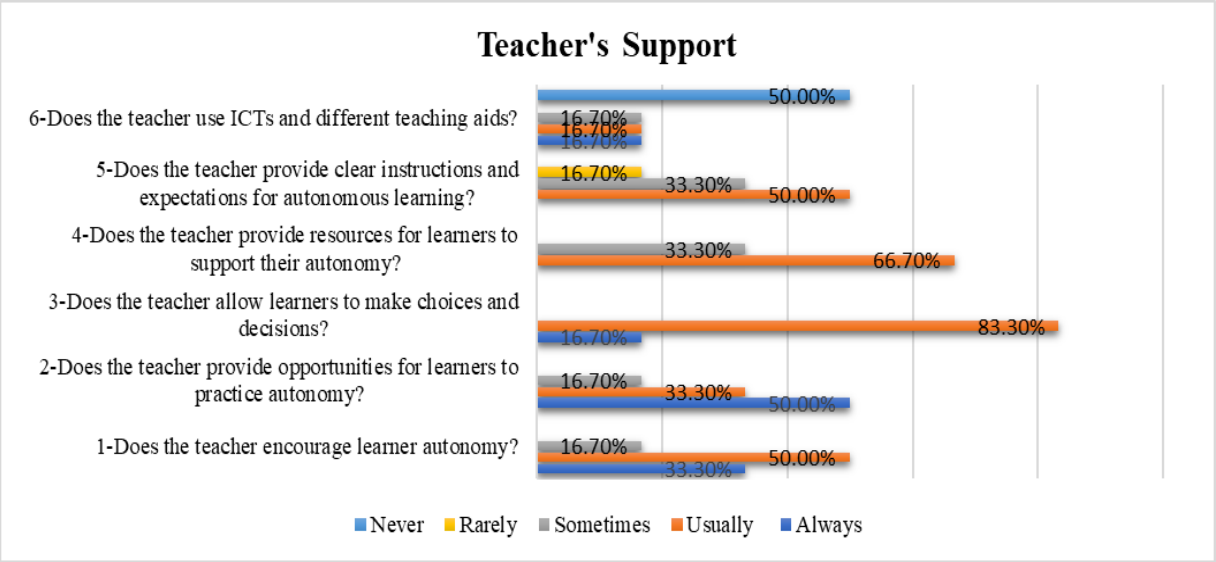

Figure 3. 2 Teacher Autonomy

Based on the analysis of the classroom observation checklists regarding teacher support for learner autonomy, it can be inferred that:

1. **Encouragement of Learner Autonomy:** The majority of teachers usually (50%) encourage learner autonomy, while a smaller portion always (33.30%) encourage it. There is also a teacher who sometimes (16.70%) encourages learner autonomy.
2. **Opportunities for Autonomous Practice:** Teachers provide opportunities for learners to practice autonomy, with half of the teachers always (50%) providing such opportunities. Additionally, a significant portion usually (33.30%) provides these opportunities, and one teacher sometimes (16.70%) does so.
3. **Allowance for Choices and Decisions:** Teachers generally allow learners to make choices and decisions, as the majority usually (83.30%) enables this. However, one teacher always (16.70%) allows learners to make choices and decisions.
4. **Provision of Resources:** Teachers typically provide resources to support learner autonomy, with the majority usually (66.70%) offering resources. Additionally, two teachers sometimes (33.30%) provide resources for learners.

5. **Clear Instructions and Expectations:** Regarding clear instructions and expectations for autonomous learning, half of the teachers usually (50%) provide them. However, there are also teachers who sometimes (33.30%) or rarely (16.70%) provide clear instructions and expectations.
6. **Use of ICTs and Teaching Aids:** The use of ICTs and different teaching aids varies among teachers. One teacher always (16.70%) incorporates ICTs and teaching aids, while another usually (16.70%) does so. One teacher sometimes (16.70%) uses them, but the majority never (50%) utilizes ICTs and teaching aids.

In summary, the analysis indicates that the observed teachers generally demonstrate a supportive attitude towards learner autonomy. They encourage autonomy, provide opportunities for autonomous practice, allow choices and decisions, and offer resources to support autonomy. However, there is room for improvement in providing clear instructions and expectations for autonomous learning, as well as incorporating ICTs and teaching aids more consistently. These areas can be further developed.

Section Three: Classroom Environment

Table 3. 3

Classroom Environment

Item	Frequency				
	Always	Usually	Sometimes	Rarely	Never
1-Do the classroom environment support learner autonomy? (Learner- centered)	0%	16.70%	16.70%	66.70%	0%
2-Is the classroom layout conducive to autonomous learning?	0%	16.70%	0%	83.30%	0%
3-Is there a variety of resources available to support autonomous learning?	0%	0%	16.70%	16.70%	66.70%

4-Does the classroom foster a sense of community and collaboration?	0%	0%	66.70%	33.30%	0%

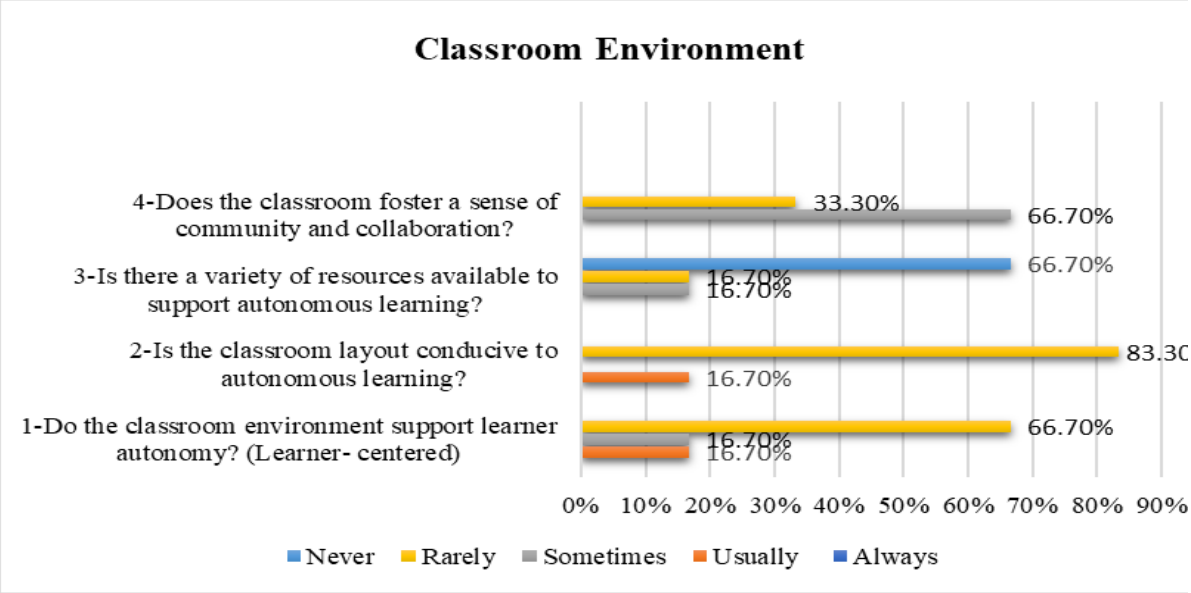

Figure 3. 3 Classroom Environment

Based on the analysis of the classroom observation checklists regarding the classroom environment and its support for learner autonomy, the following interpretations can be made:

1. **Supportive Classroom Environment:** The majority of classrooms rarely (66.70%) support learner autonomy in a learner-centered manner. There are also instances where the classroom environment sometimes (16.70%) or usually (16.70%) supports learner autonomy.
2. **Conducive Classroom Layout:** The classroom layout is rarely (83.30%) conducive to autonomous learning in most observed classrooms. However, in one instance, the classroom layout usually (16.70%) supports autonomous learning.
3. **Availability of Resources:** There is limited availability of resources to support autonomous learning in the observed classrooms. The resources are sometimes (16.70%) available in a few instances, rarely (16.70%) available in one instance, and never (66.70%) available in the majority of classrooms.

4. **Community and Collaboration:** The classroom environment demonstrates a mixed level of fostering a sense of community and collaboration. In most cases, it is observed that the classroom environment sometimes (66.70%) fosters such an atmosphere. However, in some instances, the classroom environment rarely (33.30%) fosters community and collaboration.

As a whole, the analysis reveals that the observed classrooms generally lack strong support for learner autonomy in terms of a learner-centred environment, conducive layout, availability of resources, and fostering a sense of community and collaboration. There is a need to enhance the classroom environment to better support learner autonomy by promoting learner-centeredness, arranging the classroom layout to facilitate autonomous learning, providing a wider range of resources, and fostering a stronger sense of community and collaboration among learners.

Section Four: Use of TBI

Table 3. 4

Us of TBI

Item	Frequency				
	Always	Usually	Sometimes	Rarely	Never
1-Does the teacher depend on technological tools as instructional materials?	33.30%	0%	33.30%	33.30%	0%
2-Do learners use their mobiles in the classroom?	33.30%	66.70%	0%	0%	0%
3-Does the teacher encourage learners to have access to the internet in the classroom?	66.70%	33.30%	0%	0%	0%
4-Do learners use their mobile devices or technologies used for educational purposes?	0%	100%	0%	0%	0%

5-Is the classroom equipped with ICTs?	0%	0%	0%	0%	100%

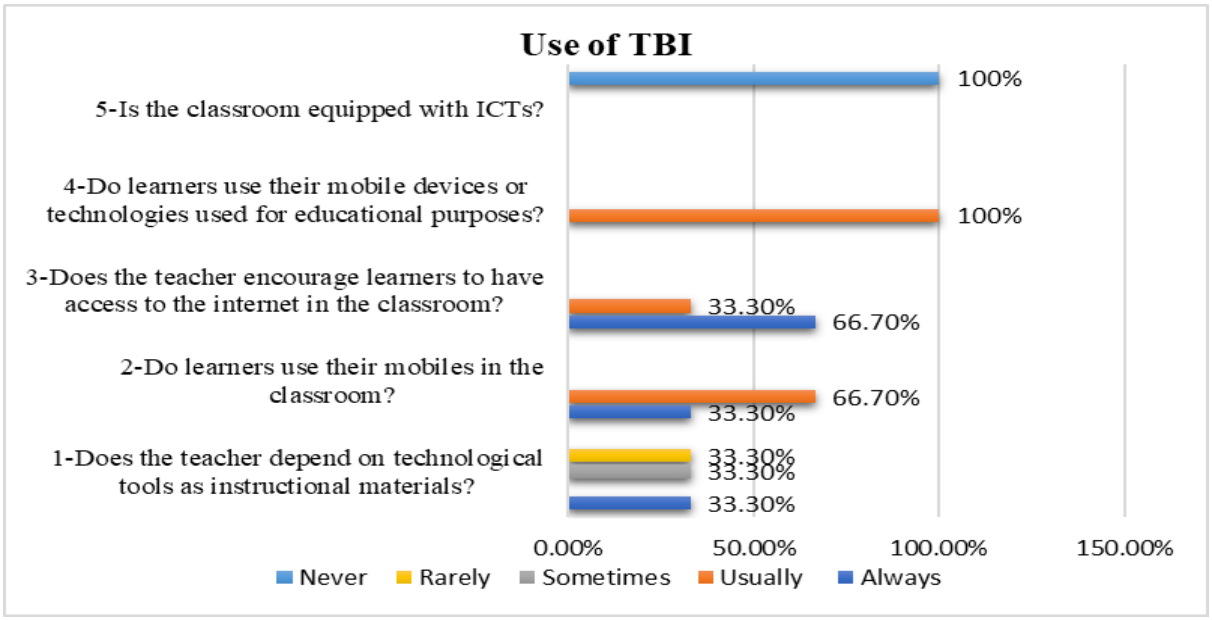

Figure 3. 4 Use of TBI

From the analysis regarding the use of Technology-Based Instruction (TBI), the following interpretations can be made:

1. **Dependence on Technological Tools:** Teachers show a balanced approach to the use of technological tools as instructional materials. An equal percentage of teachers always (33.30%), sometimes (33.30%), and rarely (33.30%) depend on technological tools for instruction.
2. **Use of Mobile Devices by Learners:** The majority of learners usually (66.70%) use their mobile devices in the classroom. Additionally, a significant portion always (33.30%) use their mobiles for educational purposes.
3. **Encouragement of Internet Access:** Teachers generally encourage learners to have access to the Internet in the classroom. The majority always (66.70%) encourages internet access, while the remaining teachers usually (33.30%) do so.

4. **Use of Mobile Devices for Educational Purposes:** All learners usually (100%) use their mobile devices or technologies for educational purposes. This indicates a high level of engagement with technology in the learning process.
5. **ICT Equipped Classroom:** Interestingly, all observed classrooms are never (100%) equipped with ICTs. This implies that the classrooms lack the technological framework to support TBI.

To summarise, while learners demonstrate a significant use of mobile devices for educational purposes and a positive attitude towards internet access, there is a lack of ICT equipment in the classrooms. This difference between the use of personal mobile devices and the absence of ICT infrastructure suggests a potential gap in integrating technology into the classroom setting. To fully leverage the benefits of TBI, it is important to consider equipping the classrooms with appropriate ICT resources and promoting more consistent use of technological tools for instruction.

Section Five: Teacher Talk

1. **Types of Questions:**
   - The teacher asks probing questions or dichotomous questions.
   - Both dichotomous (yes/no) questions and probing questions are used.
2. **Feedback on Questions:**
   - The teacher provides confirming feedback or reformulates the questions to make them clear and understood.
   - Timely feedback is given immediately after the student asks a question, providing guidance and support while the topic is still fresh.
   - Corrective, positive, and reflective feedback is given, aiming to help students correct their misunderstandings and encouraging them to explain their reasoning.
   - Peer feedback is also encouraged to gain different perspectives on their work.

3. **Directions:**

- Verbal directions are used by the teacher to explain the steps or tasks involved in completing an activity or assignment.
- The teacher provides step-by-step guidance and support during task engagement.
- Verbal instructions are given, along with task checklists outlining specific requirements for completing tasks.
- Specific examples mentioned include explaining the steps of writing a comparative essay and completing in-class activities.

Based on these observations, the identified themes include the types of questions asked, the feedback provided by the teacher, and the way directions are given. Additionally, there is a focus on peer feedback and providing step-by-step guidance during tasks.

Section Six: Leaner Talk

Clarification Questions: Students frequently ask clarification questions to seek further explanation and clear up any confusion they may have about the topic. This type of question is a common occurrence in both classrooms.

Comparison Questions: Some students ask comparison questions to understand the similarities and differences between different concepts or ideas. This type of question is observed alongside clarification questions.

Problem-Solving Questions: When encountering difficulties in completing a task, students ask problem-solving questions to seek assistance and guidance. These questions arise when students face challenges during their learning process.

Teacher-Student Interaction: The level of teacher-student interaction varies in the observed classrooms. In some instances, the teacher dominates the classroom, with students only speaking when prompted or when they have questions. In other cases, the teacher

provides room for students to express themselves, participating actively in the discussion. The teacher guides and corrects the students when necessary.

Learner Talk: While there may be variations in the level of learner talk across different variables, such as gender and age, the notes do not provide consistent information regarding these differences. In some instances, males are noted to be talking more, while in others, females are mentioned as the ones talking the most. The level of learner talk seems to depend on the individual students and their engagement with the topic.

All in all, from this thematic analysis, it is suggested that students in both classrooms actively engage in asking questions for clarification, comparison, and problem-solving purposes. The teacher's role varies in terms of their dominance or facilitation of student participation, but they consistently guide and correct students throughout the learning process.

Section Seven: Overall Observation

The following analysis of the observation notes shows that:

1: Strengths of Learner Autonomy

a) Motivated and Collaborative Learners: The learners in both classrooms appeared motivated and engaged. They actively participated in discussions and worked collaboratively with each other, demonstrating a sense of autonomy in their learning process.

b) Smooth Discussions and Independence: Learners were able to have smooth discussions amongst themselves without the constant intervention or interpretation of the teacher. This indicates their ability to independently communicate and exchange ideas, fostering learner autonomy.

c) Sense of Collaboration and Teamwork: Learners displayed good collaboration and teamwork, particularly evident in the plays they performed. The teacher noted their

motivation and confidence, along with their openness to constructive criticism, which signifies a supportive and autonomous learning environment.

d) Teacher Facilitation: The teacher played a crucial role in promoting learner autonomy by facilitating discussions, encouraging learners to freely express their thoughts and beliefs, and giving them the floor to share their ideas. This supportive approach allows learners to feel unrestricted and promotes learner autonomy.

2: Challenges or Areas for Improvement in Promoting Learner Autonomy

a) Absence of ICT and Technological Resources: Both classrooms lacked technological resources, such as access to ICT tools or a reliable internet connection. This hindered the integration of technology into the learning process and limited the opportunities for learners to utilize digital resources for autonomous learning.

b) Traditional Teaching Methods: The teaching and learning methods in both classrooms appeared to be predominantly traditional, which restricted the promotion of learner autonomy. There was a need for a shift in the teacher's understanding of creating an autonomous environment through teaching practices.

c) Limited Language Proficiency: Many learners demonstrated limited knowledge and vocabulary, indicating a lack of exposure to the English language outside the classroom. This suggests a potential challenge in fostering learner autonomy, as language proficiency plays a crucial role in independent learning.

d) Encouraging Self-Reliance and Peer Support: In both classrooms, there was room for improvement in promoting learner autonomy by encouraging self-reliance and peer support. Allowing students more time for reflection and providing opportunities for them to rely on their own abilities can contribute to their autonomy.

3: Use of Mobile Phones and Limited Technological Aids

a) Mobile Phone Usage: The teacher encouraged learners to use their mobile phones to access information related to the topics discussed in the classroom. This utilization of mobile devices provided learners with a wider view and the ability to independently gather information, promoting learner autonomy.

b) Limited Technological Tools: Despite the encouragement to use mobile phones, the overall classroom environment had limited technological aids. The absence of functional plugs and appropriate lighting, as well as broken windows, hindered the use of ICT tools, such as projectors, to enhance learner autonomy.

In general, the observation notes indicate a mix of strengths and areas for improvement in promoting learner autonomy in the observed classrooms. While there were signs of motivation, collaboration, and facilitation by the teacher, the limited integration of technology and traditional teaching methods presented challenges to fostering learner autonomy. Recommendations include increasing access to ICT resources, encouraging self-reliance and peer support, and promoting language proficiency outside the classroom to enhance learner autonomy further.

3.3 Students' Questionnaire

3.3.1 Aim of Students' Questionnaire.

The second research instrument opted for in the current study is a questionnaire. The questionnaire is a widely used data collection instrument that allows for the collection of large amounts of data from a significant number of participants in a relatively short period of time. Precisely, a questionnaire can be described as a written instrument that comprises a series of questions or statements that respondents are required to answer either in their own words or by selecting responses from the options provided (Brown, 2001).

The primary purpose of this questionnaire is to assess the perspective of EFL students on the use of TBI in improving their autonomy in language learning. Further, it aims to determine the level of familiarity of students with the concept of autonomy and if they consider themselves autonomous learners. It also seeks to identify the factors that EFL students believe can enhance their ability to learn autonomously. The questionnaire was addressed to third-year students at the Department of English, who possess a sufficient level of proficiency to use technology in language learning and were chosen as the appropriate sample. To obtain in-depth and relevant results, the questions were carefully selected to provide valuable and necessary data to enhance the current study.

3.3.2 Description of Students' Questionnaire.

The questionnaire for this study was specifically created to gather information from forty (40) third-year EFL students at Biskra University. The students' questionnaire commences with a concise introduction that outlines the objective of the study, emphasizing the significance of the participants' responses. In addition to definitions of key terms which are: autonomy, ICT, and Technology-based instruction (TBI), followed by instruction on how to answer the questions. It was composed of three sections that included a mix of different types of questions. Some questions were close-ended where the participants were required to provide dichotomous responses (i.e., "yes" or "no"), while others required them to select the most suitable answer from a series of provided options. Also, there were open-ended questions that asked the students to explain, specify, or justify their responses; as well as, two tables with Likert scales.

To start with, section one aimed at finding out the personal background information of our sample through five (05) simple independent questions. Section two was about learner autonomy. It comprised five (05) questions and yet, the fifth one is a table of five (05) point

Likert scale with twelve (12) questions. Moreover, the third section was mainly for asking about the perception of EFL learners towards the integration of TBI to enhance their autonomy. It has composed of four (04) questions; however, the fourth question was in the form of five (05) point Likert scale table with twelve (12) statements. Finally, the fourth section was dedicated to further suggestions. Unfortunately, this section was ignored by most of the participants.

3.4.1 Administration of Students' Questionnaire.

This questionnaire has been administered to forty (40) third-year EFL students on the same day. the distribution of students' questionnaires took place on April 30th, 2023 at the Department of English, Mohamed Kheider University, Biskra. The questionnaire has been distributed all at once; on the same day when all third-year groups had the same lecture in the Amphi theatre and it has been answered immediately. Both teachers and students welcomed the administration of the questionnaire and were cooperating willingly. The process went smoothly and students did not face difficulty or ambiguity except for their unfamiliarity with the term autonomy.

3.4.1 Data Analysis and Interpretation.

Section 1 : Personal Information

Item1. What is your age?

Table 3. 5

Students' Age

Age	Number (N)	Percentage (%)
20	16	40.0%
21	15	37.5%
22	6	15.0%
23	3	7.5%
Total	40	100%

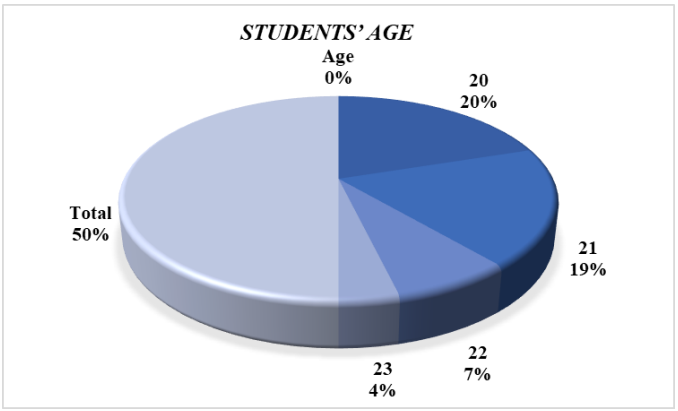

Figure 3. 5 Students' Age

Based on the data collected from the students' responses, it is evident that a significant proportion of the respondents, accounting for 40% or 16 students, fall into the 20-year-old age category. This finding aligns with expectations for third-year students who typically fall within this age range. Additionally, a considerable number of respondents, comprising 37.5% or 15 students, are 21 years old, indicating a sizeable representation from this age group as well.

Furthermore, the data reveals that there are 6 students (15%) aged 22, highlighting a smaller but still notable presence from this age cohort. Lastly, a minority of the respondents, comprising only 7.5% or 3 students, are aged 23 years old. These findings suggest that the majority of EFL students participating in the study are relatively young and belong to a generation that is technologically knowledgeable. They are likely to be familiar with and exposed to technology through various means, such as watching movies or exploring the internet.

In summary, the data provides insights into the age distribution of EFL students and suggests that the majority of participants in the study are young individuals who are part of a generation that embraces technology and interacts with it regularly, which may have implications for their language learning experiences.

Item 2. What is your gender?

Table 3. 6

Students' Gender

Gender	(N)	(%)
Male	9	22.5%
Female	31	77.5%
Total	40	100%

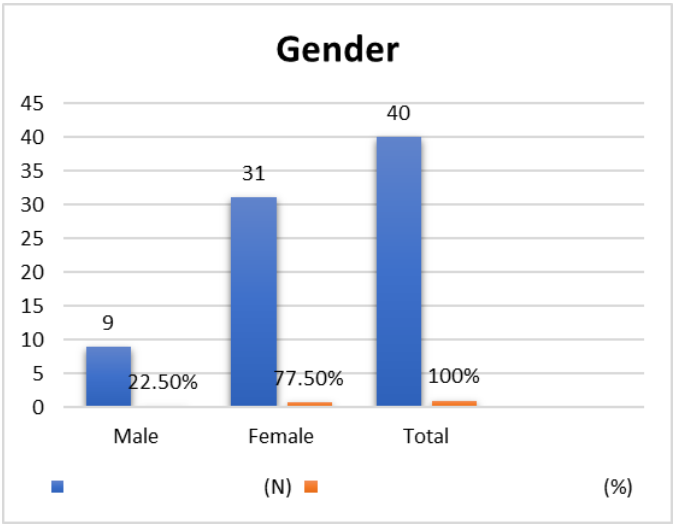

Figure 3. 6 Students' Gender

The table and the figure above indicate a noticeable gender imbalance within the sample, with a significant difference in the number of females compared to males. Approximately 80% (31 individuals) are females and only 22.5% (9 individuals) are males. This suggests that the study predominantly focuses on females, while males generally tend to lean towards or prefer non-literary branches or fields.

Item 3. How long have you been studying English?

Table 3. 7

Students' Duration of their English Language Studies.

Years	(N)	(%)
7	1	2.5%
9	4	10.0%
10	31	77.5%
11	2	5.0%
12	2	5.0%
Total	40	100%

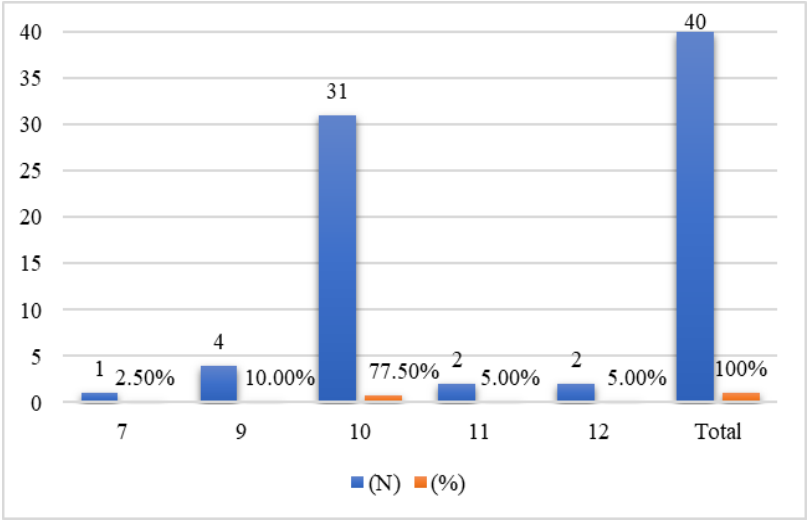

Figure 3. 7 Students' Age

Based on the data above, it can be seen that the majority of the students (77.5%) have been studying English for 10 years. This could indicate that they have had a significant amount of exposure to the English language and may have developed a good level of proficiency.

Only a small proportion of students (2.5%) have been studying English for 7 years, which may suggest that they are relatively new to the language and may require additional support to develop their skills.

Interestingly, there are also a few students who have been studying English for longer than 10 years. (5%) students have studied for 11 or 12 years and (10%) have studied for 9 years. Overall, the findings suggest that the students in this research have varying levels of experience with the English language, which could impact their ability to use technology for autonomous learning.

Item 4. What is your current level of English proficiency?

Table 3. 8

Students' Current Level of English Proficiency

Level	(N)	(%)
Beginner	1	2.5%
Intermediate	24	60.0%
Advanced	15	37.5%
Total	40	100%

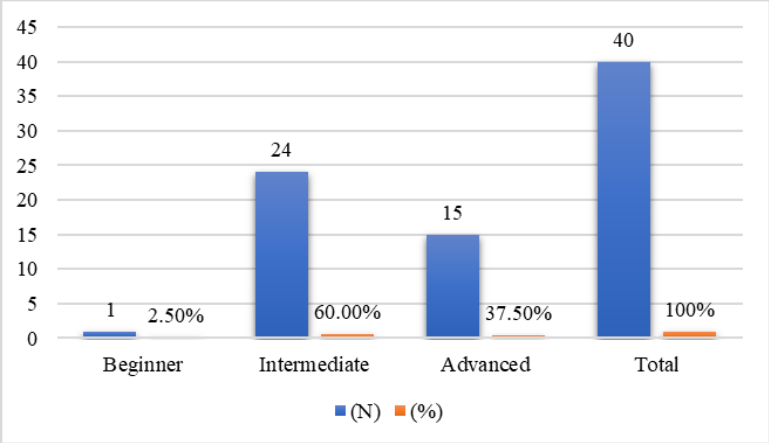

Figure 3. 8 Students' Level

As it is noticed in the previous table and figure, it can be observed that the majority of the students (60%; 24 students) have an intermediate level of English proficiency. This suggests that they have a moderate command of the English language and are capable of engaging in basic conversations and understanding written texts with some effort.

A significant proportion of students (37.5%; 15 students) have an advanced level of English proficiency. This indicates that they have a higher level of competence in the language, possessing the ability to express themselves fluently and understand complex texts with relative ease.

Only a small portion of students (2.5%; 1 student) reported being at a beginner level of English proficiency. This student may be at the early stages of language learning and might require more support and guidance to improve their language skills i.e., they are required to improve their mastery level to meet the requirements of their degree.

In short, the distribution of English proficiency levels among the students provides insights into their readiness and potential for autonomous learning using technology,

highlighting the importance of considering their proficiency level when designing interventions or providing support in this research context.

Item 5. Why are you studying English?

Table 3. 9

Reason for Studying English

Reason	(N)	(%)
Personal choice	37	92.5%
Administrative choice	3	7.5%
Total	40	100%

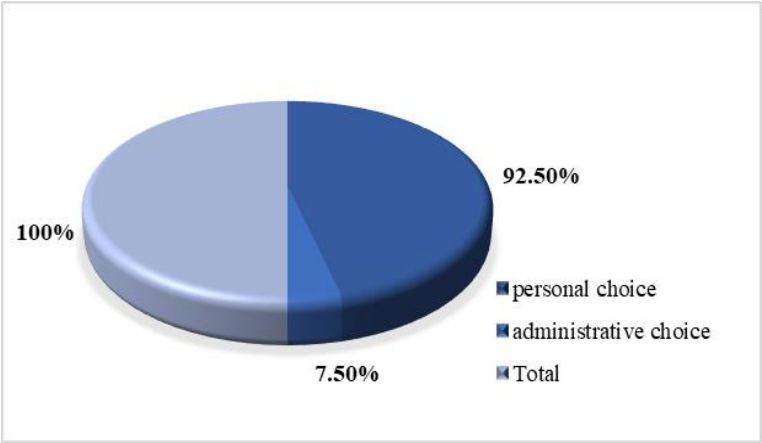

Figure 3. 9 Reasons of Studying English

Based on the data provided, it is evident that the overwhelming majority of students (92.5%; 37 students) state that their reason for studying English is their personal choice. This indicates a high level of intrinsic motivation and interest in learning the language. When students choose to study English voluntarily, it suggests that they have a genuine desire to improve their language skills and engage in the learning process actively.

On the other hand, a small proportion of students (7.5%; 3 students) indicate that they are studying English due to an administrative choice. This suggests that their decision to study English may be driven by external factors, such as institutional regulations. It is possible that these students may not have the same level of interest or personal motivation as those who chose to study English voluntarily. Their lack of enthusiasm might affect their level of engagement and potential for autonomy in the language learning process.

In summary, the data highlights the significance of intrinsic motivation and personal choice in studying English. Students who study English based on their own interests are more likely to exhibit motivation, determination, and potential for autonomy. Conversely, students who are studying English due to administrative reasons may have lower levels of interest and may require additional support and encouragement to foster their engagement and autonomy in the language learning process.

Section 2: Learner Autonomy

Item 6. Are you familiar with the notion of autonomy?

Table 3. 10

Students' Familiarity with the Notion Autonomy

Yes/No	(N)	(%)
Yes	31	77.5%
No	9	22.5%
Total	40	100%

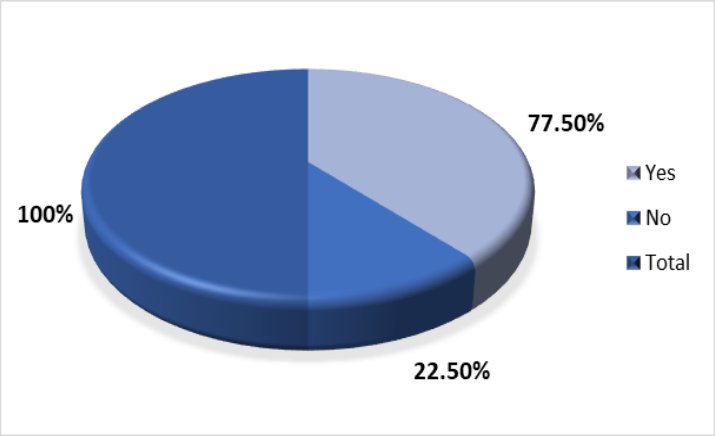

Figure 3. 10 Familiarity with the Notion Autonomy

As the table and the figure display, it can be observed that a greater part of the students (77.5%; 31 students) are familiar with the notion of autonomy. This indicates that they have some understanding or knowledge of what autonomy means in the context of their language learning.

The fact that a significant proportion of students are familiar with the concept of autonomy suggests that they may have been exposed to discussions or teachings about learner autonomy in their English language learning journey. This familiarity with autonomy could

have been gained through classroom instruction, independent research, or previous exposure to related concepts.

On the other hand, a smaller proportion of students (22.5%; 9 students) indicate that they are not familiar with the notion of autonomy. This suggests that these students may have limited exposure or understanding of what autonomy means in the context of language learning. Overall, the data suggest a varying degree of familiarity with the notion of autonomy among the students.

Item 7. Do you consider yourself an autonomous learner?

Table 3. 11

Autonomous learners

Yes/No	(N)	(%)
Yes	34	85.0%
No	6	15.0%
Total	40	100%

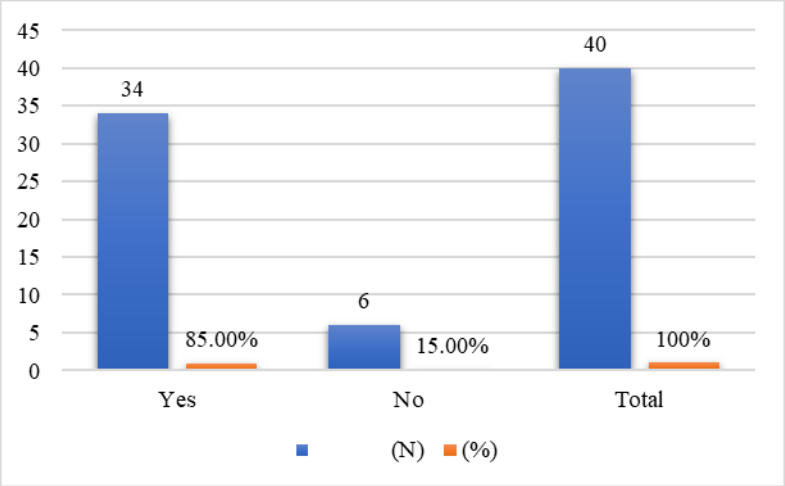

Figure 3. 11 Autonomous Learners

Based on the data presented above, the dominant number of students (85.0%; 34) consider themselves autonomous learners. This indicates that a significant proportion of the participants perceive themselves to have a certain level of self-direction and control over their learning process. On the other hand, a smaller proportion of students (15.0%; 6) do not consider themselves as autonomous learners. This implies that a few participants may perceive their learning process as more dependent on external factors, such as teacher guidance or traditional instructional methods. While a significant number of students already perceive themselves as autonomous learners, it is important to address the requirements of individuals who do not

identify themselves as autonomous learners. Providing appropriate support, guidance, and resources to promote autonomy can help these students develop the necessary skills and mindset for self-directed learning.

In conclusion, the data indicate that the majority of the participants in the study perceive themselves as autonomous learners. However, it is crucial to address the needs of students who do not consider themselves autonomous learners and provide them with the necessary support to foster their autonomy in the learning process.

Item 8. Why? Or why not?

Table 3. 12

Addressing Students' Opinions

Justification	(N)	(%)
1- Independent from the teacher; seeing the teacher as a guide and not the only source of information	8	26%
2- Prefer group work	1	3%
3- Not familiar with the term autonomy and relying on the teacher	3	10%
4- Feeling comfortable when studying alone	4	13%
5- The Responsibility of learning; preference of self-motivation/ self-reliance/ self-learning using the internet	15	48%
Total	31	100%

Note. Self-Perceived Autonomy in Learning: An Exploration of Students' Opinions that Were Thematically Analysed.

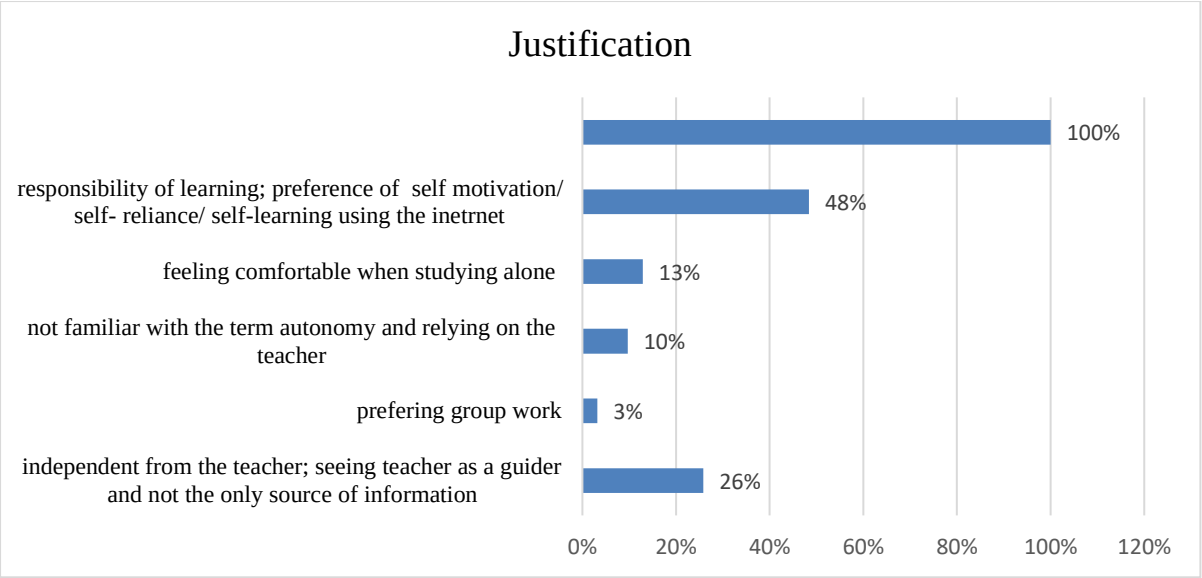

Figure 3. 12 An Exploration of Students' Opinions that Were Thematically Analysed

Based on the data presented in the table and the figure above, students' opinions regarding autonomy can be categorized into five key justifications. Firstly, a significant portion of students (26%; 8 students) expressed a desire to be independent from the teacher and viewed the teacher as a guide rather than the sole source of information. This suggests a preference for a more self-directed approach to learning.

Secondly, a small percentage of students (3%; one student) indicated a preference for group work. This implies that collaboration and interaction with peers are valued as important components of their learning experience.

Thirdly, a few students (10%; 3 students) mentioned not being familiar with the term "autonomy" and relying on the teacher for guidance. This highlights a potential lack of awareness or understanding of the concept of learner autonomy among this group of students.

Fourthly, a notable proportion of students (13%; 4 students) reported feeling comfortable when studying alone. This indicates a preference for individual learning and suggests that some students may thrive in independent study environments.

Lastly, the majority of students (48%; 15 students) emphasized the responsibility of learning and expressed a preference for self-motivation, self-reliance, and self-learning using Internet resources. This reflects a strong tendency towards taking ownership of their learning process and utilizing technology to enhance their autonomy.

Item 9. What do you prefer?

Table 3. 13

Students' Preferences

Options	(N)	(%)
Traditional education	7	17.5%
Educational technology	5	12.5%
Both	28	70.0%
Total	40	100%

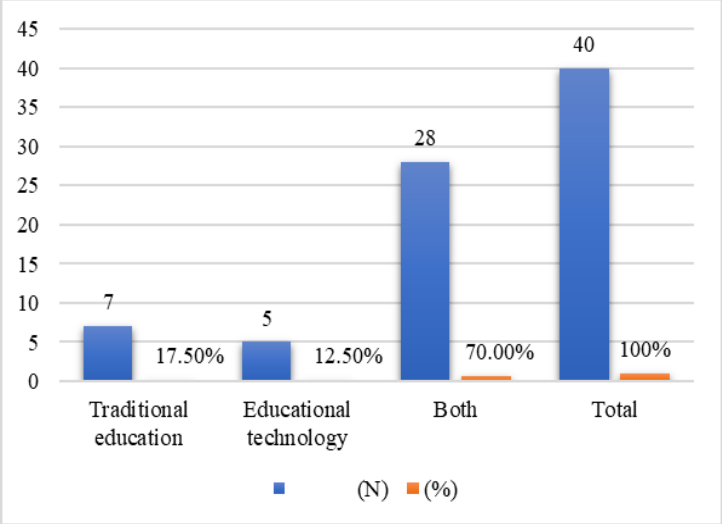

Figure 3. 13 Students' Preferences

The data shown in the table and the figure, assert that students' preferences regarding the mode of education can be categorized into three options: traditional education, educational technology, or a combination of both.

A small proportion of students (17.5%; 7 students) expressed a preference for traditional education, indicating a preference for conventional teaching methods and face-to-face classroom interactions. Moreover, a slightly lower percentage of students (12.5%; 5 students) indicated a preference for educational technology, suggesting an inclination towards utilizing digital tools and resources in their learning process. Plus, the majority of students (70.0%; 28 students) expressed a preference for both traditional education and educational

technology, indicating a desire for a blended approach that combines traditional teaching methods with the use of technology. This suggests an openness to integrating technology into their learning experience while still valuing the benefits of face-to-face instruction.

Overall, the findings demonstrate that a significant number of students prefer a combination of traditional education and educational technology. This highlights the importance of adopting a blended learning approach that incorporates both traditional and technological elements to enhance their learning experience and promoting autonomy.

Item 10. How important do you think learner autonomy is for academic success? why?

Table 3. 14

The Importance of Learner Autonomy for Academic Success

Importance of autonomy	(N)	(%)
1- Makes the learner responsible and self-reliant	9	32%
2- Crucial for accomplishing academic success / daily life tasks	7	25%
3- Increases self-awareness and creativity	4	14%
4- Develops language learning skills	3	11%
5- Motivates the learner to know more and to do further research	5	18%
Total	28	100%

Note. Students' Points of View on the Importance of Autonomy for Academic Success that Were Thematically Analysed.

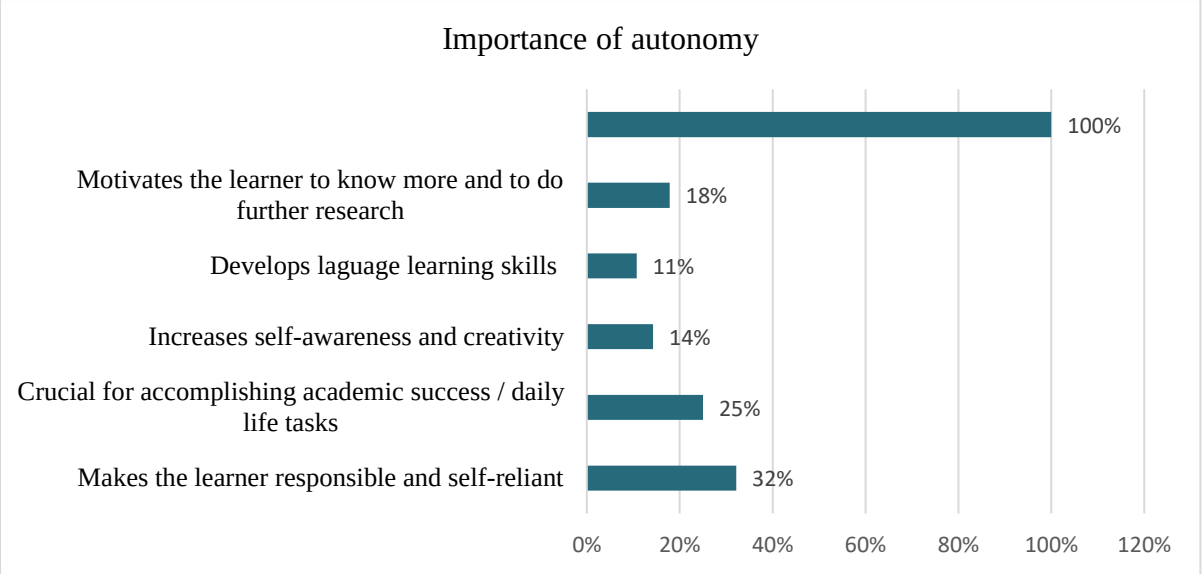

Figure 3. 14 Students' Points of View on the Importance of Autonomy for Academic Success.

Analyzing the data presented in the table and the figure on the importance of learner autonomy for academic success, several themes emerged from students' viewpoints.

The majority of students (32%;9 students) expressed the belief that learner autonomy is important because it makes the learner responsible and self-reliant. This indicates that they perceive autonomy as a way to foster independence and develop the ability to take ownership of their learning process. Further, a substantial portion of students (25%;7 students) highlighted the crucial role of learner autonomy in accomplishing academic success and daily life tasks. This suggests that they recognize autonomy as a key factor in achieving success not only in their academic pursuits but also in their everyday responsibilities.

A smaller percentage of students (14%; 4 students) emphasized that autonomy enhances self-awareness and creativity. This indicates their recognition of autonomy as a catalyst for self-reflection, personal growth, and the development of creative thinking skills. Some students (11%; 3 students) identified the development of language learning skills as an important outcome of learner autonomy. This suggests that they perceive autonomy as a means to improve their language proficiency and fluency. Additionally, a notable number of students

(18%; 5 students) emphasized that autonomy serves as a motivator for further knowledge acquisition and research. This implies that they view autonomy as a driving force that stimulates curiosity and encourages them to engage in independent learning beyond the classroom.

Lastly, the findings indicate that students recognize the significance of learner autonomy for academic success. They associate autonomy with increased responsibility, self-reliance, accomplishment of tasks, self-awareness, creativity, language skill development, and motivation for continuous learning. These insights highlight the multifaceted benefits of fostering learner autonomy and its positive impact on students' academic achievements.

Item 11. How often do you use the following statements?

Table 3. 15

Frequency of Usage of the Following Statements

Item	Frequency				
	Always	Usually	Sometimes	Rarely	Never
1- Do you ask questions to clarify your understanding?	20.00%	30.00%	40.00%	7.50%	2.50%
2-Do you seek help from peers before asking the teacher?	10.00%	27.50%	40.00%	20.00%	2.50%
3-Do you self-evaluate your learning?	27.50%	0%	27.50%	10.00%	7.50%
4-Do you use available resources to support your learning?	22.50%	47.50%	17.50%	10.00%	2.50%
5-Do you participate in collaborative learning activities?	12.50%	17.50%	35.00%	22.50%	12.50%
6-Do you participate actively in group work?	30.00%	20.00%	25.00%	20.00%	5.00%

7-Do you assess your own learning progress?	22.50%	20.00%	30.00%	15.00%	12.50%
8-Do you seek feedback and use it to improve your work?	22.50%	37.50%	22.50%	12.50%	5.00%
9-Do you contribute ideas and suggestions during class discussions?	25.00%	22.50%	30.00%	20.00%	2.50%
10-Does the teacher provide resources to support your autonomy? E.g., online courses and quizzes, e-books, videos, websites, etc.	7.50%	30.00%	32.50%	22.50%	7.50%
11-Do you depend on your teacher?	7.50%	35.00%	27.50%	25.00%	5.00%
12-Do you take ownership of your learning?	32.50%	37.50%	17.50%	5.00%	7.50%

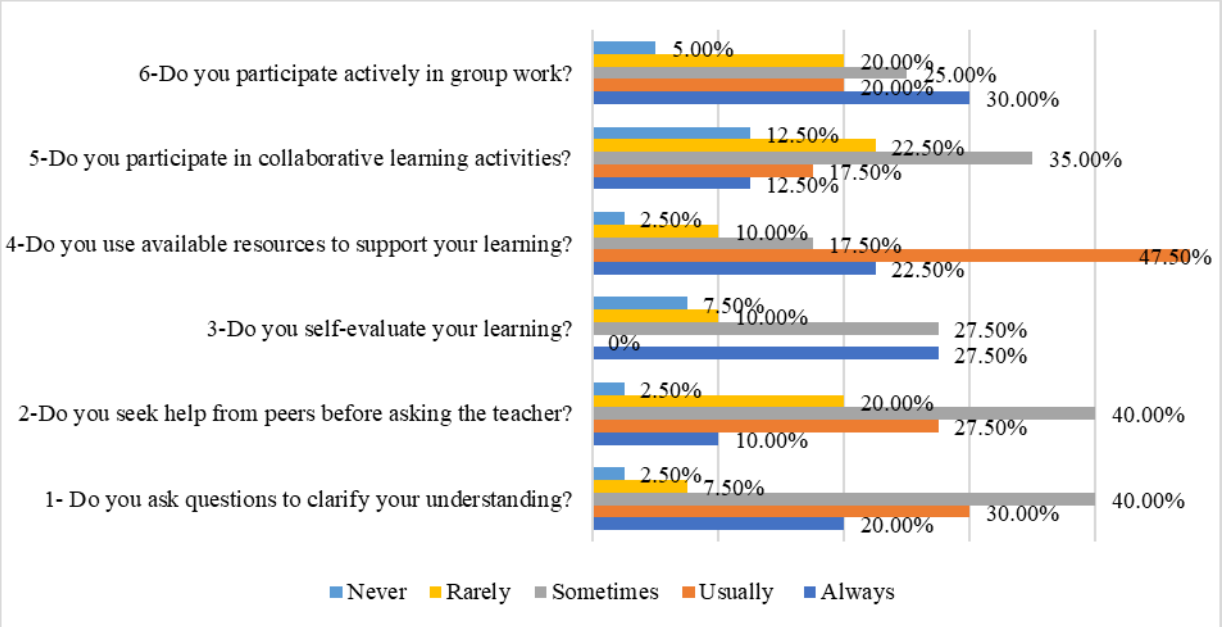

Figure 3. 15 Frequency Distribution of Statement Usage, Part One.

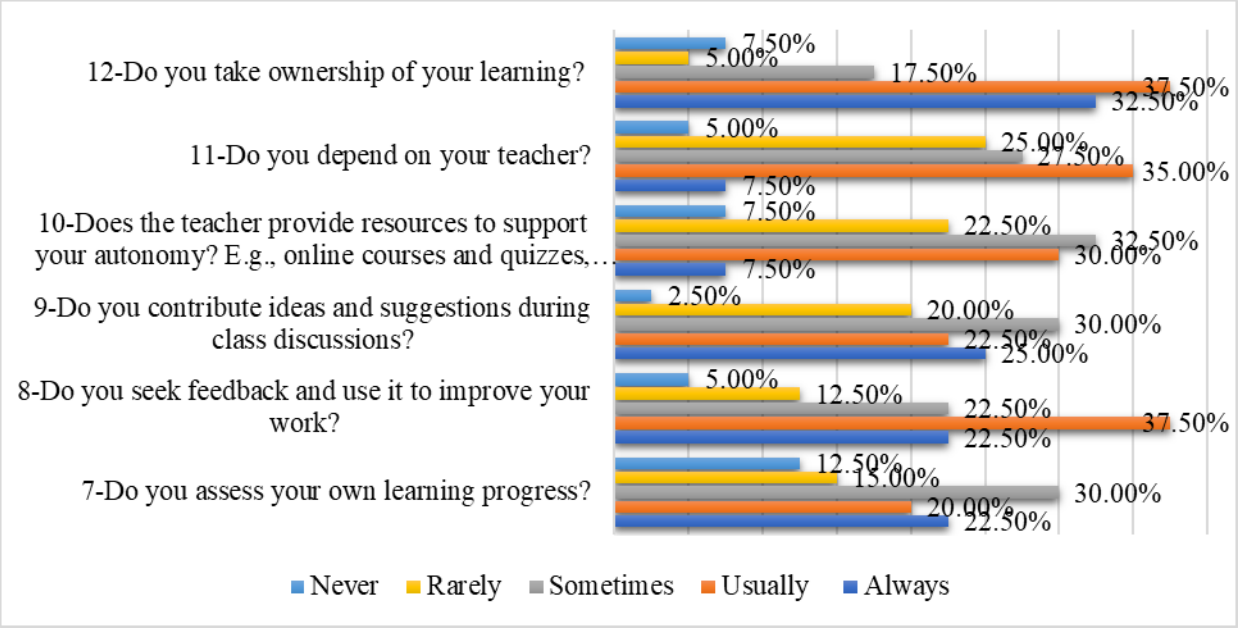

Figure 3. 16 Frequency Distribution of Statement Usage, Part Two.

Analysis and Interpretation of Usage Frequencies for Different Statements

1. Do you ask questions to clarify your understanding?

The majority of students (70%) reported that they sometimes (40%) or usually (30%) ask questions to clarify their understanding. This indicates a proactive approach to learning and a willingness to seek clarification when needed. A smaller proportion of students reported always (20%) asking questions, while a few students (7.5%) rarely or never ask questions.

2. Do you seek help from peers before asking the teacher?

A significant number of students (67.5%) reported usually (27.5%) or sometimes (40%) seeking help from their peers before approaching the teacher. This suggests a reliance on peer support and collaboration in the learning process. Only a few students (10%) reported always seeking help from peers, while a small proportion (2.5%) never seeks help from peers.

3. Do you self-evaluate your learning?

Approximately 55% of students reported always (27.5%) or usually (27.5%) self-evaluating their learning. This demonstrates a proactive attitude towards monitoring one's own progress

and performance. A smaller proportion of students (37.5%) reported sometimes self-evaluating, while a few students (17.5%) rarely or never engage in self-evaluation.

4. Do you use available resources to support your learning?

A majority of students (70%) reported usually (47.5%) or always (22.5%) using available resources to support their learning. This highlights a proactive approach to accessing additional materials and tools for enhancing their understanding. A smaller proportion of students (27.5%) reported sometimes using resources, while a few students (12.5%) rarely or never utilize them.

5. Do you participate in collaborative learning activities?

The majority of students (57.5%) reported sometimes (35%) or usually (17.5%) participating in collaborative learning activities. This indicates a willingness to engage in group work and benefit from collaborative learning experiences. A smaller proportion of students (30%) reported always participating, while a few students (12.5%) rarely or never participate in such activities.

6. Do you participate actively in group work?

A significant number of students (75%) reported usually (20%) or sometimes (25%) participating actively in group work. This suggests an active involvement and contribution to group activities. A smaller proportion of students (30%) reported always participating, while a few students (5%) never actively participate in group work.

7. Do you assess your own learning progress?

A majority of students (70%) reported usually (20%) or sometimes (30%) assessing their own learning progress. This demonstrates a sense of self-awareness and the ability to reflect on their own learning. A smaller proportion of students (22.5%) reported always assessing, while a few students (15%) rarely or never engage in self-assessment.

8. Do you seek feedback and use it to improve your work?

The majority of students (60%) reported usually (37.5%) or sometimes (22.5%) seeking feedback and using it to improve their work. This indicates a willingness to receive input and make necessary improvements. A smaller proportion of students (22.5%) reported always seeking feedback, while a few students (17.5%) rarely or never seek feedback.

9. Do you contribute ideas and suggestions during class discussions?

A significant number of students (57.5%) reported sometimes (30%) or usually (22.5%) contributing ideas and suggestions during class discussions. This demonstrates active participation and engagement in classroom interactions. A smaller proportion of students (25%) reported always contributing, while a few students (2.5%) neve

10. Does the teacher provide resources to support your autonomy?

A small proportion of students (37.5%) reported usually (30%) or sometimes (32.5%) receiving resources from their teacher to support their autonomy. This suggests that teachers play a role in providing additional materials and tools to enhance student autonomy. However, a significant number of students (30%) reported that the teacher rarely provides such resources, while a few students (7.5%) reported never receiving resources for autonomy.

11. Do you depend on your teacher?

The majority of students (62.5%) reported usually (35%) or sometimes (27.5%) depending on their teacher. This indicates that students rely on their teacher for guidance and support in their learning process. However, a significant proportion of students (25%) reported relying on the teacher rarely, and a few students (7.5%) reported never depending on the teacher.

12. Do you take ownership of your learning?

A majority of students (70%) reported usually (37.5%) or always (32.5%) taking ownership of their learning. This demonstrates a proactive attitude and a sense of responsibility towards their own learning process. However, a small proportion of students (22.5%) reported sometimes taking ownership, while a few students (12.5%) reported rarely or never taking ownership.

Last but not least, the findings suggest that students exhibit varying levels of engagement and autonomy in their learning process. While a significant proportion of students demonstrate autonomy by seeking help from peers, self-evaluating their learning, utilizing resources, and actively participating in group work, there are still students who rely on the teacher and require more support to develop autonomy. The provision of resources by teachers can play a crucial role in supporting students' autonomy, but further attention is needed to encourage students to take greater ownership of their learning.

Item 12. Which device do you use for learning? (You can tick more than one option)

Table 3. 16

Devices Used for Learning: Multiple Options Allowed

Devices	(N)	(%)
Smartphone	20	50.0%
Laptop	5	12.5%
Smartphone and laptop	14	35.0%
Smartphone and tablet	1	2.5%
Total	40	100%

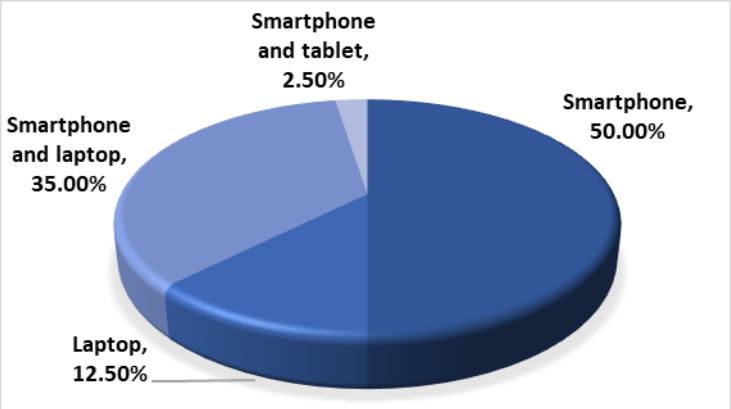

Figure 3. 17 Devices Used for Learning

The table and the figure display the devices used by students for learning purposes. A significant number of students (50.0%) use smartphones for learning purposes. This indicates the prevalence and convenience of smartphones as a device for accessing educational resources

and engaging in learning activities. Additionally, a smaller proportion of students (12.5%) reported using laptops, while a considerable portion (35.0%) utilize both smartphones and laptops for their learning needs. The usage of smartphones and tablets together was reported by only one student (2.5%).

The high percentage of students using smartphones for learning suggests that mobile learning has become increasingly popular and accessible. The portability and versatility of smartphones allow students to engage in learning anytime and anywhere, making it a convenient option for self-directed learning and accessing digital resources. The presence of laptops and the combination of smartphones and laptops further indicate the importance of larger screens and more robust computing capabilities for certain learning activities.

This data highlights the need for educational institutions and instructors to recognize and support the use of mobile devices, particularly smartphones, in the learning process. Providing mobile-friendly resources, optimizing content for different devices, and integrating mobile learning strategies can enhance the learners' experiences and serve their preferences.

Item 13. Do you think that the English department is equipped with enough technological materials?

Table 3. 17

Assessing Technological Resources in the English Department

Yes/No	(N)	(%)
Yes	5	12.5%
No	35	87.5%
Total	40	100%

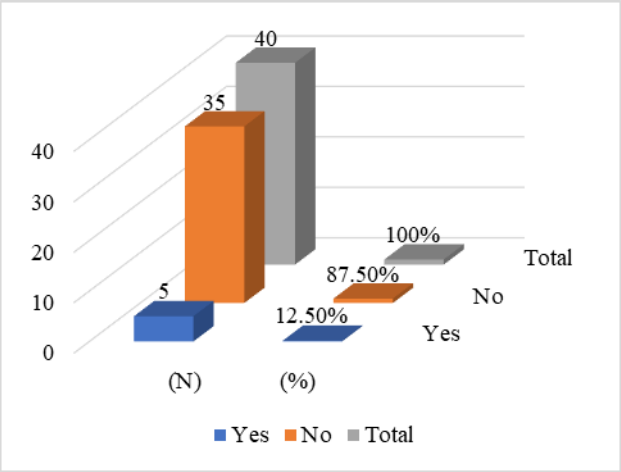

Figure 3. 18 Assessing Technological Resources in the English Department

The table and the figure present the responses of the students regarding whether they believe the English department is equipped with enough technological materials. Out of the total sample of 40 students, only a small proportion (12.5%; 5 students) indicated that they think the English department is adequately equipped with technological materials. In contrast, the majority of students (87.5%; 35 students) expressed the opinion that the department does not have sufficient technological resources. This data suggests that the students perceive a lack of technological materials in the English department. These results highlight the potential need for improvement and investment in technology resources within the department. It indicates that students may desire access to more advanced technological tools and resources to support their learning and engagement with the English language. It is important for the English department to take these perceptions into consideration and assess the availability and accessibility of technological materials. By addressing this concern, the department can better

meet the needs and expectations of the students, enhance their learning experiences, and promote the integration of technology in English language education.

Section 3: Perception of EFL Learners Towards the Integration of TBI to enhance their autonomy.

Item 14. How often does the teacher use ICTs and different teaching aids?

Table 3. 18

Teacher's Utilization of ICTs and Teaching Aids: Frequency Analysis

Frequencies	(N)	(%)
Sometimes	32	80.0%
Never	8	20.0%
Total	40	100%

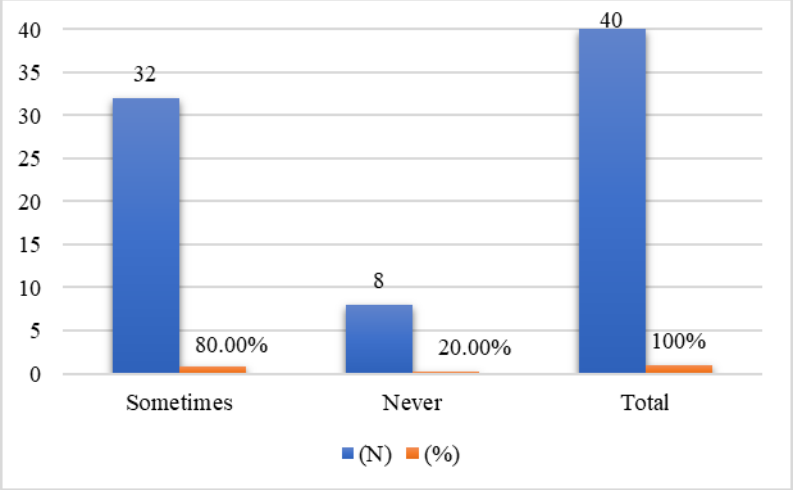

Figure 3. 19 Teacher's Utilization of ICTs and Teaching Aids: Frequency Analysis

The majority of students (80%) reported that the teacher sometimes utilizes ICTs and different teaching aids in their instruction. This suggests that the teacher incorporates technology and various resources into their teaching practices to some extent. However, a notable portion of students (20%) indicated that the teacher never uses ICTs or teaching aids. This may imply a potential limitation in terms of incorporating technology and diverse instructional materials in the classroom. It could be beneficial for the teacher to further explore and integrate ICTs and teaching aids to enhance the learning experience and meet the diverse needs of the students.

Item 15. Please indicate the extent to which you agree or disagree with the following statements

Table 3. 19

Assessing Agreement with Statements

Item	Scale				
	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1-I feel overwhelmed or distracted by technology in the classroom.	37.50%	10.00%	32.50%	17.50%	2.50%
2-I use technology for learning purposes.	17.50%	5.00%	5.00%	22.50%	50.00%
3-I feel more empowered and independent in my earning when I use digital tools and resources.	7.50%	12.50%	17.50%	17.50%	45.00%
4-Incorporating multimedia resources into my learning routine positively impacts my progress.	2.50%	15.00%	30.00%	25.00%	27.50%
5-Integrating technology into my learning process allows for greater self-direction and autonomy.	5.00%	15.00%	17.50%	25.00%	37.50%
6-Managing my learning process with E-learning resources feels effortless and efficient.	0.00%	17.50%	35.00%	22.50%	25.00%
7-Technology use enhances my autonomy in learning inside and beyond the classroom.	2.50%	20.00%	12.50%	40.00%	25.00%
8-Using technology in learning enables me to have more control over my progress.	10.00%	15.00%	27.50%	22.50%	25.00%

9-Motivation is heightened when technology is integrated into my learning experience inside and beyond the classroom.	12.50%	15.00%	20.00%	37.50%	15.00%
10-Technology use and blended learning improve my language skills more effectively than traditional methods.	7.50%	20.00%	20.00%	20.00%	32.50%
11-I feel more confident and in control of my learning process when using technology to facilitate my learning.	5.00%	10.00%	15.00%	30.00%	40.00%
12-Technology-based instruction is crucial for success in academic and professional pursuits.	7.50%	10.00%	27.50%	32.50%	22.50%

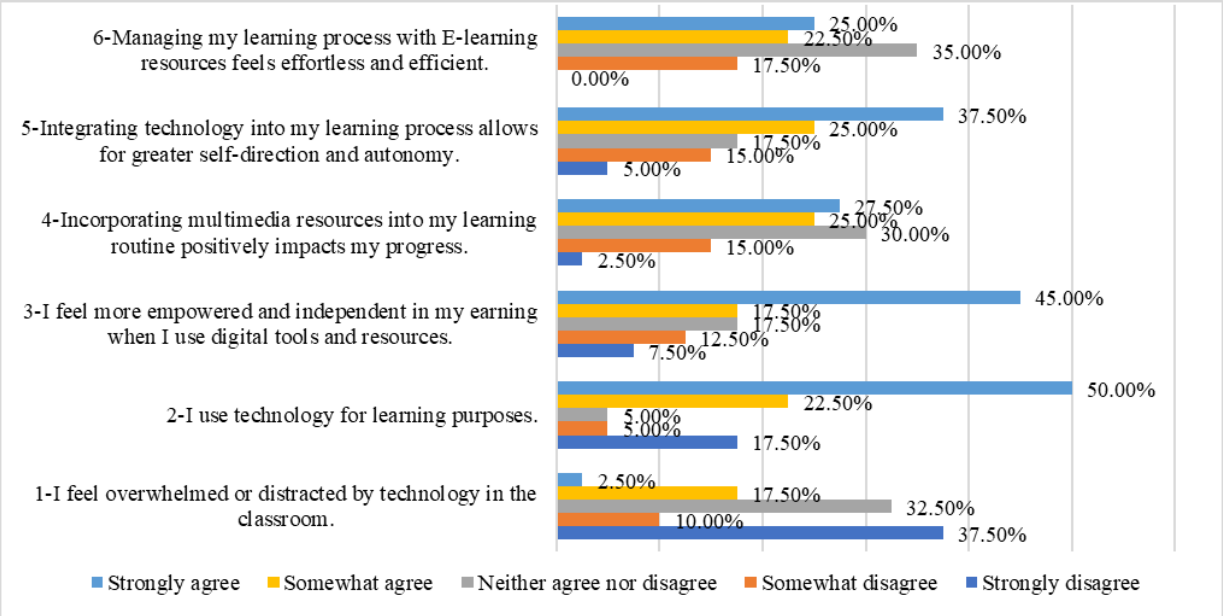

Figure 3. 20 Agreement Levels with the Mentioned Statements, Part One.

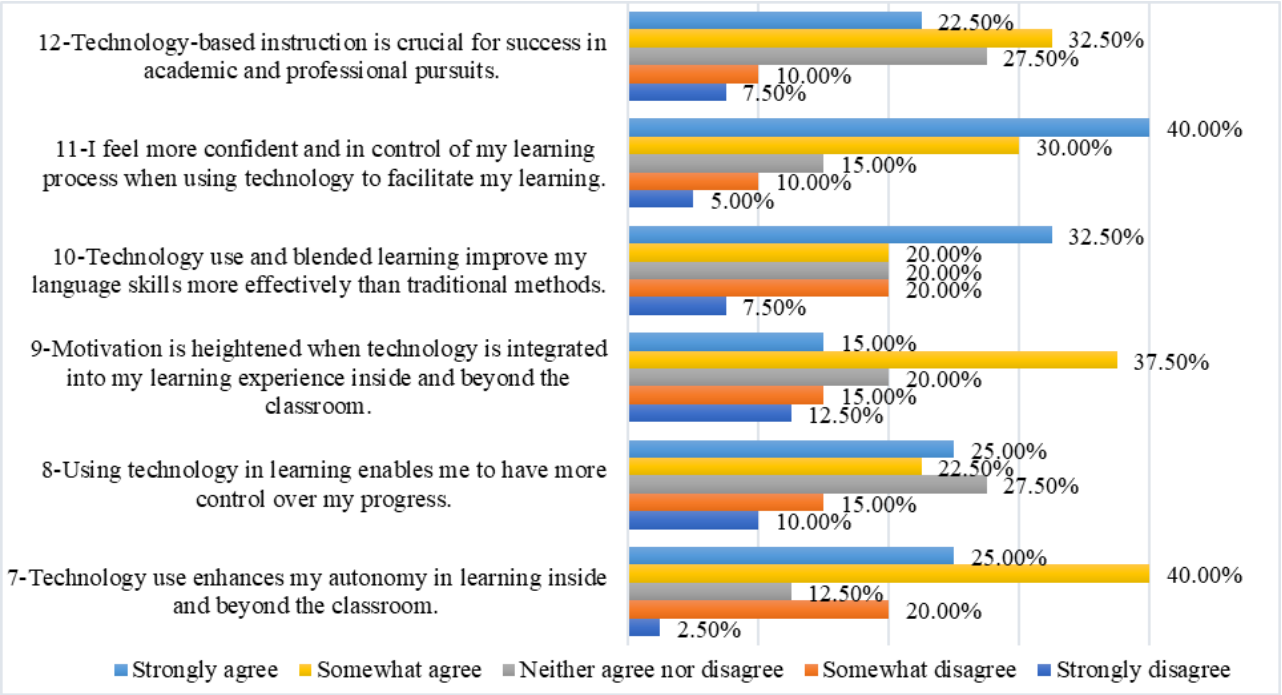

Figure 3. 21 Agreement Levels with the Mentioned Statements, Part Two.

1. "I feel overwhelmed or distracted by technology in the classroom."

The majority of students (47.50%) either strongly disagree or somewhat disagree that they feel overwhelmed or distracted by technology in the classroom. A significant portion (32.50%) neither agrees nor disagrees, indicating a neutral stance. Only a small percentage (20%) agrees, with 2.50% strongly agreeing.

2. "I use technology for learning purposes."

A significant majority of students (72.50%) either somewhat agree or strongly agree that they use technology for learning purposes. Only a small percentage (10%) disagrees, with 5.00% somewhat disagreeing and 5.00% neither agreeing nor disagreeing.

3. "I feel more empowered and independent in my learning when I use digital tools and resources."

The majority of students (62.50%) either somewhat agree or strongly agree that they feel more empowered and independent in their learning when using digital tools and resources. A smaller

percentage (20%) disagrees, with 7.50% strongly disagreeing and 12.50% somewhat disagreeing.

4. "Incorporating multimedia resources into my learning routine positively impacts my progress."

Students' opinions are divided on the impact of incorporating multimedia resources into their learning routine. While a significant portion (52.50%) agrees that it positively impacts their progress (25% somewhat agree and 27.50% strongly agree), a notable percentage (17.50%) disagrees (2.50% strongly disagree and 15% somewhat disagree). Additionally, 30% neither agree nor disagree**.**

5. "Integrating technology into my learning process allows for greater self-direction and autonomy."

A significant majority of students (62.50%) agree that integrating technology into their learning process allows for greater self-direction and autonomy. Among them, 37.50% strongly agree, while 25% somewhat agree. However, a notable percentage (20%) disagrees to some extent (15% somewhat disagree and 5% strongly disagree).

6. "Managing my learning process with e-learning resources feels effortless and efficient."

The majority of students (47.50%) feel that managing their learning process with e-learning resources is effortless and efficient. Among them, 25% strongly agree and 22.50% somewhat agree. However, a notable percentage (17.50%) disagrees to some extent, with no students strongly disagreeing.

7. "Technology use enhances my autonomy in learning inside and beyond the classroom."

The majority of students (65.00%) agree that technology use enhances their autonomy in learning. Among them, 40% somewhat agree and 25% strongly agree. However, a portion of

students (32.50%) disagrees to some extent (20% somewhat disagree and 2.50% strongly disagree).

8. "Using technology in learning enables me to have more control over my progress."

Students' opinions are varied regarding whether using technology in learning enables them to have more control over their progress. While 47.50% agree to some extent (22.50% somewhat agree and 25% strongly agree), a notable percentage (25%) disagrees (10% somewhat disagree and 15% strongly disagree). Additionally, 27.50% neither agree nor disagree.

9. "Motivation is heightened when technology is integrated into my learning experience inside and beyond the classroom."

The majority of students (52.50%) agree that motivation is heightened when technology is integrated into their learning experience. Among them, 37.50% somewhat agree and 15% strongly agree. However, a portion of students (27.50%) either disagrees to some extent (15% somewhat disagree and 12.50% strongly disagree) or remains neutral (20% neither agree nor disagree).

10. "Technology use and blended learning improve my language skills more effectively than traditional methods."

A significant percentage of students (52.50%) agree that technology use and blended learning improve their language skills more effectively than traditional methods. Among them, 32.50% strongly agree, while 20% somewhat agree. On the other hand, 27.50% of students either disagree to some extent (20% somewhat disagree and 7.50% strongly disagree) or remain neutral (20% neither agree nor disagree).

11. "I feel more confident and in control of my learning process when using technology to facilitate my learning."

A majority of students (70.00%) feel more confident and in control of their learning process when using technology to facilitate their learning. Among them, 40% strongly agree and 30% somewhat agree. However, a small percentage of students (15%) either disagree to some extent (10% somewhat disagree and 5% strongly disagree) or remain neutral (15% neither agree nor disagree).

12. "Technology-based instruction is crucial for success in academic and professional pursuits."

A significant majority of students (55.00%) agree that technology-based instruction is crucial for success in academic and professional pursuits. Among them, 32.50% somewhat agree, while 22.50% strongly agree. However, a portion of students (17.50%) either disagrees to some extent (10% somewhat disagree and 7.50% strongly disagree) or remains neutral (27.50% neither agree nor disagree).

The results show that students' opinions on the ideal way to incorporate technology into their learning experiences vary. Essentially the majority of students believe that incorporating technology into their learning process gives them more self-direction and autonomy at the same time also building their confidence and giving them more influence over the learning process. On top of that, they believe that using technology to improve their language abilities is more beneficial than using traditional methods. A sizeable percentage of students also believe that technology-based instruction is essential for success in both academic and professional endeavours. Nonetheless, some students express concerns or show no perspective on the effects of technology on their motivation, the effectiveness of using e-learning tools to manage their learning process, and the degree to which technology increases their autonomy both inside and outside of the classroom.

Ultimately, the findings reflect a mixed response, highlighting the need for further exploration and understanding of individual preferences and experiences in utilizing technology for learning purposes.

3.4 Teachers' Semi-Structured Interview

3.4.1 Aim of Teachers' Semi-Structured Interview.

In order to obtain a comprehensive understanding of the subject matter being studied, it was decided to employ a third research instrument which is a semi-structured interview with teachers, as an additional qualitative research tool. Interviews are widely used in qualitative research because they provide researchers with valuable insights into the phenomenon being studied, as well as the interviewee's perspectives on a particular issue or topic (Qu and Dumay, 2011). Interviews serve as a means of gathering information about participants' experiences, beliefs, and opinions related to a research question or problem of interest, and require skilful questioning and interpretation of responses (Qu and Dumay, 2011, p. 243).

In the same vein, qualitative interviews are a versatile research tool that can take various forms, including face-to-face, online, or phone calls, and can be conducted individually or in groups, such as focus groups. Further, qualitative interviews are flexible and can depart from a standardized guide to allow for follow-up questions based on the interviewee's responses, leading to more in-depth insights on a particular topic or phenomenon. Bryman (2012) concurs that qualitative interviews are valuable in generating rich data through interaction and discussion with the interviewee. In short, the semi-structured interview offers the opportunity for the researcher to delve into the perspectives and experiences of the teachers, obtaining rich data.

3.4.4 Description of Teachers' Semi-Structured Interview.

Using a teacher interview was considered an effective method for gathering trustworthy information. In order to get their views and beliefs regarding indispensable concepts. The interview consisted of thirteen (13) diverse questions that were not explicitly categorized into sections but implicitly ordered by theme. Most questions were open-ended and designed to elicit qualitative findings, the remained questions were either a five-point scale question, the other required dichotomous responses (i.e., "yes" or "no"), or selecting the most suitable answer from three provided options. Moreover, the questions focus exclusively on the Algerian EFL classroom in order to gain context-related insights. The questions were arranged in a gradual manner, starting with typical situations and moving towards concrete circumstances. Plus, the purpose of the interview was to understand teachers' actual perceptions and attitudes towards technology-based instruction and learner autonomy, as well as the typical situation they hope to achieve. Therefore, by conducting this interview, the research questions can be answered in a credible manner.

3.4.4 Administration of Teacher's Semi-Structured Interview.

This interview is aimed at EFL teachers in the English Department at Mohamed Kheider University in Biskra. So, since the use of educational technologies is not limited to a specific level, the sample of teachers was chosen randomly, without prior considerations or standards. Most of the respondents were third-year teachers. Due to time constraints and the qualitative nature of the interview, it was not feasible to interview over forty-three teachers. As a result, ten (10) teachers were interviewed in order to complete the current research. The semi-structured interview was sent to the teachers in a Google form via email. It was designed using the services of Google Forms. The platform provided many facilities to vary the questions' structure including Likert scale, multiple choices, and open questions. However, only nine responses were received; thus, the researcher had to meet the tenth teacher and make a face-to-

face interview. The latter was recorded after the interviewee's consent; hence, the arrangement of this last interview insisted on spontaneity and physical presence. With this in mind, the duration of the recording took 11 minutes.

Subsequently, the administration of these interviews lasted almost a month, stretching from April 4th, 2023 until May, 2nd, 2023. Apparently, it took longer than anticipated because there were delays in receiving responses.

3.4.4 Data Analysis and Interpretation.

Question One: How long have you been teaching English?

Table 3. 20

Teachers' Period of Teaching English

Years	Frequency	(%)
From 4 to 13	7	70%
15	2	20%
40	1	10%

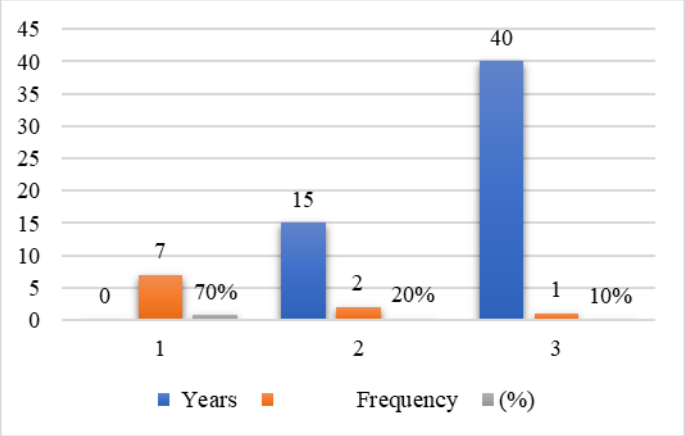

Figure 3. 22 Teachers' Period of Teaching English

The teaching experience ranges from 4 years to 40 years, with a variety of values in between. The data suggests a somewhat symmetrical distribution of teaching experience. There is an equal number of teachers with 4, 5, 6, 7, 9, 11, 13 years, all of them represent 70% of the sample, and two teachers have 15 years of experience, representing 20% of the sample. This suggests that the teachers in the sample may have entered the profession around the same time or that they have had similar career journeys. One teacher in the sample has been teaching English for 40 years, representing 10% of the sample.

Overall, the data suggest a relatively diverse group of teachers in terms of their teaching experience; they possess a considerable level of experience having taught multiple generations of learners, considering that each generation typically spends approximately three years in university, with a notable concentration of teachers having around 15 years of experience. This mix of experience levels can provide a balanced blend of both seasoned and relatively newer teachers, potentially contributing to a rich teaching environment with a combination of fresh perspectives and established expertise.

Question Two: Is learner autonomy important in EFL education?

Table 3. 21

Importance of Autonomy in EFL Education

Yes/No	Frequency	(%)
Yes	10	100%

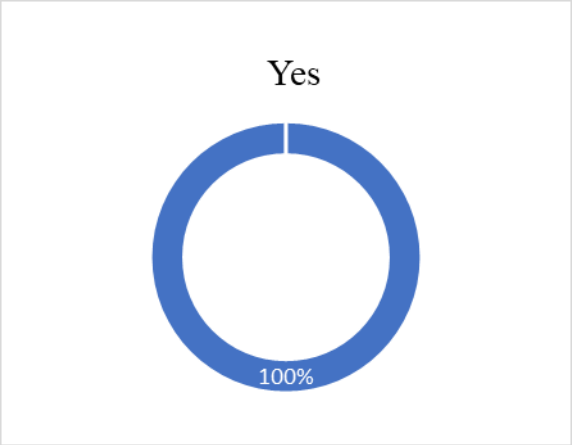

Figure 3. 23 Importance of Autonomy in EFL Education

As autonomy is a fundamental aspect of the current research, it is crucial to inquire about its significance for EFL learners. This question is rooted in the theoretical framework outlined in chapter one. Numerous scholars emphasize the importance of autonomy and its far-reaching effects on various aspects such as, “ encouraging learners to improve their learning processes and products” (Ramli, Darus, & Bakar, 2011, p. 83).

Based on the table above all respondents in the sample (100%) indicated that learner autonomy is important in EFL education by selecting "Yes." This suggests that the interviewed individuals recognize the value and importance of promoting learner autonomy in the context of EFL education. This agreement implies that there is a shared understanding that empowering

learners to take control of their learning process, set goals, and make decisions fosters a more effective and engaging learning experience in EFL education.

In analyzing the responses provided by the teachers regarding the importance of learner autonomy in EFL education, several themes emerged. The majority of teachers highlighted the benefits of learner autonomy; however, they justify this significance differently. With multiple teachers expressing that it empowers students to take control of their learning process, resulting in increased motivation, confidence, independence, and responsibility for their learning outcomes. This viewpoint was shared by six teachers. Additionally, four teachers emphasized the adaptability that autonomous learners possess, enabling them to thrive in different learning contexts and utilize a variety of strategies and resources to enhance their language proficiency. Another three teachers acknowledged the importance of learner autonomy in fostering lifelong learning skills. They recognized that when students are in charge of their learning, they can continually improve their language proficiency.

The effectiveness of autonomous learners was acknowledged by two teachers who noted that such learners have demonstrated competence and effectiveness in their learning journey. The concept of learner-centered environments was supported by four teachers who explained that learner autonomy allows students to actively participate in their learning, monitor their progress, and make decisions regarding their goals, learning styles, strategies, and resources. Furthermore, two teachers emphasized the need to foster learner autonomy, shifting the focus from questioning its usefulness to exploring effective methods for its development. Lastly, one teacher highlighted the impact of technology and access to information, indicating that they contribute to reducing reliance on teachers and increase the desire for learner autonomy. In conclusion, the majority of teachers recognized the importance of learner autonomy in EFL education, emphasizing its role in empowering students, promoting lifelong learning, and adapting to changing educational landscapes.

Question Three: Can learner autonomy be fostered? If yes, how?

Table 3. 22

Fostering Learner Autonomy

Yes/No	Frequency	(%)
Yes	**10**	**100%**

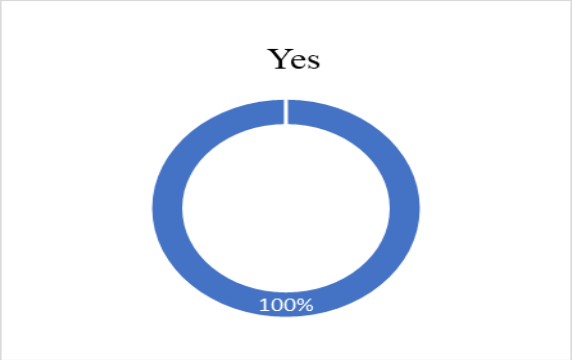

Figure 3. 24 Fostering Learner Autonomy

From the provided table and figure, it seems that the teacher answered "Yes" to the question of whether learner autonomy can be fostered. The teacher's response suggests that they believe it is indeed possible to promote learner autonomy; all of the respondents who provided an answer agreed that learner autonomy can be fostered. Additionally, from this information, it can be concluded that the teacher strongly believes in the possibility of fostering learner autonomy.

This question seeks teachers' perspectives on whether or not such an essential skill may be improved. The majority of teachers (6 out of 9) emphasized the importance of encouraging student involvement and participation. They suggested that students should be given opportunities to create their own learning materials, personalize their language skills, and prepare lessons or presentations for their peers. This approach, according to the teachers, empowers students and allows them to take ownership of their learning. Creating a supportive and learner-centered environment was another significant theme identified by the teachers. Five out of nine teachers highlighted the need for an environment that enables learners to make choices and decisions about their learning goals, methods, materials, and evaluation. They emphasized the importance of providing opportunities for reflection and collaboration among learners and teachers.

Furthermore, four out of nine teachers mentioned the potential of integrating technology-based instruction to foster learner autonomy. They acknowledged that technology can provide access to authentic and interactive language resources and activities, which can enhance learners' autonomy and engagement. Assignments and self-study materials were mentioned by three out of nine teachers as effective ways to support learner autonomy. They believed that giving assignments and providing self-study textbooks empower students to take responsibility for their learning outside the classroom and work at their own pace.

Support from teachers and parents was emphasized by four out of nine teachers. They recognized that learner autonomy can be nurtured through the guidance and support of teachers in selecting appropriate teaching methods, materials, and providing feedback. Additionally, parental involvement and support play a significant role in fostering autonomy. Monitoring learners' progress and providing motivation were highlighted by three out of nine teachers. They emphasized that by gradually encouraging self-study and exploration, learners become more accustomed to taking control of their learning.

Finally, the teachers stressed the role of the teacher in fostering learner autonomy, with four out of nine teachers emphasizing the importance of the teacher's approach, teaching style, and choice of materials.

Question Four: What is the most effective factor in promoting learner autonomy: technology-based instruction, teacher autonomy, or in-class presentations?

Table 3. 23

Factors that Promote Learner Autonomy

Factors	**Frequency**	**(%)**
technology-based instruction	5	50%
teacher autonomy,	3	30%
All are included	2	20%
Total	10	100%

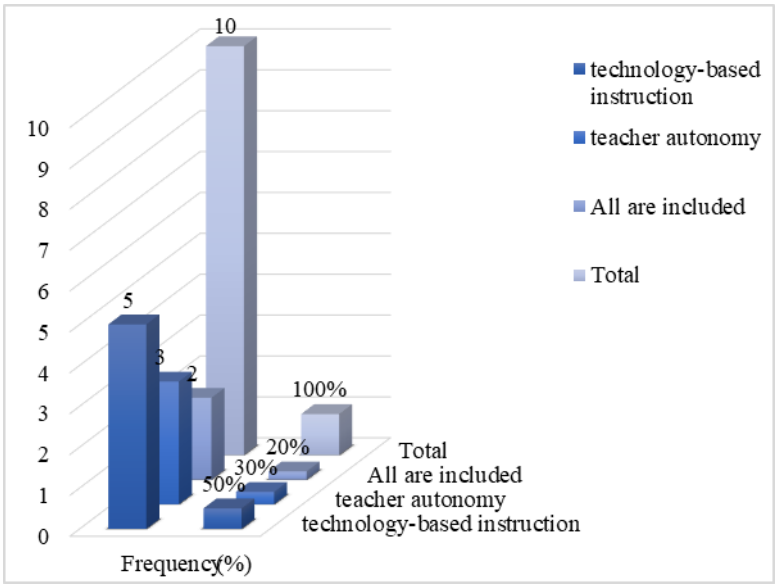

Figure 3. 25 Factors that Promote Learner Autonomy

Based on the provided table and figure, the teacher's responses regarding the most effective factor in promoting learner autonomy are as follows:

1. Technology-based instruction: This factor was chosen 5 times, which corresponds to 50% of the responses. The teacher believes that using technology in instruction plays a significant role in promoting learner autonomy.

2. Teacher autonomy: This factor was selected 3 times, which accounts for 30% of the responses. The teacher recognizes that giving autonomy to teachers can contribute to fostering learner autonomy.

3. All are included: This option was chosen 2 times, corresponding to 20% of the responses. The teacher acknowledges that all the mentioned factors (technology-based

instruction, teacher autonomy, and in-class presentations) are important in promoting learner autonomy.

From this information, it can be inferred that the teacher perceives technology-based instruction as the most effective factor in promoting learner autonomy, followed by teacher autonomy. Additionally, other factors not listed in the table may also contribute to learner autonomy but were not included as options in the question.

Question Five: How do you encourage autonomous learning in your classroom?

In analyzing the responses provided by the teachers, several key themes emerged regarding encouraging autonomous learning in the classroom. Out of the teachers interviewed, a significant number shared similar view. First, they emphasized the importance of setting clear and realistic learning goals with students, allowing them to understand expectations and take ownership of their learning" Encouraging them to rely on themselves. To give them opportunities to initiate the talking without interruptions or critics". Second, teachers advocated for providing choices and options for learning tasks, materials, and assessments, giving students the freedom to select activities that align with their interests and learning styles. Third, teachers highlighted the value of promoting various strategies and resources, including technology-based instruction and mobile applications, to enhance language learning. Additionally, teachers stressed the need for providing constructive feedback and guidance to help students reflect on their progress and make informed decisions about their learning strategies. Creating a supportive and learner-centered classroom atmosphere, fostering curiosity and critical thinking, and empowering students to take initiative were also common viewpoints shared by the teachers. Overall, the teachers expressed the significance of cultivating autonomy by offering opportunities for independent learning, collaboration, and self-expression.

Question Six: On a scale of 1-5, how would you rate your students' autonomy and why?

(1- Very low autonomy, 2- Low autonomy, 3- Moderate autonomy, 4- High autonomy, 5- Very high autonomy).

Table 3. 24

Rating Students' Autonomy

Scale	Frequency	(%)
Low Autonomy	3	30%
Moderate Autonomy	7	70%
Total	10	100%

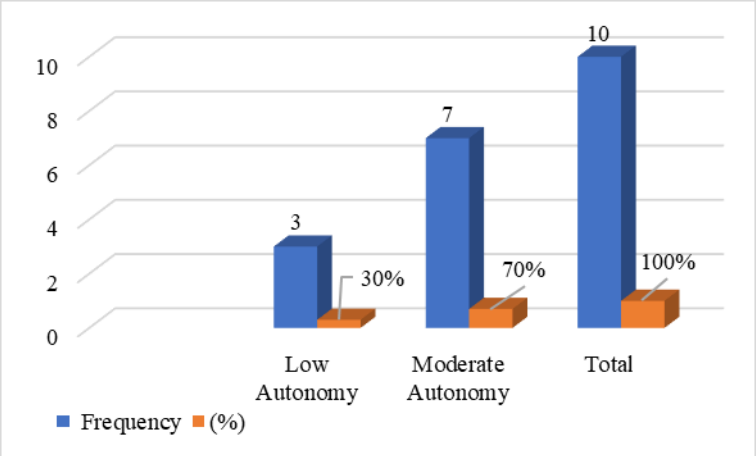

Figure 3. 26 Rating Students' Autonomy

Based on these responses, it appears that the majority of teachers (70%) rated their students' autonomy as moderate. This suggests that the teachers perceive their students to have a reasonable level of autonomy in their learning. The majority of the teachers expressed concern about students relying heavily on them for various aspects of their education, including guidance, syllabi, and feedback. These teachers noted that students often showed a reluctance to take charge of their own learning, inhibiting their ability to become more autonomous. Fluctuations in educational performance were observed, with differences in autonomy levels being a contributing factor. It was also noted that third year students had limited autonomy, lacking awareness, tools, and practicality in their learning. Besides, lack of encouragement from both students themselves and teachers, along with variations in autonomy levels among students, were common observations. Furthermore, some teachers acknowledged other teachers' limitations in teaching knowledge, not being well-versed in different teaching and

assessment methods “some teachers do not have enough teaching knowledge and they are not aware of the different teaching and assessment methods and approaches”.

Question Seven: What is your perspective on the use of technology in EFL classrooms?

The purpose of this question is to gather teachers' opinions on the use of technology in EFL classes. The question addresses the incorporation of TBI in EFL classrooms, as its format suggests. As it is partially grounded on the main hypothesis of the present research.

A significant number of teachers expressed a positive and optimistic perspective on the use of technology in EFL classrooms. The most commonly shared viewpoint was the belief that technology can offer numerous benefits for both teaching and learning. This sentiment was shared by seven out of the ten teachers interviewed. They emphasized that technology enhances learners' motivation, engagement, and interest in language learning. Additionally, it provides access to a wide range of authentic and interactive language resources and activities, enabling students to practice various language skills in meaningful contexts. The teachers also highlighted the capacity of technology to facilitate individualized and differentiated instruction, catering to the diverse needs, levels, learning styles, and objectives of students. Furthermore, they recognized its role in expanding learners' exposure to different cultures, perspectives, and experiences, promoting collaborative learning, and developing digital literacy skills.

While the majority of teachers expressed a positive stance, two teachers specifically emphasized the importance of technology as a secondary tool in the classroom, complementing and supporting the roles of both students and teachers. One teacher mentioned that technology should be used partially, suggesting a preference for maintaining a balance between traditional and technological approaches. Interestingly, one teacher admitted to having limited experience with technology but acknowledged its potential usefulness, particularly in terms of saving time

and providing more authentic illustrations. Despite the generally positive view, one teacher expressed reluctance toward technology, without specifying the underlying factors. However, if given the opportunity, they indicated a willingness to utilize technology. On the other hand, one teacher wholeheartedly supported the integration of technology, citing the digital native status of today's students as a compelling reason for its necessity in the classroom. In short, the teachers' perspectives converged on the belief that technology plays a valuable and necessary role in EFL classrooms, contributing to student motivation and engagement, while also saving time and enhancing authenticity.

Question Eight: Do you use technology as instructional materials?

Table 3. 25

Teacher's Usage of Technology as Instructional Materials

Options	**Frequency**	**(%)**
Yes	5	50%
No	3	30%
When circumstances afford me the opportunity.	2	20%
Total	0	100%

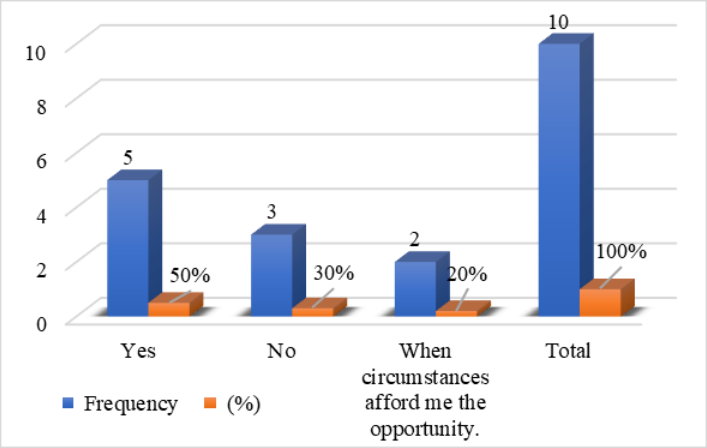

Figure 3. 27 Teacher's Usage of Technology as Instructional Materials

As the table and the figure show, it is shown that 50% of teachers use technology as instructional materials in their EFL classrooms. This suggests that they incorporate technology tools and resources into their teaching practices to enhance the learning experience for their students. On the other hand, 30% of the teachers indicated that they do not use technology as

instructional materials. This could be due to various reasons such as limited access to technology, personal teaching preferences, or perceived limitations of technology in their specific teaching context. Furthermore, 20% of the teachers mentioned that they use technology as instructional materials when circumstances afford them the opportunity. This suggests that these teachers are open to incorporating technology into their teaching when they have the means or resources available.

All in all, these responses indicate a varied perspective on the use of technology in EFL classrooms among the interviewed teachers. It would be insightful to further explore the reasons behind each teacher's stance and their experiences and beliefs regarding the effectiveness and benefits of using technology in EFL classrooms.

Question Nine: How familiar are you with educational technology?

several points of view regarding their familiarity and usage of educational technology can be identified. A few teachers share the perspective of being familiar with some applications, indicating a moderate level of knowledge and experience. Similarly, a couple of teachers express sporadic usage of educational technology in their classes, suggesting limited and infrequent integration" I am fairly familiar with educational technology. I have used it but sporadically in my classes". Another set of teachers mention rarely using instructional technology or not having much experience with it, indicating a low level of exposure "I rarely use instructional technology". On the other hand, one teacher stands out as an advocate for technology integration, actively incorporating various tech gadgets, apps, websites, and social media in the classroom. Furthermore, there are teachers who express a satisfactory level of IT literacy and solid understanding, suggesting a moderate to high level of competence with educational technology. Overall, the responses highlight a range of familiarity and usage, with a few teachers sharing similar viewpoints in each category.

Question Ten: Is the English department equipped for TBI?

Table 3. 26

Technological Readiness of the English Department

Yes/No	Frequency	(%)
Yes	3	30%
No	7	70%

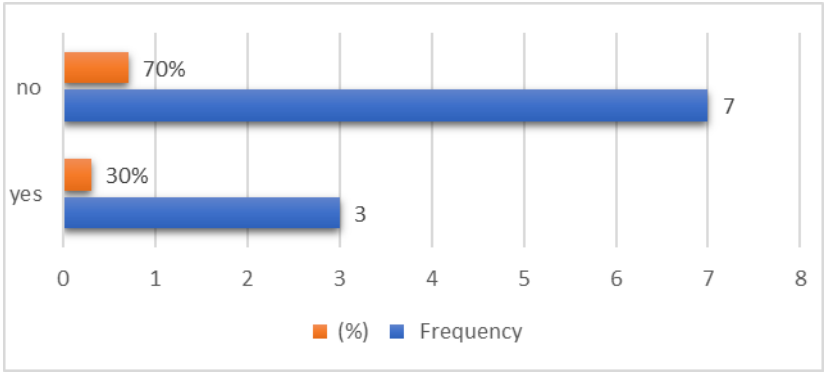

Figure 3. 28 Technological Readiness of the English Department

As the table and the figure represent, the majority of the teachers (70%) indicated that the English department is not equipped for Technology-Based Instruction (TBI). This suggests that the department lacks the necessary technological resources to effectively implement technology in their English language teaching. Contrarily, 30% of the teachers stated that the English department is equipped for TBI. This indicates that these teachers believe that the department has the necessary technological resources to support the integration of technology in their English language instructions.

Question Eleven: Does TBI affect teacher roles and give more control to learners?

Table 3. 27

The Impact of TBI on Teacher Roles and Learner Autonomy

Options	Frequency	(%)
Yes	6	60%
Maybe	4	40%
Total	10	100%

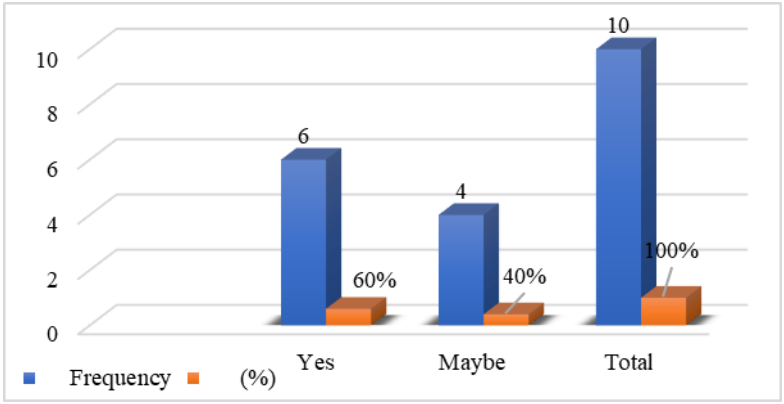

Figure 3. 29 The Impact of TBI on Teacher Roles and Learner Autonomy

Considering the provided responses, it can be deduced that 60% of the teachers believe that TBI does affect teacher roles and gives more control to learners. This suggests that these teachers perceive that the integration of technology in the classroom alters the traditional roles of teachers and empowers learners to take more control over their own learning process.

However, 40% of the teachers responded with "Maybe." This indicates that these teachers are not certain or may have a more nuanced perspective on the impact of TBI on teacher roles and learner autonomy. It could be that they recognize the potential influence of technology on shifting teacher roles and learner control, but are not entirely convinced or require further evidence or context to form a definitive opinion.

Question Twelve: Can adequate implementation of TBI promote learner autonomy? How?

Table 3. 28

The Role of Adequate TBI Implementation in Fostering Learner Autonomy

Yes/No	Frequency	(%)
Yes	10	100%

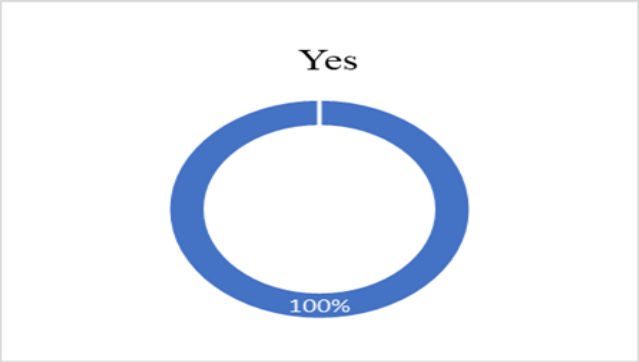

Figure 3. 30 The Role of Adequate TBI Implementation in Fostering Learner Autonomy

Analyzing the provided table and figure, we can see that all the respondents (100%) answered "Yes" to the question of whether adequate implementation of Technology-Based Instruction can promote learner autonomy. This agreed response suggests that the interviewed teachers believe that when TBI is implemented effectively and appropriately, it has the potential to foster learner autonomy i.e., they recognize the positive impact of TBI on empowering learners to take control of their own learning process.

In addition to, they agreed on allowing students to learn at their own pace and explore their interests. They also emphasized that TBI provides students with more control over their learning process, access to a wider range of resources, opportunities for collaboration, and personalized support from teachers. These teachers believed that TBI encourages students to make their own decisions and take responsibility for their learning, promoting an active learner role. Collaboration and partnership between teachers and students were also highlighted, with the teachers stating that TBI minimizes the dominance of the teacher and fosters a sense of partnership in creating teaching content, materials, and assessments.

The teachers also acknowledged the importance of effective implementation and the consideration of factors such as students' attitudes towards learning, their level, preferences, and self-regulation skills for TBI to be successful. They recognized that when used effectively and integrated with other instructional methods, TBI can help teachers deliver content more efficiently and authentically, ultimately saving time and effort. Furthermore, there was agreement that aligning the syllabus with TBI could support the development of learner autonomy. The shared viewpoints of the teachers highlight the potential benefits of TBI in promoting learner autonomy and the need for effective implementation strategies.

Question Thirteen: Any additional comments or recommendations?

The majority of teachers have shared additional comments and suggestions, which can be summarized as follows. They believed that technology has the potential to promote autonomous learning when properly integrated into the classroom. These teachers emphasized the use of tools like interactive whiteboards, tablets, laptops, and smartphones to enhance their teaching methods and create a more interactive and engaging learning environment. They also acknowledged the value of online resources such as educational websites, videos, and podcasts to supplement their lessons. Moreover, many teachers agreed that assigning technology-based

projects and encouraging collaboration through tools like video editing software and online research platforms can further enhance student engagement and promote autonomy.

Additionally, attending professional development workshops or conferences to stay updated on educational technologies was seen as crucial. However, it was also recognized that promoting learner autonomy goes beyond technology alone. Teachers noted that it requires their guidance, understanding of students, and effective curriculum design. They emphasized the importance of monitoring students at the beginning to ensure a smooth transition towards becoming independent learners. Lastly, some teachers voiced their concerns about traditional teaching practices, equipment, syllabus design, and assessment methods, recognizing their limitations in producing future citizens with positive outcomes. Overall, the teachers' shared viewpoints underscored the potential of technology integration while acknowledging the significance of other factors in fostering learner autonomy.

3.5 Discussion and Synthesis of the Findings

1- Classroom Observation

The analysis of the observation indicates that there is room for improvement in terms of learner autonomy among 3rd-year students at the Department of English. This corresponds to the research question of whether these students are autonomous learners. The hypothesis that the students have a lack of autonomy is supported by the observation findings, which identify areas for improvement such as consistent questioning, resource utilization, taking ownership of learning, and consistent initiative.

Furthermore, the analysis reveals that while there is some support for learner autonomy from the observed teachers, there is room for improvement in providing clear instructions and expectations for autonomous learning, as well as incorporating ICTs and teaching aids more consistently. This corresponds to the aim of exploring the use of technology in the learning process.

The observation also highlights the need to enhance the classroom environment to better support learner autonomy, including promoting a learner-centred environment, arranging the layout to facilitate autonomous learning, providing a wider range of resources, and fostering a stronger sense of community and collaboration among learners. This aligns with the research aim of exploring the use of technology in the learning process, as creating a conducive environment for learner autonomy involves utilizing technology and ICT resources effectively.

Additionally, the findings suggest a potential gap in integrating technology into the classroom setting. While learners demonstrate significant use of mobile devices for educational purposes and a positive attitude towards internet access, there is a lack of ICT equipment in the classrooms. This supports the research aim of exploring the use of technology in the learning process by indicating the need to equip classrooms with appropriate ICT resources and promote more consistent use of technological tools for instruction.

2- Students' Questionnaire

The findings of the student questionnaire provide valuable insights into the relationship between the integration of Technology-Based Instruction (TBI) in EFL classrooms and learner autonomy, aligning with the research aim, question, and hypothesis. The data indicates that students who study English based on their own interests exhibit higher levels of motivation, determination, and potential for autonomy. This supports the hypothesis that the integration of TBI positively impacts learner autonomy. The majority of students perceive TBI as a beneficial tool for promoting learner autonomy, emphasizing the importance of intrinsic motivation and personal choice in studying English. Students express a preference for a more self-directed approach to learning, seeking independence from the teacher and utilizing online resources. These findings serve the research aim by shedding light on EFL students' perceptions regarding the integration of TBI into their classrooms.

Moreover, the data highlights the significance of learner autonomy and its positive impact on students' academic achievements, creativity, self-awareness, and language skill development, aligning with the research question. The results also emphasize the need for educational institutions to recognize and support the use of mobile devices and technology resources, indicating a potential lack of technological materials in the English department. Addressing this concern can enhance the students' learning experiences and promote the integration of technology in English language education, further supporting the research aim.

3- Teachers' Interview

The findings from the interviews with EFL teachers provide valuable insights that align with the research aim, question, and hypothesis. The majority of teachers expressed positive perceptions towards the integration of Technology-Based Instruction (TBI) in their classrooms, emphasizing its potential to promote learner autonomy. They recognized the significance of learner autonomy in empowering students, promoting lifelong learning, and adapting to changing educational landscapes. The teachers highlighted the role of the teacher in fostering learner autonomy, emphasizing the importance of the teacher's approach, teaching style, and choice of materials. Additionally, they acknowledged the benefits of TBI, such as increased student motivation, engagement, access to authentic resources, and opportunities for collaboration.

Accordingly, the teachers agreed that effective implementation of TBI can enhance learner autonomy by allowing students to learn at their own pace, explore their interests, and take control of their learning process. The shared viewpoints of the teachers support the hypothesis that the integration of TBI positively impacts learner autonomy. They recognize the potential of technology to empower students, provide personalized support, and foster a sense of partnership between teachers and students. The findings also serve the research aim and

question by shedding light on EFL teachers' perceptions regarding TBI and its relationship with learner autonomy. They provide valuable insights into the importance of technology integration and effective implementation strategies.

3.6 Limitations of the Study

The present investigation encountered several constraints that hindered its proper execution, the following obstacles were identified:

1. Unavailability of authentic resources: One significant barrier faced by many Algerian students is the lack of access to authentic resources such as books and articles. This scarcity of materials posed a challenge to the researcher in terms of enriching their background knowledge, often leading to unintentional copyright infringements. Such circumstances contradict universal academic norms and standards.

2. Responses Delay: Compared to the huge number of emails sent to the interviewees, only few responses were received which led the researcher to go to the teachers one by one, kindly asking them to either respond to what they have been sent or make face to face interview.

3. Incomplete responses in the questionnaire: During the process of answering the questionnaire, some students provided incomplete answers, which resulted in their exclusion from the study and their replacement by other respondents. It was also evident that some students did not take the questionnaire seriously, randomly selecting options or imitating their peers' choices.

4. Time constraints: Limitations related to time were a significant factor. The observation period was not sufficient to adequately assess the students' level of self-reliance. This

constraint may have limited the depth of understanding regarding learner autonomy within the given timeframe.

To conclude, recognizing and addressing the constraints of each study is an essential task for researchers, as it helps to identify any factors that might have influenced the research findings, without diminishing the significance of the work. Furthermore, this process also prompts the generation of suggestions for future studies that could be undertaken i.e., to pursue similar research using a more sophisticated methods, or experimental research and track leaner autonomy for a long period of time.

Conclusion

In conclusion, this chapter has presented a detailed account of the research methodology and data analysis techniques employed in the present study. The research method and approach were carefully selected to align with the research objectives, providing a suitable framework to investigate the topic at hand. The population and sample of the study were identified, ensuring representation and diversity in the data collected. Data gathering tools such as classroom observation, students' questionnaire, and teachers' semi-structured interviews were utilized to collect a rich set of data that captured different perspectives and insights.

The data collection procedures for each tool were clearly described, outlining the steps taken to ensure accurate and reliable data collection. The subsequent data analysis techniques were applied meticulously, ensuring the extraction of meaningful insights and patterns from the collected data. The findings obtained from the analysis were then interpreted in light of the research objectives, providing valuable insights and contributing to the existing body of knowledge. Eventually, those findings were discussed and synthesised in order to see whether they serve the research aims, answer the research questions, and align with the research hypotheses.

All in all, this chapter provides a robust framework and comprehensive analysis of the collected data.

General Conclusion

Learner autonomy has gained significant attention in the field of language teaching and learning, becoming one of the key objectives of education. This increased interest in autonomous learning as an educational goal can be attributed to recent changes and innovations, particularly in educational technology. Thus, the researcher aimed to explore how EFL learners and their teachers perceive autonomy, as well as the impact of educational technology, specifically Technology-Based Instruction, on learners' autonomy

To start with, this research has shed light on the critical aspects of autonomy in effective learning and the role of technology-based instruction in promoting learner autonomy in the EFL classroom. The study explored the concept of autonomy, its origins, definitions, and characteristics as discussed by various scholars. It also examined the factors influencing learner autonomy, such as motivation, self-esteem, and attitude.

Subsequently, the second chapter delved into technology-based instruction (TBI) and its significance in EFL classrooms. It provided an overview of different types of TBI, including mobile-assisted language learning (MALL), computer-assisted language learning (CALL), e-learning, blended learning, and flipped classrooms. The chapter highlighted the importance of incorporating multimedia and utilizing various tools and platforms to support TBI. It emphasized the evolving role of teachers in integrating technology into language instruction and the need to consider learners' attitudes and perceptions towards TBI.

The research methodology and data analysis techniques employed in the study were comprehensive and aligned with the research objectives. The population and sample were carefully identified to ensure representation and diversity; the participants in this study consisted of third-year students enrolled in the Department of English at the University of Biskra, along with their teachers for the academic year 2022/2023. The data collection tools,

including classroom observation, questionnaires, and interviews, provided a rich dataset capturing multiple perspectives. The subsequent data analysis techniques were meticulous, leading to meaningful insights and patterns. The collected data were subjected to both qualitative and quantitative analysis.

Consequently, the findings from the data analysis were discussed and synthesized in relation to the research aims, questions, and hypotheses. These findings contribute to the existing body of knowledge and provide valuable insights for educators seeking to create learning environments that support and encourage learner autonomy through technology-based instruction.

To sum up, this research underscores the significance of autonomy in effective learning and the role of technology-based instruction in promoting learner autonomy. It sought to explore the concept of autonomy among EFL learners and their teachers, as well as investigate the role of educational technology, particularly Technology-Based Instruction, in fostering learner autonomy. It also highlights the importance of considering factors that influence learner autonomy and acknowledges the evolving roles of both teachers and learners in the digital era. By understanding and incorporating these elements into language instruction, educators can create engaging and interactive learning experiences that foster learner autonomy and facilitate language acquisition.

Recommendations and Pedagogical Implications

The following section draws upon the recommendations and pedagogical implications inspired by the overall findings presented in this research work. The list presented below is addressed to both EFL learners and teachers:

1. Promoting learner autonomy:
    - Encourage students to take more ownership of their learning by providing opportunities for self-directed learning and decision-making.
    - Foster a learner-centred environment that values students' interests, choices, and contributions.
    - Emphasize the importance of consistent questioning, resource utilization, and taking initiative among students.
    - Encourage active participation, both individually and in groups, to enhance learner autonomy.

2. Integrating educational technology tools and apps:
    - Provide adequate ICT resources and equipment in the classrooms to bridge the gap between students' personal mobile devices and the classroom setting.
    - Train teachers on effectively incorporating technology tools and apps into their instructional practices.
    - Promote the use of technology for instruction, collaboration, research, and access to authentic language resources.
    - Explore and utilize educational apps, online platforms, and interactive learning tools to engage students and support their language learning process.
3. Teacher support for learner autonomy:

- Provide clear instructions and expectations for autonomous learning, emphasizing the role of the teacher in guiding and supporting students.
- Create a supportive and facilitative classroom environment that promotes collaboration, peer support, and a sense of community among learners.
- Encourage teachers to continuously reflect on their teaching approaches and adapt them to foster learner autonomy effectively.
- Incorporate a variety of teaching aids and materials, both traditional and technological, to cater to different learning preferences and styles.

4. Recognizing the benefits of Technology-Based Instruction (TBI):
    - Promote the use of TBI as a means to personalize learning, allowing students to learn at their own pace and explore their interests.
    - Emphasize the importance of intrinsic motivation and student choice in studying English, particularly through the use of online resources.
    - Advocate for the recognition and support of mobile devices and technology resources in educational institutions.
5. Incorporating Educational Apps:
    - Integrate free educational apps such as Duolingo, Quizlet, or Khan Academy into classroom activities to enhance learner autonomy. These apps provide interactive learning experiences, personalized feedback, and opportunities for independent practice.
6. Online Collaboration Platforms:
    - Utilize free online collaboration platforms like Google Classroom or Microsoft Teams to foster a sense of community and facilitate collaborative learning among students. These platforms enable students to engage in group projects, share resources, and communicate effectively outside the classroom.

7. Mobile Language Learning Apps:

    - Recommend free mobile language learning apps like HelloTalk, Memrise, or FluentU. These apps enable students to practice language skills, connect with native speakers, and access language learning content anytime and anywhere.

8. Digital Reading Platforms:

    - Introduce free digital reading platforms like Project Gutenberg, Librivox, or Bookshare to promote autonomous reading and provide a wide range of literary resources. These platforms offer access to a vast collection of e-books and audiobooks that students can explore at their own pace.

9. Online Language Exchange Platforms:

    - Encourage students to participate in free online language exchange platforms such as Tandem or Conversation Exchange. These platforms facilitate language practice and cultural exchange with native speakers worldwide, promoting autonomy in language learning.

10. Virtual Reality (VR) Experiences:

    - Explore free VR educational experiences and applications, such as Google Expeditions or CoSpaces Edu, to provide immersive and interactive learning opportunities. VR can enhance learner autonomy by allowing students to explore virtual environments related to their learning topics.

11. Gamified Learning Platforms:

    - Utilize free gamified learning platforms like Kahoot, Quizizz, or Classcraft to engage students actively and promote autonomous learning through interactive quizzes, challenges, and rewards.

12. Online Language Learning Communities:

- Encourage students to join free online language learning communities like Reddit's language learning subreddits, language-specific forums, or language exchange groups on social media platforms. These communities offer peer support, resources, and opportunities for autonomous language practice.

13. Professional Development Opportunities:

- Provide teachers with access to free online professional development courses and webinars related to technology integration and promoting learner autonomy. Platforms like EdX, Coursera, or FutureLearn offer a wide range of courses on educational technology and pedagogical approaches.

By incorporating these recommendations inside and beyond classroom, the reader will recognize the practical implementation and the potential of free technological resources and tools to enhance learner autonomy in the English language learning context. These resources can empower students, provide personalized learning experiences, and foster a sense of independence and engagement in their language learning journey. To conclude, it is essential to create an environment that empowers students, supports their autonomous learning, and integrates technology effectively to foster their language proficiency and engagement.

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Appendices

Appendix A: Classroom Observation Consent Form

Dear ……,

I am, hereby, writing to request your participation in my MA research work that will take place in the Department of English Language at Biskra University As part of this research, I would like to observe your third-year students.

I would like to request your permission to attend and observe your class for a total of one to two sessions. I will not interfere with your lesson plan or teaching style in any way.

Dear teacher, your participation is highly valued and be sure that the information collected during the observation session will be kept anonymous and confidential.

Your participation is voluntary. You may withdraw your consent at any time.

If you agree to participate, please sign and date the attached consent form.

Thank you for your time and consideration.

Sincerely,

(My name)

Consent to Classroom Observation

I, ……, agree to allow Ms. Achwak Karfa to attend and observe my class for one to two sessions as part of her MA dissertation.

Signature: _____

Date: _____

Appendix B: Classroom Observation

Mohamed Kheider University, Biskra

Department of English

Classroom Observation Sheet: Learner Autonomy

Observer Name: Achwak Karfa Date: _____ Class/Subject: _____

General Information

1. Class size: _____
2. Class level: 3rd year LMD
3. Lesson focus: _____

Objective: To observe and track the learner's autonomy.

1 Learner Autonomy

N°	1.1 Criterion	always	usually	sometimes	rarely	never observed
1.	Do learners ask questions to clarify their understanding?					
2.	Do learners seek help from peers before asking the teacher?					
3.	Do learners use available resources to support their learning?					
4.	Do learners participate in collaborative learning activities?					

1.2 Observation Indicators:

1.2.1 Initiation						
N°	Criterion	always	usually	sometimes	rarely	never observed
1.	• Does the learner initiate work without prompting?					
2.	• Does the learner ask questions and seek clarification when needed?					
3.	• Does the learner contribute ideas and suggestions during class discussions?					

1.2.2 Collaboration						
N°	Criterion	always	usually	sometimes	rarely	never observed
1.	• Does the learner participate actively in group work?					
2.	• Does the learner contribute to the success of the group?					
3.	• Does the learner respect the opinions and perspectives of others?					

1.2 Observation Indicators:

1.2.1 Initiation						
N°	Criterion	always	usually	sometimes	rarely	never observed
1.	• Does the learner initiate work without prompting?					
2.	• Does the learner ask questions and seek clarification when needed?					
3.	• Does the learner contribute ideas and suggestions during class discussions?					

1.2.2 Collaboration						
N°	Criterion	always	usually	sometimes	rarely	never observed
1.	• Does the learner participate actively in group work?					
2.	• Does the learner contribute to the success of the group?					
3.	• Does the learner respect the opinions and perspectives of others?					

2 Teacher Support

N°	Criterion	always	usually	sometimes	rarely	never observed
1.	Does the teacher encourage learner autonomy?					
2.	Do the teacher provide opportunities for learners to practice autonomy?					
3.	Does the teacher allow learners to make choices and decisions?					
4.	Do the teacher provide resources for learners to support their autonomy?					
5.	Does the teacher provide clear instructions and expectations for autonomous learning?					
6.	Does the teacher use ICTs and different teaching aids?					

3 Classroom Environment

N°	Criterion	always	usually	sometimes	rarely	never observed
1.	Do the classroom environment support learner autonomy? (Learner- centered)					
2.	Is the classroom layout conducive to autonomous learning?					
3.	Is there a variety of resources available to support autonomous learning?					
4.	Does the classroom foster a sense of community and collaboration?					

4 Use of TBI

N°	Criterion	always	usually	sometimes	rarely	never observed
1.	Does the teacher depend on technological tools as instructional materials?					
2.	Do learners use their mobiles in the classroom?					
3.	Does the teacher encourage learners to have access to the internet in the classroom?					
4.	Do learners use their mobile devices or technologies used for educational purposes?					
5.	Is the classroom equipped with ICTs?					

5 Teacher Talk

• What kind of questions does the teacher ask (e.g., yes/no questions, questions with one right answer, open-ended probing questions)?

…….

…….

…….

• What kind of feedback does the teacher give to questions?

……..

…….

……..

• How does the teacher give directions? (What kind?)

…….

…….

…….

6 Learner Talk

• What kinds of questions does the student ask? How often?

…….

…….

…….

• Who's talking, and how often?

…….

…….

…….

• Are there differences in the amount of learner talk across these variables: male/female, age, etc.?

…….

…….

…….

7 Overall Observations

1. What are the strengths of learner autonomy observed in the classroom?

……..

…….

…….

…….

…….

2. What are the challenges or areas for improvement in promoting learner autonomy in the classroom?

…….

……

…….

……..

Notes :

……………………………………………………………………………………………….

……………………………………………………………………………………………….

……………………………………………………………………………………………….

Appendix C : Students' Questionnaire

Dear Students,

The present questionnaire is designed for gathering valuable data for the accomplishment of our master dissertation, which is entitled "Exploring Teachers' and Learners' Perceptions towards the Use of technology-based instruction (TBI) in Promoting Learner Autonomy". The purpose of this research is to examine the impact of TBI on the promotion of learner autonomy in EFL classrooms. In order to achieve this aim, I kindly request your participation to help me gather your perceptions towards the integration of technology-based instruction in language learning. Your input is crucial to this research, and your responses will remain anonymous and confidential.

Thank you for your time and valuable input

The researcher's email: achwakkarfa@gmail.com

Definitions of key terms:

1- **Autonomy:**

Autonomy in language learning means taking complete responsibility for all decisions regarding every aspect of the learning process.

2- **ICT:**

ICT is an acronym for Information and Communications Technology. It helps to connect producers and users through various digital tools such as email, e-learning, and web-based learning. It also enhances a teacher's ability to interact with students and keep them updated.

3- **Technology-Based Instruction (TBI):**

Refers to the use of technology tools and resources to facilitate language learning activities inside and outside the classroom. It integrates various technological tools to support language learning processes, including listening, speaking, reading, and writing.

Instruction: Please answer sincerely and precisely the questions below, by making a tick (√) next to the chosen options and giving the full answer(s) whenever it is necessary.

Section 1: Personal Information

1. What is your age?

   _____ years.

2. What is your gender?

   a. Male ☐ b. Female ☐

3. How long have you been studying English?

   _____ years.

4. What is your current level of English proficiency?

   a. Beginner ☐ b. Intermediate ☐ c. Advanced ☐

   d. Other(s), please specify

   _____

5. Why are you studying English?

   a. Personal choice ☐

   b. Administrative choice ☐

   c. Other(s), please specify

   _____

Section 2: Learner Autonomy

1. Are you familiar with the notion of autonomy?

   Yes ☐ No ☐

2. Do you consider yourself an autonomous learner?

   Yes ☐ No ☐

Why? Or why not?

_____

_____

3. What do you prefer?

a. Traditional education ☐ b. Educational technology ☐ c. Both ☐

4. How important do you think learner autonomy is for academic success? why?

_____

_____

5. How often do you use the following statements?

N°	Criterion	always	usually	sometimes	rarely	never
1.	Do you ask questions to clarify your understanding?					
2.	Do you seek help from peers before asking the teacher?					
3.	Do you self-evaluate your learning?					
4.	Do you use available resources to support your learning?					
5.	Do you participate in collaborative learning activities?					
6.	Do you participate actively in group work?					
7.	Do you assess your own learning progress?					
8.	Do you seek feedback and use it to improve your work?					
9.	Do you contribute ideas and suggestions during class discussions?					
10.	Does the teacher provide resources to support your autonomy? E.g., online courses and quizzes, e-books, videos, websites, etc.					
11.	do you depend on your teacher?					
12.	do you take ownership of your learning?					

Section 3: Perception of EFL Learners Towards the Integration of TBI to enhance their autonomy.

1. Which device do you use for learning? (You can tick more than one option)

a. Smartphone ☐ b. Laptop ☐ c. Tablet ☐

2. Do you think that the English department is equipped with enough technological materials?

Yes ☐ No ☐

3. How often does the teacher use ICTs and different teaching aids?

Always ☐ Sometimes ☐ Never ☐

4. Please indicate the extent to which you agree or disagree with the following statements:

		Strongly disagree	**Somewhat disagree**	**Neither agree nor disagree**	**Somewhat agree**	**Strongly agree**
1.	I feel overwhelmed or distracted by technology in the classroom?					
2.	I use technology for learning purposes?					
3.	I feel more empowered and independent in my learning when I use digital tools and resources.					
4.	Incorporating multimedia resources into my learning routine positively impacts my progress.					
5.	Integrating technology into my learning process allows for greater self-direction and autonomy.					
6.	Managing my learning process with E-learning resources. feels effortless and efficient.					
7.	Technology use enhances my autonomy in learning inside and beyond the classroom.					
8.	Using technology in learning enables me to have more control over my progress.					
9.	Motivation is heightened when technology is integrated into my learning experience inside and beyond the classroom.					
10.	Technology use and blended learning improve my language skills more effectively than traditional methods.					
11.	I feel more confident and in control of my learning process when using technology to facilitate my learning.					
12.	Technology-based instruction is crucial for success in academic and professional pursuits.					

Section 4: Further Suggestions

In case you have further suggestions, comments or recommendations, you are mostly welcome to add them below.

_____

_____

_____

Thank you for your cooperation

Appendix D: Teachers' Interview

Dear teacher,

We are conducting research on exploring teachers' and learners' perceptions toward the integration of Technology-Based Instruction (TBI) in EFL classrooms and its impact on enhancing learners' autonomy. Your participation in this interview is crucial to our investigation and will provide valuable insights into the topic. With your permission, we will be recording this short interview to ensure accuracy and completeness of the data. We kindly invite you to take part in this interview and contribute to our study.

Questions:

1. How long have you been teaching English?
2. Is learner autonomy important in EFL education? Please explain.
3. Can learner autonomy be fostered? If yes, how?
4. What is the most effective factor in promoting learner autonomy:

   technology-based instruction, teacher autonomy, or in-class presentations?
5. How do you encourage autonomous learning in your classroom?
6. On a scale of 1-5, how would you rate your students' autonomy and why?
7. What is your perspective on the use of technology in EFL classrooms?
8. Do you use technology as instructional materials?
9. How familiar are you with educational technology?
10. Is the English department equipped for TBI?
11. Does TBI affect teacher roles and give more control to learners?
12. Can adequate implementation of TBI promote learner autonomy? How?
13. Any additional comments or recommendations?

Thank you for your cooperation

ملخص الدراسة

يؤدي اعتماد نهج التدريس التقليدي أو حتى استخدام أساليب التدريس التقليدية إلى جعل متعلمي اللغة الإنجليزية كلغة أجنبية يظهرون سلوكًا تعليميًا سلبيًا يترجم إلى الافتقار إلى الاستقلالية. نظرًا للدور الأساسي الذي تلعبه الاستقلالية في تعزيز نجاح تعلم اللغة، تدعو الإصلاحات التعليمية الأخيرة إلى دمج التكنولوجيا في التعليم حيث أن لديها القدرة على تعزيز استقلالية المتعلم. تسليط الضوء على الحاجة إلى مزيد من التحقيق لاستكشاف العلاقة بين تكامل التكنولوجيا واستقلال المتعلم في التعليم العالي، ويهدف هذا البحث التقاط تطوير استقلالية المتعلم في سياق نظام تعليمي حديث. ولتحقيق ذلك، يحاول البحث دراسة مستوى الاستقلالية بين طلاب اللغة الإنجليزية في السنة الثالثة، وتأثير التعليم القائم على التكنولوجيا على استقلالية المتعلم، وتصورات اللغة الإنجليزية كلغة أجنبية المتعلمين والمعلمين فيما يتعلق بالتعليم القائم على التكنولوجيا. تشير فرضيات البحث إلى وجود تأثير إيجابي للتعليم القائم على التكنولوجيا على استقلالية المتعلم والذي من شأنه أن يؤدي إلى تصور إيجابي للمعلمين والمتعلمين نحو تكامل التعليم القائم على التكنولوجيا. لاختبار صحة الفرضيات، تم اعتماد نهج الأساليب المختلطة باستخدام ثلاث أدوات لجمع البيانات: ملاحظات الفصل الدراسي، واستبيان الطلاب، والمقابلات شبه المنظمة مع المعلمين. وكشفت النتائج أن طلاب اللغة الإنجليزية كلغة أجنبية يظهرون الدافع وإمكانية الاستقلالية، حيث يرون أن التعليم القائم على التكنولوجيا مفيد في تمكين التعلم. كما وجد أن المعلمين على دراية بفعالية التعليم القائم على التكنولوجيا في تعزيز استقلالية المتعلم والتأكيد على دورهم في تعزيز الكفاءة اللغوية والمشاركة. في نهاية المطاف، توصي الدراسة بتزويد الفصول الدراسية بموارد تكنولوجيا المعلومات والاتصالات المناسبة، وتعزيز بيئة تركز على المتعلم، وتوفير مجموعة واسعة من الموارد لتعزيز استقلالية المتعلم.

الكلمات المفتاحية: استقلالية المتعلم، التعليم القائم على التكنولوجيا، تكنولوجيا المعلومات والاتصالات، البيئة التي تركز على المتعلم.