

Enhancing Students' Motivation in EFL Classes: Using Game-Based Approach through Online Platforms

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Submitted to the
Institute of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of

Master of Arts
in
English Language Teaching

Eastern Mediterranean University
February 2023
Gazimağusa, North Cyprus

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ABSTRACT

This study aimed to investigate the use of web-based games and interactive activities (e.g. Baamboozle, Wordwall, Quizizz and Liveworksheets) to boost fourth-grade students' motivation to learn English as a Foreign Language and evaluate the impact of these on their academic progress in English class at a private primary school in Gazimağusa, TRNC, during the fall semester of 2022–2023.

In this study, data collection and analysis were carried out by exploratory sequential mixed method approach. (n=40) The study's data collection included pre-tests and post-tests for both control and experimental groups, and teacher/researcher field notes during the intervention with the experimental group. In addition, the experimental group (n=19) was subjected to semi-structured interviews after the post-test. Accordingly, the Mann Whitney U-test and Wilcoxon Signed Rank test were run on SPSS for the analysis of pre-test and post-test, and MAXQDA was employed for the analysis of the semi-structured interviews.

The findings demonstrated that concerning web-based games and interactive activities, students expressed a variety of positive feelings and willingness to employ more of them in the class. It was also reported that these games were both educational and entertaining reported by the students. However, although 73.7% of students in semi-structured interviews pointed out the web-based games and interactive activities influenced their academic development, the quantitative findings revealed that there isn't any significant difference between the control and experimental group.

Moreover, the current study had several implications and suggestions for future research and instructors on how to incorporate web-based games and interactive activities into the classroom successfully.

Keywords: English Language Teaching, Digital Game-based Learning, Young Learners, Motivation in ELT, Technology, Technology in ELT

ÖZ

Bu çalışma, 2022-2023 güz döneminde Gazimağusa Kuzey Kıbrıs Türk Cumhuriyeti'nde özel bir ilkokulda İngilizce dersi alan dördüncü sınıf öğrencilerinin İngilizceyi yabancı dil olarak öğrenme motivasyonlarını artırmak için web tabanlı ve interaktif oyunların (Baamboozle, Wordwall, Quizizz ve Liveworksheets) kullanımını araştırmayı ve bunların İngilizce dersindeki akademik başarıları üzerindeki etkisini değerlendirmeyi amaçlamıştır.

Veri toplama ve verilerin analizi, keşfedici sıralı karma yöntem deseni kullanılarak gerçekleştirilmiştir. (n=40) Araştırma verilerinin toplanması hem kontrol, hem de deney grupları için ön test ve son test ile başlayıp, deney grubu ile web tabanlı oyunlar ve interaktif aktivitelerle yapılan öğretimde araştırmacı/öğretmen alan notları alınmıştır. Ayrıca deney grubu (n=19) ile son test sonrası yarı yapılandırılmış görüşmeler yapılmıştır. Buna göre veri analizi; ön test ve son test için SPSS'te Mann Whitney U-Testi ve Wilcoxon İşaretli Sıralar Testinin uygulanması, yarı yapılandırılmış görüşmelerin analizi ise MAXQDA kullanılmasıyla gerçekleştirilmiştir.

Bulgular, web tabanlı oyunlar ve interaktif etkinliklerle ilgili olarak, öğrencilerin çeşitli olumlu duygular ifade ettiklerini ve bunları sınıfta daha fazla kullanmaya istekli olduklarını göstermiştir. Bununla birlikte, bu oyunların öğrenciler tarafından hem eğitici, hem de eğlendirici olduğu belirtilmiştir. Öte yandan, yarı yapılandırılmış görüşmelerde öğrencilerin %73.7'si web tabanlı oyunların ve interaktif etkinliklerin

akademik gelişimlerini etkilediğini belirtmiş olsa da, nicel bulgular kontrol ve deney grupları arasında anlamlı bir fark olmadığını ortaya koymuştur.

Ayrıca, mevcut çalışmayla, web tabanlı oyunların ve interaktif etkinliklerin sınıfa başarılı bir şekilde nasıl dahil edilebileceği konusunda gelecekteki araştırmacılar ve öğretmenler için çeşitli çıkarımlar ve önerilerde bulunmuştur.

Anahtar Kelimeler: İngilizce Öğretimi, Dijital Oyun Temelli Öğrenme, İngilizce Öğretiminde Motivasyon, Teknoloji, İngilizce Öğretiminde Teknoloji

DEDICATION

This thesis is dedicated to
my mother
Aliye Sunar,
my father
Sannur Sunar,
and
my dear friend
Nesrin Hürriyetoglu

ACKNOWLEDGMENT

It's a real pleasure to thank everyone who has contributed to this study. First, I'd like to express my deepest gratitude to my supervisor, Prof. Dr. Naciye Kunt. Her knowledge, never-ending positive energy, encouragement, patience, and guidance were priceless experience to me.

I would like to extend my sincere thanks to the committee members; Prof. Dr. Bahire Özad and Asst. Prof. Dr. Fatoş Erozan. The completion of my thesis would not have been possible without their support and invaluable feedback.

Words cannot express my gratitude to Nesrin Hürriyetoğlu. Even though she was studying on her PhD and writing her own dissertation, she took time out of her day and night to lead me through this path. I'm delighted to have had the experience with her, as she was a fantastic guide but an even greater friend during the whole journey. May she rest in eternal peace.

I truly appreciate family of Faculty of Law; namely Assoc. Prof. Dr. Arzu Alibaba, Asst. Prof. Dr. Hakan Bilgeç, Sr. Instr. Ulvi Nail Gün and dear Emine Soykara Oranlı, for their endless support, continuous encouragement, and positive attitude.

A million thanks to my wonderful friends Warda Gacemi and İdil Pehlivan for the inexhaustible assistance, efforts, and insights. I am indebted to every one of my friends; Erjona Keçi, Seval Akgürel. Having you by my side through it all means the world to me, and I am grateful for your faith in me.

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LIST OF ABBREVIATIONS

DGBL	Digital Game-Based Learning
EFL	English as a Foreign Language
ELT	English Language Teaching
GBL	Game-Based Learning
ICT	Information and Communication Technology (ICT)
L2	Second Language
SCT	Social Cognitive Theory
SPSS	Statistical Package for Social Sciences
TELL	Technology Enhanced Language Learning

Chapter 1

INTRODUCTION

This thesis aims to present the outcomes of an experimental study done with fourth-grade students in TRNC. It emphasized the use of web-based games and interactive activities to motivate students to learn English as a Foreign Language (EFL) and assess the impact on their academic progress in English class.

In this introductory chapter, an overview of the study is presented. The chapter begins with the background of the study. This is then followed by research questions, problem statement, purpose of the study, the significance of the study, and the summary.

1.1 Background of the Study

Technology has evolved to the point that it is now an integral part of people's day-to-day lives in the 21st century. Given the undeniable fact that technology is having an increasingly pervasive impact on all aspects of human existence, technology is inevitably being used in all educational settings (Avara, 2021).

The latest research on how and why today's students utilize technology in the classroom suggests that the use of modern technology and tools promotes student learning and involvement (Raja & Nagasubramani, 2018). Therefore, instead of reading a bunch of text, students would rather see something visually engaging. Thereby, technology is an effective instructional and supplementary tool in a variety

of teaching and learning situations, and this is especially salient in English language education attributed to the reason that it gives a wide range of possible opportunities to accomplish ultimate objectives. Accordingly, Altun and Ahmad (2021) assert that technology is a significant component in advancing the teaching and learning process in education, notably for English language instruction.

Over the years, the field of English language teaching (ELT) has changed dramatically based on the unique characteristics of the students, including their needs, age, interests, aptitude, motivation, learning style, and era. Consequently, the influence of a highly dynamic context paves the way for a variety of requirements and duties for teachers and pupils. Thus, the findings of Onalan and Kurt's (2020) study have implications and that is teachers need to be given a lot of technology, administrative and technical support, and ongoing training that is intended to fulfill their needs in using and integrating technology.

In today's digital age, it is crucial for institutions to keep pace with technological advancements in order to preserve the motivation of their students, since one of the most fundamental parameters determining how well a second language is learned is the learner's motivation (Değirmenci, 2021; Alamer & Alrabai, 2022). According to Ushioda (2013), motivation is commonly acknowledged as a crucial element influencing second or foreign language (L2) learning success. It is apparent that motivation is an important criterion for learning.

Moreover, the level of motivation in English as a Foreign Language classroom is a highly significant factor to consider (Goctu, 2016). Incorporating a motivational component into young learners' English language instruction is pivotal because

motivated students learn more and remember it longer. However, technology and motivation alone are insufficient. Another element to consider while educating young learners is maintaining enthusiasm for learning.

It is widely known that games are vital for learning, especially for young learners. As believed by Ghazal and Singh (2016), game-based learning (GBL) is seen as one of the ways to motivate and encourage these young learners. The use of game-based learning is a fantastic method for enhancing the acquisition that takes place in the classroom.

Supported by the latest technology, game-based learning has the potential to facilitate social interaction and collaboration among students, increase learning motivation and competitiveness, create excitement, and ultimately aid in the attainment of learning objectives (Hwang & Chen, 2022). Hence, pursuing game-based learning via online platforms (such as Baamboozle, Wordwall, Liveworksheet, Blooket, etc.) is the most efficient way of teaching English to these digital natives, since the incorporation of games and technology into the teaching has the possibility to increase the learners' enthusiasm and motivation.

Regarding the research of Sabirli and Coklar (2020), the implementation of instructional digital games vastly increased the academic achievement of second graders. As technology has improved, web-based games have become an important aspect of learning a new language. It is increasingly being utilized in schools to boost students' creativity and competency (Rosalin et al., 2022). In this perspective, the use of instructional web-based games has become ubiquitous with the intention of educating young learners.

In a nutshell, Ng (2015) remarked that the employment of digital technology in education has experienced a substantial transition. It is commonly acknowledged that integrating modern technology into teaching English entails using novel approaches, resources, materials, systems, and processes that are relevant to English language education and help toward the desired goals. Therefore, web-based games have become an essential component of the process of acquiring a second language in this era of rapid technological advancement and are becoming more popular in schools to foster pupils' creative thinking while also strengthening their proficiency and motivation (Rosalin et al., 2022).

1.2 Problem Statement

It has been observed that there is a research gap in the literature about the effect of web-based games and interactive activities on young learners' motivation and their academic progress in EFL classes.

One of the most essential qualities for young students to possess in order to be successful in English classes is motivation. A number of adjustments in the classroom setting are required in order to sustain and enhance the level of motivation shown by these "digital natives."

Technology is a fundamental and integral part of the lives of digital natives as they grow up with it. One area where technology has had a significant influence is education. Owing to the advent of technology, the educational system has seen a sea change in teaching and learning techniques. Gilakjani (2017) claimed that technology has changed the techniques of language teaching as well as the responsibilities of the instructor in the classroom. Accordingly, Sartor (2020) mentioned that "Gen Z"

children, or digital natives, are constantly using technology and wish for their instructors to use technology to teach them.

Moreover, the implementation of innovative methods, tools, materials, technologies, systems, and techniques that are significant to English language education is crucial. Hence, Shamsutdinova et al. (2017) reported that interactive activities encourage students to be attentive and participate while also assisting instructors in creating engaging classes. These interactive activities and games can also promote teamwork, decision-making, and comprehension (Prensky, 2003).

One of the most effective methods for enhancing classroom acquisition is game-based learning. Teachers have begun incorporating web-based games into their lessons since digital natives like both technology and gaming. Yet, although some teachers already utilize techniques like web-based games in the classroom, there is an immediate need to implement more of these kinds of initiatives.

1.3 Purpose of the Study

The main aim of the study is to examine the use of web-based games and interactive activities (Baamboozle, Wordwall, Liveworksheets, Quizizz) to increase students' motivation to learn English and the influence of these games on the academic progress of students. This study conducted with 4th grade students at a private primary school in TRNC. Also, another aim is to help researchers and teachers to have better understanding of these web-based games and interactive activities in the EFL classes.

1.4 Research Questions

The goal of this research is to shed light on the implementation of web-based games and interactive activities (Baamboozle, Wordwall, Liveworksheets, and Quizizz) in EFL classrooms with young learners. Consequently, the following research questions and sub-questions are addressed:

1. What role do web-based games and interactive activities play in increasing students' motivation?
2. How effective are web-based games and interactive activities in improving students' academic performance?

Sub-questions:

1. Is there any significant difference in the academic success scores in English between the pre-test and post-test scores of the fourth-graders in the experimental group?
2. Is there any significant difference in the academic success scores in English between the pre-test and post-test scores of the fourth-graders in the control group?
3. What are the thoughts and feelings of the students in the experimental group about the English lesson that was taught through the use of web-based games?

1.5 Significance of the Study

The paradigm in English language instruction in the twenty-first century has undergone a drastic shift as a result of the advancement of technology, particularly in the study of English as a foreign language. Thanks to technological improvements, there is an infinite stream of resources available to language learners (Bull & Ma, 2001). Thus, technology has become a powerful tool for instructors and can be used

in the classroom to encourage learning and extend students' practice of the target language by keeping them up to date on outside classroom trends and changes. The teacher's expertise is using technology in their classes in order to foster motivation. To the best knowledge of researchers, there isn't much experimental research on the topic of the use of web-based games in EFL classrooms with young learners. As a result, more research is needed to understand the learning outcomes that technology can enhance and the circumstances under which such an enhancement can be realized in practice in young learners' EFL classrooms.

Ultimately, the findings of this study can point to a better understanding of these web games in the classroom by analyzing student motivation and classroom dynamics. Moreover, it could be a source of inspiration for material design in the classroom. Furthermore, by implementing these games in the classroom, EFL teachers might be more creative and make the classroom more enjoyable for the young learners. In addition, there has only been a limited amount of research conducted about web-based games with young learners in EFL courses. Therefore, findings of the research may have the potential to advance the field of English Language Teaching.

1.6 Summary

In this chapter an overview of the study's background, research aims, purpose of the study, research questions, and significance of the study are presented.

Followingly, the second chapter provides a literature review focusing on motivation and education; game-based learning; technology in ELT; technology enhanced language learning; and teaching English through web-based games.

The third chapter outlines the research design and methodology used to explore the research questions. It describes the study's context, participants, data collection process, and data analysis method.

The findings of the study are presented in chapter four. The results from the semi-structured interviews, the pre-test, and the post-test, as well as the researcher field notes, are covered in this chapter.

The fifth and final chapter of the thesis begins with a short review of the study, moves on to a discussion of the research findings, limitations and then concludes with recommendations for additional research on the use of web-based games in EFL classrooms.

Chapter 2

LITERATURE REVIEW

The primary objective of this research is to investigate the role of web-based games in boosting students' levels of motivation to learn English as well as the impact that playing these games has on the academic development of students in an EFL class in the fourth grade. Therefore, this chapter will review literature on four fundamental elements, namely: motivation, game-based learning, the incorporation of technology into EFL classes, and the usage of web-based games.

2.1 Philosophy of Motivation

Researchers in a range of domains, including psychology, human development, education, sociology, and business, are interested in motivation. Motivation dates back to ancient Greece, namely to the times of Socrates, Plato, and Aristotle (Pintrich & Schunk, 2002).

According to Pakdel (2013), the Ancient Greeks based their earliest motivational actions on three components: the will of the body, pleasures, and bitterness. According to Plato, there is a hierarchy that is divided into intellectual, emotional, and physical components. On the other hand, Aristotle maintained the metaphysical hierarchy for over twenty years. Nevertheless, he employed various innovations that were distinct from his initial conviction. He held the view that the body's physiological and emotional needs are important to the concept of motivation. Together, these two components form the irrational motivation force. The logical

aspects of the mind, such as intellectual concepts and some voluntary traits, are all included in the logic part. Later, Descartes made a distinction between passive and active motivational elements. Descartes held the belief that the will is the active component of motivation, while the body is an inert aspect. The human body has a physical and mechanical character, and it has nutrient needs that are satisfied via the use of senses, while also providing physiological response to the surrounding environment. The mind possesses cognitive, ethical, and intellectual will. For this reason, one's own willpower remains a constant source of motivation. Descartes committed motivation solely to the will of man for the first time.

Motivation is an essential factor in all spheres of human behavior. The term "motivation" is derived from the Latin verb "movere," which means "to move" (Cofer & Petri, 2023). It can be described as a synthesis of motive and action. Graham and Weiner (2004) characterize motivation as the "study of why people think and behave as they do" (p. 63). Motivation is a complex concept that seems to defy a comprehensive definition (Mifsud, 2011). Therefore, as in Table 2.1, numerous scholars have defined motivation in a variety of ways. Dörnyei (2001) asserted that there have been a number of theories about motivation developed by scholars, each privileging a distinct set of key motives.

Table 2.1: Definition of Motivation

"...the choice of a particular action, the persistence with it, the effort expended on it." (Dörnyei & Ushioda, 2013, p.4)
"...can be seen as processes that can arouse and instigate behavior; give direction and purpose to behavior; continue to allow behavior to persist; and lead to choosing or preferring a particular behaviour." (Włodkowski, 1978, p.7)
"...is the driver of guidance, control and persistence in human behavior." (Tohidi & Jabbari, 2012)
"...deals with why human behavior occurs." (Ray, 1992, p.3)
"...is defined as a cognitive process." (Osborn et al, 2012)
"...is a desire to do something." (Kim, & Lee, 2008)
"...everything that drives and sustains human behaviour." (Gard, 2001)
"...is the stage that triggers the whole decision process." (Harmon-Jones, & Harmon-Jones, 2010)
"...is a necessary ingredient for learning." (Tella et al., 2007)
"...is what moves us to act." (McDonough, 2007)

One way to think about motivation is as an active activity on the part of a person that is prompted by a stimulus that acts as a driving force. The action of a drive will inherently inspire a motive, according to such a viewpoint, which forecasts this outcome (Michael, 2019). Historically, several different classic psychological drive models were created to shed light on the causes of drive-dependent motives.

For instance, Sigmund Freud is credited with the creation of the Freudian motivation theory (Peters, 2015). This theory looks at how people's unconscious wants drive and shape their actions. Furthermore, Hull (1943) proposed the Drive-Reduction theory, which focuses on how motivation arises from biological requirements or drives. According to Hull's theory, a person's actions are really a sign of a fundamental need to make up for some kind of physical deficiency (Sincero, 2012). Hull (1943) lists

his principles: Responses can't happen without the presence of motivation. For conditioning to take place, both stimuli and responses must be registered by the organism. Conditioning requires an action or reaction from the learner. It is only when a need is met by reinforcement that conditioning takes place. It can be interpreted in education as learners needing to have a genuine interest in their studies, pay close attention throughout class, and take an active role in their education for it to be effective.

2.1.1 Motivation and Education

The 21st century's education system is undergoing significant conceptual, theoretical, fundamental, and methodological changes. One of the factors that plays a crucial role in education is motivation. Therefore, educators have been concentrating more on motivation than any other factor in order to improve their students' learning.

Motivation is defined as the psychological condition that prompts an individual to take action. According to Ormrod (2013), motivation can steer attitudes toward goals, enhance energy and effort, improve cognition, and promote reinforced performance. In addition, Ellis (1985) asserts that those individuals who have a skill and a higher degree of motivation for learning are going to be the ones that acquire knowledge in the most efficient manner. Students who are highly motivated often participate in activities of their own free will, and they find the process of learning fun (Skinner & Belmont, 1993). Thus, motivation is the driving force behind any successful educational endeavor. Also, Palmer (2007) argues that student motivation is a vital component that is required for quality education. In light of this, if students lack the motivation and enthusiasm to learn, they will not put forth the effort required

to change their habit (Park, 2018). Hence, no surprise that lack of motivation is a major challenge for educators, counselors, principals, and parents.

The concept of motivation encompasses a wide range of topics, and the field of education can make use of a number of various motivational approaches. The following theories contribute to the most significant findings of the learning process. The role of motivation in the classroom has far-reaching consequences for students' attitudes and approaches to learning. There are two main components that have a significant role in both the atmosphere of the classroom and the motivation of the students: intrinsic and extrinsic motivation.

Ryan and Deci (2000) characterize intrinsic motivation as doing something for its own sake without regard to external benefits. Intrinsic motivation can be stimulated by a variety of important aspects, including the appropriate amount of challenge, sufficient abilities, a sense of control, curiosity, and imagination. On the other hand, Vansteenkiste et al. (2006) argue that extrinsic motivation is the urge of individuals to engage in activities in order to achieve something that is not directly related to the work itself. In the context of education, for example, a student does his homework to avoid detention; chocolate is a reward for a high grade; and so on. Consequently, scholars believe that intrinsic motivation is more desirable. Moreover, the learning outcomes are better than the results of extrinsic motivation (Deci et al., 1999).

The theory that evolved from intrinsic and extrinsic motivation is the self-determination theory (Ryan & Deci, 2000). Self-determination theory's fundamental premises highlight a link between the needs (autonomy, relatedness, competence) and intrinsic motivators. The self-determination approach places an emphasis on the

role that instructors play in supporting the needs of their students (Assor et al., 2002). Relatedness support encompasses a variety of teaching activities, such as showing love, committing time and resources, being eager to assist, and organizing the learning environment in a way that is not competitive. Competence support can be characterized by a number of actions taken by teachers, including providing ideal challenges and rapid feedback that is not meant to be evaluated (Connell, 1990). Autonomy support comprises instructor practices including lack of compulsion, offering choices, allowing expression of negative emotions, supporting personal efforts, and recognizing the students' viewpoint (Reeve, 2006). Hence, when it comes to education, the main goals of self-determination theory are to get students interested in learning, to value education, and to have confidence in their own skills and abilities.

The Maslow's Hierarchy of Needs Model (1943) is one of the theories that helps to explain how students are motivated to learn. In this concept, students are unable to go to the next level unless the requirements of the level below them in the hierarchy has been accomplished. In this model, teachers play an important role in increasing students' motivation. Physiological requirements (water, food), safety needs (keeping students safe at school), love and belonging, and esteem (respect, self-esteem) make up the levels of the pyramid. At the last stage, self-actualization, learners can reach their highest capacity. It means that students' physiological and safety needs are met. They have a strong sense of self-esteem and believe that they are liked and respected by others around them. They are able to alter their focus to become the best version of themselves. Therefore, if teachers take all of these needs into account in the classroom, it will be easier for students to stay interested in the learning process.

A significant number of researchers set out to develop theories on how to stimulate and maintain learners' levels of motivation throughout the learning process. As a result, John Keller (1983) came up with the ARCS motivational theory. Attention, Relevance, Confidence, and Satisfaction are the traits that are abbreviated as ARCS. To begin with, it is essential to get the students' attention in the learning process. The second factor is the students' experiences and needs. After that, confidence is connected to the feelings and expectations of the pupils. To sum up, an optimistic attitude toward learning and the knowledge gained result in satisfaction at the completion of the learning process (Keller, 2018). It is an important theory since it is an active learning model that stimulates student engagement, maintains the learner's interest throughout the learning process, and keeps the learner engaged the entire time. The ARCS model is adaptable and can be integrated into a broad range of educational settings, such as classroom instruction, professional development, and online courses. It also maintains its applicability during the course of time and is simple to implement in the classroom.

In addition, the Social Cognitive Theory (SCT), which was first suggested by the psychologist Albert Bandura (1989), is yet another theory that has an impact on students' levels of motivation in the classroom. SCT is the process of learning via exposure to many forms of media and personal experiences, interactions, and observations (Bryant et al., 2002). According to Bandura (1989), the Social Cognitive Theory demonstrates how individuals acquire and retain a variety of behavioral patterns and gives fundamental intervention tools such as interactive learning, which enables pupils to build confidence through practice.

Another theory that influences motivation in education is Vroom's (1964) expectancy theory. Accordingly, it is used to identify the source of motivation and explore how it appears in individuals. Hence, there are many different elements that influence this source of inspiration. Vroom (1964) argues that human motivation involves effort, performance, and intrinsic attractiveness. This philosophy emphasizes outward praise and rewards (Van Eerde & Thierry, 1996). The prize comes in phases. First, the student must be motivated and feel he/she will only get a good grade if he/she works hard. This is called instrumentality. In the last stage of expectancy theory, rewards have achieved intrinsic attractiveness (Hemamalini & Washington, 2014).

It's almost redundant to point out the importance of motivation as a fundamental tenet of learning. A lot of research has been done on how important motivation is for learning, and the results are thought to be worth putting into practice. Moreover, former United States Secretary of Education Terrell H. Bell asserts that there are three things to remember regarding education. Motivation, motivation, and motivation (Ames, 1990). Since it is so widely discussed, a great deal of study has been done on the topic, many theories have been developed, and many ideas have been uncovered, particularly in the study of student learning.

2.1.2 Motivation Element in English Language Education

The process of learning a language is heavily dependent on motivation. It is essential to have a solid understanding of its theoretical development to be able to evaluate its significance in the context of the learning and teaching of L2. Dörnyei (1999) stated that motivation is one of the most challenging notions. Therefore, numerous scholars have published works on the subject of the motivation in second language (L2)

learning. The progress of research in L2 motivation over the last forty years has been enhanced by its connection with motivation theories in the psychological and educational fields (Ellis, 2008).

Motivation is commonly acknowledged as a crucial element influencing the effectiveness of L2 learning (Alamer & Alrabai, 2022; Ushioda, 2010). In this context, motivation is what leads to taking action, namely, learning English or learning how to teach English. Considering this, it comprises some factors: the rationale behind learning, the intensity of interest in learning, the personality, and the activity. Oxford and Shearin (1994) claim that students' level of motivation determines their use of L2 learning strategies, frequency of interaction, amount of input, performance on exams, development of L2 proficiency, and persistence.

The study of L2 motivation has progressed through a number of phases, and academics in the subject have conceptualized a number of distinct L2 motivation models. There have been three distinct epochs in the history of motivation in foreign language learning and teaching (Dörnyei & Ushioda, 2011):

- the social-psychological period;
- the cognitive-situated period;
- the process-oriented period.

The most prominent theory on motivation was established during the social-psychological period, and its progenitors were the psychologist Robert Gardner and his colleagues, as well as Wallace Lambert. Gardner (1985) mentioned that motivation for learning a second language is generally understood to be the

combination of effort, positive attitude, and desire to attain the objective of learning the language.

Moreover, the notion of integrativeness is fundamental to this strategy. In the social-psychological era, Gardner and his colleagues established an integrative orientation and an instrumental orientation, both of which have received considerable attention in second language motivation studies. Integrative orientation, as described by Gardner (1985), involves having a favorable view of the second language community and desiring to become an integral part of it. On the other hand, learning a second language with the goal of material gain, such as a higher income or promotion at work, is an example of instrumental orientation, which is the polar opposite of integrative orientation.

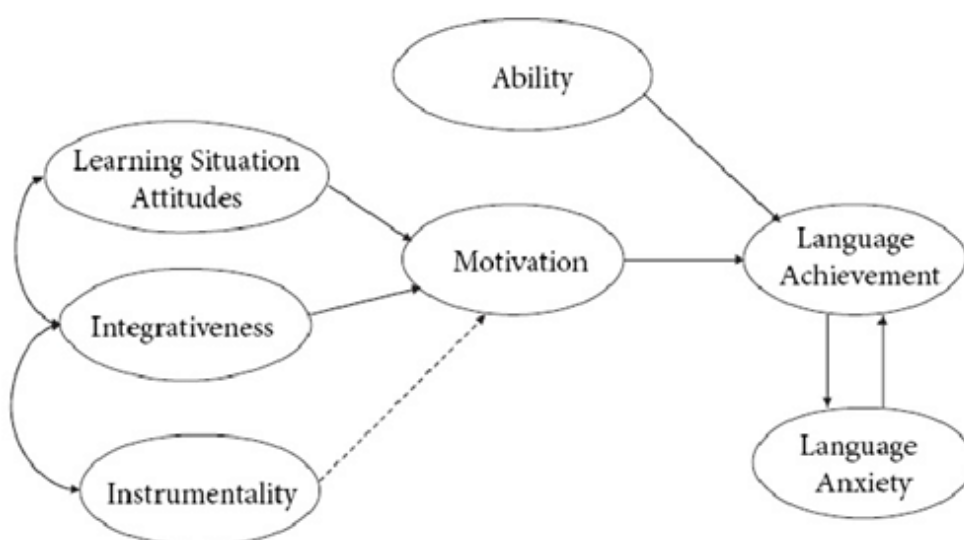


Figure 2.1: Socio-Educational Model (Gardner, 2001)

Gardner's studies helped shape his socio-educational model of SLA over time. Research by Lai (2013) supported Gardner's basic model contention that a direct correlation exists between the two factors of motivation and ability and the success

that people have while learning a foreign language. In particular, Gardner emphasizes the interplay between three constructs: motivation, attitude toward the learning situation, and integrativeness.

It is essential to point out that, subsequent to Gardner and Lambert, additional theories about motivation emerged throughout this time period. One of these theories is linguistic self-confidence (Noels et al., 1996), which supports the notion that every individual who interacts with the L2 community has the potential to be inspired by the idea that they are a part of a linguistic community. What's more, Schumann (1986) introduced the concept of acculturation. Acculturation is the learner's incorporation into the L2 community. Nevertheless, intercultural interaction with the L2 group is simply the beginning of this learning process. Participating in this setting helps the learner to engage with L2 speakers and offers the required input for learning to occur.

Besides, the cognitive period aimed to return the investigation's attention to the psychological area, focusing primarily on cognition since the social psychological period had its focus on the significance of language learners' attitudes and sentiments regarding L2 communities. The classroom learning environment and the requirements of students and instructors were deemed more important than the community and social milieu. This was not to say that social and psychological discoveries were ignored; rather, the goal was to expand earlier ideas while taking into account additional cognitive views.

Furthermore, studies of motivation focus on the relationship between motivation and the educational setting. Therefore, motivation is not a static but rather a dynamic construct (Dornyei, 2005).

In addition, Dornyei and Ottó (1998) presented a comprehensive model of the situation-specific dimension of motivation. Their model divides the motivational process into three distinct phases: the pre-actional phase, the actional phase, and the post-actional phase. Each step is believed to depict motivational processes as they occur in real life. This process-oriented model is useful for language teachers whose goal is to boost L2 student motivation. It divides the motivating process into temporal segments, making it an ideal option for instructors as it is a continuous process of shaping and maintaining student participation in learning (Ushioda, 2001). The pre-actional stage is the period when motivation is formed. This leads to the determination of the aim to be pursued. The actional stage is also known as executive motivation, and it refers to the ability to continue engaging in a task in the presence of distracting forces. The last stage, post-action, occurs after the action has been carried out. Motivational retrospection describes this process. This concept pertains to the analysis of past actions and their implications for potential future actions (Selinker & Gass, 2008).

Later on, Dörnyei (2005) studied the relationship between motivation and the L2 self and concluded that motivation includes the urge to lessen the disparity between one's real self and the anticipated behavioral norms of the ideal/ought-to self. Moreover, Dörnyei and Ushioda (2011) argued that the motivational self-system is a more accurate indicator of a learner's holistic motivational temperament than Gardner's notion of integrative motivation in the socio-educational model.

Accordingly, the L2 comprises the following three dimensions: Ideal L2 self, Ought-to L2 self, L2 learning experience. As defined by Higgins (1987), an individual's "ideal self" is their representation of the traits that they would ideally want to possess (hopes, ambitions, or desires). Hence, this aspect is connected to Noels' (2003) integrative category. The ought-to L2 self as articulated by Higgins (1987) and the extrinsic parts of instrumental motivations as defined by Noels (2003) are both parallel to the second dimension. The ought-to self refers to the qualities that a person feels they should have (tasks, duties, obligations, etc.) in order to protect themselves against potential undesirable results. Lastly, the third dimension is related to Noel's intrinsic category. Executive motivation is affected by factors such as the learner's understanding, the use of self-regulatory mechanisms, the classroom incentive, the effect of the learner group, and the quality of the learner's individual experience. Considering this, the teacher plays a crucial role in establishing a motivating classroom atmosphere (Dörnyei, 2001).

A researcher and teacher (Magid, 2014) in Singapore developed a program to increase students' interest in learning English and encourage them to spend more time and effort on the subject by helping them develop a clearer picture of their ideal selves in the target language and setting more precise learning objectives. Participants lacked both self-assurance and study desire when it came to the subject of English. They also felt unmotivated to learn English. Teachers prompted students to see their ideal L2 selves in scripted scenarios as part of the training program and then helped those students set concrete, attainable objectives and create plans of action to achieve those goals. As a consequence of the program, 90% of the

participants were more motivated to learn English, felt more self-assured in their English, and demonstrated more positive attitudes towards learning English.

Taking into account all of these different theories, researchers carried out a large number of experiments to investigate the role that motivation plays in learning a second language. For instance, a scholar (Fenyvesi, 2020) studied 276 Danish students between the ages of 7 and 9 who began studying English as a foreign language to see whether their perspectives on EFL classes and their motivation to learn improved over the course of the year. The findings indicated that children appreciated the real-world contexts, variety, and differentiation in the English classes, and males were more likely than girls to say that English was their favorite subject. High achievers, as compared to poor achievers, were driven by participating in gaming and watching YouTube videos in English, and the fact that English is an international language was a powerful motivation for children to learn it.

On top of that, in another research, Asmah and Idayani (2022), endeavored to get an understanding of how students in Indonesia felt about taking online EFL classes as well as what motivated them to do so. This study's findings suggest that students had a positive impression of their online learning experiences. The pupils overwhelmingly approved of the instructor's use of technology. However, face-to-face contact between instructors and students was absent, which made online courses insufficient. As time went on, the study's authors realized that students' motivation stemmed from factors such as their curiosity and interest in learning. Students' high levels of confidence also encouraged them to participate in academic enrichment opportunities outside the classroom.

Accordingly, Mifsud (2011) analyzed the motivational link between English teachers and students in Malta. The findings primarily demonstrate that students' desire to learn L2 was significantly impacted by the instructors' relationships with them. The position of the teacher in influencing learners' motivation is crucial and challenging. McDonough (2007) implies that it is the responsibility of teachers to create an atmosphere that is both encouraging and challenging for students to learn, while also fostering the improvement of students' own motivational thinking. Nevertheless, the most challenging component is to refrain from doing anything that will demotivate students. On that account, Fu (2014) compiled a list of strategies teachers might use to motivate students:

- Creating extra motivating resources,
- Appreciating students' efforts,
- Organizing group projects,
- Allowing students to be autonomous about their own textbooks,
- Combining ideas for motivating students from experienced colleagues,
- Integrating technology into the classroom,
- Taking the initiative and acting as a facilitator,
- Changing up the classroom's approach from time to time,
- Encourage collaboration between peers in class.

Nonetheless, the scholar concludes that these ideas can be very successful when used correctly; thus, a lot of effort on the part of both teachers and learners is required. It has also been proven that incorporating information and communication technologies (ICT) into EFL classrooms in Tunisia improves students' motivation to learn (Al-Mohammadi & Derbel, 2014). Although the university that formed the basis of the

study had limited resources for IT integration, it still provided a positive environment. In spite of their limited exposure to and use of technology, Tunisian EFL learners had positive views of its potential incorporation into their English language instruction. The results demonstrated that ICT significantly influences students' intrinsic motivation and academic performance. However, more funding and proper planning are required for IT integration in EFL classrooms.

Another study conducted by Icmez (2009) found that a lack of fundamental novelty in the classroom diminished students' motivation. In addition, increasing student motivation by letting them have some degree of autonomy in the classroom and providing them with tasks that pique their interest has been shown to be effective.

Ushioda (2013) emphasizes the critical role that teachers play in motivating their students in EFL classrooms. Thus, teachers need to devise strategies for overcoming the motivating gaps between their students' outside and inside English-language learning activities, students' aims and interests, the curriculum's requirements, their level of English proficiency, and so on. In a similar vein, Vural (2013) highlighted that teachers of English need to look for novel strategies to motivate their students since motivation is one of the most essential components of the learning process.

2.2 Education in a Digital World

"If we teach today as we taught yesterday, we rob our children of tomorrow."

—Dewey (1916)

The most essential component of an individual's development is their capacity for ongoing learning throughout their lives. Mandela (1990) stated that "education is by far the most effective weapon that you can employ to transform the world". Thus,

education is intended to empower people and aid them in realizing their full potential. It has the capacity to alter the lives of individuals. Moreover, education has been a component of human civilization for millennia.

Recently, people's habits and education have shifted significantly due to the advent of technology. The 21st century is often conceived as the era of technology since the function of technology in modern society is crucial. Furthermore, the whole meaning of "living" has been rethought because of its effects on many spheres of human activity. In modern, globalized society, the use of various technologies has become ingrained in all aspects of everyday activities and interactions. Hence, there is no aspect of life in which technology does not have a significant influence.

The education field is one of the many that is being influenced by the rapid pace of technological advancement, which has become an essential component of all educational systems around the world, albeit in a variety of forms and layers (Al-Mohammadi & Derbel, 2014). Today, technology is ubiquitous in every student's life. Their exposure to modern technological advancements necessitates a change in their learning method. Since technology is continuously changing learners' demands, requirements, and learning habits, traditional instructional practices are no longer appropriate in this context. Technology has been making it simpler for educators to build learning experiences that cater to the various skill levels, learning styles, and emotional or social requirements of their students (Navarre, 2018). Besides, when students learn with the aid of technology, they are able to learn more efficiently and remember more.

In the opinion of Yadav et al. (2018), classrooms are not the same as they once were. The old classrooms with blackboards and strict teachers have been replaced by "smart" classrooms with computers and other technologies. Integration of information and communication technology (ICT) into education aims to boost students' progress in class, decrease teachers' workloads, and enhance the students' effective learning. Misra and Koehler (2016) stated that the use of ICTs has grown increasingly significant in the field of education thanks to the positive effects it has had on students' engagement with and comprehension of course material and the classroom's overall atmosphere. Student involvement, productivity, and learning efficiency, as well as motivation, are all increased when information and communication technology such as smart boards, tablets, smartphones, the Internet, and laptops are utilized in the classroom setting (Gunuc, 2016). Since technology assists in the delivery of successful instruction, educators are eager to include it in their lessons. The goals of implementing ICT in education are to increase students' learning velocity in the classroom, decrease expenses, and improve educational outcomes.

What's more, Lee (2000) argued that the existence of information and communication technologies, notably in English language teaching, has had far-reaching effects on both instructors and their students. Thereby, technology has brought several advantages to the field, which included enhanced student learning, resources, tools, novel approaches, and so on. Traditional methods of teaching the English language have given way to more modern methods such as online learning, flipped classrooms, computer-assisted language learning, mobile-assisted language

learning, robot-assisted language learning, hybrid learning, e-learning, blended learning, technology-enhanced language learning, and so on.

In conclusion, technology is the element that all of these novel approaches have in common. Students are able to get the information they need at any time and from any location since technological advances have removed all obstacles. They just need a means of accessing the internet and some kind of electronic device. All these are employed to make the students' learning more engaging, meaningful, stimulating, and motivating (Chabra, 2012).

2.2.1 Technology-Enhanced Language Learning

In today's world, there is a significant correlation between the use of technology and language learning, which has prompted a great number of language educators, scholars, and industry professionals to consider the ways in which technology has altered the field of English language instruction around the world (Chapelle, 2003). In this way, technology-enhanced language learning (TELL) is one of the methodologies that focuses on how technology influences L2 instruction and learning.

The term "technology-enhanced language learning" is often used to describe the practice of enhancing a traditional language teacher's methods with the use of computer-based multimedia presentations. TELL's primary objective is to investigate and develop methods that make use of technology to facilitate the teaching and learning of the language. To put it another way, it refers to the use of various technologies that enhance and support educational learning (Goulshan & Tafazoli, 2014).

Technology improvements force language instructors and learners to acquire new skills and capacities. Using technology to aid in the classroom is a matter of the instructors' creativity (Kastuhandani, 2014). As stated in the review study (Ghanizadeh et al., 2015), the use of various forms of technology can have profound effects on students' development across a variety of instructional settings.

Additionally, technology enhances training requirements, education systems, and syllabus designs. Therewithal, students can be motivated to learn through the use of interactive technologies, which can create an authentic learning environment. While using technology, students are more likely to be motivated to learn and retain knowledge. Thanks to the resources made available by smart schools, children have been able to adopt more optimistic views of discipline. This analysis demonstrates that various kinds of technology can be employed fruitfully in EFL classes.

Overall, the use of modern technologies raises the quality of input, increases the authenticity of communication, and yields feedback that is both more relevant and more helpful. The use of digital tools has a favorable impact on both student engagement and teacher productivity in the classroom. As reported by the study (Eshankulovna, 2021), TELL gets students interested in learning English; it helps them become better communicators; it increases their familiarity with English-speaking cultures; it makes teachers more effective; and it boosts student engagement and teacher rapport. Even more, the availability of the Internet, the emergence of interactive and collaborative Web 2.0 tools, and the use of social web and mobile technologies have all contributed to a significant shift in the manner in which technology is integrated into ELT. Thus, this shift has caused a tremendous amount of change (Dudeney & Hockly, 2012).

Today, teachers must be familiar with technology in order to meet the demands of learners. When compared to traditional means of instruction, visual aids like PowerPoint presentations, movies, animation, etc., have been shown to be more effective in improving students' ability to recall material (Raja & Priya, 2021).

The use of technology in the classroom is widespread, and it has been especially effective in the field of EFL instruction. As a means of education, it has brought about a sea change. When used with appropriate teaching approaches, technology can enrich and increase learning (Önalán & Kurt, 2020). Shyamlee and Phil (2012) claim that technology has changed traditional ELT by giving instructors new ways to engage their students. They believe this boosts the efficiency of teaching English, proving that technology aids linguistic and social development.

For instance, Hazar (2020) compared digital games to pen-and-paper methods for boosting 37 third-graders' English vocabulary. Digital games on the Education Informatics Network (EBA) were utilized to teach vocabulary in a Turkish elementary school. In the post-test, the experimental group outperformed the control group statistically. Results show that using digital games to teach vocabulary improves students' vocabulary.

Similarly, Wong and Hew (2012) studied the effects of blogging and scaffolding on Singaporean elementary students' narrative writing. The findings pointed to the fact that the mean scores of the students had increased. Students' remarks showed that they have optimistic views towards using blogs for writing activities.

Also, Hong et al. (2016) studied robot-assisted multimedia educational materials in an EFL class at an elementary school in Taiwan. The results showed that the experimental group outscored in terms of learning motivation, listening, and reading abilities. The researchers concluded that employing Web 2.0 technologies accelerates student learning, improves foreign language abilities, and creates a favorable learning environment for technology-enhanced education.

Another research investigated the most and least common technology-enhanced language learning (TELL) technologies in an Iranian EFL setting and EFL instructors' opinions about utilizing them in their language classes. The researchers believed that computer and video projector are the most often used TELL tools in the Iranian environment. They thought instructors' views regarding using technology in EFL classes were positive, despite several barriers and problems. These results corroborate prior research on the benefits of technology in language classes. The findings demonstrate that language instructors, material creators, and syllabus designers should improve the use of TELL technologies in foreign language acquisition (Goulshan & Tafazoli, 2014).

According to Kumar et al. (2022), technology has influenced English teaching and learning recently. Many English instructors and students are inspired by the link between technology and language learning. Therefore, TELL techniques illustrate what learners and instructors do with technology in the digital age, how they incorporate language learning tactics into games, online platforms, and applications, and how they foster self-strategic, self-regulated learning (Zhou & Wei, 2018).

Using multimedia in language education has established a good atmosphere for reforming and investigating English language teaching approaches in the new era. It can be understood that using TELL gives more flexibility and accommodates more types of language learners than traditional teaching. Lastly, it boosts student motivation and learning attitudes (Patel, 2013). Using technology in English classes helps teachers come up with new ways to teach so they can fulfill the demands of the young technocrats growing up in a world that is becoming more globalized (Pim, 2013).

2.2.2 Teaching English to Digital Natives

Digital natives have recently altered the traditional curriculum in EFL lessons since their needs, goals, and personalities vary dramatically from prior generations. Marc Prensky (2010) refers to individuals born after 1980 as "Digital Natives" in the twenty-first century. He refers to this group as "digital natives," defining them as native speakers of computers, video games, and the Internet. Other scholars have labeled these digital natives as "The Net Generation" (Tapscott, 1998) and "Millenials" (Howe & Strauss, 2000).

Furthermore, based on discussions with these digital natives about education, students stated that they don't want to be lectured. According to Prensky (2010), they want to be trusted, and have their ideas appreciated and counted. They want to follow their own interests and hobbies, interact with their peers on group projects and tasks, make choices, and collaborate. They demand an education that is both relevant and authentic. Franco (2013) clearly demonstrates this argument. It has been shown that digital natives have a distinct viewpoint on the educational opportunities that are accessible to them. Although students are immersed in a web-enhanced world that

provides a wealth of educational opportunities, they are not afforded the same opportunities in school.

Therefore, according to Chapelle (2008), to match the demands of today's digital natives, language instructors must continue to develop their pupils' technological competence. Otherwise, they will be regarded as out of date. In light of that, Kivunja (2014) stated that the integration of digital technology into all pedagogical activities, including instruction, assessment, and curriculum design, is necessary in order to be successful educators in the classroom of the twenty-first century. For instance, Utku and Dolgunsöz's (2018) research attempted to determine how effective online vocabulary games are at imparting new words to elementary school students learning English as a foreign language. It was found via semi-structured interviews that pupils were more engaged while playing online vocabulary games. It was also noted that young students were entertained by digital games and were interested in learning through them. According to Yeşilel (2016), the world of digital technology is a vibrant and imaginative one. When students are actively involved in their learning, they become more optimistic, which in turn boosts their academic performance. Thus, digital technologies encourage students to work together and enhance students' autonomy in the classroom.

The so-called "digital natives" are characterized by their excessive use of Web 2.0 and other forms of digital media. In order to be prosperous in the 21st century, the education industry has to adapt to new challenges and shift in response to the needs, preferences, and goals of digital natives (Prensky, 2001). It is essential for educators to develop curriculum around the competencies that are anticipated to be necessary for success in the 21st century if they intend to reach the leaders of the future in

today's classrooms (Anetta, 2008). As a consequence of this, educational resources and settings need to be tailored to the characteristics of today's learners.

2.2.3 Perks of Technology in Young Learner's EFL Classes

In this digital era, technology has been shown to be one of the aspects promoting teaching and learning in the classroom. Digital tools are gradually making their way into EFL classes for young learners throughout the world. In line with that, young learners acquire digital abilities at an early age, allowing them to engage in technology-driven activities (Maria, 2015). Therefore, EFL teachers are urged to utilize technological tools to enhance their learners' language abilities (Dudeney & Hockly, 2007). Linse (2009) claims that teaching English to young learners is a developing field, and there are many initiatives being done all over the world to improve the process for instructors as well as learners. Thus, several technology-integrated ELT-related studies are conducted for the benefit of young learners, namely, digital natives.

The research by Stipanovic (2021) indicated that primary and secondary school students and instructors had positive views regarding tablets and their use in EFL. It was discovered that elementary school students had a more positive attitude toward tablets than high school students. As demonstrated by the findings, there is also a substantial association between students' self-assessed mobile device abilities, age, and attitudes towards tablets in EFL.

Moreover, a variety of applications have been investigated within the area of ELT. Hassan and Hashim (2021) examined the use of Plickers in acquiring EFL vocabulary with 50 primary school pupils of different ages and levels of competence. Referring to the acquired data, it is evident that Plickers had a beneficial impact on

students' perspectives. They were also motivated to utilize Plickers for vocabulary acquisition. From the perspective of students' attitudes towards Plickers, it can be said that the majority of students considered using Plickers in class to be entertaining. Also, participants' positive attitudes and willingness to employ Plickers for future learning classes indicate that they see its implementation as a positive development.

Web-based games (such as Kahoot and Quizlet) were the subject of study in another study (Frangi & Xhaferi, 2022). The research found that students who used technology to learn languages, namely Kahoot and Quizlet, performed much better than those who did not. Students' use of technology in the classroom fostered creativity and academic achievement.

Similarly, Listiani (2021) used YouTube in her EFL classroom with her young students since it is a quick, simple, and engaging learning and teaching resource for young learners. This research suggests that using YouTube may assist kids with fundamental factors including listening, vocabulary, learning outcomes, and personal development. The research confirmed that YouTube is an effective educational tool for boosting students' knowledge and abilities.

In accordance with the aforementioned study, Yaacob (2021) investigated the use of YouTube and video podcasts in one of the cluster schools in Malaysia to teach fourth-grade students the subject of listening comprehension. The results showed that primary ESL students' listening comprehension improved after being exposed to YouTube and video podcasts. An analysis of pre-test and post-test results reveals a statistically significant rise in scores for listening comprehension. As a result, the

young students' curiosity and enthusiasm were piqued, their teamwork skills were honed, and their involvement and comprehension were both boosted.

There have been comparative studies conducted to determine whether or not technology assists young students in learning English. Purportedly, Peterson (2013) conducted a study with kindergarteners on this same topic. Peterson concluded that kindergarteners learn more vocabulary when it is taught via digital games than in the standard curriculum. The study also investigated the attitudes and beliefs of the experimental group's learners towards technology-mediated tasks, finding that they perceived themselves to be more proficient in English, to have higher levels of self-efficacy in their use of technology, and to have a more optimistic view of such assignments.

Language teaching and learning encompasses a broad field of research. The use of technology is one of the subjects that must be addressed and is regarded as vital in the area of language instruction nowadays. To make the classes successful and practical, the instructor should employ a variety of approaches, tools, materials, and digital gadgets while teaching. Researchers have observed that using technology in ELT has a variety of positive effects, including enhanced student motivation and emotional engagement, broadening students' cultural and linguistic perspectives, and opening up new pathways for meaningful use of the target language (Whyte & Schmid, 2018). Thus, the use of technology in ELT classrooms helps to engage students more effectively.

2.2.4 Drawbacks of Technology in Young Learner's EFL Classes

Every facet of life has been shifted by technological advancements. It has also helped make modern methods of teaching better. In this regard, the development of technology has compelled educators to embrace new approaches to classroom instruction. As a matter of fact, the growing shift toward digital education presents a number of obstacles, difficulties, and concerns for both educators and students. Taking this into consideration, the following discussion of difficulties in ELT and EFL contexts draws on relevant research.

Taghizadeh and Yourdshahi (2020) conducted research to get an understanding of the viewpoints held by educators working with young students learning the English language. Ninety-five Iranian instructors of young learners from a variety of Iran's schools and universities participated in semi-structured interviews. The study's findings indicated that the most common obstacles for teachers to integrate technology into the classrooms of young learners were a lack of computer facilities and training programs for technology-based teacher development and an absence of administrative support from schools and institutes.

The power of technology in the classroom in the twenty-first century is something to be reckoned with. In accordance with this, the study (Sadeghi, 2013) assessed the possible consequences of the integration of CALL technology on the grammar acquisition of young EFL learners. The author concludes from the negative outcomes of the study that instructors should consider computers to be mechanical gadgets that may be utilized for good or evil. Hence, computer-based activities must be carefully

selected and designed. Teachers should also consider learning activities, as too simple or complex exercises can turn off both educators and students.

Moreover, research conducted with the intent of assessing the level of technology use in 10 state schools in South Ecuador revealed that such tools are either not widely used or are not being put to their full potential in these institutions. Therefore, it is essential for EFL teachers to include technological tools along with proper teaching methodologies in order to increase their students' performance in all four language skills (Lida et al., 2017).

Over and above these, Singh (2019) reported the following five challenges to technology-integrated instruction faced by EFL teachers: insufficient technology resources; a lack of professional development opportunities on integrating technology; workload and time constraints; and a lack of administrative and peer support.

Furthermore, Tulgar (2019) integrated Augmented Reality (AR) technology to teach English to young students and discovered very similar disadvantages, including practicality, technical issues, and a lack of training. Along with that, a study (Sadikin et al., 2016) with fifth-grade children in West Java found that technical issues and poor internet connections were the biggest hindrances to the use of technology. Ultimately, the internet speed issue and the cost of online digital resources were highlighted in a study that analyzed the perspectives of young learners and EFL instructors towards the advantages and drawbacks of digital literacy (Mudra, 2020).

The aforementioned studies make it clear that the incorporation of technology into ELT is important and useful. Nevertheless, it is important to keep in mind that the disadvantages or challenges associated with technology might be critical when dealing with younger learners.

2.2.5 Teachers' and Students' Perceptions and Attitudes towards Technology in EFL Classes

Perception is the procedure of putting together, recognizing, and making sense of sensory information to depict and understand the environment. According to Gilmer (1975), perception is the act of being aware of situations and associating them with meaningful associations. Besides, perception not only shapes our perception of the world around us but also permits people to behave in it. Teachers' perceptions are impacted by their past knowledge and life experiences as well as their thoughts or mental pictures about their professional activities and their students (Papadakis & Kalogiannakis, 2022). Therefore, it's critical to consider instructors' perspectives in order to improve education.

It is acknowledged that using technology in English language teaching can improve the quality of the learning experience by increasing the variety and accessibility of class activities (Qasem & Viswanathappa, 2016). As explained by the study (Gashemi & Hashemi, 2011), using technology makes it easier for teachers to conduct classes. By the same token, digitalization assisted English learners in allowing them to communicate rapidly and with greater flexibility.

On the other hand, it is known that this is a challenging task for teachers to gain these competencies. That's why Gebremedhin and Fenta (2015) revealed that the majority of teachers believe they are unprepared to use technology. Hence, in the study of

Afifi and Alamri (2014), teachers' perceptions towards establishing quality in integrating technology were a significant issue for the academic program. Moreover, digital learning materials such as e-books help not only teachers but also students in many ways. Many e-books include quizzes or practice questions. This enables students to take charge of their own learning without the need for outside guidance, increasing their ability to interact effectively in the new digital learning environment (Pinto & Cordon, 2014).

It is found that teachers who use technology in their lessons frequently have a high level of confidence in their pedagogical technology skills and emphasize a learner-centered approach (Voogt, 2010). Additionally, teachers who utilize technology frequently are more involved in professional development activities and engagement with colleagues. Onyia and Onyia (2011) also found that teacher self-efficacy and technology in the classroom work well together. As a result, Maru et al. (2021) examined how EFL teachers utilize ICTs to teach English. The study found that even though teachers understood how important it was for ICT to be a fun part of learning, learners' lack of technological knowledge and infrastructure, as well as a lack of motivation, could be barriers to the success of ICT integration.

Also, Cakrawati (2017) explored students' perspectives regarding the use of technology (online learning platforms: Edmodo and Quipper, which give learners the opportunities to interact and collaborate with each other as well as their instructors and access the content provided by instructors) in the EFL context and revealed some problems experienced by EFL students. The study's findings indicated that the majority of participants thought it was successful to include online learning tools in English instruction. The participants who used Edmodo or Quipper said that the

primary issue they ran into while utilizing either program was an unstable internet connection.

Additionally, Valizadeh's (2021) research attempted to inquire into the technological competence of Turkish EFL educators and their views on incorporating technology into EFL lessons. In general, instructors of English as a foreign language had positive attitudes and perspectives towards technology. Most instructors have included technology in their lesson plans to enhance their students' knowledge and encourage student participation in higher-order thinking abilities. They also viewed technology as a useful tool for teaching and learning. Some educators have voiced concerns that they lack the skills to effectively integrate technology into their lessons.

Over the last twenty years, there have been several studies conducted on the topic of incorporating technology into the classroom. Student feedback has an impact on how technology is used in the classroom. The purpose of this research (Kazu & Issaku, 2021) was to understand ELT students' experiences in a technologically advanced classroom. Overall, this research found that students had a positive opinion of classrooms when technology was extensively employed. Furthermore, the use of a technology-based classroom is limited due to challenges such as a lack of technology-based classrooms, inadequate information about the use of different kinds of devices and applications, a lack of courses for teacher training, and students' limited understanding.

The perspectives and attitudes of both instructors and students regarding modern technology are of the utmost importance not only in face-to-face EFL classes but also in online ones. Correspondingly, Civelek et al. (2021) investigated the attitudes of

EFL teachers towards online instruction throughout the pandemic in the Turkish setting. Because of their limited knowledge and abilities in educational technology, the research found that the participants have negative attitudes toward the use of online teaching. In addition, pupils lack the incentive to participate in online classes. The absence of interaction and the lack of equipment required to participate in online sessions are also among the reasons why instructors have negative opinions regarding online instruction. However, it was also shown that instructors who had received training on educational technology had more positive opinions about online teaching.

The study conducted by Tümen et al. (2021) investigated Turkish EFL secondary school students' perspectives on online education in the midst of the epidemic. In light of the results of this research, it should come as no surprise that students have pointed out a variety of obstacles that they face while taking English courses online. Based on the responses students provided, the drawbacks of taking courses online entail a variety of issues, including lack of motivation and excessive screen time, inability to access the internet, lack of equipment, inconsistent internet connections, and uncomfortable online learning environments like Zoom or EBA (Educational Information Network).

The aforementioned study's findings demonstrate how ICT has a significant influence on how English is taught nowadays. ICT is a fundamental prerequisite and an important component of education in a global environment. This is why teachers, who are at the forefront of education, need to be proficient. This means being able to use ICT to find, create, and share knowledge, which requires both technical and cognitive skills (Hafifah, 2020).

2.3 Education Through Game-Based Learning

Over the years, researchers and educators have aimed to understand the lure of games. According to Wittgenstein (1972), games can be characterized in a surprising number of ways, altering how they are used and understood. In this context, educational games for learning are described as programs that use the features of video and computer games to generate engaging and immersive learning experiences for the delivery of specified learning objectives, results, and experiences (De Freitas, 2006). Consequently, there has been a surge in K-12, higher, and lifelong education institutions, as well as instructional designers', instructors', and researchers' enthusiasm for gaming as a means of pedagogical development.

In recent decades, there has been a significant change in the area of education away from the traditional, didactic style of teaching and toward a learner-centered approach that places more emphasis on the learner's active participation in the learning process. Since games provide a new and different way to evaluate student progress, they are a powerful tool for enhancing the educational process. For this reason, many classrooms have shifted to a game-based pedagogy that blends fun and education (Ghazal & Singh, 2016).

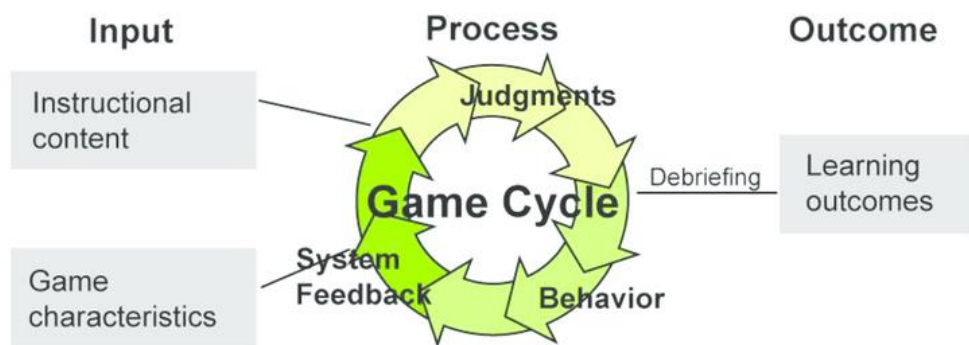


Figure 2.2: Game-based Learning Model (Garris et al., 2002)

According to the game-based learning model (Figure 2.2, Garris et al., 2002), one of the most distinguishing features of an educational game is that its instructional material is seamlessly integrated with elements of the game. Moreover, the game should be entertaining so the student repeats the cycles. The learner is supposed to display desirable behavior while repeating a task (playing the game) based on emotional or cognitive reactions produced by interaction and feedback.

It's possible to see a debriefing process between the game cycle and the learning results. Debriefing connects the simulation to the real world and creates a link between game experience and learning. This section of the model is analogous to Kolb et al. 's (2014) "doing, reflecting, comprehending, and applying" process of learning from a game. For example, Pivec et al. (2003) used an adventure game (aiming at fun and edutainment) to illustrate this learning process. Adventure games have micro-worlds with no deterministic problem depiction. Moreover, intrinsic motivation is used in adventure games. Intrinsically stimulating games include virtual learning. Before going on to the next section, the players of these games are asked with finding a solution to an issue. In this situation, the difficulty is within the game itself, and players are encouraged to find a solution so that they can progress.

For instance, a game in which players explore the home is an excellent illustration of the power of intrinsic motivation. In order to go to the next room, the player must first decipher a puzzle-like riddle. Within the context of the game that has been described, having fun and gaining knowledge go hand in hand quite often.

However, despite the fact that there are a great number of advantages associated with using game-based learning methodologies in instruction, there are also a slew of major challenges. In accordance with Pho and Dinscore (2015), firstly, teachers must consider their pupils' technical ability in order to avoid creating a barrier to learning. In addition, individuals who desire to make their own games should know that it is difficult for even professional game designers to do so.

On top of that, making a game that is both educational and entertaining is even more challenging. Moreover, De Freitas (2006) suggests taking into account a number of key factors before incorporating game-based learning into the classroom, such as the context, the learner and learner group specifications, the pedagogy to be used and its suitability for game-based learning, technical support, the costs associated with using game-based software with the learners, and accessibility issues. Hence, placing Game-Based Learning (GBL) into the curriculum requires careful thought about learner-centered features, game dynamics, and interactional needs to make sure that learning goals are met and that students are skilled at using games for educational purposes (Romero & Usart, 2013).

The advancement of technology has also had an effect on game-based learning, which has transitioned into digital game-based learning as a result. From Gee's (2009) point of view, digital games are "problem-solving venues that leverage

ongoing learning and create routes to mastery via entertainment and enjoyment. (p.65)." In light of this, the use of video or digital games as a research tool has the potential to greatly benefit the educational community. Griffiths (2002) argues that the variety of video games is a major factor in drawing students from a wide range of socioeconomic and racial backgrounds.

The term digital game-based learning (DGBL) refers to a teaching approach that embeds educational material or learning concepts into digital games with the intention of piquing the interest of students (Coffey, 2009). Moreover, according to Deubel (2006), digital game-based learning has the ability to interest and encourage students, as well as deliver customized educational experiences while also enhancing long-term memory and offering practical experience. Additionally, the constructivist approach is used in the implementation of game-based learning via digital platforms (Coffey, 2009). Correspondingly, digital game-based learning involves "learning by doing," which entails the construction and interpretation of information as well as its application in the virtual environment according to the learner's own knowledge and expertise in the subject matter. Lastly, Kam et al. (2013) stated that students have a responsibility to be conscious of their own learning processes, which necessitates reflective learning. Likewise, it is important for students to reflect on their gaming experiences in order to think critically, analyze, and learn more.

2.3.1 Adventure in EFL Classes: Digital Game-Based Learning

Students all across the globe have been profoundly impacted by the shift from traditional classroom instruction to instruction delivered through the internet, particularly as a result of the COVID-19 pandemic and the increasing use of digital technology (Tawafak et al., 2021). Along with the widespread use of video games

among students, the concept of "Digital Game-Based Learning" (DGBL) has been widely adopted in the classroom (Umamah & Saukah, 2022).

In accordance with Erhel and Jamet (2013), DGBL is a subgenre of electronic games in which players are tasked with achieving educational objectives designed to foster learning or build cognitive abilities or knowledge in a fun and engaging setting. The emergence of new forms of technology has resulted in an increase in social educational demands, and this, in turn, has given rise to digital game-based learning, which has had a profound impact on the way students think and are motivated to study (Casañ-Pitarch, 2018).

By the same token, Hwang and Chen (2022) stressed that, by combining the social and collaborative benefits of games with the competitive and fun aspects of modern educational technologies, game-based learning has been shown to be an effective means of achieving a variety of learning outcomes. In order to boost student interest in learning, numerous disciplines have begun integrating DGBL (Chian-Wen, 2014).

The adoption of digital games has revolutionized education, most notably English as a Foreign Language (EFL) instruction. The use of digital games in the classroom has been shown to improve students' academic performance and enliven class discussions while enhancing motivation. Making learning interesting and engaging for pupils is of paramount importance nowadays. Hence, EFL classrooms can benefit from the use of online learning games in a number of ways.

For example, in a study (Hurhish & Sterlikova, 2022) that was carried out with a group of five students ranging in age from 13 to 14, they were taught Past Simple via

the use of game-based learning. Researchers employed the EdApp online platform to scaffold game-based learning by dividing it into parts and providing graphics and audio recordings. In conclusion, the researchers explored strategies to combine in-class and game-based learning environments and demonstrated that they are effective for creating a feeling of flow and satisfaction while balancing entertainment and learning. Using a DGBL approach in EFL classrooms has been demonstrated to be advantageous to students, with studies showing that students who are exposed to ESL courses that include gaming elements learn more and are more engaged than those who are not (Yeh et al., 2017).

In a nutshell, the subject of language teaching is undergoing a dramatic transformation as a consequence of technological progress. One of the novel approaches that has numerous positive effects on language learning and teaching is DGBL. Teachers should be able to use digital game-based learning to help EFL students learn in a meaningful way (Arnold, 1999; Reinders, 2012; Mahayanti et al., 2020). This is because DGBL helps students get along with each other, helps students do well in their studies, and reduces anxiety during lessons.

2.3.2 The Impact of Digital Game-Based Learning on Young EFL Learners

The emphasis in education is no longer on the actual act of instructing since the paradigm in education has fundamentally shifted from being focused on the teacher to the student. It places a greater emphasis on how students learn from any given source, at any given time, in any given location. One of the adjustments that have occurred as a result of the development of technology is the use of digital games in EFL classes, particularly for younger students. The effects of video games on students' intrinsic motivation, metacognition, and strategic behavior have been well

documented (Mahayanti et al., 2020). Conforming to research, digital games are becoming more popular among learners, particularly among younger learners. Therefore, the use of DGBL in the education of young learners becomes a benefit of this approach (Hwang & Wu, 2012). Most importantly, Lin and Hou (2016) indicated that young learners perceive DGBL positively.

Based on Li's (2017) study with 76 Chinese teachers at a primary school, the teachers were said to be open to using digital games to help them teach English. The investigation showed how DGBL could be used to get students interested and teach vocabulary. Along with identifying possible barriers, teachers also came up with a number of ways to make the implementation easier. Most of the teachers said that integrating digital games into the curriculum was the most important thing. It was also agreed that DGBL can only be used if there is administrative and financial support, and that equal participation in the games is a key part of making sure DGBL works in the classroom. In addition, Hung and Young (2015) outlined that DGBL is a learning method that is not only enjoyable but also fascinating and helpful. For this reason, DGBL encourages an active learning process by providing young learners with novel activities that are both enjoyable and participatory, with a particular focus on the study of languages. Young learners can benefit from the DGBL's positive influence on their development as English language learners. Therefore, it is vital to use DGBL in EFL classrooms in order to improve the students' learning outcomes. In line with that, Mahayanti et al. (2020) explored the role of digital games in young learners' self-regulated learning with 144 young learners in an EFL class in Indonesia. The digital game utilized in this research was proven to have a positive influence on young learners' self-regulated learning in English. Students picked up

skills like metacognition, motivation, and strategic action without even realizing it while playing the game.

The amount of recently published research on DGBL is increasing. Over and above, DGBL can possibly impact learners' ability to cultivate innovative skills, critical thinking, the acquisition of competencies in digital experience, and an enthusiasm for learning while also allowing for profound, informative learning. According to the findings of a case study that investigated whether DGBL application technologies could enhance creative abilities with seven children aged 3–6 years old in a Montessori pre-school in Malaysia (Behnamnia et al., 2020). The findings revealed that game-based learning activities helped students practice and achieve learning goals. Specifically, the research (Tao et al., 2016) used digital games to teach English to primary school kids. The study examined the impact of English learning on concentration, appropriateness, assurance, and enjoyment. By using games as a means of instruction, the experimental group was able to make significant gains. According to the findings of the research, the participants believed that a classroom setting that included game-based learning could pique their interest and stimulate their curiosity. Results demonstrated that game-based learning boosts students' feelings of achievement and motivates them to keep learning.

2.4 Teaching through Web-Based Games and Interactive Activities

Traditionally, games have been thought of as a specific kind of computer system in which players take part in entertaining activities while adhering to rules in order to complete difficult tasks (Kinzie & Joseph, 2008). In line with that, games are profoundly engaging, graphically vibrant, swiftly paced, and effective tools for teaching students (Siang & Rao, 2003). Prensky (2002) claimed that one advantage

of using games as educational tools is that the act of playing the game itself is enjoyable, in addition to winning the game or racking up points. So, game-based learning environments are made in a way that makes it easy to use the right tools and techniques to help students do better in school while still having fun.

Nowadays, the field of education has seen a rise in the use of digital technologies such as web-based games in order to keep up with the learners. According to Huang and Chappel (2005), web-based games tend to be appealing to the "digital generation" of learners who grew up playing computers and video games. Thus, Van Eck (2007) demonstrated that a well-developed instructional computer game might present students with a rich resource of learning environments to help students develop higher-order knowledge and competencies. Moreover, it is often used in classrooms to enhance students' creativity and proficiency (Rosalin et al., 2022). So, over the past 10 years, scholars have tried a lot of different ways to make educational computer games for a wide range of fields.

The accessibility of the internet has substantially expanded the number of opportunities presented to educators to employ online educational games. In light of the rapid progress of technology, the use of web-based games has become an essential component of education. As a result of the growth of the Internet and the advancements in multimedia technology, educators now have the capability to create web-based educational games for their students.

For instance, Rosalin et al. (2022) investigated the use of web-based games as a kind of media for teaching Mandarin vocabulary. The findings demonstrate that the use of these web-based games to teach Mandarin vocabulary improved learning outcomes,

student motivation, and the test scores of the learners. The idea of customizable web-based games was utilized to enhance learning for both instructors and students, and it aided them in delivering engaging tasks. Also, Sheldon et al. (2010) used a web-based game called Ubiquitous Game to conduct research with 20 Singaporean 10- to 11-year-old students. It was played outside of normal class time and included the topics covered in regular class. According to the results, students benefited greatly from the web-based game, with positive advantages such as increased motivation and engagement.

In a nutshell, the use of technology in today's classrooms has contributed to making learning more interesting. Teaching via web-based games helps learners become more engaged (Keser & Semerci, 2019). Hence, the use of web-based games in teaching and learning assists both the instructors and the students, making both processes more efficient (Moqbel, 2018).

2.4.1 Web-Based Games in EFL Classes

The digital revolution is accelerating not just the alteration of the world but also that of humanity. Modern children, often known as Millennials or the Y-Generation, were born into a society where everyone always has technology with them (Koivisto & Hamari, 2014). Hidayah and Asari (2022) claimed that it is important for instructors to keep up with current trends by creating engaging lessons for their students. It has been shown via research that traditional methods of teaching a foreign language are becoming less commonplace in today's techniques, which focus more on motivating students and autonomy in the classroom (Coskun & Seker, 2022). Thus, there is a strong demand for teachers to use internet information technology in the classroom to help students manage their studies and improve their educational experience.

The prevalence of computer games among youngsters is increasing as a result of their many benefits, which range from multimedia capabilities to motivation. This rise in its usage boosts the value of instructional games. EFL teachers nowadays need to include technological tools in their lessons to keep their students engaged and motivated to learn the target language (Coskun & Marlawe, 2015).

Another research (Sabirli & Coklar, 2020) examined the impact of the use of educational web-based games on primary school students' academic achievement, motivation, and attitudes. It was noted that the educational games made the instruction more accessible to the pupils. Also, educational games made a difference in English class motivation. Another study (Masoud et al., 2020) investigated the impact that utilizing the web-based learning platform Kahoot had on the vocabulary learning of EFL secondary school pupils. The scope of the research was restricted to a sample of one hundred and sixty-six female students enrolled in the second year of secondary school. Based on what was found, it's possible to say that playing Kahoot helped the experimental group learn new words better.

In a similar vein, Bayatpour (2022) investigated the impact of web-based games on assisting students to learn new vocabulary in English and boosting their reading and writing skills. Therefore, with 95% certainty, it can be said that the hypothesis positing that educational intervention (web-based games) significantly affected reading and writing scores was verified. Statistical tests yielded the following findings: acquiring English vocabulary and developing reading and writing abilities are significantly impacted by web-based education. This study's results suggest that playing games online for the purpose of learning new words in English could be an efficient and enjoyable way to do so.

Moreover, Muller et al. (2020) discuss the findings of two separate research projects that analyze the impact of a web-based educational game on the acquisition of English idioms and the role that players' attitudes play in that acquisition. Students were questioned about their views on language learning and games and assessed on their idiom knowledge both before and after they used the online educational game for a comparable amount of time. There was a considerable increase in idiomatic knowledge across the board for both groups, though the degree of improvement was different. Improvements in idiomatic knowledge were also shown to be mediated by a desire to study English. Various other aspects, such as happiness and a sense of personal growth, were also observed. Attitude and motivational factors, like enjoying games and being ready to learn with games, are important in game-based language learning.

Also, Mahboub (2020) conducted a study with 27 Indonesian EFL teachers at public and private high schools on their impressions of using a web-based game, Kahoot, in their English classes. Overall, participants had a positive impression of Kahoot's use in EFL courses. The results demonstrated that Kahoot was seen as a useful tool to improve English language instruction. On the other hand, writing is one of the most challenging and undervalued abilities for EFL students to develop. As an emotional barrier to language acquisition, writing anxiety can be combated via the use of gamification, the incorporation of game aspects into non-game materials to improve the user's experience and interest. Correspondingly, the research of Yavuz et al. (2020) is to determine whether and how the online gamification application "Edmodo" reduces writing anxiety amongst EFL students. Those who completed the

assignments and were evaluated on Edmodo had much lower anxiety levels compared to those who used the traditional pen and paper grading method.

Ali et al. (2022) assert that keeping vocabulary in mind becomes a hard task for both teachers and students. Nevertheless, playing web-based games could help them remember words in both the short and long term. So, the researchers conducted a study to find out how well students remembered words they had learned from a web-based vocabulary learning game called OnVac. The study found that OnVac can help students learn specialized vocabulary. In terms of how the program works, the participants commented that the tool was easy to use and could help them learn engineering and technological terms. The study also had implications for the way instructors teach, in that teachers need to be smart and analytical when making web-based games to help students learn specialized English vocabulary. Given all of this, it's clear that using web-based games to teach a language increases motivation, comfort, and attitude, all of which are important for doing well in L2 (Pop, 2010).

2.4.1.1 Baamboozle

Perceptions of both students and instructors are crucial in the process of developing a pleasant environment that is conducive to English language instruction. One of the most significant problems for the lecturer is finding ways to make the students enjoy the lesson. As a consequence of this, Baamboozle offers a wide choice of English educational games to educators.

Baamboozle is an intriguing game-based online tool that encourages students to work together and promotes the idea that learning should be entertaining (Benner, 2021; Rosmaladewi et al., 2020). Baamboozle is similar to quiz contests; however, it's online, and students don't need an account (Krisbiantoro, 2020).

In accordance with the research on the efficacy of utilizing games in teaching English, Hieu (2021) describes Baamboozle as a web-based game that supports numerous visuals so that students easily grasp it and remember it for a long time. This allows teachers to focus more on student involvement. It comes preloaded with a wide range of activities that instructors may use right away, and they also have the option of making their own.

Since many teachers often add their own games to the resource pool, there is an expanding collection of materials available to teachers. The questions are randomly selected from a wide pool and never repeated. This means that there is an element of surprise in each game, making it possible to cover similar ground without becoming bored. Moreover, with up to 24 questions in each game, there's plenty of space to go deep into a subject while still keeping things manageable for in-class use. Students do not need access to a device to play the game since it can be shown on a classroom projector.

Over and above that, the research (Saud et al., 2022) utilized gamification with a sampling of 42 EFL students in an effort to understand more about the perspectives of both students and teachers in the realm of online learning. The purpose of this quantitative research was to examine the impact of incorporating gamification into the instruction of academic writing for students in the English Education major. Ultimately, the web-based game, Baamboozle, was shown to have a significant influence on students' engagement, motivation, and English language skills. The use of game elements to teach academic writing was well received by the students.

2.4.1.2 Wordwall

Wordwall is a web-based application that is available for free use in the creation of educational activities. As the platform boosts learners' attention and inspires them, it offers a range of gaming approaches that are both beneficial and enjoyable for primary school pupils (Hasram et al., 2021). Nadhiroh (2010) stated that Wordwall is an engaging, a simple, and a superficial learning tool that may help educators teach English. Teachers can use this platform in the classroom to access quizzes, word games, maze hunts, and many other ready-made activities that can be changed in any way they want.

Additionally, Cil's (2021) research concentrated on the web-based tool Wordwall with 5th grade students in a public school in Turkey. The intervention lasted three weeks, and a pre-test and post-test were employed to gather data. The comparisons of test results across groups indicated considerable disparities between each group's own test results. As a result, it can be concluded that utilizing Wordwall was beneficial in increasing students' vocabulary knowledge.

What's more, the purpose of the quantitative study that Sipayung (2018) conducted at an elementary school in Indonesia was to examine the effect of using the Wordwall platform on the students' ability to learn English. The results of the research indicate that there is a considerable gap between the scores obtained on the pretest and those obtained on the posttest. The findings demonstrate that using this platform to teach English is extremely effective for students. Another study found that using Wordwall with primary school pupils was effective for teaching English (Pradini & Adnyayanti, 2022). The test scores of 37.50% of the pupils improved

after the intervention. Therefore, data shows that using Wordwall boosts motivation for learning English among students.

Similarly, the study of Jannah and Syafryadin (2022) with 8th-grade students from an Indonesian high school revealed that the majority of students had a positive perception of the use of Wordwall in their vocabulary learning. The authors stated that students' enthusiasm for Wordwall was overwhelming, and they valued the collaboration and competition. Students reported that it was an exciting, fascinating, stimulating, and enjoyable online tool for learning vocabulary. According to student feedback, Wordwall has helped them learn; it has become a real boon to their classroom resources. And most importantly, this medium has boosted student engagement in the classroom. Therefore, the results encourage teachers to integrate it into their lessons.

2.4.1.3 Quizizz

Quizizz is essentially a free, game show-style quiz tool that can be accessed online. It enables teachers to engage their students by designing quizzes and courses; it also gives students the ability to participate live or be assigned an assignment as homework (Arequipa Tandalla, 2022). Withal, Munawir and Hasbi (2021) stated that Quizizz is an online-based formative assessment tool that enables the instructor to do both assessments in class and as homework. It includes the implementation of a question-and-answer platform that is compatible for use on Chrome, iPhone, and Android mobile devices, in addition to web browsers. According to Rahayu and Purnawarman (2019), students have the ability to track their own progress by retaking the tests numerous times on Quizizz.

Furthermore, it distinguishes itself from other instructional applications by using memes, themes, avatars, and engaging music. Game-based activities and the opportunity to complete an exam on one's own device make learning more exciting from the viewpoint of the learner. Educators may choose from a wide variety of pre-made quizzes or start from scratch to design their own tests (Zhao, 2019). In line with Basuki and Hidayati (2019), Quizizz is a fascinating game for doing rapid assessments in the classroom. In essence, Quizizz is a web platform for creating interactive quiz games that are used as an evaluation tool in the classroom.

Since Quizizz plays such an important part in the teaching as well as the learning of the English language, it is absolutely essential that it be included in educational settings (Degirmenci, 2021). In the research of Zuhriyah and Pratolo (2020), they desired to find out how students felt about using Quizizz in an English lesson for grading purposes. According to the findings, students think of Quizizz as a fun way to learn, an instrument that boosts self-assurance and motivation, and a tool that helps them develop their reading ability. In addition, student feedback on Quizizz's usefulness in the classroom was overwhelmingly positive. These results helped shed light on the enthusiastic reception of the Quizizz app as an evaluation method. A different study carried out by Meng et al. (2019) used the platform Quizizz to investigate the efficiency of gamified classrooms and the level of student engagement in these environments. The outcomes of the research indicated that the students had made significant improvements during the course of the study. The students were driven to provide their best effort by the entertaining, competitive, and engaging aspects of Quizizz. On top of that, the millennial generation is used to being immersed in a game atmosphere; thus, the authors suggested that the

psychological requirements of this generation can be satisfied by using Quizizz since it has a gamification setting.

Finally, Lim and Yunus's (2021) systematic review of studies on teachers' perceptions of using Quizizz to teach and learn English indicated that mixed-method study designs were most often used to elicit instructors' impressions of the platform. Ultimately, the results of this study show that teachers have a strong opinion of Quizizz because it is useful, practical, easy to use, and can motivate students.

2.4.2 Enjoyment in EFL Classes: Interactive Activities

Nowadays, a great number of studies indicate that the traditional method of teaching is no longer useful. Therefore, the term "interactive" is the crucial component to an efficient and successful teaching and learning process, where the instructor can capture the attention of the students and the students can learn more than they would with the traditional method (Pradono et al., 2013). Senel and Akman (2016) inserted that "interactive learning" refers to a method of teaching that uses online social networks to enhance the educational experience. The rapid expansion of student usage of digital technology and online communication has led to the development of interactive learning. Currently, interactive activities have been used by instructors since they can encourage students to think critically and creatively, which can facilitate deeper learning and understanding. This is especially vital in English language teaching.

According to Arianie (2017), using interactive activities to teach English as a foreign language increases students' ability to understand and communicate in the target language. Moreover, interactive activities can help students practice their language skills in a more natural and enjoyable way, and they can also help students develop

confidence in using English. Furthermore, when it comes to education, the use of interactive technology by these students is as natural as the use of a pencil and paper was to students of previous generations. The following are examples of components that make up interactive learning: social media, urban computing games that take themselves seriously, such as role-playing and interactive games (Tapscott, 1998). In addition, Omar et al.'s (2020) research shows that students' confidence in speaking English with their peers improves when they participate in interactive language learning activities since they provide a comfortable zone for students to practice using the target language. Besides that, results showed that students were able to enhance their English communication skills via interactive language learning activities since they were exposed to authentic interaction with their peers.

2.4.2.1 Liveworksheets

Liveworksheets is an effective instructional resource since it allows for the creation of interactive worksheets while also encouraging and promoting student-instructor interaction (Sánchez Léma, 2022). Also, it enables instructors to develop worksheets that enhance students' speaking abilities in a fun and effective manner. Teachers may submit standard print worksheets as Word or PDF documents and then use a variety of interactive exercise forms, such as multiple choice, drag and drop, or connect the arrows, to turn these worksheets into interactive activities for their students. What's more, students are given the opportunity to design and build their own personality traits and language learning environments as part of their L2 acquisition via the use of Liveworksheets (Mukti et al., 2021).

Berrocal Chumbiauca (2022) conducted research to determine the influence of the Liveworksheets program on the development of oral expression in the learning of the

English language. The research study found that the Liveworksheets has a substantial impact on the development of spoken English expression in Business Administration students.

As reported by Hidayah and Asari (2022), Liveworksheets provides a plethora of practical functions as well as a one-of-a-kind, interactive platform that adds excitement to online learning tasks that assess students' listening abilities. This quantitative study used the Liveworksheets platform to determine the listening abilities and perspectives of second grade students. The pre-test and post-test findings proved that it might assist students in improving their listening skills. Students highly agree that listening lessons are important, and Liveworksheets is an outstanding platform that is an easily accessible medium for listening skills. So, the platform must be used often. Based on these results, the Liveworksheets platform can be useful in helping students improve their listening skills.

Agudelo-Angus and Niola-Sanmartin (2022) carried out research that explored how Liveworksheets in online classrooms may help students enhance their ability to express themselves and their expertise in English. The outcomes of this experimental study design indicated that the majority of the students think it is crucial to enhance grammar in English classrooms with Liveworksheets since it offers them greater help with English grammar. Depending on the conclusion, this study revealed that employing the Liveworksheets platform and didactic materials is efficient. As a result, the researchers believe that endorsing this study will be advantageous in the long run.

2.5 Summary

This chapter has provided an overview of the most significant aspects that played a role in the research. It is common knowledge that motivation is a key factor in education. A significant amount of study has been carried out in the area of English language instruction in order to get a better understanding of the effect that motivation has on students. A plethora of theories and models have been put forward as a consequence. The significance of the teacher in impacting the motivation of EFL students is also highlighted. Therefore, instructors searched for methods to teach English in an attractive style that could motivate and sustain it throughout the classes. Ultimately, they discovered various methods to teach English.

In recent years, there has been a substantial shift away from traditional teaching methods toward learner-centered approaches in classrooms. The new approaches emphasize students' engagement in learning more than ever before. One of the instructional methods that can meet the requirements of teachers is game-based learning. In light of this, most of the schools have switched to a pedagogy that is centered on games, which combines having fun with learning.

Notwithstanding, the use of technology in EFL classrooms has become more widespread. As a direct result of technological developments, the practice of language instruction has been subjected to profound upheaval in recent decades. When compared to the previous generation, young learners, namely digital natives, have quite different requirements for their learning environments. Studies have shown that the use of technology in English classrooms helps instructors think of innovative new methods to teach, allowing them to meet the needs of today's young

technocrats. Hence, the use of technology in EFL classrooms has helped make the subject matter more engaging for students.

Moreover, the internet's widespread availability has greatly increased the scope of possibilities for the use of online educational games in the classroom. The past ten years have witnessed an increase in the usage of digital technologies like web-based games in the area of English language teaching. This change has had far-reaching consequences for both EFL teachers and students.

Chapter 3

METHODOLOGY

This chapter contains in-depth information about the research design, the context of the study, and its participants. In addition, detailed information is provided regarding the instruments used, the data collection procedure, the data analysis, and issues related to validity and reliability.

3.1 Research Design

The purpose of the research was to investigate the role of the web-based games and interactive activities and their efficacy in promoting academic achievement among fourth graders in an EFL class. To this aim, a mixed-method approach was used in the research. Tashakkori and Creswell (2007) define a mixed method approach as a research in which the researcher collects and analyzes data, combines the results, and draws conclusions using both qualitative and quantitative approaches. On top of that, they conclude that when compared to research that just employs one approach, whether it qualitative or quantitative, mixed-method research aims to provide more accurate findings.

In this study, the qualitative method was employed to look into the role of digital games in the motivation of young learners in depth; meanwhile the quantitative approach was then used to assess academic achievement in the class. In terms of the mixed methods used, an exploratory sequential mixed methods design was used for this study. According to Creswell (2011), an exploratory sequential design requires

the researcher to first gather qualitative data and then go on to collect quantitative data in an organized fashion. Moreover, the aim of the exploratory sequential design in the current study was that it entailed first obtaining qualitative data to investigate a phenomenon and then gathering quantitative data to explain correlations discovered in the qualitative data (Subedi, 2016).

3.2 Context of the Study

The research was carried out in a private elementary school in Famagusta, Turkish Republic of Northern Cyprus. The school has a kindergarten, primary school, secondary school, and high school. It promotes education and training activities with a wide range of material in order to develop its students as learning profiles of the future, each of whom is a world person. Starting from the first year of elementary school, students are exposed to a curriculum designed to foster the development of their critical thinking and intellectual skills.

The Turkish Republic Ministry of Education has certified the school's English curriculum as meeting international standards; it provides students with a language-learning environment that is qualified, privileged, creative, up-to-date, and based on a partnership between teachers, students, and their parents, with a focus on communicative competence and the simultaneous development and follow-up of five skills. The goal of foreign language instruction (beginning at age three) is to facilitate children's acquisition of the language through participation in authentic cultural contexts. Students are able to develop the linguistic and cognitive abilities essential to understanding speakers of languages other than their own through intensive foreign language instruction taught by both Turkish and international English teachers.

Moreover, the classrooms are lively and colorful, with interactive whiteboards that made it possible to carry out the research. The walls have educational posters prepared by the class teacher, and each individual classroom is decorated according to a theme.

The English instruction for pupils in the fourth grade consists of eight hours of English, two hours of CLIL (math and science), and two hours of Movers which prepares students for the Cambridge Qualification Test. The study was carried out in the English classroom.

3.3 Research Questions

This research seeks to answer the following questions:

1. What role do web-based games and interactive activities play in increasing students' motivation?
2. How effective are web-based games and interactive activities in improving students' academic performance?

Sub-questions:

1. What are the thoughts and feelings of the students in the experimental group about the English lesson that was taught through the use of web-based games and interactive activities?
2. Is there any significant difference in academic success scores in English between the pre-test and post-test scores of the fourth-graders in the experimental group that employed web-based games and interactive activities to teach English?
3. Is there any significant difference in academic success scores in English between the pre-test and post-test scores of the fourth-graders in the

control group that employed web-based games and interactive activities to teach English?

3.4 Participants of the Study

The participants in the study were drawn from a sample of 40 fourth-grade students whose ages ranged from 9 to 10 years old in a private school in Famagusta, TRNC, during the fall semester of 2022-2023. There were four classes in 4th grade. Among the students in the fourth grade, purposeful sampling was used in the process of selecting and forming the two classes that would serve as the control and experimental groups. Purposive sampling, according to Foley (2018), is a type of non-probability sampling in which researchers choose individuals from the population to participate in the study based on their own judgment. Therefore, it is believed by the analysis that the chosen groups could provide relevant information regarding the needs of the study as both groups have similar numbers of students and international students.

Moreover, Table 3.1 illustrates that 10 (47.6 %) of the participants were females, 9 (47.3 %) of the participants were males in the experimental group; and 11 (52.3 %) of the participants were females, 9 (52.6 %) of the participants were males in the control group.

Table 3.1: Distribution of Participants in Groups Regarding Their Genders

		Group			
Gender	Female		Experimental	Control	Total
		Count	10	11	21
		% within Gender	47.6 %	52.3 %	100.0 %
	Male				
		Count	9	10	19
		% within Gender	47.3 %	52.6 %	100.0 %
Total		Count	19	21	40
		% within Gender	47.5 %	52.5 %	100.0 %

Furthermore, as shown in Figures 3.1 and 3.2, both groups had a comparable number of international students. Figure 3.1 shows that the control group included one Iranian (5%), one Kazakh (5%), one Moldovan (5%), one German (5%), three Turks (15%), and 14 Turkish Cypriots (70%). The experimental group (Figure 3.2) included one Azerbaijani (5%), one Kazakh (5%), two Turkish-Russian (11%), three Turkish (16%), and sixteen Turkish-Cypriot (63%).

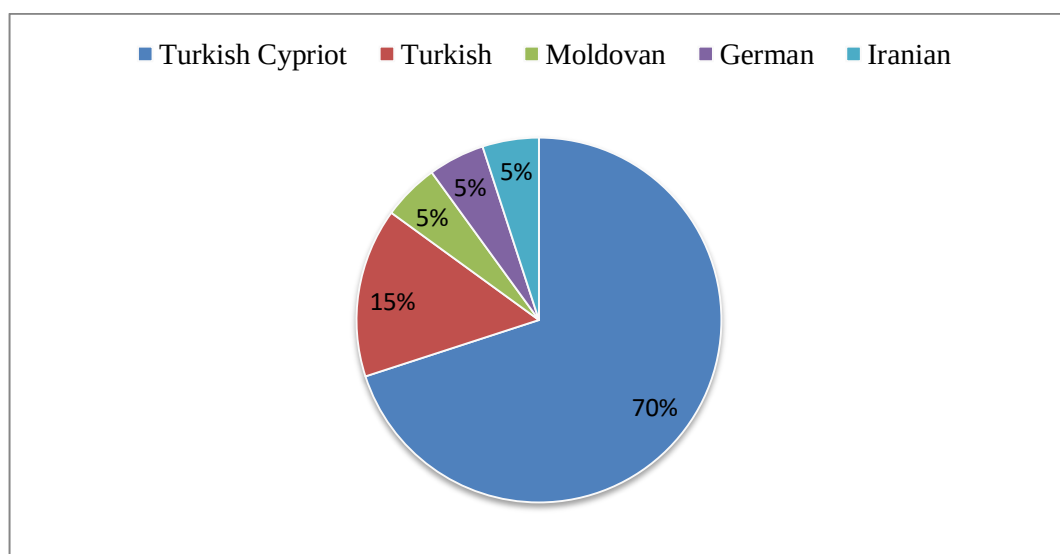


Figure 3.1: The Control Group's Ethnic Background

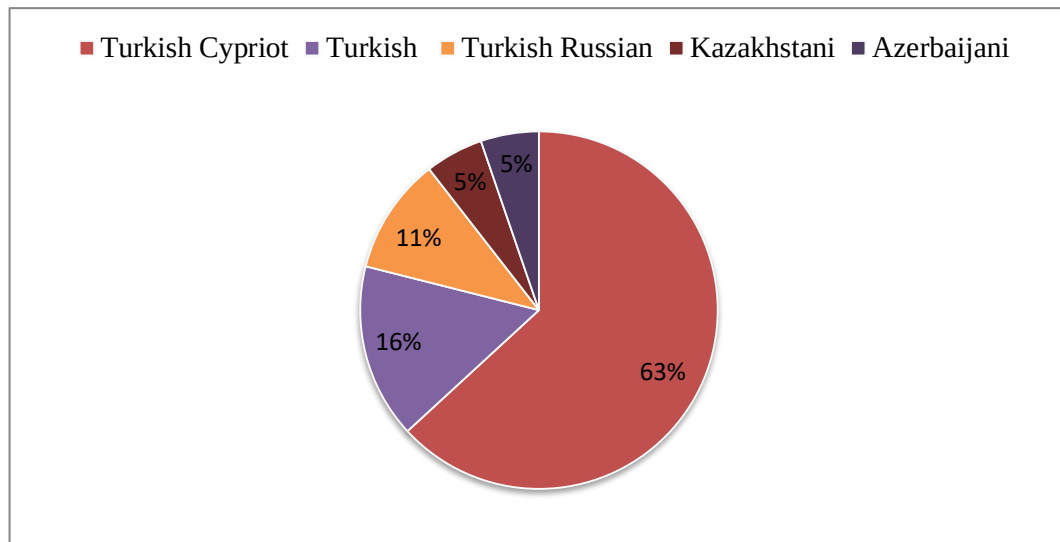


Figure 3.2: The Experimental Group's Ethnic Background

3.5 Data Collection Instruments

In this research, data was gathered using both quantitative and qualitative approaches through the use of a semi-structured interview, pre-test, post-test, and field notes, each of which is discussed in greater depth below.

3.5.1 Semi-structured Interview

A semi-structured interview is an efficient way to gather open-ended data. (DeJonckheere & Vaughn, 2019) The research used a semi-structured interview by the fact that it enables participants to maintain their attention on the subject of interest while allowing them the freedom to explore pertinent ideas that may come up throughout the duration of the interview.

The researcher generated the interview questions, and a total of eleven questions were developed. The questions for the interview were designed with the intention of eliciting responses from the experimental group (n=19). In addition, it was feasible to comprehend the influence that web-based games had on students from the questions that were asked throughout the interviews. Besides, the interview questions were

reviewed by two English teachers who are native Turkish speakers at the school, and all of the necessary arrangements were made accordingly. Hence, the researcher assured that the language that was used for the interview questions was clear and basic so that the participants would be able to comprehend it and express themselves. The participants were each given the 11 interview questions in their mother tongue, and a total of nineteen interviews were conducted. Since the researcher was both the teacher of the class and the interviewee, she had a strong familiarity with the students, which made it easy for her to put them at ease prior to the interview. Semi-structured interviews were conducted one-on-one with each participant. The data was translated into English after being recorded and transcribed. The following are the interview questions: (Appendix D)

1. How do you feel about English classes?
2. What motivates you in English classes?
3. What challenges you most in English classes? And how do you overcome these challenges?
4. What do you think about the web-based games you play in the classroom?
5. Which web-based games do you like most? Why?
6. Can you rank the web-based games from 1 (the most favorite) to 5 (the least favorite)?
7. How does it make you feel when you play web-based games?
8. What are the problems you face when you play web-based games?
9. What is the best part of playing web-based games in teams? How do you feel when you play in teams?
10. What is the best part of playing web-based games alone? How do you feel when you play alone?

11. How effective are these web-based games in the exams?

3.5.2 Pre-Test and Post-Test

The experimental and control groups in the study each received a pre-test and a post-test as part of the quantitative approach of the research. A pre-test and post-test study design provides research directionality by assessing a dependent variable before and after intervention with an independent variable (Stratton, 2019).

In the first week of the study, a pre-test was administered to both groups. (Appendix E) It consisted of four different parts that assessed the students' overall academic achievement in their regular English lesson. The preceding topic of the English lesson, which included possessive pronouns, comparatives, and simple present tense, were evaluated by the pre-test in accordance with the curriculum. It was also necessary to discover whether the experimental group and the control group had any significant variations in their pre-existing knowledge.

In addition to this, post-tests were administered to both groups at the end of the intervention in week 4. (Appendix F) Additionally, it was divided into four sections that assessed students' comprehension of the subject of "Superlatives," which was covered throughout the course of the intervention. The pre-test as well as the post-test were consulted, reviewed, and corrected by the institution's four experienced English teachers. Both the pre-test and the post-test had the same format for the questions, which comprised a fill in the gaps activity, a reading activity, and a true or false activity. The total score on both the pre-test and the post-test was 105.

3.5.3 Field Notes

The triangulation of the data collection instruments was completed with the use of field notes, which were the last instrument of data collection that was used in this research. Field notes are a set of documents that are based on a researcher's observed experience in a particular location or situation (Tenzek, 2017). The field notes were taken with the intention of gaining a deeper understanding of the factors that motivate students when they are being instructed using web-based games. The researcher/teacher conducted the field notes by taking observations and making notes over the course of her instruction on web-based games. The purpose of field notes was to obtain responses to the following questions:

- What reactions have the students had to the web-based games? Why?
- What did the researcher like about each activity regarding its benefits for her students' language learning?
- What worked well? Why?
- What did not work? Why?
- What could the researcher have done to eliminate the problems that she or her students experienced?

3.6 Data Collection Procedures

Having received a letter of permission from Eastern Mediterranean University (Appendix A) and the TRNC National Education Ministry (Appendix B), the researcher obtained confirmation from the institution where the study was conducted. Also, consent of parents related to the research were taken. The study lasted four weeks. A pre-test was administered to both groups. Then, the experimental group received game-based learning after taking the pre-test, whereas the control group received traditional language training using textbooks without any digital games.

Twenty hours were spent in class for the digital game-based learning. Four online games and interactive activities (Baamboozle, Liveworksheets, Quizizz, and Wordwall) were played for a total of five hours. Meanwhile, the researcher/teacher took field notes in the classroom during that time period. Later, both research groups took field notes in the classroom during that time period. Later, both research groups conducted post-tests. Also, after the post-test, the experimental group was subjected to a semi-structured interview.

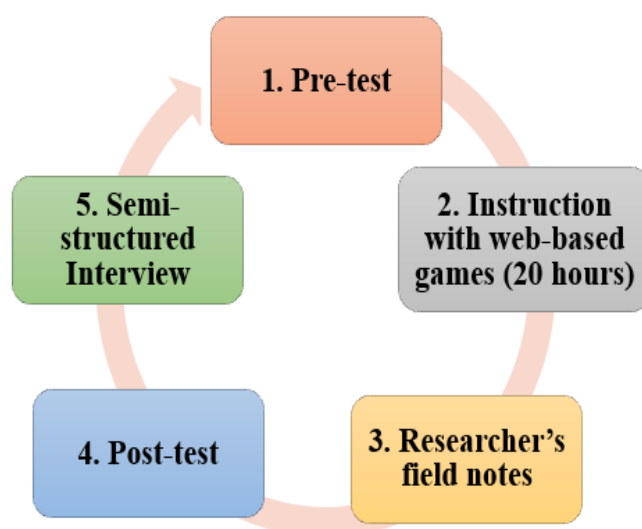


Figure 3.3: Data collection procedures

3.7 Data Analysis

Since the research used a mixed approach, both qualitative and quantitative data were analyzed. The process of qualitative data analysis began when semi-structured interviews with the experimental group were completed. The first step consisted of manually transcribing the audio recordings into written format. The interviews were then translated from Turkish to English. After that, the data was imported into the MAXQDA 2022 (VERBI Software 2021) Program, and the analysis procedures were initiated. MAXQDA is a data analysis software that allows collecting, organizing, analyzing and visualizing large amounts of data with qualitative and mixed methods.

In qualitative research, there were some steps that could help guide the researcher. On the basis of these, the data was read once at first. During the second reading, the researcher then assigned a code to each question. The answers given to each question were analyzed and interpreted by content analysis, and later related codes were put together to make sub-themes and themes. Within the scope of the research, the participants were given codes as S1 (Student 1), S2 and S3 and their names were hidden.

On the other hand, the quantitative data gathered by pre-test and post-test of both control and experimental groups. It was analyzed by IBM Statistical Package for Social Sciences (SPSS) Software for Macintosh, 22.0 Version. Accordingly, the normality testing function was utilized to determine whether the groups displayed a normal distribution. According to the results, a non-parametric test which was the Mann Whitney U-test applied. At the end, a Wilcoxon Signed Rank test was carried out to find if there had been a statistically significant difference in the academic language abilities of the students both before and after the instruction.

3.8 Issues Related to Validity and Reliability

Evaluating the quality of research data and the tools that were used to obtain it—validity and reliability—are both crucial factors to consider. If an instrument or test cannot be shown to be reliable or valid, then it will not be of any help to the study that is currently being carried out.

Accordingly, in order to enhance validity and reliability of the pre-test and post-test, they were designed by three 4th grade teachers at the school where study was conducted. Moreover, the study used appropriate statistical tests that are both

trustworthy and valid when analyzing data in SPSS, which is essential for creating accurate and relevant research results. As a consequence, since the groups did not have a normal distribution, the researcher used the Mann Whitney-U test and the Wilcoxon Signed Rank test to get accurate findings.

Considering this, the research employed triangulation, which is a form of research in which various data gathering devices or methodologies are used to explore the same phenomena (Denzin, 1970). When it comes to the study's results, the use of various data collection instruments or techniques can assist in checking that the findings are consistent and not the product of a coincidence or an anomaly. This can help improve the reliability of the research. In terms of validity, using multiple data collection instruments or methods can help to confirm that the research is measuring what it is intended to measure. In light of this, the data collection consisted of pre-test, post-test, semi-structured interviews, and researcher field notes.

Furthermore, within the context of qualitative research, the concept of reliability is referred to as "consistency" (Arksey & Knight 1999). In contrast to quantitative research, qualitative studies don't have available statistical measures for demonstrating reliability, as noted by Sutton and Austin (2015). Therefore, triangulation makes more persuasive argument for the reliability of results, since similar findings from diverse data sources or collecting techniques are more likely to demonstrate the validity of the study findings (Coleman, 2022). Hence, the study's reliability and validity were ensured by the researcher's field notes, which was parallel with semi-structured interviews. On the other hand, semi-structured interview questions were formed and checked by three English, one Turkish teachers in order to guarantee reliability and validity of the questions.

3.9 Summary

An explanation of the overall study design was provided at the beginning of this chapter. After that, a description of the context of the research was given. Later, details were provided concerning the participants who took part in this investigation. Then a description of the instruments that were used to gather data, including pre-tests, post-tests, semi-structured interviews, and field notes, was given. Afterwards, procedures for collecting the data were defined. The chapter concluded with data analysis and issues about the validity and reliability of the research. The study's findings will be presented in the next chapter.

Chapter 4

RESULTS

The purpose of the study was to investigate the role that web-based games and interactive activities (Baamboozle, Wordwall, Liveworksheets, and Quizizz) play in boosting students' motivation to learn English as well as the influence that have on the students' academic achievement. Therefore, this chapter presents the findings of the study based on the data that was gathered over the course of the research. Accordingly, the study's results are given in two subsections, the first of which highlights the qualitative findings of the research while the second explores quantitative findings of the research

4.1 Qualitative Findings of the Research

The results of the qualitative findings of the research are given in the following sub-headings: The following questions were asked about the motivations, attitudes, and academic difficulties of the students. This was done to confirm that the study was valid.

In response to the first question ("How do you feel about English classes?"), students expressed their contentment with the English classes by claiming that it is an "engaging" (S1), "exciting" (S9), "beneficial" (S2), "easy" (S16), "amusing" (S4), "useful" (S14), and "interesting and entertaining" (S5) lesson. In addition to this, S12 said that he/she found the class useful since the student wanted to migrate to England. This shows that student has instrumental motivation to learn English

contrast to the rest of the class. Furthermore, S17 mentioned that his/her mother is an English teacher, and she believed that learning the language would be of great use to him/her. Thus, the student thought that the class was beneficial. Also, S19 asserted that the class would be advantageous in terms of career purposes in the future.

Concerning the second question ("What motivates you in English classes?"), 14 students declared that the web-based games played in the classroom motivated them. Moreover, S12 added that "the activities we do in the lesson, the worksheets, web-based games, my teacher, and my friends boost my motivation." Besides, "music" (S1), "worksheet" (S2, S6, S10 S15), "homework" (S3), "teacher" (S4), "exams" (S8), "group work" (S9) are the things that motivate students during the lesson.

Regarding the third question, "What challenges you most in English classes? And how do you overcome these challenges?", eight of the pupils have stated that there is nothing in the lesson that presents a challenge to them. However, seven students have remarked that some subjects in the lesson are challenging for them. Followingly, S10 replied, "sometimes I have difficulty understanding the topics, and I ask for help from my teacher." S18 responded that she was "reading parts. I read books at home to improve that skill.". "Listening parts" (S17), "exam" (S7) were found challenging in the class. Lastly, S12 claimed that "the topics are difficult; I study at home and get help from my family".

4.1.1 The Role of Web-based Games and Interactive Activities Played in Increasing Students' Motivation

In this study, a total of seven questions were posed in order to determine the role that web-based games and interactive activities have on the levels of motivation shown by pupils. Consequently, in the word cloud (Figure 4.1), students expressed their thoughts about the web-based games. Seven of the students thought that the games were both educational and entertaining. S8 expressed that "these web-based games not only help us learn more effectively, but they are also entertaining". Moreover, S5 said that "they help to improve my English". Also, S2 shared that "the web-based games help me comprehend the lesson better". Furthermore, S11 added, "When we play a game that relates to what we are learning about in class, I retain more information". S14 admitted that "each one is excellent". "When we play together, we help our friends, and when we play alone, we challenge ourselves mentally".

Parallely, the analysis of the researcher/teacher field notes found that the pupils enjoyed the images while they were playing Wordwall. The game included a bonus round in which the cards with points (+200, +100, -100, -200) were shuffled. The players' objective was to locate a card with +200 points. As a result, they were intent on providing correct responses to questions in order to advance to the bonus round. Students paid very careful attention while trying to predict the cards. Moreover, when class ended, the researcher and teacher realized that they had left the game running and that the students had used the break time to play the web-based game.



Figure 4.1: Students' Attitudes and Perceptions of Web-based Games and Interactive Activities

In the present study, 17 (89.5%) students said that Baamboozle is their favorite web-based game. (Figure 4.2) The reasons were that it's "intriguing" (S19), "the questions are more interesting" (S18), "it stimulates the experience of a real game" (S13), "it is easy to obtain assistance from the teammates" (S5, S2, S6, S7, S9, S12, S14, S15, S18), "it is easy to understand" (S3), "it is more entertaining and instructive" (S4), "it is mysterious and impossible to predict what will come out of the box" (S10), "we get points" (S12), "the visuals are wonderful, and the contents of the boxes we choose are always a surprise" (S17).

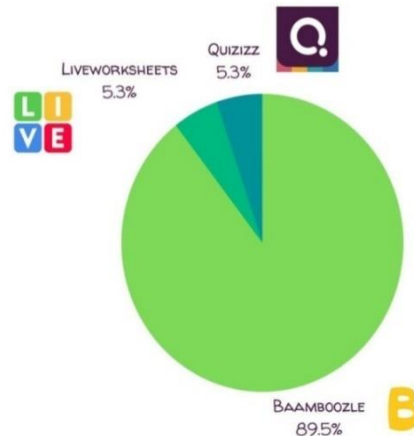


Figure 4.2: Distribution of the Web-based Games and Interactive Activities

On the other hand, according to Figure 4.2, only one (5.3%) student chose Liveworksheets as the most liked web-based game since "there is no element of chance involved. There is no winner or loser. There is a reflection of our own performance" (S8). Meanwhile, one (5.3%) student chose Quizizz as the most liked web-based game as "the questions are better written and less challenging to answer" (S11). Over and above that, the analysis of field notes revealed that Quizizz brought a greater sense of calmness to the students than any of the other games did. When they discovered they had superpowers (such as extra points, time etc...), they were thrilled. Since the students could see the scores of other players on the screen, they competed with one another to see who could get the most questions correct.

Afterwards, the students were asked to rate the four different web-based games and interactive activity—Baamboozle, Liveworksheets, Quizizz, and Wordwall—on a scale from one (their most favorite) to four (their least favorite). The graph (Figure 4.3) shows that 17 students ranked Baamboozle first, while 14 students ranked Wordwall second, 12 students ranked Liveworksheets third, and 9 students ranked

Quizizz the fourth. Out of all of the web-based games that were played, the results of the analysis indicate that students enjoyed Baamboozle the most, whilst Liveworksheets was the least. Moreover, the analysis of field notes reported that the lack of a point system in Liveworksheets led to students becoming demotivated in the game. They were not engaged. Only three students participated. Some students complained that it was too much like a smartboard-based worksheet and that they didn't want to take part.

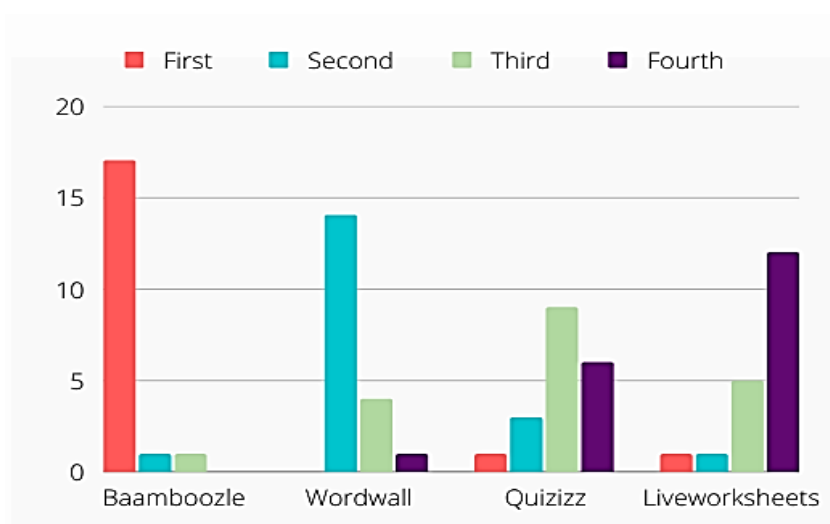


Figure 4.3: Results of Ranking

What's more, the frequency table (Table 4.1) of how students feel about web-based games revealed that the majority of students are entertained, happy, energetic, interested, and excited. S10 expressed that "I feel satisfied since I can expand my knowledge through these games". Furthermore, S4 mentioned that "I'm entertained. They are giving me a sense of pleasure." Also, S12 stated that "I'm happy. In my opinion, these games have helped me learn more effectively". Similarly, S9 remarked, "I'm happy. Also, I feel like I'm going to burst out laughing at any time when we play". On the other hand, S14 emphasized that "I'm excited and uncertain

whether I'm going to win. I am depressed when I lose yet delighted and completely out of control when I win". Additionally, S16 indicated that "there are moments when I find myself worrying a lot when we are playing." It has the potential to stimulate thinking.

Table 4.1: Frequency Table of Students' Feelings Regarding Web-based Games and Interactive Activities

Feelings	f
Entertained	8
Happy	7
Energetic	4
Interested	2
Excited	2
Fascinated	1
Optimistic	1
Satisfied	1
Cautious	1
Worried	1
Bored	1
Sad	1
Depressed	1

Moreover, analysis of field notes included variety of different views. For instance, when a team lost points while playing Bamboozle, they got upset and said the game was over. On the other hand, even students with low grades were enthusiastic about playing these games. Furthermore, when the other team won, the team that lost

cheered for them. Also, teacher researchers found that students are more motivated if the teacher is motivated.

In addition, in order to get a better grasp of the role that the web-based games played, the researcher posed a question concerning the difficulties that they encountered. Accordingly, five students claimed that they were able to play web-based games without encountering any difficulties. The other students asserted that the overreaction of their classmates was the major cause of the issues with the web-based games. S3 concluded that "when I see my friends' overreaction to the games, I am deeply disturbed. I also don't feel good when they can't decide with teams". S7 replied, "I find it annoying when my classmates exaggerate and yell when they lose". Furthermore, S9 responded in detail:

"Let's assume that we are about to win. We are required to get points from another team. Despite this, they are harsh to us. We keep reminding them that this is only a game, so you shouldn't behave aggressively. I'm frustrated because they don't get it, and that makes me furious. When people start yelling that we won, it makes me extremely angry".

S11 highlighted that "some of my classmates go completely off the rails when we play Baamboozle. When this happens, I feel angry. I'm sad for those who lose the game". Similarly, S14 shared that:

"There is a part of the game in Baamboozle where we get and give some points. But my classmates overreact when we get points from other teams. I feel so bad; it's like they're excluding me. I try to forget this situation and say things that will make me happy. We waste time when we react too much. We cannot continue the game. I get sad".

The researcher intended to have a thorough understanding of the role of web-based games; therefore, she questioned students about their feelings and the most enjoyable aspects of playing these games both in teams (Figure 4.4) and alone (Figure 4.5). All

of the students reported that they enjoyed playing in teams. For instance, S17 mentioned that "in any situation, my teammates are the first to come to my aid. When I'm part of a team, I enjoy myself and don't mind making mistakes". Also, S5 emphasized that "when we play in teams, I can ask my teammates questions I don't understand. My peers can assist me. I also like playing with my friends and spending time with them". In another perspective, S14 highlighted, "I like competing against other people in teams, especially if one of us has a strong command of the English language and can ensure that our team comes out on top. I also like it when I lose. I love being part of a team". Moreover, S9 replied in detail:

"I can see how much faith we have in one another and how harmonious we are. My drive for the team is exceptional. I experience the exhilaration to its maximum extent".

Furthermore, S10 responded that "the sense of togetherness is strengthened. When I play with the team, I have the opportunity to instantly correct any mistakes I make. I feel more confident". "I'm feeling better. When I can't answer the questions, I can seek assistance from my teammates. I also have more confidence in myself when I play in groups" (S13). Students also expressed good sentiments about playing web-based games in teams, such as "energetic, enthusiastic" (S1), "thrilled" (S4), "entertained" (S12), "confident" (S13), and "assured" (S15).

Furthermore, the researcher/teacher field notes reported that students helped other groups while they were competing in Baamboozle. Even though they weren't in the same team, they supported and assisted each other. In addition, a significant number of the pupils exhibited joy and excitement despite the fact that they were not winning. When students found out they had earned extra points, they began to dance.

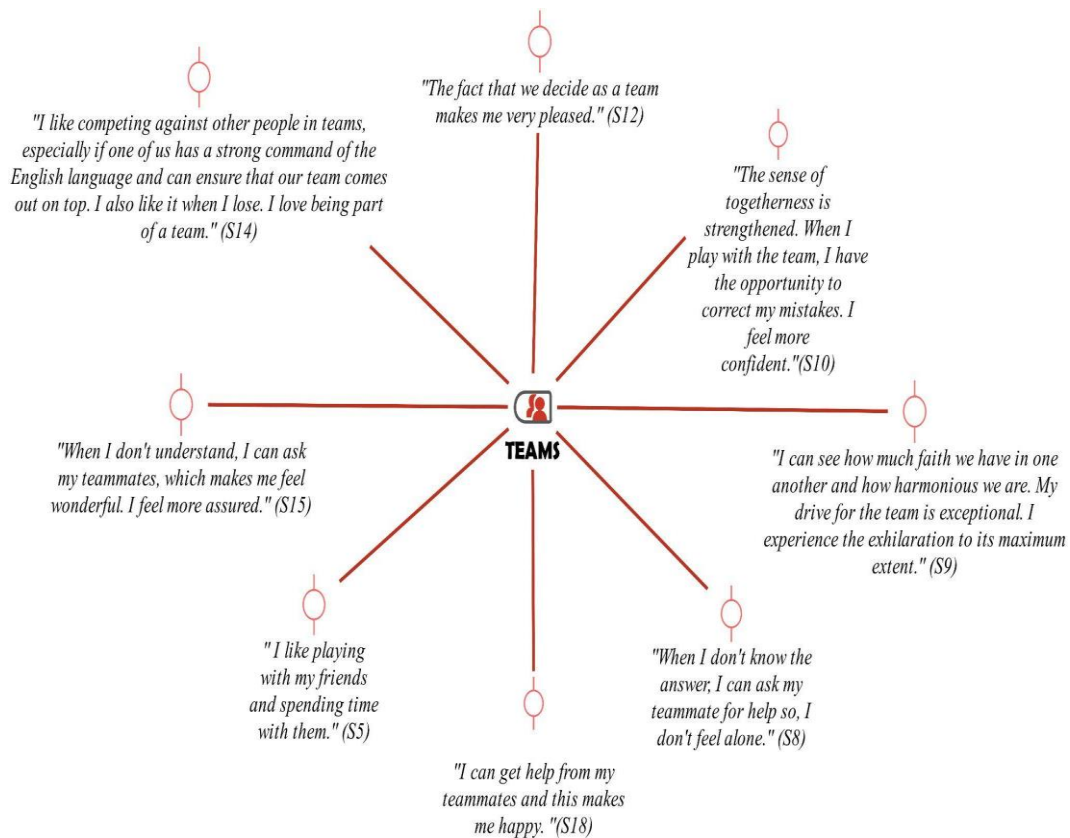


Figure 4.4: Responses of Students about Playing in Teams

On the other side, there were some students who held opposing viewpoints on the idea of playing web-based games in teams. For instance, S1 reported that "I'm worried that someone on our team won't know the answer and will bring our score down". Moreover, S3 said that "I'm afraid of answering questions because the others are so loud when I give wrong answers".

32% of the class declared negativity when they had to play alone. For example, S19 says, "when I play alone, I'm scared to answer. I feel down, unhappy, and bored". Similarly, S18 inserted that "when I play alone, I get a horrible feeling. Nobody is assisting me". S16 also shared the same feelings with others by adding that:

"If I choose something and it turns out wrong, I'm afraid of the reactions of my classmates towards me. Hence, I feel ashamed and upset. That's why I think twice or three times so as not to make a mistake".

On the other hand, some students had different attitudes towards playing alone. For example, S11 claimed that "when I play alone, I am free to respond in whatever way I want. My score is not affected in any way by others". In the same vein, S8 concluded, "I can provide my own answers. No one else is interrupting me. I am more cheerful". Also, S7 mentioned, "I like playing alone more. I am free to express my answers and ideas. I'm feeling better now that I'm not under pressure". In a different perspective, S10 shared, "when I am asked a question that others do not know the answer, it feels nice to demonstrate my knowledge. The games aren't entertaining to me when I have to participate in teams". Similarly, S10 mentioned, "I can realize what I have learned so far. When I play alone, I worry that something may go wrong. But I am comfortable when I know the answers to the questions".

Some students had both positive and negative comments, such as:

"If the teacher asks me a question, I can confidently answer it and show that I comprehend the subject. It lacks the excitement of being on a team. As for me, I'm not enjoying playing alone; there is no one to assist us when we respond alone. Even though I am all by myself, I still believe in myself" (S2).

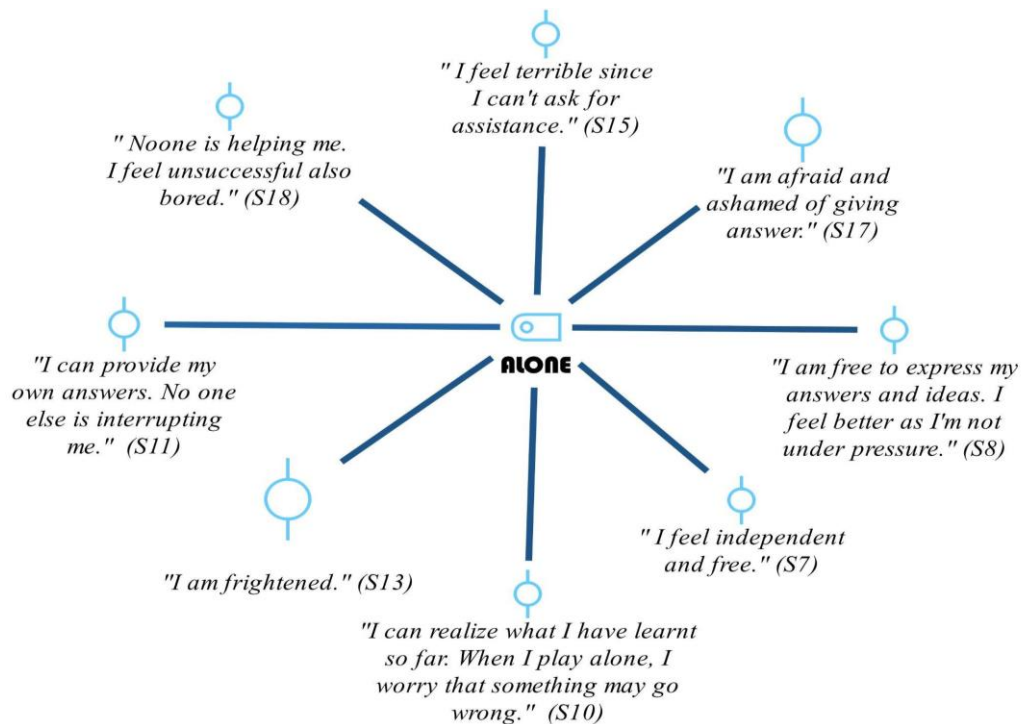


Figure 4.5: Responses of the Students about Playing Alone

Five (26.3%) of the nineteen students who participated in the semi-structured interview said that the web-based games and interactive activities had no influence on or helped with the test. (Figure 4.6) On the other hand, the rest of the students (73.7%) pointed out that they were helped by the fact that the questions on the test were similar to those on the web-based games. For instance, S18 asserted that "when there are questions in the game that are similar to the test, I am able to answer them".

Moreover, S8 concluded that:

"During the test, I encountered a question that was quite similar to the one that was in the web-based game. I recognized it and gave the correct answer. For example, the word "good" is formed into "the best" in superlatives. I have learned it from the games we played. It stuck in my mind. I saw the identical example, remembered it, and used it correctly in the test".

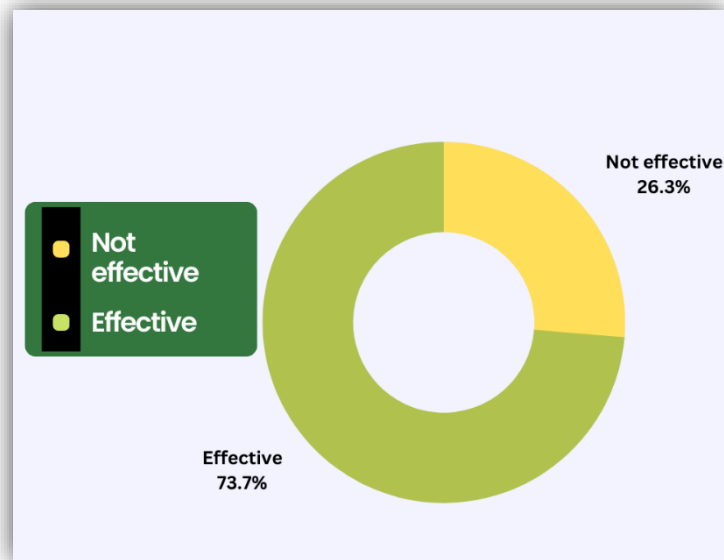


Figure 4.6: Chart of Effectiveness of the Web-based games and Interactive Activities on Tests

Furthermore, some students mentioned the effect of the web-based games on the exam by saying that "while playing web-based games, I feel like I'm preparing for an exam. It helps tremendously" (S5), "I remembered superlative examples that we've done on web-based games. I answered the questions correctly in the test" (S12). Similarly, S14 claimed:

"The web-based games reinforced my knowledge. I recognized my mistakes. It was really helpful for the test. For example, I saw the word "less" used in both the game and the exam. If I hadn't learned it from the game, I wouldn't have been able to answer the question correctly on the test".

Additionally, S6 claimed that "For instance, I didn't know the meaning of the word "tidy." I saw it in a web-based game and learned it. Later, I saw this term on the test and was able to identify and comprehend the question". Along with that S11 said that "I paid complete attention to the web-based games that were being played in the classroom. I was able to pass the test since it included some of the vocabulary that I had acquired in those games." Also S2 highlighted:

"There was a question on the exam that required you to write the superlative form of the word "lazy." I was going to make it "the most lazy. However, I saw that it was formed as "the laziest" in the game. I recalled and used the right form, which was the laziest".

Moreover, S1 said "There was a question in the game to which I gave an incorrect answer. Therefore, I began studying it at home and learning it. After some time had passed, I saw a similar example on the test, and I promptly corrected it"

Additionally, some students mentioned web-based games specifically. For Baamboozle: "during the exam, I came across a question. In the class, Baamboozle posed a similar question to the other team. I recalled it and wrote down the correct answer" (S17).

For Liveworksheets: "Liveworksheet was quite helpful to me in the exam. It resembled a quiz. Unlike Baamboozle and web-based games, Liveworksheet helped me get ready for the actual exam. Additionally, there was a word, but I can't recall it right now. If it hadn't been in the game, I wouldn't have been able to do it in the exam" (S9). "Liveworksheets, for instance, are like tests. It helped me study vocabulary, and I did well on the test" (S7).

Finally, students expressed a variety of positive feelings to employ more of these web-based games and interactive activities in the EFL class. They were mostly happy energetic, interested and excited during the lesson. Actually, they enjoyed all the web-based games played but Baamboozle was special for them as it involved point system, teamwork, appealing visuals.

4.2 Quantitative Findings of the Research

The quantitative data that were gathered for this research were analyzed using SPSS's normality testing function to determine whether they displayed a normal distribution. It was found that the data did not show a normal distribution ($p > .05$.) and, therefore, the data were analyzed with non-parametric tests. The findings of the analyses are shown in Table 4.2 and Table 4.3 below.

Table 2.2: Mann Whitney-U Test Result of the Experimental Group

Group	n	Mean Rank	Sum of Ranks	U	p
Experimental	19	18.42	350.00	160.00	.280
Control	21	22.38	470.00		

Based on the results of the Mann Whitney U-test, academic language skill test results for students who participated in the web-based teaching program and students who did not engage in such a program are shown in Table 4.2 above. Accordingly, at the end of the 4-week experimental study, students who participated in the web-based instruction program had lower academic language skills than students who did not participate in the program. In the light of these findings, the web-based program does not contribute significantly to the development of academic language abilities.

Table 4.3: Wilcoxon Signed-Ranks Test Results of Academic Achievement Test Scores Before and After the Instruction

Post-test- Pre-test	n	Mean Rank	Sum of Ranks	z	p
Negative Ranks	1	18.42	350.00	-1.08	.280
Positive Ranks	6	22.38	470.00		
Ties	1				

*Based on negative ranks

Table 4.3 presents the findings of a Wilcoxon Signed-Ranks test that was carried out to find if there had been statistically significant differences in the academic language abilities of the experimental group students both before and after the instruction. The analysis results show that there is a significant difference in the academic language abilities of the experimental group students participating in the study before and after instruction on the academic language skills test, $z = 1.08$, $p > .05$. Taking into consideration the mean ranks and sum ranks of the difference scores reveals that the observed difference favors positive rankings, namely, the post-test score. According to these findings, it is possible to draw the conclusion that the web-based game instruction does have an impact on the students' skills to enhance their academic language abilities.

4.3 Summary

The analysis of the study's findings was presented in this chapter. The qualitative results analysis, which included semi-structured interviews and researcher field notes, was provided first, followed by the quantitative findings. The next chapter outlines the study's discussions, conclusion implications and suggestions are

provided. According to the results, students motivated by these web-based games and interactive activity during the EFL classes. Students in the experimental group performed better in the post-test compared to pre-test. Yet, the quantitative results has shown that students in the control group performed better compared to students in the experimental group when both of them were compared.

Chapter 5

DISCUSSION, CONCLUSION, IMPLICATIONS & SUGGESTIONS

This chapter presents the discussion of the results with consideration of the study's research questions and the relevant literature. Thus, the first section discusses the role of web-based games in enhancing the motivation of the students in an EFL class and the influence of these games on the students' academic skills. In addition to this, the conclusion of the current study, implications of the study and suggestions for future research are included in the following sections.

5.1 Discussion of the Results

The current research had a twofold purpose. The primary objective of the study was to investigate the use of web-based games and interactive activities (Baamboozle, Wordwall, Liveworksheets, and Quizizz) to boost students' motivation to learn English as a foreign language. Secondly, the research intended to explore the impact of these web-based games and interactive activities (Baamboozle, Wordwall, Liveworksheets, and Quizizz) on the academic progress of the students.

Therefore, this study made an effort to answer the following research questions in order to achieve its objectives.

1. What role do web-based games and interactive activities play in increasing students' motivation?
2. How effective are web-based games and interactive activities in improving students' academic performance?

Sub-questions:

1. Is there any significant difference in the academic success scores of English class between the pre-test and post-test scores of the fourth-graders in the experimental group that employed web-based games to teach English?
2. Is there any significant difference in the academic success scores in English between the pre-test and post-test scores of the fourth-graders in the control group that employed web-based games to teach English?
3. What are the thoughts and feelings of the students in the experimental group about the English lesson that was taught through the use of web-based games?

Prior to the results of the research questions, the answers that were given for the feelings (Q1. How do you feel about English classes?) that students had towards the English lesson revealed that students had intrinsic motivation, which, as mentioned by Ryan and Deci (2000), is defined as doing something for its own sake without regard to external benefits. Furthermore, Deci et al. (1999) claimed that intrinsic motivation has better learning outcomes than the results of extrinsic motivation. Hence, intrinsic motivation could help students perform better in English class.

The first research question sought to find out what role web-based games played, and the first sub-research question aimed to discover the experimental group students' thoughts and feelings about the English lesson that was taught using web-based games. Accordingly, the role of web-based games in boosting students' motivation has far-reaching consequences.

The findings of semi-structured interviews with students in the experimental group revealed that students' views and attitudes toward these games were positive. This

result was consistent with Jannah and Syafradin's (2022) study, in which students reported that playing web-based games was thrilling, engaging, and entertaining. It also reinforces scholars' assertions that web-based games are getting increasingly popular among learners, particularly among young learners. Correspondingly, Hwang and Wu (2012) and Lin and Hou (2016) found that young learners perceive DGBL positively. Besides, the majority of students stated that the games were both educational and entertaining. The finding was consistent with the game-based learning model proposed by Garris et al. (2002), in which instructional content is smoothly incorporated with game features, suggesting that the game should be engaging so that students repeat the cycles. Meanwhile, Prensky (2010) underlined that digital natives demand education that is both relevant and authentic and involves students' interests, interactions, and collaborations. Thereby, the study has correlated the importance of the web-based games and interactive activities successfully.

Moreover, the findings aligned with those of Hurhish and Sterlikova (2022), who explored that the use of digital games in classroom settings was effective for generating a sense of flow and enjoyment while balancing entertainment and learning. Based on the responses given, it is clear that students both learned and had fun while playing the games, and that relates to the game-based learning model.

On the other hand, the analysis of the researcher/teacher field notes reported that the pupils enjoyed the images while they were playing Wordwall. Since the game included a bonus round in which the cards with points (+200, +100, -100, -200) were shuffled, the students' objective was to locate a card with +200 points. Thus, they tried to provide correct responses to questions in order to advance to the bonus round. This yields to the expectancy theory (1964) of Victor Vroom. He argued that

human motivation involves effort, performance, and intrinsic attractiveness. The philosophy emphasized outward praise and rewards. In this present study, students answered correctly to get more points, which followed expectancy theory.

Furthermore, among the web-based games (Wordwall, Quizizz, and Liveworksheets) that were investigated, the findings demonstrated that Baamboozle was the one that students liked the most. The reasons were stated as follows: it was simple to receive assistance from teammates; it heightened the sensation of a genuine game; and it was mysterious. This could be defined by the age factor of the students, since similarly, Tao et al. (2016) used digital games to teach English to students in primary school. The researchers discovered that classroom settings that included digital game-based learning could pique the students' interest and stimulate their curiosity. That's evidenced in the study that shows digital game-based learning enhances students' feelings of achievement and motivates them to keep learning. What's more, according to Hieu (2021), Baamboozle is a web-based game that supports multiple images, making it simple for students to understand and helping them remember it for a long time. The responses that students gave in this research were aligned with those findings. In accordance with the semi-structured interviews, Baamboozle fostered a competitive climate in the class. As a result, Hwang and Chen (2022) emphasized that integrating the social and collaborative benefits of games with competitive and enjoyable elements of current technology is critical for achieving good learning outcomes.

In addition, the frequency table revealing how students feel about web-based games demonstrated that the majority of students are entertained, happy, energetic, interested, and excited regarding the web-based games. Keser and Semerci (2019)

came to the conclusion that learning via web-based games helps students become more involved in the material. Followingly, the ARCS model theory (Keller, 1983) can explain this result, as this model is an active learning model that stimulates student engagement, maintains the interests of the learner throughout the learning process, and keeps the learner engaged the entire time. Over and above that, in a similar research, Sheldon et al. (2020) discovered that students' motivation and engagement enhanced when playing web-based games.

Although most of the students reported positive feelings, we shouldn't disregard the fact that some of them reported having negative emotions such as being bored, concerned, sad, or depressed due to the web-based games. In contrast to the drawbacks of web-based games that are discussed in the relevant literature, the instance presented in this investigation centered on the student losing both the game and the point. One possible explanation for this is that they might have labeled these educational games as "real" games.

On top of that, many students asserted the overreaction of their classmates was the major cause of the issue with the web-based games. There could be a variety of reasons why students might overreact while playing web-based games. Some possible reasons could include competition. Web-based games often involve competition, and students may become very enthusiastic about winning. Besides, students who are highly enthusiastic in a game might become emotionally invested in the outcome, which can lead to overreaction. Also, if the game becomes too challenging or frustrating, it could lead to overreaction. Into the bargain, some students may not be aware of their own emotions and may not realize that they are overreacting. This is aligned with losing control. Some students might struggle with

self-control, which can lead to overreaction in the heat of the moment. Hence, students overreacted while playing Baamboozle, which was played in teams, which resulted in social dynamics. If a student is playing with friends or peers, the social dynamics of the group may contribute to overreacting. It's important to remember that everyone reacts differently to different situations, and it's normal for people to have strong emotional responses to things. However, it's also important for students to learn how to manage their emotions and reactions in a healthy and appropriate way.

What's more, the findings of the interviews indicated that all of the students enjoyed playing in teams because their teammates assisted them in the game, and they were happy to spend time together as one of the students replied: "I can see how much faith we have in one another and how harmonious we are. The sense of togetherness is strengthened. When I play with the team, I have the opportunity to instantly correct any mistakes I make. I'm more confident now".

Furthermore, teacher/researcher field notes found that students are more motivated if the teacher is motivated. It can be interpreted in different ways. Students can benefit from a teacher's enthusiasm and motivation for a game or activity by feeling more involved and encouraged to participate, which can improve the classroom environment. In accordance, a motivated teacher is likely to set clear expectations for how the game should be played and what is expected of students which can help students understand what is expected of them and feel more motivated to meet these expectations. Likewise, students may feel that their involvement is appreciated and that the teacher is engaged in their learning when a teacher is genuinely invested in a game or activity. The motivation of the kids to participate may rise as a result. This is

also consistent with McDonough's (2007) assertion that instructors should promote an environment that is both supportive and conducive to the development of pupils' own motivated thinking. On top of that, a web-based game could be employed as a teaching tool by teachers since instructors believe it might benefit their students' learning. Students might be more inclined to engage if they can relate the game to their academic interests. Ultimately, students are more likely to be motivated when they are having fun. Overall, having a motivated teacher can create a more positive and enjoyable learning environment, which can in turn help to increase student motivation.

The second research question of the present study explored the effectiveness of web-based games and interactive activities in improving students' academic performance. Related sub-questions were: Is there any significant difference in the academic success scores of the English class between the pre-test and post-test scores of the fourth-graders in the experimental group that employed web-based games to teach English? Is there any significant difference in the academic success scores in English between the pre-test and post-test scores of the fourth-graders in the control group that employed web-based games to teach English?

Even though 73.7% of the students pointed out that the web-based games were effective in the test, the SPSS findings revealed the opposite results. The data was analyzed with the Mann-Whitney U-test as the data did not show a normal distribution ($p > .05$.) and, therefore, it was analyzed with non-parametric tests. Accordingly, at the end of the 4-week experimental study, students who participated in the web-based instruction program had lower academic language skills than students who did not participate in the program. In the light of these findings, the

web-based program does not contribute significantly to the development of academic language abilities. In the aforementioned studies in the literature review, the outcome produced contradictory results. The number of students in each class might have had an impact on the outcome. However, the Wilcoxon Signed Rank test revealed that the experimental group made progress, particularly in the post test.

5.2 Conclusion

A number of different inferences can be drawn after taking the results of this research into account. The role of the web-based games and interactive activities in boosting students' motivation had far-reaching consequences. The findings demonstrated that, concerning web-based games and interactive activities, students expressed a variety of positive feelings, including being entertained, happy, and energetic.

Along with that, it was reported that these games were both educational and entertaining for the students. Based on the semi-structured interviews and the researcher's field notes, students ranked Baamboozle (89.5%) as their favorite game, while Liveworksheets (5.3%) came in last. In light of this, students preferred Baamboozle over the other web-based games explored since it was easier for them to get assistance from their classmates as they were playing in teams, and the game's visuals and mystique sparked their attention and curiosity. It might also be argued that students valued collaboration and competition.

Over and above this, 32% of students declared negativity when they played alone. They mentioned that they got horrible feelings including being depressed, sad, upset etc. when they played alone.

On the other hand, even though 73.7% of students in semi-structured interviews pointed out that the web-based games and interactive activities influenced their academic development, the quantitative findings revealed that students who participated in the web-based instruction program had lower academic language skills than students who did not participate in the program.

However, the results of the Wilcoxon Signed Rank Test indicated that there is a significant difference in the academic language abilities of the experimental group both before and after the instruction of the students participating in the study on the academic language skills test, $z = 1.08$, $p > .05$. Taking into consideration the mean ranks and sum ranks of the difference scores reveals that the observed difference favors positive rankings, namely, the post-test score.

5.3 Implications of the Study

This research has several pedagogical implications. Since technology is an increasingly important part of our daily lives, incorporating it into the classroom can help prepare young learners for success in the future. By teaching students how to use technology effectively and responsibly, teachers can help them develop the skills they need to thrive in the digital age.

Furthermore, young learners are often naturally curious and excited about new technology, so integrating it into the classroom can help to keep them motivated and engaged. Attributed to the fact that they promote students' enthusiasm and motivation, teachers should include more of these or different web-based games and interactive activities in the class. In light of the student interviews, these activities have the potential to assist in the learning and retention of knowledge by students.

Besides, several instructional games in the activities require students to collaborate to solve issues or accomplish objectives. This may facilitate teamwork and collaboration, which have high value in the class.

5.4 Limitations of the Study

There are several possible limitations to this study. Due to the fact that the study was only conducted in two classrooms at a private school in the Turkish Republic of Northern Cyprus with a total of forty students who were in the fourth grade, it is difficult to generalize the findings of this study to all of the students in the Turkish Republic of Northern Cyprus who are enrolled in the fourth grade and are learning English.

The time frame for the study was from the 12th of September to the 3rd of October in the fall semester of 2022-2023. If the study period had been longer, there would have been more opportunity to investigate the effects of those web-based games on students' motivation in the EFL classroom and academic progress. Due to principal of the school, the study period was limited to four weeks. As a result, the duration of the research might be restricted.

One further limitation is imposed by the instruments. In this particular study, a semi-structured interview, a pre-test, and a post-test, as well as the researcher's field notes, were used. Because of this, the findings of the research are restricted to these particular instruments. The other data collection instruments could have been used to find accurate findings.

Finally, along with the technical infrastructure in the classroom, the researcher only used four web-based games. A lack of availability prevented students from using technology such as tablets, smartphones, and computers. So, the researcher couldn't use the other games that needed the devices to play and study the games, which could have had an effect on the students' learning, motivation, and academic progress.

5.5 Suggestions for Further Research

The current study includes several recommendations that should be taken into consideration for further research. Since technology has been shown to be one of the aspects promoting teaching and learning in the classroom, instructors must apply web-based games in their classes to enhance their students' learning experiences and provide them with new and engaging ways to learn. Therefore, the present study aimed to investigate the role of four different web-based games in students' motivation and the impact of these games on their academic progress.

This research investigated the context of a private school in the TRNC. The setting of a private school in the TRNC was explored as part of this research. Hence, it is critical to conduct research in a variety of settings using the same methodology in order to compare the results, because studying a phenomenon in different contexts allows researchers to determine whether the findings are generalizable, or applicable to other populations or settings. As a result, this can help to increase the validity of the findings, as they can be shown to hold true in a variety of different situations. Furthermore, it allows researchers to identify potential moderating variables, or factors that may influence the relationship between the variables being studied. Besides, it can also provide insight into the complexity of the phenomenon being

studied and help researchers understand how it may be affected by a variety of different factors. Eventually, conducting studies in different contexts allows researchers to gather a more comprehensive understanding of the phenomenon being studied and can help to increase the reliability and validity of the findings.

The present research also had a very small sample size of 40 people. Thus, it is important to include a larger number of participants to make generalizations about the results of the study. In view of the fact that including a larger number of participants in a study helps to increase the generalizability of the results and allows for more accurate conclusions to be drawn about the population being studied.

Meanwhile, this study was limited to only three data collection instruments. Thus, the researcher can use different data collection instruments. Given that using multiple instruments allows researchers to triangulate their data, which means that they can compare the results from different instruments to see if they are consistent. This can help researchers identify any potential biases or errors in a single instrument and increase their confidence in the overall results.

Additionally, using different instruments can also help researchers capture a more complete picture of the research question or phenomenon being studied. Also, using different data collection instruments can also help researchers address potential limitations. Ultimately, using multiple data collection instruments can help researchers increase the validity and reliability of their results and provide a more comprehensive understanding of the research question or phenomenon being studied.

There aren't many studies with young learners regarding the usage of web-based games since it's challenging to do research. Hence, it is crucial for the researcher to explore different web-based games in the classroom to enlighten the instructors about these games and their impacts and to contribute to the advancement of the field.

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APPENDICES

Appendix A: Permission from Ethics Committee

 Doğu Akdeniz Üniversitesi <i>"Erdem, Bilgi, Gelişim"</i>	Eastern Mediterranean University <i>"Virtue, Knowledge, Advancement"</i>	Galileo Galilei Sk. / Str., 99628, Gazimağusa, KÜZEY KIBRIS / Famagusta, NORTH CYPRUS, via Mersin 10, TURKEY Tel: (+90) 392 630 1327 bayek@emu.edu.tr
Bilimsel Araştırma ve Yayın Etiği Kurulu (BAYEK) / Board of Scientific Research and Publication Ethics		

Reference No: ETK00-2022-0188

18.07.2022

Subject: Your application for ethical approval.

Re: Birsen Sunar

Faculty of Education.

EMU's Scientific Research and Publication Ethics Board (BAYEK) has approved the decision of the Ethics Board of Education (date: 13.07.2022, issue: 22/121) granting Birsen Sunar and Prof. Dr. Naciye Kunt from the Faculty of Education to pursue their work titled **"Enhancing Students' Motivation In EFL Classes: Using Game-Based Approach Through Online Platforms"**.

Best Regards


Prof. Dr. Yücel Vural
Chair, Board of Scientific Research and Publication Ethics - EMU

YV/ek.

www.emu.edu.tr

Appendix B: Permission Letter from National Ministry of Education of TRNC



KUZEY KIBRIS TÜRK CUMHURİYETİ
MİLLÎ EĞİTİM BAKANLIĞI
İLKÖĞRETİM DAİRESİ MÜDÜRLÜĞÜ

Sayı : İÖD.0.00-174/06-22/E.7424

21 Nisan 2022

Konu : Sn. Birsen Sunar'ın Anket Uygulama
Talebi Hk.

Sayın Birsen SUNAR

İlgi : 15 Nisan 2022 tarihli başvurunuz.

Doğu Akdeniz Doğa Koleji öğrencilerine yönelik olarak hazırlamış olduğunuz "**Web Tabanlı Oyunların İngilizce Derslerindeki Motivasyonunu Artırması**" konulu yüksek lisans çalışmanızın anketinde yer alan ölçek soruları Talim ve Terbiye Dairesi Müdürlüğü tarafından incelenmiştir. Söz konusu çalışmanızın araştırma etiği ilkeleri, katılımcıların gizlilik ve gönüllülük esaslarına bağlı olarak gerçekleştirilmesi uygun görülmüştür.

Çalışmanızın, okul müdürlüğü ile istişare edilerek yapılması gerekmektedir. Çalışma tamamlandıktan sonra ise sonuçların Talim ve Terbiye Dairesi Müdürlüğü'ne iletilmesinin yasa gereği olduğunu bildirir, gereğini saygı ile rica ederim.



e-imzalıdır

Hakkı BAŞARI
Müdür

Not: 93/2007 sayılı Elektronik İmza Yasası'nın 6.maddesi gereği bu belge elektronik imza ile imzalanmıştır.

Şht. Mehmet Hasan Tuna Sokak. No.5 Yenişehir 99010 LEFKOŞA
Tel: 2286893
Faks: 2287158

Bilgi için: Özge BAYSAN
İ. D. Eğitim Öğretim Uzmanı

Appendix C: Consent Form

Değerli Velimiz,

Çocuğunuzun katılacağı bu çalışma, “Web-tabanlı uygulamaların ilkökul 4. Sınıf öğrencilerinin İngilizce derslerindeki motivasyonlarına etkisi” adıyla 12 Eylül ve 3 Ekim 2022 tarihleri arasında yapılacak bir araştırma uygulamasıdır. Bu çalışmada, web-tabanlı platformları (Baamboozle, Wordwall, Liveworksheets, Quizizz) ders içinde kullanarak 4.sınıf öğrencilerinin yabancı dil öğrenme motivasyonunu arttırmasındaki rolü araştırılacaktır. Araştırma uygulamasında; ön-son test, yarı-yapılandırılmış görüşme ve alan notları kullanılacaktır. Yarı-yapılandırılmış görüşme ses kayıt cihazı aracılığı ile kayıt altına alınacak, araştırmacı tarafından 6 ay boyunca çalışmanın tamamlanmasına kadar saklanacaktır. Daha sonra ise tüm veri tabanlarından silinecektir. Tüm görüşmeler, kimlik bilgileri anonimleştirilerek kayıt altına alınacaktır.

Araştırma, KKTC Doğu Akdeniz Üniversitesi, KKTC Milli Eğitim Bakanlığı’nın ve okul yönetiminin izni ile gerçekleştirilmektedir. Araştırma uygulamasına katılım tamamıyla gönüllülük esasına dayalı olmaktadır. Çocuğunuz çalışmaya katılıp katılmamakta özgürdür. Araştırma çocuğunuz için herhangi bir istenmeyen etki ya da risk taşımamaktadır. Çocuğunuzun katılımı tamamen sizin isteğinize bağlıdır, reddedebilir ya da herhangi bir aşamasında ayrılabilirsiniz. Araştırmaya katılmama veya araştırmadan ayrılma durumunda öğrencilerin akademik başarıları, okul ve öğretmenleriyle olan ilişkileri etkilenmeyecektir. Çocuğunuzun cevapları sadece bilimsel araştırma amacıyla kullanılacaktır.

Çalışmada öğrencilerden kimlik belirleyici hiçbir belge istenmeyecektir. Cevaplar tamamen gizli tutulacak ve sadece araştırmacı tarafından değerlendirilecektir. Uygulamalar, kişisel rahatsızlık verecek sorular ve durumlar içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden çocuğunuz kendisini rahatsız hissederse cevaplama işini yarıda bırakıp çıkmakta özgürdür. Bu durumda rahatsızlığın giderilmesi için gereken yardım sağlanacaktır. Çocuğunuz çalışmaya katıldıktan sonra istediği an vazgeçebilir. Görüşmeye katılmamak ya da katıldıktan sonra vazgeçmek çocuğunuza hiçbir sorumluluk getirmeyecektir. Onay vermeden önce sormak istediğiniz herhangi bir konu varsa sormaktan çekinmeyiniz. Çalışma bittikten sonra telefon veya e-posta ile ulaşarak soru sorabilir, sonuçlar hakkında bilgi isteyebilirsiniz.

Saygılarımla,

Araştırmacı: Birsen SUNAR

Danışman: Prof. Dr. Naciye KUNT

İletişim Bilgileri:

İletişim Bilgileri:

Tel: 0(542) 883 84 94

Tel: 03926302616

0(544) 477 26 42

E-mail: naciye.kunt@emu.edu.tr

E-mail: birsenn.sunar@gmail.com

*Velisi bulunduğum sınıfı.....numaralı öğrencisi
..... ‘in yukarıda açıklanan araştırmaya katılmasına izin veriyorum.*

Veli Adı- Soyadı:

Veli İmzası:

Appendix D: Semi-Structured Interview Questions

SEMI-STRUCTURED INTERVIEW QUESTIONS

- 1) How do you feel about English classes?
- 2) What motivates you in English classes?
- 3) What challenges you most in English classes? And how do you overcome these challenges?
- 4) What do you think about the web-based games you play in the classroom?
- 5) Which web-based games do you like most? Why?
- 6) Can you rank the web-based games from 1 (the most favorite) to 5 (the least favorite)?
- 7) How does it make you feel when you play web-based games?
- 8) What are the problems you face when you play web-based games?
- 9) What is the best part of playing web-based games in teams? How do you feel when you play in teams?
- 10) What is the best part of playing web-based games alone? How do you feel when you play alone?
- 11) How effective are these web-based games in the exams?

Appendix E: Pre-Test



Part 1: Fill in the blanks using the correct Possessive Pronoun. (6x3=18pts)

hers theirs mine his yours ours

1. The ball belongs to Ronaldo. It is _____.
2. This is your computer. It is _____.
3. Look at my jacket. It is _____.
4. Jane has got a pink bed in her bedroom. The pink bed is _____.
5. Can you see that house next to the park? We live there. It is _____.
6. That toy house belongs to Fred and Jack. It is _____.

Part 2: Fill in the blanks with the correct comparative adjective. (10x3=30pts)

1. Today is _____ (cold) than yesterday.
2. I think maths is _____ (difficult) than science.
3. My mum's cooking is _____ (good) than my dad's.
4. She is _____ (pretty) than me.
5. Super Mario is _____ (bad) than Sonic the Hedgehog.
6. Football is _____ (popular) than volleyball.
7. He is _____ (tall) than her.
8. A villa is _____ (expensive) than a house.
9. Cheetahs are _____ (fast) than cats.
10. Africa is _____ (hot) than Russia.

Part 3: Circle the correct answer. (12x3=18pts)

1. She always ride / rides her bike.
2. He doesn't / don't walk the dog.
3. We has / have breakfast in the garden.
4. I don't / doesn't watch TV at night.

5. Do / Does you brush your teeth twice a day? Yes, I do. / does.
6. They go / goes to school on foot.
7. You does / do your homework every weekend.
8. My cat always sleeps / sleep under the tree.
9. Do / Does Sam read a book before she goes to bed? No, she do. / doesn't.
10. My dad wash / washes his car on Saturdays.

Part 4: Read the following passage and answer questions. Write TRUE or FALSE.

My name is Jack. I am 10 years old and I go to Doğa Primary School. I have one sister and her name is Sandy. She is six years old and she goes to school too. We are in the same school. She is year 1.

Every summer, we go to Bodrum for a holiday. I don't take my dog and cat with me. They stay in Cyprus. My grandmother looks after them. We usually stay at a hotel near the beach. I learned how to swim one year ago. My sister doesn't know how to swim. We have breakfast at the hotel every morning. Then, we go to the beach. My mum doesn't swim a lot. She hates it. She sunbathes and reads a book. My father usually plays and swims with us. He is fun. I play with my sister on the sand and make new friends every year. I love Bodrum. I hope we go there again next year.

1. Jack is a student. _____
2. Jack has a brother. _____
3. Jack and his sister go to the same school. _____
4. When Jack goes on holiday, he takes his cat and dog with him too. _____
5. Jack learned how to swim last year. _____
6. His sister can swim. _____
7. His mum doesn't like swimming. _____
8. Jack's father is boring. _____
9. Jack meets new friends every year. _____

Appendix F: Post-Test

ENGLISH DEPARTMENT 2022 - 2023 ACADEMIC YEAR (POST-TEST)	
Name & Surname: _____	Mark: _____ / 105
Class: 4 _____	
Part 1. Write Superlative form of these words: (2×10)	
1. Tidy _____	6. Fast _____
2. Popular _____	7. Heavy _____
3. Big _____	8. Bad _____
4. Good _____	9. Long _____
5. Large _____	10. Dangerous _____
Part 2. Fill in the blanks with Superlative form of the words in brackets: (3×10)	
1. Helen is _____ (beautiful) girl in her class.	
2. Tom is very smart. He has _____ (good) marks in the school.	
3. My uncle is _____ (rich) man in our family.	
4. Elephants are _____ (big) land animals in the world.	
5. My bedroom is _____ (comfortable) room in my house.	
6. What's _____ (dangerous) animal in your country?	
7. David is _____ (tall) player in his team.	
8. I think, Math is _____ (difficult) subject of all.	
9. Which is _____ (long) river in the world?	
10. My cousin is _____ (young) person in our family.	

Part 3. Complete the sentences, use the words in the box. (10×3)

the largest	the cleverest	the shortest	the loudest	the coldest
the highest	the most expensive	the laziest	the most difficult	the hottest

1. London is _____ city in England.
2. Ferrari is _____ car in the world.
3. Dolphins are _____ animals.
4. February is _____ month of the year.
5. Winter is _____ season of the year.
6. August is _____ month of the year.
7. Whales are _____ animals in the world.
8. Chinese is _____ language.
9. Sloths are _____ animals.
10. Burj Khalifa in Dubai is _____ building in the world.

Part 4. Read and write true or false. (5×5)

About The Earth

There are lots of seas and oceans in the world. The Pacific Ocean is the biggest and deepest. The world has also got deserts, mountains, cold lands, grasslands and rainforests. Deserts are the hottest and driest places in the world. The world's biggest desert is the Sahara Desert, in Africa.

There are also a lot of mountains in the world. The highest is Mount Everest, in Asia. The North and South Poles are the coldest places in the world. At the South Pole there is a continent called Antarctica.

Grasslands are flat, dry plains. The largest grassland is between Europe and Asia. There are rainforests in Asia, Africa and South America.

1. The Pacific Ocean is very big. _____
2. Deserts are very cold. _____
3. The Sahara desert is in Africa. _____
4. Mount Everest is the highest mountain. _____
5. The North and South Poles are the hottest places in the world. _____

