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ÇANAKKALE ONSEKİZ MART UNIVERSITY
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DEPARTMENT OF FOREIGN LANGUAGE EDUCATION

GAMES AS AN ASSESSMENT TOOL: SUCCESS OR FAILURE?

MASTER'S THESIS

GÜLİN UNAY

Supervisor
ASSIST. PROF. DR. SEDAT BECEREN

ÇANAKKALE – 2024

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T.C.

ÇANAKKALE ONSEKİZ MART ÜNİVERSİTESİ

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ETİK BEYAN

Çanakkale Onsekiz Mart Üniversitesi Lisansüstü Eğitim Enstitüsü Tez Yazım Kuralları'na uygun olarak hazırladığım bu tez çalışmasında; tez içinde sunduğum verileri, bilgileri ve dokümanları akademik ve etik kurallar çerçevesinde elde ettiğimi, tüm bilgi, belge, değerlendirme ve sonuçları bilimsel etik ve ahlak kurallarına uygun olarak sunduğumu, tez çalışmasında yararlandığım eserlerin tümüne uygun atıfta bulunarak kaynak gösterdiğimi, kullanılan verilerde herhangi bir değişiklik yapmadığımı, bu tezde sunduğum çalışmanın özgün olduğunu, bildirir, aksi bir durumda aleyhime doğabilecek tüm hak kayıplarını kabullendiğimi taahhüt ve beyan ederim.

ETHICAL DECLARATION

I hereby declare that the data, information, and documents I presented in the thesis were obtained in accordance with academic and ethical rules; that I have presented all information; that I have cited all the works I have used in my thesis; and that I have not altered the data used or the work I have presented in this thesis. This thesis was prepared in accordance with the Thesis Guidelines of the Çanakkale Onsekiz Mart University School of Graduate Studies.

Gülin UNAY
30/01/2024

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Gülin UNAY

Çanakkale, January 2024

ÖZET

BİR ÖLÇME VE DEĞERLENDİRME ARACI OLARAK OYUNLAR: BAŞARI MI, BAŞARISIZLIK MI?

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30/01/2024, 80

Hangi öğretim yöntem ve tekniği kullanılırsa kullanılsın, ölçme ve değerlendirme bir öğretmen için kaçınılmazdır. Günümüzde halen geleneksel değerlendirme yöntemlerini kullanan pek çok öğretmen vardır fakat teknoloji öğretmenlere oyunlar dahil pek çok dijital materyali kullanabilme olanağı sunmaktadır. Bu oyunlar hem öğretimin hem de bu çalışmada oyunlaştırılmış dijital değerlendirme olarak adlandırılan değerlendirmenin içine entegre edilmektedir. Bu çalışmada amaç oyunlaştırılmış dijital oyunların geleneksel yöntemlere kıyasla öğrencilerin değerlendirme sonucundaki başarısını ve motivasyonlarındaki değişimini gözlemlemektir. Bu deneysel çalışma, İzmir'de bir özel okuldaki 62 5. Sınıf öğrencisi ve dört İngilizce öğretmeni ile gerçekleştirilmiştir. İki farklı seviye sınıfındaki 4 gruptan oluşan öğrenciler, dijital değerlendirmenin farkını gözetebilmek için kontrol ve deney grubu olarak ikiye ayrılmıştır. 2 ünite öğretimi sonrası uygulanan biçimlendirici değerlendirme sonucuna göre deney grubu öğrencilerinin kontrol grubu öğrencilerinden önemli bir derece başarı farkı oluşmamıştır. Fakat değerlendirme sonrası gerçekleştirilen öğretmen röportajının ve öğrenci görüş kağıtlarının sonucuna göre oyunlaştırılmış dijital değerlendirme uygulanan öğrencilerin kağıt tabanlı değerlendirme uygulanan öğrencilere kıyasla motivasyonlarının gözle görülür biçimde yükseldiği, derse katılım ve istekliliklerinin önemli derecede arttığı saptanmıştır. Ayrıca uygulama sonundaki öğretmen ve öğrenci görüşleri gösterdi ki, her iki katılımcı grup da çalışma sonrasında dijital oyunlaştırmış testleri kullanmayı tercih ettiler. Bütün verilerin ışığında,

araştırmacı Kahoot'u geleneksel yöntemlere kıyasla başarılı bir method olarak tanımlamıştır.

Anahtar Kelimeler: Oyunlarla Ölçme ve Değerlendirme, Oyunlaştırma, Kahoot, Biçimlendirici Değerlendirme

ABSTRACT

GAMES AS AN ASSESSMENT TOOL: SUCCESS OR FAILURE

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Master of Art Thesis in English Language Teaching Program
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01/30/2024, 80

Assessment is inevitable for a teacher, no matter what teaching approach is used. Today, there are a number of teachers who prefer traditional assessment types. On the other hand, technological developments have enabled teachers to access limitless sources online, including games. These games have started to be integrated into both the content of teaching and assessment, which is defined as gamified digital assessment in this study. Accordingly, this research aimed at investigating digital games' assessment role for young learners compared to traditional assessment methods. This case study took place at a private school in İzmir. There were 62 fifth grade students and 4 EFL teachers as participants. Consisting of four groups of students in two different level classes, they were divided into two control and experimental groups in order to distinguish the effect of digital assessment. According to the formative evaluation results applied after 2 units of teaching, there was no significant difference in achievement between the experimental group students and the control group students. However, according to the results of the teacher interview and student response paper conducted after the evaluation, it was determined that the motivation of the students who were applied to gamified digital evaluation increased significantly compared to the students who were applied to paper-based evaluation, and their participation and willingness in the lesson increased significantly. In addition, teacher and student opinions at the end of the implementation showed that both participant groups preferred to use digital gamified tests after the study.

In light of all the data, the researcher identified Kahoot as a successful method compared to traditional methods.

Keywords: Game-based Assessment, Formative Assessment, Gamification, Serious Games, Kahoot

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THE LIST OF ABBREVIATIONS

CALL	Computer Assisted Language Learning
CLIL	Content and Language Integrated Language Learning
DBA	Digital-Based Assessment
DFA	Digital Formative Assessment
DGA	Digital Gamified Assessment
EFL	English as a Foreign Language
ESL	English as a Second Language Teaching
GBA	Game-Based Assessment
PBA	Paper-Based Assessment
TBA	Technology-Based Assessment

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FIRST CHAPTER
INTRODUCTION

This chapter provides initial information about the background of the study by starting with the birth of technology in education and moving on to game-based assessment. Next, it explains the statement of the problem and the aims of this study, supported by the research questions. Finally, it ends by emphasizing the importance of study. These sections are set forth in this chapter, respectively.

1.1. Background of the Study

Decades ago, it might have been impossible to discuss using tools that did not need paper for learning and assessment. As of the 21st century, there are ongoing innovations in the world that affect and change the education industry. Technology can be one of the crucial changes that we witness in and out of the classroom. It is irrefutable to ignore the use of technology and, relatively, the use of the internet in lessons. It is, for sure, an advantage for teachers since it helps enrich the content with the broad use of visuals, videos, and audios and fosters the use of numerous digital tools that enable teachers to use different strategies (Butler et al., 2014). Along with the rich sources that the internet facilitates, assessment, as one of the main bodies of teaching, has started to gain more concern from the teachers. While new techniques are being presented to cater to the students' educational goals for the 21st century, traditional techniques are beginning to receive increasing criticism and are being used less frequently (Cirit, 2015). Obviously, it is important to identify the needs of the students in terms of assessment (Çekiç and Bakla, 2014). However, it is indicated in a great deal of research that teachers need 21st century tools to achieve the goals of language education, which results in the search for new assessment types (Wang and Tahir, 2020). In order for language teaching strategies to be efficient, they must be learner-centered, inspire and encourage students, cater to a range of students, and evaluate their language skills fairly (Cirit, 2015). This is where traditional assessment techniques fall short and create a gap.

Games, in particular, have become a more popular and inspiring teaching strategy for filling this gap. Non-test elements such as points, leaderboards, and rewards were integrated into education and equipped with educational purposes, which can be defined as gamification (Kapp, 2012). English as a Foreign Language (EFL) classes have demonstrated their suitability for the implementation of gamification tools. This is because English learning is typically embedded in technological innovation (Alharthi, 2020). Besides, games promote a method of enhancing learning in the classroom by fostering motivation and engagement (Yürük, 2019), increasing active learning (Çetin Köroğlu, 2021), and motivating students in a way that encourages knowledge growth (Sercanoğlu et al., 2021). Moreover, Çekiç and Bakla (2021) supported the idea that games promote high achievement. It is also indicated by Yürük (2019) that using game-based assessment (GBA) in EFL or English as a Second Language (ESL) classes increases students' success if it generates a desired degree of motivation.

Games' promoting motivation has been stated several times by many researchers. Şad and Özer (2020) relate the primary factor behind the broad use of games to its beneficial impact on motivation. According to Csapó et al. (2012), games are commonly connected with happiness and fun, whereas assessment is typically tied to anxiety. As a result, gaming occurs mainly through internal factors, whereas assessment is primarily motivated by external factors. Kahoot is a game-based assessment tool that students can use to work individually or as a group in the class (Yürük, 2019). The main benefits of Kahoot included improved motivation and enhanced engagement among the students (Wang and Tahir, 2020). It facilitates active learning by prioritizing participation and motivation (Kapsalis et al., 2020). Furthermore, high-performing learners are awarded with their names shown on the scoreboard, which serves as a source of motivation for other students to actively engage and desire to have their names as well (Alharthi, 2020). Even though there are other reported challenges mainly related to technical issues (Wang and Tahir, 2020), the overall perception of Kahoot seems positive, with several benefits.

Kahoot, as a GBA tool, is suitable to use for different assessment purposes. By means of purpose, formative and summative assessments are the concerns of many teachers. "Formative assessment is applied during learning whereas summative assessment is undertaken at the end of the course or the program" (Kırkgöz et al., 2017). When it

comes to teaching, the initial stage is to determine the objectives and then devise a strategy to carry out the activities that will help achieve these objectives (Black and William, 2009). If the aim of a teacher is to monitor students' learning in the process and provide frequent feedback, formative assessment is the one to be chosen. However, teachers require broad knowledge to properly utilize formative assessment in lessons (Bennett, 2011). Moreover, EFL teachers require more and ongoing instruction about assessment as they demonstrate weaknesses in practical application (Önalan and Gürsoy, 2020).

1.2. Statement of the Problem

Technology gave birth to the internet. Digital game-based learning has occurred thanks to the internet, which is studied for its benefits or challenges to use in the classroom (Butler et al., 2014; Çakıcı, 2017; Ghergulescu, 2012; Vasileiadou and Makrina, 2017). It has been followed by the emergence of digital game-based assessment. Until recent years, there has been a greater tendency for teachers to use summative assessment in classes (Shaaban, 2001). However, teachers have started to use formative assessment to monitor the students learning process. There are a lot of review studies done about game-based assessment (Çekiç and Bakla, 2021; Doğan et al., 2020; Kato and Klerk, 2017; Shute and Ke, 2012; Wang and Tahir, 2020). These reviews are based either on which tools teachers mostly use or on what teachers think about these tools. Similarly, many of the empirical studies focus on revealing the teachers' perceptions (Cirit, 2015; Çetin, 2018; Ebadi et al., 2021; Karaoğlan Yılmaz et al., 2020; Şad and Özer, 2020). Besides, not every one of these case studies is in the area of language teaching (Çetin, 2018). Yet a few of these studies focus on implementation (Çetin, 2018; Çetin Köroğlu, 2021; Mada and Anharudin, 2019). Likewise, Kırkgöz et al. (2017) indicated that previous studies have mostly focused on the assessment views and practices of teachers for different competency levels.

Implementing the tool, on the other hand, is an important issue to take into consideration. Moreover, there is a gap in the literature in terms of comparing traditional pen-and-paper assessment to digital assessment tools. As a result, there is a need to evaluate the effectiveness of the digital game-based assessment tool to declare it a success or a failure, even though teachers' opinions as implementers are significant. Moreover, the number of the studies done with young learners is limited (Faber and Visscher, 2018; Mada

and Anharudin, 2019), as many of them are conducted with preservice EFL teachers (Alharti, 2020; Çetin Köroğlu, 2021; Kapsalis et al., 2020; Şad and Özer, 2020). When all these factors are combined, it was found that there is a gap in the literature to assess young learners' English skills, which should be enriched by EFL teachers' perceptions.

1.3. Aims of the Study

This study aimed at finding out the achievement differences at the end of units between the 5th grade control groups that used paper-based formative assessment and the experimental groups that used gamified digital formative assessment. It is hypothesized that young learners' achievement may increase with Kahoot when they have fun by regarding Kahoot as a fun tool.

Besides, motivational factors were proven to affect students' achievement in many empirical studies (Wang and Tahir, 2020). Kahoot is a digital gamified tool that is thought to foster students' intrinsic motivation (Çekiç and Bakla, 2021). At the end of the implementation process, the student response paper and teacher interview aimed to find out two important results for the study.

The first one is to reveal how the implementation of digital gamified assessment influences the preferences of both teacher and student participants. Considering that the teachers made use of paper-based assessment before the study took place, the researcher hoped to find out their post-study preferences.

The second is to find out the benefits and challenges of a digital gamified assessment tool compared to a traditional pen-and-paper assessment tool based on the teachers' observations of the students' changing attitudes towards English lessons after the implementation.

Finally, according to the results of each research question, the researcher provides the overall success or failure of Kahoot as an assessment tool.

1.4. Research Questions

In line with the aims, there are three main concerns of this study.

1. Is there a significant difference between the test scores of digital gamified and paper based formative tests?

2. What is the influence of the digital gamified assessment tool implementation on students' and teachers' preferences of formative assessment?

3. What are the perceived benefits and challenges of gamified assessment according to the participants?

1.5. Significance of the Study

Digital gamified tools are mostly used for game-based learning, and therefore there are numerous studies on them. This study is aimed at filling the gap in the Turkish sample of the comparison of digital gamified assessment tools to traditional assessment tools. Even though there are some studies using control and experimental groups for similar purposes, they were all conducted with university-level students. In this case, providing results of young learners' achievement with Kahoot fills the gap in the literature.

Many studies in the literature related to the benefits and challenges of digital assessment tools are nonexperimental. However, similarly, there are also a few studies that were conducted at universities based on young adults' and teachers' perceptions. As a result, what is also novel to the literature is that this study reveals both young learners' and their teachers' perceptions of Kahoot based on the experimental assessment implementation.

Lastly, it provides a link between the students' increasing participation and the use of digital gamified assessment tools. Based on teachers' involvement in the process, their personal preferences help the researcher regard Kahoot as an assessment tool as a success or failure after the study is completed.

1.6. Chapter Summary

In this chapter, an introduction to game-based assessment was made. It was followed by the statement of the problem and the main aims of this study. Finally, the significance of the study was explained.

SECOND CHAPTER
LITERATURE REVIEW

2.1. Introduction

In this chapter, the fundamental the role of technology in teaching and assessment, traditional and game-based assessment, game-based formative assessment, and kahoot are reviewed with the related literature.

2.2. The Role of Technology in Teaching and Assessment

The 21st century is the so-called era of technology. It helps shape and change many aspects of life. With the proliferation of technology, the history of education has started to change. Furthermore, the creation of Web 2.0 websites in the early 2000s enabled the Internet to be widely used and available (O'Reilly, 2005). Today we have started to call English global because the language belongs to the 'global' learners thanks to the widespread use of the internet (Galloway, 2017). While the learners who grow with and into technology are affected by it, they also affect the field of education. Within a wider context, technology has appeared as an influential phenomenon, reorganizing the fundamental principles of education, and revolutionizing existing approaches to teaching and learning (Ifantheler et al., 2012). As a result, the contribution of technology to education encompasses various aspects, including enhanced accessibility to information, its impact on student engagement, the facilitation of individualized learning, the changing nature of lessons, and offering an alternative assessment over traditional methods.

One of the key achievements of technology in the field of education is its unparalleled ability to grant individuals access to a vast amount of information. Online libraries, internet-based materials, and databases provide learners and teachers with the ability to overcome the constraints imposed by physical restrictions, allowing them to access a vast amount of knowledge conveniently (Nickerson and Zodhiates, 2013). The broadened range of information available enables individuals to delve into various

viewpoints and access a wide range of scholarly materials, thereby cultivating an environment that promotes ongoing education.

According to Timmis et al. (2015), technology has significantly contributed to the improvement of student engagement. Interactive features, which include gamified quizzes and virtual simulations, possess the ability to not only captivate the attention of students but also facilitate a more holistic learning experience. Recent investigations revealed a significant association between the integration of technology in educational settings and heightened levels of student enthusiasm and engagement (Mada and Anharudin, 2019; Wang and Tahir, 2020). In addition, Butler et al. (2014) conducted an experimental study with Japanese young learners who learned English as a second language. They used a game in the teaching process to assess students' learning outcomes. As a result, they concluded that the higher level of involvement frequently resulted in a greater comprehension of the content. However, they also indicated that the attractiveness of a game had the potential to negatively impact the learning processes of students.

The incorporation of technology within the area of education effectively enables the emergence of individualized learning environments. In further explanation, this cooperation allows the teacher to create a diverse educational setting using visual aids, videos, etc. according to the students' learning methods and interests. According to the research conducted by Wang and Tahir (2020), flexible learning environments promote a higher possibility of customizing educational content in response to individual student performance. The implementation of a personalized approach in education facilitates a more student-centered learning environment that effectively caters to a wide range of learning needs. According to Pellegrino and Quellmalz (2010), technology enables the provision of more adaptable and customized instructional materials to students, encompassing a broader and more diverse range of learning tasks and settings. This facilitates students' ability to demonstrate their knowledge and understanding in various contexts, thereby enhancing the educational experience.

The emergence of digital platforms and technologies has significantly transformed the nature of traditional classes online by adapting technological tools, websites, and educational games into lessons. Computer-Assisted Language Learning (CALL) has gained a lot of interest because of this transformation and the growing usage of personal computers (Butler et al., 2014; Doğan et al., 2020). The extensive range of online tools has enabled teachers not only to enrich teaching but also to have a chance to assess online (Csapó et al., 2012; Doğan et al., 2020). Technology-integrated assessment methodologies help the implementation of more dynamic and alternative assessment techniques. This increase offers different ways for assessment: tools that differ in purpose and function, which are for common or special usage, which are test-oriented or questionnaire-oriented, which offer standards for professionals or ordinary users (Buchanan, 2002). Similarly, the possibility of applying online assessment is attracting considerable interest for young learners due to its rich source of content (Butler et al., 2014). Furthermore, Timmis et al. (2015) emphasize the role of technology in enabling the incorporation of multimedia components within assessments, thereby enhancing the depth and breadth of insight into students' knowledge and competencies.

Technology provides several other benefits for assessment. Accuracy and effectiveness can be achieved when assessing traditional subjects. Through the utilization of technology, the scope of assessment can be expanded to encompass previously unassessable subjects that are not suitable for evaluation through alternative methods. These subjects include areas in which technology plays a crucial role in establishing the construct, as well as subjects in which technology serves as a tool for conducting assessments (Csapó et al., 2012).

In short, the impact of technology on education is characterized by its changing nature. Technology has emerged as an essential component of the educational environment, serving various purposes such as facilitating access to information, promoting interactive learning, enabling personalized education, and fostering global connectivity.

2.3. Traditional and Game-Based Assessment

Assessment can be regarded as the cornerstone of the whole teaching process. Without assessing the learners and giving them feedback, teaching would have been a one-way ticket. On the contrary, when considering the fundamental aspects, the act of teaching can be understood as a three-step procedure involving teachers' transmission of the knowledge, learners' comprehension of the information, and assessing the learning outcomes that can be applied by the teachers or the learners (Çimen, 2022). Here, it is important to understand what assessment means. There is a lot of confusion about using the words 'assess' and 'test' interchangeably. Testing is typically conducted in a formal manner and adheres to established standards (Dikli, 2003). Assessment, on the other hand, is a continuous process that may be applied at any time in a teaching period by the teacher unintentionally, such as a student's answering a question, sharing an opinion, or using a word in a sentence (Brown, 2004).

Based on the definition described by Rixon and Prošić Santovac (2019: 1), assessment is the "principled ways of collecting and using evidence on the quality and quantity of people's learning." Teachers are mostly familiar with pen and paper or paper-based assessment (PBA). This type of assessment is also called a traditional assessment, which has been a form of evaluation of learning for over a century (Csapó et al., 2012). Many teachers in Türkiye utilize this assessment as a mandatory component of the assessment process in elementary schools (Kırkgöz et al., 2017). However, it has also been argued by many teachers that traditional assessment cannot fit the requirements of today's system. Brown identifies the components of traditional assessment as "scores suffice for feedback, focus on the "right" answer, summative, non-interactive performance, and fosters extrinsic motivation" (2004: 13). With the arguments, there has been a search for an alternative assessment that seems more suitable to fulfill the assessment necessities of developing and changing education.

Table 1

Traditional and alternative assessment (adopted from Brown, 2004: 13)

Traditional Assessment	Alternative Assessment
One-shot, standardized exams	Continuous long-term assessment
Timed, multiple-choice formal	Untimed, free-response format
Decontextualized test items	Contextualized communicative tasks
Scores suffice for feedback	Individualized feedback and washback
Norm-referenced scores	Criterion-referenced scores
focus on the "right" answer	Open-ended, creative answers
Summative	Formative
Oriented to product	Oriented to process
Non-interactive performance	Interactive performance
Fosters extrinsic motivation	Fosters intrinsic motivation

These components may not be regarded as challenges for the nineties, as it is one of the most suitable methods a teacher can choose. Yet, they are the outstanding deficiencies in today's world, as stated in the table above. Here, it can be concluded that the predominant mode of providing feedback to students is through the use of a quantitative grading system. The assumption is that this method may not offer a comprehensive or constructive evaluation regarding the particular merits and deficiencies of a student. Besides, traditional assessments tend to place a high emphasis on the identification of the right solution to a particular problem. This particular approach may not effectively foster the development of critical thinking skills or facilitate the discovery of different views and solutions. Furthermore, traditional assessments are commonly characterized by a single-directional approach, wherein students are expected to provide responses to questions with no significant interaction or participation with the examiner or the learning environment. The absence of interactivity has the potential to restrict the extent to which one can comprehend a given subject matter. In addition, traditional assessment uses external

rewards to help students foster extrinsic motivation rather than intrinsic motivation, which is another lack of this method. In short, the statement asserts that traditional assessment can possess certain constraints in terms of delivering substantial feedback, cultivating critical thinking skills, enabling continuous learning, facilitating interactive participation, and encouraging intrinsic motivation among students. Alternative assessment methods usually tend to reduce these constraints by employing interactive, formative, and comprehensive evaluation techniques.

Teachers often use summative purposes to allocate grades, serving as a summative measure, which in turn provides students with concrete proof of what they have learned (Çekiç and Bakla, 2021). Even though traditional summative assessment may seem out-of-date, it is also important to note that many teachers see it as a safe haven (Dikli, 2003), as it is easy to assess and easy to grade. In the study that Cirit (2015) conducted with Turkish EFL teachers on their assessment preference, the teachers who chose paper-based assessment outnumbered the teachers who chose other assessment types. She, on the other hand, indicated that the approach adopted in ELT classes should be learner-centered, motivate effectively, encourage students, cater to the diverse needs of the students, and ensure a balanced assessment of all language skills to be successful, whereas traditional methods are insufficient to answer all of them. As a result of these deficiencies, teachers have started to look for an alternative assessment type, which is a challenge at the time (Cirit, 2015). Even Herman (1992) mentions this need by referring to traditional assessment as unsatisfactory in the years when digital assessment systems were not popular. He indicated that alternative assessment should promote students' authentic production, engage with their problem-solving skills, take advantage of real-life activities, and promote different responsibilities for teachers.

Throughout the passing years, innovations in technology have let digital assessment opportunities occur and made it impossible not to follow them (Csapó et al., 2012; Çetin Köroğlu, 2021; Doğan et al., 2020). Out of these opportunities, games are the ones which are easy to play and easy to assess (Ifenthaler et al., 2012). However, it is very important to find a game that has the proper features for assessment. In this case, what is a game? The games existed centuries ago. In history, the use of games dates back to Plato's hypothesis.

Plato realized that the reinforcement of specific behaviors observed during play would subsequently reinforce those behaviors in adulthood (Wilkonson, 2016). Throughout the years, the understanding of game and play has evolved, and different definitions of game have emerged (Ifanthaler et al., 2012). A game is uttered as a controlled play that is usually "voluntary, intrinsically motivating, and involves active cognitive and/or physical engagement" (Shute and Ke, 2012: 44). Gamification in education is defined by Kapp as "using game-based mechanics, aesthetics, and game thinking to engage people, motivate action, promote learning, and solve problems" (2012: 10). The main aim of gamification "is to improve user experience and user engagement in non-game services and applications, through the utilization of fundamental game design elements" (Ibrahim and Ibrahim, 2020: 1218). They can be counted as one of the newest instructional designs. In the literature, many terms have been proposed by researchers to refer to this latest assessment design. The most common ones are TBA (technology-based assessment), DBA (digital-based assessment), and DFA (digital formative assessment), which Çetin Köroğlu defines "as the use of formative assessment through digital platforms and steps to foster students' learning by assessment" (2021: 108). As an additional term, these tools are named digital gamified assessment (DGA) in this study to emphasize their game elements and the factors produced by the games.

A significant issue is the absence of direction regarding the selection of suitable tools (Çekiç and Bakla, 2021). Not all games are suitable for TBA or DBA. The educators should choose a good game that has certain features. Shute and Ke proposed seven key features to reach the qualities of a good game that can be used for educational purposes.

Interactive problem solving: Games require ongoing interaction between the player and the game, which usually involves the requirement to solve a series of problems or quests.

Specific goals / rules: Games have rules to follow and goals to attain which help the player focus on what to do and when. Goals in games may be implicit or explicit.

Adaptive challenges: Good games balance difficulty levels to match players' abilities. The best games and instruction hover at the boundary of a student's ability.

Control: A good game should allow or encourage a player's influence over gameplay, the game environment, and the learning experience.

Ongoing feedback: Good games should provide timely information to players about their performance. Feedback can be explicit or implicit, and as research has indicated, has positive effects on learning.

Uncertainty evokes suspense and player engagement. If a game "telegraphs" its outcome, or can be seen as predictable, it will lose its appeal.

Sensory stimuli refer to the combination of graphics, sounds, and/or storyline used to excite the senses, which do not require "professional" graphics or sound to be compelling (2012: 46).

Çakıcı (2017) indicates that games that are designed or proper to use in educational contexts promote student-centered learning and enhance the problem-solving skills of students. Csapó et al. (2012) support this opinion by hypothesizing that the problems occurring in TBA help students develop their problem-solving skills, as they must find immediate solutions to be able to continue the game or task. Thanks to the simple software they offer, games provide teachers with a lot of benefits, which are also illustrated in Figure 1. These are;

- enabling instant and effective feedback (Doğan et al., 2020; Shute and Ke, 2012),
- transparent learning process (Ghergulescu and Muntean, 2012),
- better acknowledgement of the course material (Moss, 1977),
- offering a wide range of assessment opportunities (Kato and Klerk, 2017),
- triggering intrinsic motivation (Ghergulescu and Muntean, 2012; Şad and Özer, 2020),
- more active participation in lessons (Mada and Anharudin, 2019).

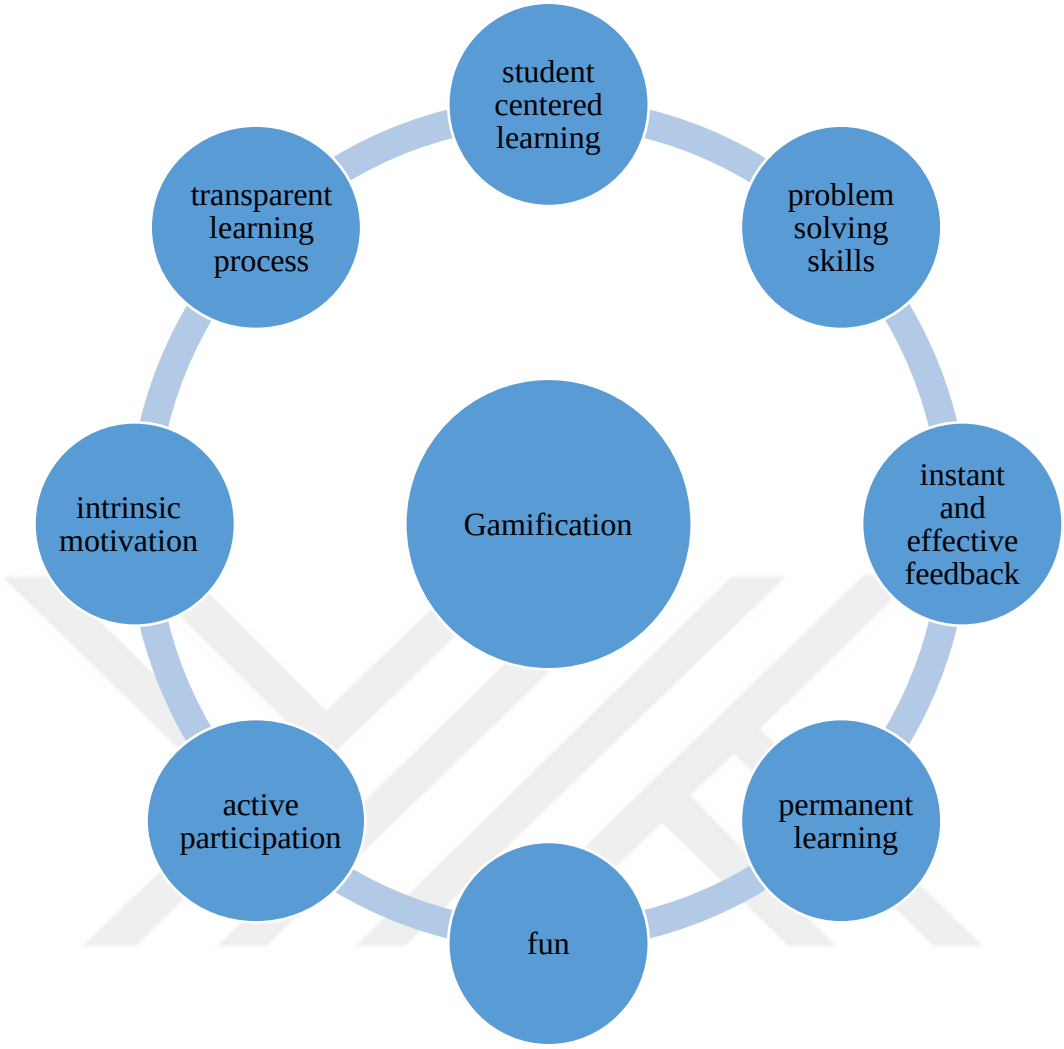


Figure 1. Benefits of gamification

Students must wait to see the results of traditional assessments. It takes time for a teacher to read all the papers and announce the results. That is why providing immediate feedback is seen as one of the most crucial benefits of DGA by scholars (Csapó et al., 2021; Doğan et al., 2020). Çetin (2018) applied Kahoot to elementary school students and found that the students found Kahoot useful because it provides the right and wrong answers immediately. Also, Csapó et al. (2012) concluded that regular feedback cannot be possible with any other assessment type than DGA. Another study conducted by Şad and Özer (2020) revealed that students who had a formative Kahoot test during their pedagogical formation could understand which subject they needed to revise better with DGA as they understood their deficiencies immediately.

In traditional assessment, teachers do not have enough time to assess tests in class, which damages the transparency of the assessment. However, Kahoot provides every participant's correct and incorrect answers on the screen at the same time. Students have a chance to observe every other student's score and how they get it. In this case, DGA leaves no room for students to worry (Ghergulescu and Muntean, 2012; Mada and Anharudin, 2019).

2.3.1. Assessing Young Learners

Assessment is a continuous process that can be monitored by the teacher throughout the whole learning process and can be repeated at any time. It helps the teacher recognize the language learning development of the learners. Moreover, assessing young learners differs from other age groups in the factors forming the assessment tool. Cameron (2001) states these factors as:

- It must focus on the child's developmental stage by supporting age-appropriate activities. Games, for example, not only capture their attention but also provide valuable insights into their language acquisition progress.
- It should be applicable to students with different learning styles. Including tasks or questions appropriate for different styles may appeal to the learners more.
- Interactive games should be used because incorporating games into the assessment process can make it more engaging, enjoyable, and reflective of a child's abilities. Games also encourage collaboration, making the assessment process an enjoyable and participatory experience.
- It should include social aims as much as language learning aims. Social interaction is essential to providing real-life scenarios. Moreover, students tend to be more willing to participate in the lessons when there is social interaction.
- Using the results of the assessment to help with the next lesson may help the teacher develop the teaching period.

- It should serve a student-centered perspective by facilitating engagement and active participation.
- The assessment process should advance not only learning but also teaching.
- The assessment tasks should be similar to the activities that are practiced in the classroom.
- The learners should be informed about the purpose of the tasks that are applied during the assessment. It is also essential that the assessment process is supported by the parents.

Apart from these principles, there are some other principles that teachers should consider. Young learners are sensitive and vulnerable in terms of receiving feedback. Teachers' providing positive feedback fosters a positive attitude toward learning and motivates children to continue exploring and discovering new things (Nikolov and Timpe Laughlin, 2020). When teachers review the students' learning regularly, it ensures that the method is aligned with the child's changing needs (Önalan and Gürsoy, 2020). Besides, their experiences may vary as well as their needs. A comprehensive understanding of their capabilities requires a multi-faceted assessment that captures the richness of their learning experiences. In other words, assessments should not be confined to evaluating cognitive abilities alone but should also encompass social and emotional aspects, as Cameron (2001) also stated.

The environment is crucial in terms of supporting their learning. It should encourage them to participate in the assessment not only to be graded but also to comprehend the assessment procedure (Shabaan, 2001; Yildirim and Orsdemir, 2013). Within this environment, the assessment should be designed to engage and motivate young learners. As they can easily get motivated by the fun element of learning, teachers should consider how assessment practices can trigger their motivation. With the help of the principles described, traditional assessment methods seem to not meet the needs set for assessing young learners. On the other hand, DGA can be considered more suitable to adjust the content, the aims, the environment, the form of the questions, authenticity, and age-appropriate activities supported by games.

2.3.2. Digital Gamified Assessment and Motivation

Motivation is a significant factor that affects the teaching process for young learners. It is one of the most studied subjects on GBA in the literature as it is connected to, somehow effects, and is affected by many other subjects such as participation, willingness, and fun. It is also one of the key elements of this study because it aims to find out how a DGA tool changes students' motivation. Students think of Kahoot as a game (Çekiç and Bakla, 2021). When they play a game, their feeling of excitement comes out. Mada and Anharudin (2019) reported that students feel happier when they use Kahoot as a DGA tool. They wanted to participate in the lesson more, as they had more fun than the paper-based test. This fosters students' intrinsic motivation. Here, it is important to mention the difference between intrinsic and extrinsic motivation types. According to Bomia et al., while "extrinsic motivation refers to outside sources or values that influence a person to act or learn", "intrinsic motivation, also known as self-motivation, refers to influences that originate from within a person which cause a person to act or learn" (1997: 4). As the issues related to technology, the internet, and games trigger self-motivation for students, it can be concluded that DGA fosters intrinsic motivation.

There are many other studies that support this hypothesis. For example, Butler et al. (2014) reported that games had the potential to exert a beneficial impact on the emotional aspects of children, mostly fostering their intrinsic motivation. In Çetin's study (2018), almost all the participant students stated that they found Kahoot motivating. Similarly, Cirit (2015) made a distinction between traditional assessment methods' extrinsic motivation and alternative assessments' intrinsic motivation, as Brown (2004) also stated.

Fun is the common feeling that almost all students feel in DGA. No matter what age students are, they have fun while answering questions. Mada and Anharudin (2019) worked with young learners, and they reported a high level of enthusiasm that students showed. They also mentioned that the students stated that they were never bored. Çetin's fourth grade participant students found Kahoot enjoyable and fun (2018). Furthermore, 52

EFL pre-service teachers in Çetin Köroğlu's study shared their satisfaction with Kahoot (2021). Participation is another factor triggered by motivation and fun. Participation has a direct relationship to success. Students start to attend and participate in classes more as their willingness is higher after Kahoot assessments (Çetin Köroğlu, 2021; Şad and Özer, 2020; Wang and Tahir, 2020).

A striking feature of DGA is that it helps students score better in the assessment compared to traditional assessment methods (Cirit, 2015). Csapó et al. (2012) state that this success is due to the instant feedback given to the students. Wang and Tahir (2020) reviewed ninety-three studies in the literature related to Kahoot. Their findings revealed that Kahoot mostly displays a large effect size on students' learning. Similarly, Çekiç and Bakla (2021) reviewed teachers reporting students' significantly higher scores on tests applied with a DFA tool. Mada and Anharudin (2019) reported that students' average scores on Kahoot were higher than on paper-based tests.

It is also important to note that games decrease anxiety levels (Ghergulescu and Muntean, 2012). This is the main reason that teachers of online assessments perceive the results as more reliable. For example, Moss (1977) concluded in his study that he could have a better understanding of students' learning of the content with TBA because students could show their true selves when their anxiety level is low. Also, in the study of Mada and Anharudin (2019), they realized that students are happier and less stressed during the time they play the game. Motivation is the key element that encourages learners to participate willingly and openly, but it is important to adapt games according to the learners' styles. If the teacher applies the "one size fits all" kind of an assessment type, it can cause a problem which results in students' demotivation (Ghergulescu and Muntean, 2012: 356). As a solution to this problem, teachers can try using different games at different times to reach a more reliable result. Another problem is the redundant tackles that learners face. It is not always possible for a teacher to eliminate them because they already exist in the unchangeable part of the software. However, Shute and Ke (2012) take advantage of them and declare them desirable because these tackles are the tasks that learners need to accomplish, which can give them a positive kind of stress. They suggest:

> During game play, students naturally produce rich sequences of actions while performing complex tasks, drawing on the very skills or competencies that we want to assess (e.g., scientific inquiry skills, creative problem solving). Evidence needed to assess the skills is thus provided by the players' interactions with the game itself (i.e., the processes of play), which can be contrasted with the product(s) of an activity—the norm in educational environments (2012: 52).

Thus, what teachers call assessing students without their awareness becomes meaningful with this assessment type. Shortly, the rich difficulties of the game could be turned into an advantage if the teacher knows how to make use of them and adjust the game for the students.

2.3.3. Digital Formative Assessment

It is essential to mention the assessment types, as they are one of the main focuses of this study. There are a lot of assessment types that differ in their nature, implementation, and purposes. Simply put, they all help improve the learning process of the students and the teaching process of the teachers. There are two main assessment types, mostly known and used by teachers. These are formative and summative assessments. Shortly, summative assessment deals with the product, which can be achieved at the end of the teaching period, while formative assessment deals with how students reach the product. Formative assessment is the form of assessment that was practiced in this study.

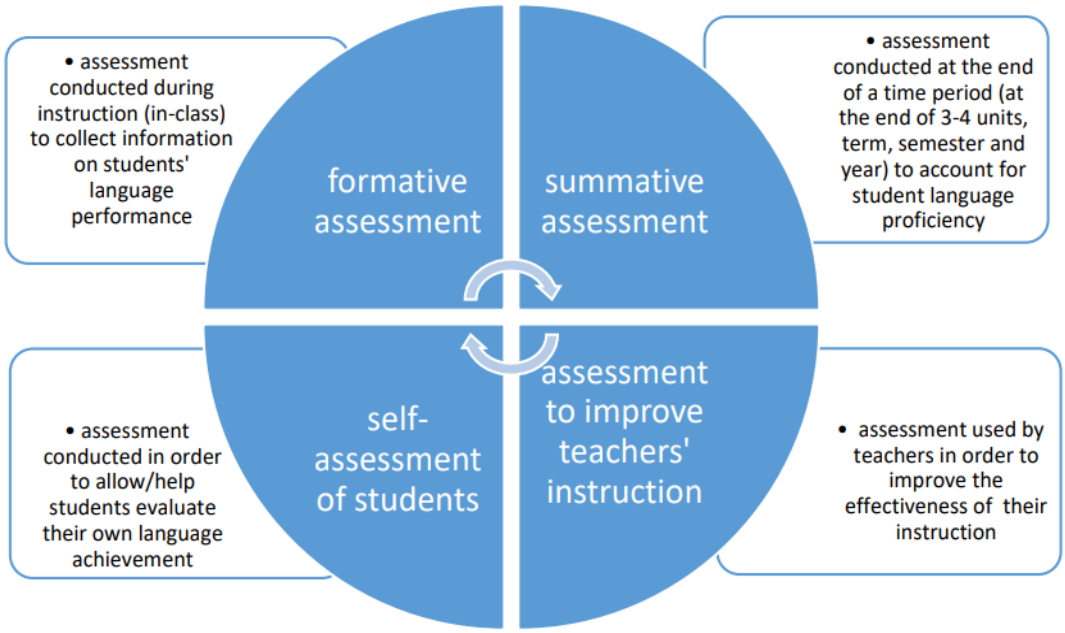


Figure 2. Assessment types in an EFL class (adopted from Önalan and Karagül, 2018: 192)

Formative assessment as a term was first put forward by Michael Scriven in 1967, but it was not to assess students' individual learning but to assess the curriculum itself. Then, Benjamin Bloom changed the content of this term in 1969 and formed today's definition (Çekiç and Bakla, 2021). Additionally, Peter Mittler introduced a simple but informative phrase in 1973 for formative assessment: 'Assessment for learning' (William, 2017). It evaluates learners by monitoring them through the teaching period, and their progress plays a great role in their success. Çekiç and Bakla define successful formative assessment elements as follows:

> (a) identifying learning objectives and criteria accepted as an indication of success, (b) offering effective in class activities that are indicative of learning and understanding, (c) giving students some feedback that could help them proceed, (d) teaching learners how to be a source of learning for their peers, and (e) helping them to take the responsibility of their own learning (2021: 1462).

According to these elements, teachers need to explicitly establish learning objectives, and clearly outline the language skills that students are expected to acquire. Activities should be created with the goal of eliciting and observing language usage within a significant context, thus providing useful insights into students' understanding and use of language principles. Feedback provided in formative assessment should be quick, precise, and helpful in guiding improvement. The focus should include both strengths and opportunities for progress. Teachers may also include assessment exercises, in which students examine and offer feedback to their friends. Furthermore, they can assist students in establishing individual language learning objectives. The assessment process can be effective when these five elements are applied properly.

Formative assessment is most of the EFL teachers' preference in Türkiye according to Önalan and Karagül (2018). Their study revealed that there is a significant difference between formative assessment and other assessment types, with a higher percentage of usage. Teachers mostly use this assessment to check students' comprehension of learning objectives (Kırgöz et al., 2017). However, both state school (Kırgöz et al., 2017) and private school (Önalan and Gürsoy, 2020) teachers prefer traditional methods as they tend to use the methods to which they are more accustomed. A digital formative test, on the other hand, fosters a dynamic and student-centered learning environment where continuous feedback and collaboration contribute to language proficiency and skill development, as mentioned earlier (Çekiç and Bakla, 2021). Unlike traditional tests, it is also more probable to use engaging in-class activities such as online quizzes and interactive exercises with digital formative tools. Moreover, these tools might be considered to align with the requirements and preferences of the younger students (Şad and Özer, 2020) and to be more attractive and motivating (Cirit, 2015). However, Önalan and Gürsoy (2020) reported that EFL teachers often struggle to use their theoretical understanding of assessment in practice. In this case, they offer further education for in-service teachers.

There are many benefits of DFA reported by the researchers. According to Wang and Tahir (2020), it helps students to decrease their anxiety and increase their classroom attendance, which results in increasing their test scores. Şad and Özer (2020) emphasize that DFA gives instant feedback and therefore makes learning permanent through

repetition of the subject. Çetin Köroğlu (2021) found out in her study that students who took DFA scored higher than the students who took PBA. As a result, the overall perceptions of both teachers and students are positive. However, there were also some negative perceptions. The common challenge of DFA tools was reported as the technical issues that were caused by digital devices or the internet. These were mainly connection problems, answering in limited time, not enough time to revise the answers, and answering without thinking time (Çekiç and Bakla, 2021; Şad and Özer, 2020; Wang and Tahir, 2020).

2.4. Kahoot

Kahoot is a website that provides users with interactive games and quizzes. It is a user-friendly website, and it also has an application you can use with iOS or Android. There are two different web pages for Kahoot. You need to have an account as a teacher to get feedback, and you need to use the www.kahoot.com page. However, the students do not have to have an account and can go to the www.kahoot.it page directly by entering a game pin that the teacher gives or shows. Teachers can create multiple-choice and true-false questions freely, but they have to upgrade the account and pay for the 'type answer', 'slider', 'puzzle' and 'quiz+audio' options. Furthermore, they can add pictures, videos, or audios to the questions. On the other hand, they can use ready-made kahoots that are prepared by other teachers or book companies by searching the topic of interest. The questions have a time limit, and it can be different for every question.

The game can be played both individually and as groups. There are two ways to play the game. One is to present questions from a big screen. All the questions can be answered simultaneously as soon as the teacher starts the Kahoot. Students must answer questions accurately within a limited time. Students see only colors and shapes of the options on their own device and choose the answer accordingly. Similarly, they must wait for each other to see the next question. The other one is to assign the Kahoot to the students with a time limit of teachers' choice. With this way, the students see the questions from their own screen and do not have to wait for other players to finish.

At the end of both ways, the teacher will automatically have an assessment report once all the students finish answering. This report shows the ranks, correct answers, unanswered questions, final scores, and the list of questions from most answered to least answered ones. The teacher may also choose to ask the students for feedback on the assessment. If it is chosen, the report also shows that. It can finally be concluded that Kahoot is a useful assessment tool with a good report in the end.

Kahoot is one of the most searched and used assessment tools out of the rich assessment sources on the web and applications (Çekiç and Bakla, 2021). Besides, it is regarded as more thrilling, difficult, and engaging since participants compete to answer questions quicker than other participants (Mada and Anharudin, 2019). It promotes increased engagement among the students thanks to increased motivation (Wang and Tahir, 2020). A lot of learners perceive assessment as an evaluation of their achievement. This perspective hinders the learner's ability to actively engage in the evaluation process. However, Kahoot is reported to show students' true selves thanks to decreasing anxiety (Kapsalis et al., 2020; Önalan and Gürsoy, 2020; Şad and Özer, 2020). Moreover, it turns the learning environment into a fun environment, which helps students to entertain, be intrinsically motivated, engage in the lesson, participate actively, and increase their test scores (Alharti, 2020; Çekiç and Bakla, 2021; Çetin Köroğlu, 2021; Kapsalis et al., 2020; Mada and Anharudin, 2019; Şad and Özer, 2020; Wang and Tahir, 2020). It will be treated as a digital, gamified assessment tool in this study.

2.4.1. Previous Studies about Kahoot

Kahoot is researched by many scholars for its gamification principle. Therefore, the number of studies that use Kahoot as an assessment tool is less than the number of studies that use Kahoot as a game-based learning tool. However, its assessment purpose is the focus of this study.

Initially, teachers tried to compare traditional assessment with alternative assessment methods. Cirit (2015) conducted a study based on revealing 40 pre-service ELT teachers' perceptions of traditional and alternative assessment. She conducted an experimental study and integrated alternative assessment into the lesson learning. According to the pre- and post-surveys, the students' overall opinion on the use of alternative assessment became even more positive after the implementation.

Çekiç and Bakla (2021) conducted a review study to find out teachers' preferences and perceptions of digital formative assessment tools. They concluded that Kahot was the third web tool that was used for scoring and giving feedback. The participant teachers mostly used close-ended types of questions because the software could automatically and objectively score them.

Wang and Tahir (2020) also reviewed the literature, but only for Kahoot-based studies, which were 93 in total. In general, they concluded that Kahoot improved students' achievement, increased their participation, motivated them, reduced their anxiety, and increased their satisfaction related to the course. Besides, teachers were also more motivated and could enhance their teaching. However, this review was not specifically based on Kahoot's assessment role. 48 of the studies were based merely on its being used as a learning platform. 10 studies included teacher perceptions, while 82 studies included learner perceptions. There were 36 studies investigating the effect of Kahoot on students' learning. Yet only 6 of these studies were conducted at the primary and secondary levels. Besides, the fields of these studies were not identified only as EFL or ESL.

Şad and Özer (2020) did a nonexperimental study in Turkish sample. They worked with 164 pedagogical formation program students. All the students had Kahoot formative tests. The test results of the students were compared to the nonparticipant students' results. It was concluded that Kahoot test results were higher than traditional test results. Besides, the online questionnaire revealed the strengths and weaknesses of Kahoot. Shortly, strengths were the ease of revision, immediate feedback, fun, and classroom engagement,

while challenges were limited time, technical problems, and chaos. However, it is important to note that this study's research field was not EFL or ESL.

In her study, Çetin Köroğlu (2021) studied with 52 university students by creating a control group that used the traditional method and an experimental group that used the digital formative method to be assessed for speaking. As a result, students in the experimental group scored higher. Students expressed that they enjoyed the rich source of materials provided with Kahoot.

Alharti (2020) also worked with 36 EFL university students. They formed control and experimental groups to identify the students' perceptions of Kahoot. It is concluded that students' overall opinion was positive based on its being fun, motivating, improving learning, and creating learner-centered learning.

Finally, Ebadi et al. (2021) found different results from 80 students regarding Kahoot. The majority of the students did not find Kahoot useful because of the technical and internet connection issues. However, they also found Kahoot fun.

As a result of similar studies in the literature, there was more focus on the game-based learning usage of Kahoot than the assessment usage of it. Moreover, the vast majority of them were conducted at the university level. As a result, this study aimed to fill two certain gaps. Firstly, it provided achievement-based findings for DGA compared to PBA. Secondly, it revealed the young learner participants' and their teachers' perceptions based on the implementation of the DGA tool. Furthermore, it analyzed the participants' own preferences for assessment to be used after the study, which emphasized their experience with DGA over PBA.

2.5. Chapter Summary

In this chapter, the role of technology in teaching and assessment, the differences between traditional assessment and game-based assessment, the characteristics of assessing young learners, the relation between motivation and game-based assessment, and Kahoot as a digital gamified assessment tool were presented. Also, the empirical studies related to the use of Kahoot as a formative assessment were presented.

THIRD CHAPTER
METHODOLOGY

3.1. Introduction

This chapter focuses on the details of design of the study. Respectivelly, overall study design, information about the setting, the study phases and their aims, each phase's participants, instruments, procedure, and data analysis are presented in the chapter 3.

3.2. Design of the Study

As both qualitative and quantitative research methods have crucial components and roles in answering research questions, a mixed method study was adopted in this case study. Creswell (2014) mentions that the combination of both methods may provide a clearer grasp on the subject. On one hand, the implementation itself forms the basis of this study; on the other hand, teacher interviews and response papers enable us to find out how students' motivation and interest in the English lessons changed during the process. As a result, both groups of data play crucial roles in allowing the applicability of gamified digital assessment to be addressed as success or failure.

Quantitative data analysis is the examination of data in accordance with the specific questions or hypotheses being investigated. The researcher selects the proper statistical test to effectively address the questions or hypotheses (Cresswell and Clark, 2018). For the quantitative data, unit tests were chosen to produce answers to the research questions to find out whether there is a significant difference between the control and experimental groups or not.

According to Creswell (2014), the steps of qualitative data can be summarized into five steps. Initially, the researcher formulates generalizations or ideas based on previous experiences and literature. Next, the researcher investigates general patterns, generalizations, or ideas derived from themes and categories. Afterwards, the researcher

examines the data to identify and classify recurring patterns or groupings. Subsequently, the researcher poses open-ended inquiries to the participants or records their responses. In the end, the researcher analyzes the data. So, the researcher followed the steps to reach a conclusion based on qualitative data by using thematic analysis, which provided a certain amount of flexibility to read the data (Braun and Clarke, 2006), with the themes generated with MAXQDA 24 software.

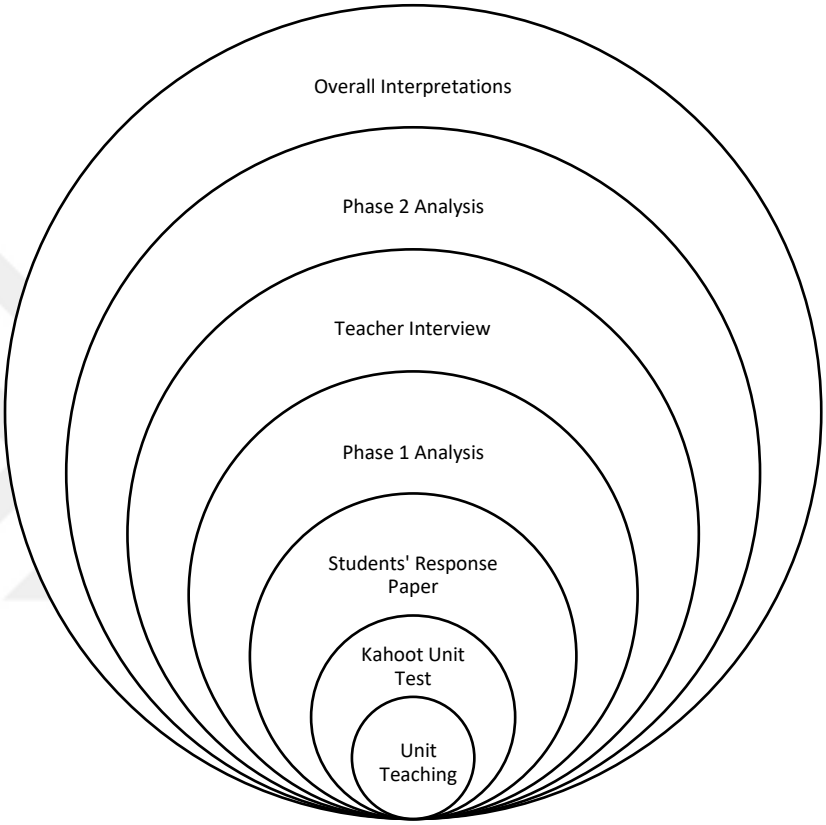


Figure 3. Overall study design

As an underlying theory of a mixed method, this study presents an explanatory sequential mixed method design. The main goal of this method is for the qualitative data to help describe the preliminary quantitative results in a deeper way. A common strategy could include gathering survey data in the first part, evaluating the data, and then conducting qualitative interviews to help understand the survey findings in the second step (Creswell, 2014). In this case, the study is divided into two main phases. The first phase consists of unit tests in terms of forming quantitative data. The second phase, on the contrary, consists of the teacher interviews, which were prepared as a result of the first phase analysis.

3.3. Research Setting

This study was conducted at a private school in İzmir, Türkiye. The school provides English lessons from kindergarten to 12th grade. There are nine lessons in a day. The lesson duration is 40 minutes, and the last lesson is 60 minutes. The school provides many opportunities for the students. It has a swimming pool for physical education lessons, a theater for events, a conference hall for presentations, and a lot of laboratories, such as a science lab, a coding lab, and a computer lab. As the research uses a game-based assessment, the existence of two computer laboratories made the implementation process possible. In the computer labs, there are forty computers with a stable internet connection. The labs are available for all the teachers if it suits their schedule. If a teacher wants to use the lab, she or he fills out the schedule for the hour so that the other teachers can see.

As with many private schools, the school provides more English lessons than state schools, which provide 2-4 hours of English weekly. The school adopted a curriculum which was prepared by the teachers of science and English. It was presented to the Ministry of Education and approved. According to this curriculum, the schools use content and language integrated language learning (CLIL) for English lessons. Starting in the 2nd grade, students have English Science and English Math lessons in addition to their main course and skills lessons. Apart from CLIL, the school has a communicative approach. The lessons are taught inductively and are based on speaking activities. Besides, drama lessons, games, yearly and monthly events, and projects are the main components of foreign language lessons, especially for English. Students also attend international exams such as Cambridge and TOEFL starting in the 3rd grade.

5th grade students come mainly from the primary level of this school, but there are 10 students who come from different schools. They have 18 English lessons weekly: 10 hours of English main course lessons, 4 hours of English skills lessons, 2 hours of English science lessons, and 2 hours of English math lessons, which are also shown in the figure below, which is taken from the students' weekly plan shared by the school. To not violate

the names of the teachers, the image was cut, and only the names of the lessons and the weekly hours were shared.

İNGSC	İNGİLİZCE SCIENCE	2
İNMAT2	İNGİLİZCE MAT.	2
İNMC10	İNGİLİZCE MAİN COURSE	10
İNSKL4	İNGİLİZCE SKİLLS	4

Figure 4. Screenshot of 5th graders English lessons

The English teachers use content- and language-integrated learning strategy with a learner-centered approach for English science and math lessons. These lessons' curriculums are parallel with the Turkish Science and Math lessons' curriculums. The main course and skills teachers are different, and they use the same course book by sharing the related parts. Speaking is a preliminary skill that the school wants to achieve at this level. In addition, the school promotes hands-on experience for students with interactive activities, role-plays, events, and games.

3.4. Studies

3.4.1. Phase 1: Unit Tests followed by Students' Response Paper

Aim

Study A was conducted to find out the outcomes of unit tests by analyzing the tests' results to identify game-based assessment as a success or a failure. As traditional assessment is the usual assessment method that students are used to, the aim was to generate experimental groups to see the differentiation of achievement and motivational changes of the students. To achieve this, the researcher benefited from the nature of the school, which uses leveled classes for English lessons and identified control and experimental groups.

Participants

5th grade students are the focus group of this study in terms of practicing the test for young learners. In the school, there are four 5th grade classes. The students' original classes are not the same as their English classes. Even though they have mixed-level classes for lessons such as Turkish, math, and science, they are merged and change their classes to their leveled English classes. The English lessons in these classes happen at the same time because of this merge.

To form these level classes, the school conducts a placement test at the beginning of the year. The placement test is made up of two parts: written and speaking tests. The written part has 50 questions aimed at evaluating listening, grammar, reading, and writing skills. The speaking part is held by two English teachers with a rubric. According to the results of both tests, students are divided into two groups. These groups are called Level 1, which is the A1 level, and Level 2 which is the A2 level. There are two classes for each level. 32 students are in Level 1 classes, while 30 students are in Level 2 classes. Out of 62 students, 24 of them are female while 38 of them are male. Their ages are 10 and 11. Thanks to these classes, the students were easily divided into control and experimental groups. Table 2 and Figure 5 present the design of the classes in detail.

Table 2

Descriptive of the classes

		Classes		Total
		Level 1	Level 2	
Group	Experimental	16	15	31
	Control	16	15	31
Total		32	30	62

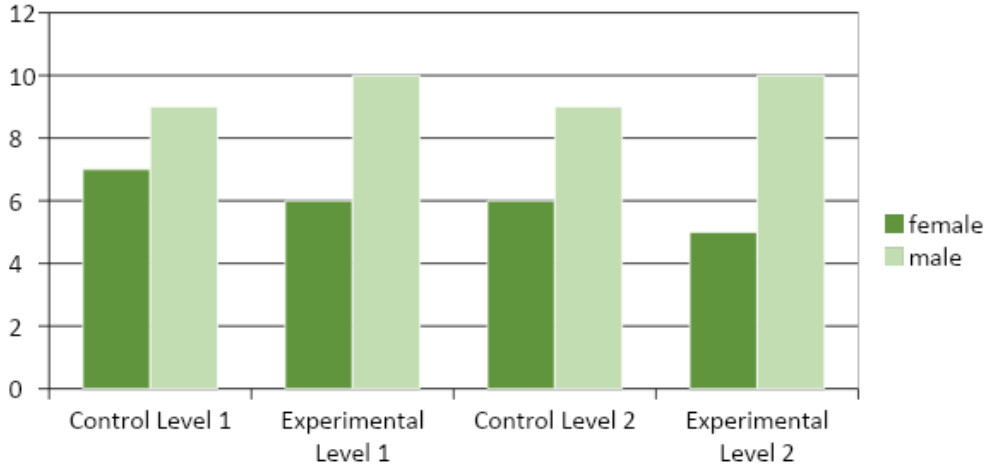


Figure 5. Gender Distributions in Classes

As the students come from families with good financial status, they are into technology. Besides, they are good at using computers and websites that are used for their lessons for educational purposes. They have video and LMS-based homework for their English lessons, and they have no difficulty doing them. Students are familiar with Kahoot as they sometimes use it in class and sometimes for homework, which makes the implementation process easier to explain and apply. Table 3 shows the students' existent knowledge of Kahoot.

Table 3

Students' familiarity with Kahoot

		Familiarity		Total
		yes	no	
group	Experimental	29	2	31
	Control	29	2	31
Total		58	4	62

There were only two students from each group who were also new students at school. The teachers used a mini test to teach them how to use Kahoot so that there would not be any decreasing effect on their success during the implementation process.

Instruments

End-of-unit tests are one of the simplest but most efficient ways to assess students formatively. In the school, these tests are applied regularly at the end of every unit, and teachers give performance notes at the end of the year with the average of these scores. Therefore, the implementation of unit revision tests was a natural process for the students. That is why all of them agreed to participate in the project. There was no objection, either from the students or from the parents.

The students use a course book for 14 hours of the English lessons. The book has a learning management system (LMS), which is specifically designed for the teacher's use. It includes a lot of components, such as the presentation tool and resources, which range from worksheets to tests. For the unit tests, the questions were prepared with the help of LMS so that the content could be fully parallel to the lesson content. Two units were chosen for the implementation process. With the minor changes on the ready-made questions, two unit revision tests were prepared. There were 20 questions, which included multiple-choice and true and false questions for two separate groups. Apart from speaking and writing, the test had listening, language in use, reading, and vocabulary parts. Even though the questions were directly chosen from the LMS question bank, four main course teachers were given an expert evaluation checklist to have an expert opinion. They approved that the questions were appropriate for the content of the teaching and for the level of the students, which provides the instrument valid to use in the research.

The instrument was applied to two groups in two different forms. The control group had the test in paper-based form, and the experimental group had the same test on Kahoot. Kahoot is a digital teaching and assessment platform where students use smartphones or computers to process. In this study, the instrument was applied in the computer laboratories of the school, where there are fifty-two computers in total.

Procedure

The implementation process took two and a half months and was divided into three parts: unit 1 teaching and assessment, unit 2 teaching and assessment, and a response paper that aimed to find out students' opinions on the use of a different assessment type.

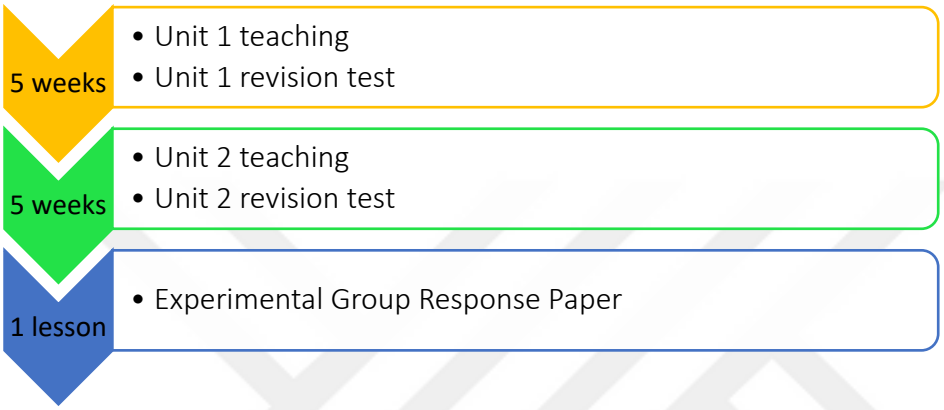
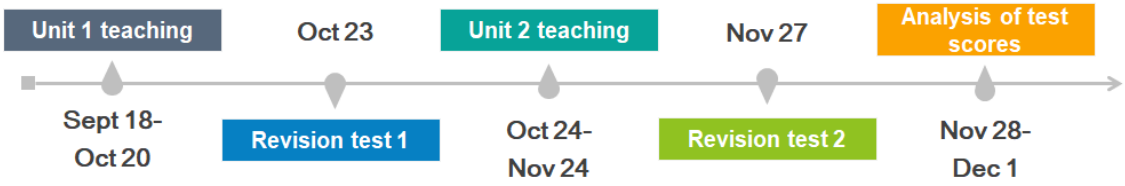


Figure 6. Procedure of Phase 1



Time	Content
Sept 18- Oct 20	All groups had a teaching period of unit 1.
Oct 23	Control groups had paper-based test and experimental groups had digital formative test of unit 1.
Oct 24- Nov 24	All groups had a teaching period of unit 2.
Nov 27	Control groups had paper-based test and experimental groups had digital formative test of unit 2. Level 1 and level 2 experimental group participants completed their response paper.
Nov 28- Dec 1	Analysis of unit 1 and unit 2 tests were completed.

Figure 7. Timeline of phase 1 procedure

Two units of teaching have been included in the research, which was followed by two-unit revision tests. The implementation was purposefully chosen to be applied in two months so that the students' motivational change could be observed. Kahoot was chosen as the digital gamified formative assessment tool as a result of the students' familiarity with the tool. The teachers administered a mini-test in the class before the implementation process, which was used as a pilot and teaching study because there were four students who had not used Kahoot before. After the first unit of teaching, students were informed about the revision test. As they have English lessons at the same time, the revision tests were applied at the very same time. While the control group students stayed in their classes to take their paper-based test, the experimental group students were brought to the computer lab for the Kahoot tests. The results of paper-based tests were announced the next day, whereas the results of digital gamified tests provided immediate feedback. Therefore, the control group students could have a chance to discuss the results in the class the next day, while the experimental group students discussed them the same day.

The teaching and assessment of unit 2 followed the same process as unit 1. However, the teachers applied an additional response paper to the level 1 and level 2 experimental groups at the end of the Kahoot test. Students were given colorful paper so that they could feel less stressed. Then they were asked to answer questions anonymously that the teachers picked randomly. The questions were written both in Turkish and English, and the students were informed that they could also answer either in Turkish or English as freely as they wanted. The language did not matter because the students' expressing their opinion was the focus of this instrument. They were initially given 10 minutes, but they were also told that more time could be given if they wanted. Finally, the teachers collected the papers and handed them to the researcher. During the implementation process, the researcher helped the teachers in and out of the classes.

Data Analysis

There was both quantitative and qualitative data based on the first phase of the study. The students' revision test results were collected for the control group and the

experimental group. While control group tests were scored by the researcher, Kahoot provided a report based on experimental group test results. Both scores were first brought together and computerized on Excel, and then coded in SPSS 21. In addition to descriptive statistics, test scores were analyzed by running an independent t-test to find an answer to research question 1. Based on Creswell's design of two separate groups, the different data came from each group as x variables were compared to have a y result (2014).

On the other hand, the qualitative data comes from students' response papers. As the students were given a choice to write the paper in their preferred language, many of the level 1 students wrote in their mother tongue, while all of the level 2 students wrote their answers in English. First, the Turkish answers were translated into English with the help of two researchers. Next, the translations were compared for reliability. Once all the response paper translations were completed, they were grouped according to the research questions. Then, they were divided into themes and sub-themes by the researcher and two other researchers. The analyses of each researcher were paired until they reached a consensus on the codes. Afterwards, the ready data was coded to MAXQDA 24, which is a software used to analyze qualitative data by providing the frequency of the codes, analyzing the segments of the written data, and preparing visuals for the results. Finally, they were thematically analyzed with the help of the software.

3.4.2. Phase 2: Teacher Interview

Aim

The qualitative data, on the other hand, comes from the interviews that were conducted with four EFL teachers. Teachers have a crucial role in this study, as they are the implementers and closest observers of the process. Their observations helped to reveal the students' motivation, their changing attitudes towards English lessons, and their preferences for assessment tools.

Participants

In the study, there were four teachers who were teaching the leveled classes. All the teachers had most of their experience in middle school. None of them graduated from education faculties. If teacher 1 teaches the main course lesson to the level 1 control group, she or he also has a skills lesson with the level 1 experimental group. So, every teacher had a chance to observe both groups changing attitudes during the implementation process. The descriptive table of teachers is presented in Table 4.

Table 4

Descriptives of the teachers

Teachers	Classes	Group	Gender	Experience	Graduation
1	Level 2	control	female	15	translation and interpretation
2	Level 2	experimental	female	13	American culture and literature
3	Level 1	control	female	12	American culture and literature
4	Level 1	experimental	male	9	English language and literature

As the table shows, Teacher 1 graduated from the department of translation and interpretation. Out of 15 years of experience, she worked with middle school students for 10 years. Teachers 2 and 3 graduated from the department of American culture and literature. They always worked with the middle school students. Teacher 4 graduated from the department of English language and literature. He mostly worked with middle school students. They all received their pedagogical formation from different universities after

they graduated. Furthermore, all of them were working for more than 5 years in the same school with 5th graders, which was the target level of the study.

The teachers were asked to participate in the study as interviewees after explaining the procedure in detail. They all agreed to be participants and observers. They applied the main instruments of this study, which were the unit tests, in 10 hours of English main course lessons. As crossways, they teach skills lessons to the other same-level group. As a result, they had a chance to observe both control and experimental group students during and after the implementation process.

Instrument

The semi-structured, open-ended interview questions are the main body of phase 2. They were prepared by the researcher with the supervision of an expert after the analysis of the quantitative data. They were organized in light of the results of the unit tests and the research questions. The interview starts with an informative paragraph that asks for participants' consent and is followed by general questions containing some demographic information, such as their ages, years of experience, the graduated university, and the participants' overall opinion about the end of unit tests as a formative assessment (see Appendix 4). In the main body of the interview, there are 6 open-ended questions with 7 subquestions. The researcher added 3 more questions during the interview. These questions are intended to find out the positive and negative washback effect of digital gamified formative assessment, student participants' responses in the experimental group during the implementation, the comparison of the student participants' attitudes towards English lessons in terms of participation, willingness, motivation, and ambition before and after the implementation, and the applicability of the tool in schools. According to the flow of the interview, the researcher asked additional questions.

Procedure

The procedure of phase 2 with the teacher participants is divided into three steps in the study. The first step is the initial meeting, which helped the researcher prepare unit tests for phase 1. The second step is the implementation of unit tests, which was conducted after 5 weeks of teaching twice, and the third step is the interview, which was held with 4 EFL teachers after the unit tests had been analyzed.

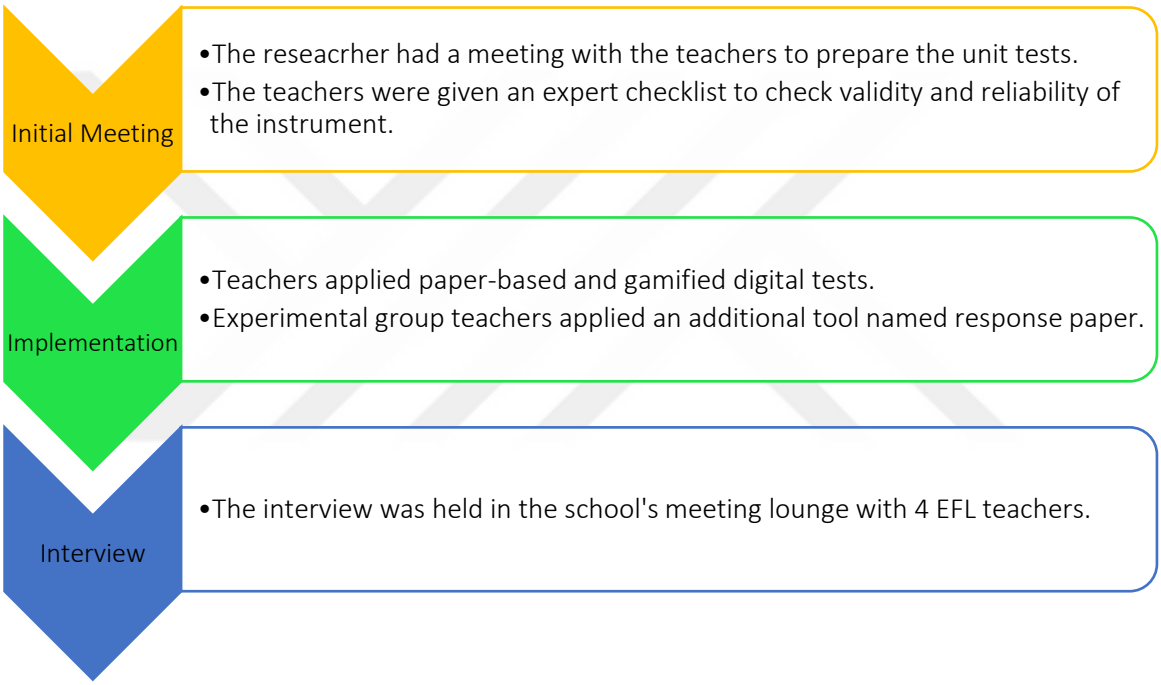


Figure 8. Procedure of phase 2

For the first step, the researcher examined the content of the book that 5th graders used in detail. She had a pioneering meeting with the teachers on how to prepare the unit test questions. Together with the participant teachers, it was concluded that using the book's teacher resource materials would be the most appropriate way. Then, the researcher prepared two different tests for each level and had another meeting with the teachers. She gave them a 5-point Likert scale named Evaluation Checklist to define the validity and reliability of the test (see Appendix 3). According to the results of the checklist, all the teachers agreed that the test was valid and probable to ensure reliable results for the study.

Finally, the researcher had the last meeting to discuss the planned procedures for the implementations.

For step two, the teachers applied the unit revision tests when they finished teaching and revision sessions. While teachers 1 and 3 used the paper-based tests in the classes, teachers 2 and 4 applied the digital gamified tests in the computer laboratories. In the implementation process of digital gamified tests, the researcher helped the experimental group teachers to ensure that no technical problems occurred.

For the last step, the teachers were asked to come to the meeting room at separate times to interview with the researcher. The questions were based on their observations of students before, during, and after the process. It took about half an hour. The researcher recorded the interview and ended up in the last phase to analyze the recordings.

Data Analysis

There was a 5-point Likert scale checklist given to teachers. The results of each teacher's checklist were computerized and combined. As all the teachers' answers were 'strongly agree,' the data was not analyzed with software.

The qualitative data, on the other hand, was generated thanks to the interview conducted with the teachers. The interview was held in the school's meeting lounge with four EFL teachers from the focus groups of the study. The teachers were given the questions beforehand. They asked the researcher to have the interview in Turkish to better express students' behaviors and provide examples of what they shared in class activities after the implementation.

First, the consent form was given (see Appendix 10). Once they filled out the form, the interview session started. The researcher audio-recorded participants' answers during the interview. Next, it was transcribed to the computer. Since the interview was held in

Turkish to be more effective, it was later translated firstly into English, then into Turkish by the researcher and two other researchers to provide interrater reliability of the data. Then, they compared the translations and formed the English-transcribed interviews. They also prepared codes together to reach a consensus. Afterwards, the transcribed data was uploaded and coded to MAXQDA 24. With the software, codes helped the researcher find out the themes of the interview about the benefits and challenges of the digital gamified assessment tool Kahoot. Finally, based on the themes and sub-themes, thematic analysis was adopted, and the results were interpreted.

3.5. Chapter Summary

In this chapter, the overall design of the study was presented. Also, the phases of the study were explained in detail, which was supported with the information related to the participants, instruments, procedures, and data analysis of each phase.

FORTH CHAPTER
RESULTS

4.1. Introduction

In this chapter, the results are reported based on the research questions. First research question reports findings from digital gamified and traditional unit tests. Second research question reports results from students' response paper and teacher interview to reveal their preferences. Finally, third research question reports digital gamified assessmen tool's benefits and challenges based on the teacher observations of the implementation.

4.2. Research Question 1

The first research question was 'Is there a significant difference between the test scores of digital gamified and paper-based tests?' The unit tests were applied to the control and experimental groups in forms of paper-based and digital. All 5th grade students had taken a placement test before the term started. In the school, level 1 and level 2 group classes were formed based on the results of the placement test. For the sampling of the control and experimental groups, the same classes were used in the study. In order to prove homogeneous groups for each level, their placement test results were analyzed. The statistics are shown in the table below, according to the analysis.

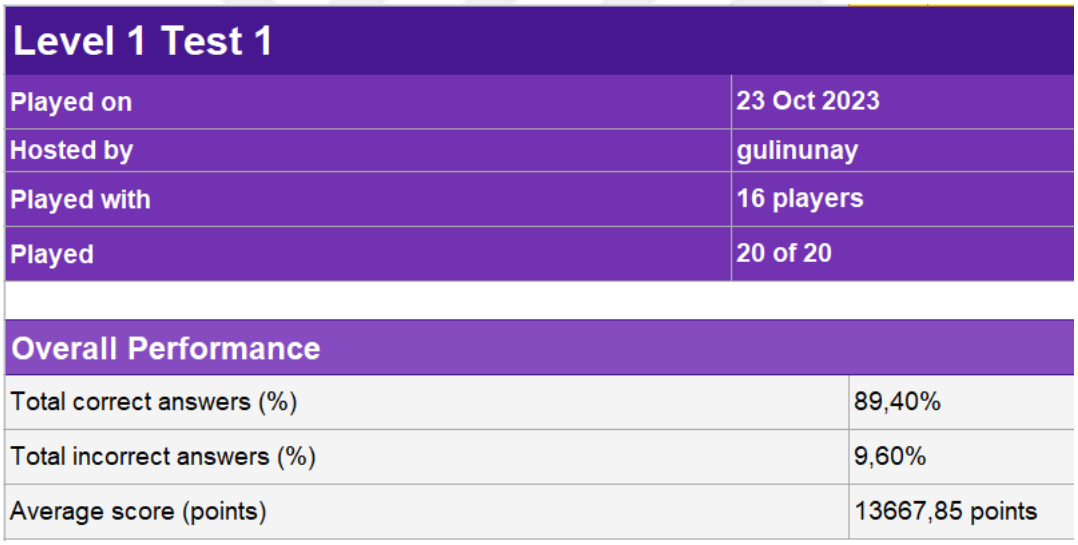
Table 5

Placement test group statistics

Level	Groups	*N*	*M*	*SD*	*df*	*t*	*p*
1	experimental	16	36.75	11.69	30	-0.13	.54
	control	16	37.25	11.12			
2	experimental	15	75.00	8.95	28	-0.49	.63
	control	15	76.80	11.09			

The results show that there is no significant difference between level 1 experimental group (M = 36.75, SD =11.69) and control group (M = 37.25, SD = 11.12) $t(30)$=-0.13, p=.54, d=0.33 sampling with a moderate effect size. Similarly, no significant difference was found between level 2 experimental (M = 75.00, SD =8.95) and control group (M = 76.80, SD = 11.09) $t(28)$=-0.49, p=.63, d=0.17 sampling with a low effect size.

The unit tests were applied at the end of every unit of teaching, which took two and a half months in total. There were 20 questions in each test. For the experimental groups, Kahoot generates an immediate report as soon as the test is finished by all the students. Teachers can download the report whenever they want, as it is saved in the reports section for the users.



Level 1 Test 1	
Played on	23 Oct 2023
Hosted by	gulinunay
Played with	16 players
Played	20 of 20

Overall Performance	
Total correct answers (%)	89,40%
Total incorrect answers (%)	9,60%
Average score (points)	13667,85 points

Figure 9. Screenshot of test 1 report

According to the report, the teachers can see the total correct and incorrect answers, the average scores of the students, the most and least difficult question, each player's final score, and every student's individual result. For the experimental groups, the researcher used the direct results of the tests presented in the report. For the control groups, the researcher scored each paper-based test herself. Next, she combined the results and brought them together on Excel. Then the data was coded in SPSS.

Unit 1 revision test average scores of the control and experimental groups showed similar results. Yet, the scores of the experimental groups were slightly higher than the control groups' scores. In level 1, the average score of the control group was 17.38, while that of the experimental group was 17.88 out of 20 questions. Similarly, in level 2, the control group had a 15.07 average score, whereas the experimental group had a 16.07 average score. Yet, there is no significant difference in the results of the compared average scores.

Likewise, to the findings of test 1, the average scores of both the control and experimental groups in the 2nd unit test displayed similar results. Out of 20 questions, the level 1 control group had a 16.31 average score while the experimental group had a 16.69 average score. In level 2, the control group had a 16.87 and the experimental group had a 17.27 average score. However, as in the test 1 result, there is no significant difference in the results of the compared scores.

Apart from the average scores, the results of the tests were checked for if there was normal distribution. According to Tabachnick and Fidell (2012), the values should be between -1,5 and +1,5. The skewness of test 1 scores is -.44 and test 2 scores is -.49 which are both left-skewed. The kurtosis of test 1 scores is .78 and test 2 scores is -.40. As a result, it is concluded that the data was distributed normally.

When it came to comparing scores of the scores of unit 1 and unit 2 tests of the control and experimental groups, independent sample t-test was run on SPSS 21.

Table 6

Test 1 independent sample t-test results

Level	Group	*N*	*M*	*SD*	*df*	*t*	*p*
1	experimental	16	17.88	1.40	30	1.96	.35
	control	16	17.38	1.54			
2	experimental	15	16.07	1.33	28	1.21	.24
	control	15	15.27	2.18			

As the table demonstrates, neither level 1 (p=.35) nor level 2 (p=.24) class students showed a significant difference between the experimental and control group test 1 scores.

Table 7

Test 2 independent sample t-test results

Level	Group	*N*	*M*	*SD*	*df*	*t*	*p*
1	experimental	16	16.69	1.70	30	.43	.67
	control	16	16.31	3.07			
2	experimental	15	17.27	1.28	28	.49	.63
	control	15	16.87	2.90			

According to table 7, no significant difference was detected for the 2nd unit results either as level 1 had p=.67 while level 2 had p=.63. It can be concluded that, even though there are slight differences between the experimental groups, the type of formative assessment had no significant influence on the success of the students.

Furthermore, it was concluded that the level of the students had no effect on the students' test scores, as there was no significant difference between the test 1 level 1 and level 2 group achievement and the test 2 level 1 and level 2 group achievement.

To sum up, neither the implementation of digital gamified tool nor the levels of the students affected the formative assessment results.

4.3. Research Question 2

The second research question was ‘What is the influence of the digital gamified assessment tool implementation on students’ and teachers’ preferences of formative assessment?’ There were two different qualitative data to answer this research question. One was the response paper of the students, which was completed by the experimental group students. The other one was the teacher interview. Accordingly, they are presented as subheadings below.

4.3.1. Student Response Paper

The students shared their opinions with two separate feedback tools. The first one was provided by Kahoot and was applied as soon as the students finished the test. There were four basic questions about the test experience. According to the results of tests 1 and 2, none of the level 1 experimental students had negative thoughts about gamified formative digital assessment. They all recommended the game to others. They gave it 5 stars out of 5 for the fun element of the tool. The feedback results of level 1 students are demonstrated below.

Feedback					
Number of responses	16				
How fun was it? (out of 5)	5,00 out of 5				
Did you learn something?	80,00% Yes		20,00% No		
Do you recommend it?	100,00% Yes		0,00% No		
How do you feel?	◉	90,00% Positive	◉	10,00% Neutral	◉ 0,00% Negative

Figure 10. Screenshot of level 1 student responses on Kahoot

On the other hand, the experimental group seemed less satisfied than the control group when the results were considered. Even though there is a slight difference in the results, most of the students had fun in the game, giving it 4.5 stars out of 5. 90 percent of them recommended the game to others, and only 60 percent of the students admitted to learning something new in the test. The results of the feedback given by level 2 students are presented in Figure 10.

Feedback					
Number of responses	15				
How fun was it? (out of 5)	4,50 out of 5				
Did you learn something?	60,00% Yes		40,00% No		
Do you recommend it?	90,00% Yes		0,00% No		
How do you feel?	◉	80,00% Positive	◉	10,00% Neutral	◉ 10,00% Negative

Figure 11. Screenshot of level 2 student responses on Kahoot

The other type of feedback is the one when the whole assessment process is finished: a response paper. Only experimental group students participated in this part of the study, as they were the only group who experienced both assessment types. The students were given colorful paper and asked to answer the questions shown by the teacher on the smart board. They were given the questions both in English and Turkish and were told to answer the questions in any language of their preference. Furthermore, they were asked to write anonymously so that they could express any opinion that they could share without being stressed about recognition.

The questions were aimed at finding out their preferences and attitudes towards different types of formative assessment tools. In the level 1 class (N=16), only 2 students chose paper-based assessment, while the rest preferred digital assessment. However, in the level 2 class (N=15), 11 students chose digital assessment, while 3 of them chose paper-based assessment. One student responded that she or he could not decide. The distribution of their preferences is shown in Table 8 below.

Table 8

Assessment preference of the groups

Groups/Preference	Paper-based	Digital	Not Sure
Level 1	2	14	0
Level 2	3	11	1
Total	5	25	1

In this part of the study, their responses were organized according to their preferences. All the students in the level 2 class responded in English, whereas most of the level 1 students preferred to answer in Turkish. Turkish responses were translated into English, while English responses were shared without any grammatical correction. In table 9, the students' original statements on paper tests are exemplified.

Table 9

Paper preference statements

Group	*N*	*Statement*
Level 2	1	"I prefer paper because if you did a question wrong, you can erase and write the correct answer. … Of course, digital is more fun but when it's exciting, other people can get ambitious. And there is a time limit …"
Level 1	1	"Paper because it is easier to do things." (translated)
Level 2	1	"Paper is better because you can do what ever you want in the paper. And other people can easly cheat…"
Level 1	1	"Paper based test. Digital is difficult. I sometimes cannot understand how to do things." (translated)
Level 2	1	"I prefer paper because we can write anything on paper.."

Note: *N* presents the number of repetitions expressed by the students.

As some of the level 1 students' statements were translated, figures 11 and 12 show the students' original paper preference statements below.

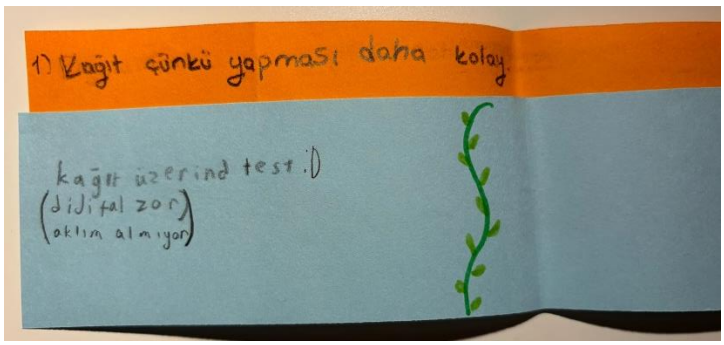


Figure 12. Level 1 students' paper based responses

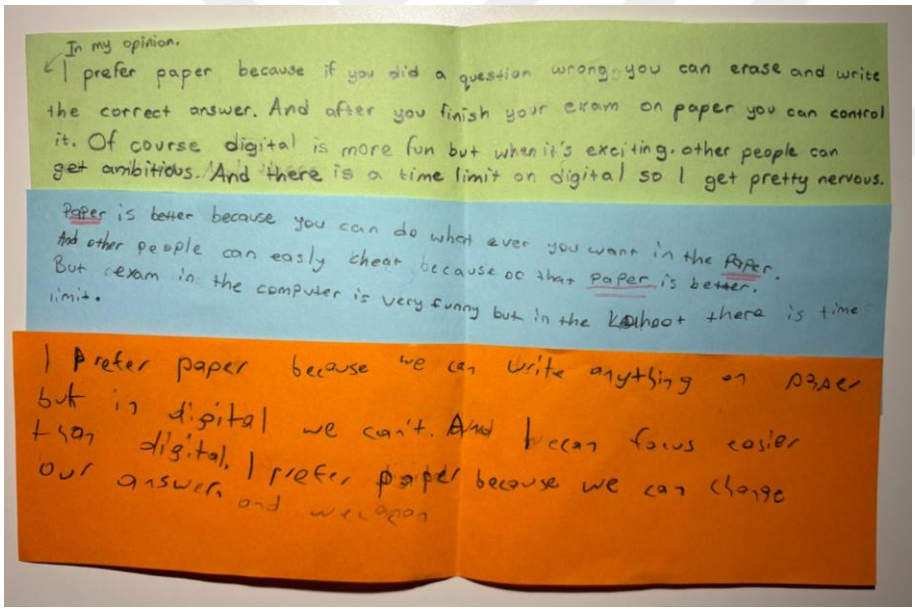


Figure 13. Level 2 students' paper based responses

Based on the students' statements, they focused on the freedom that the paper provided them. 'Possibility to change answers any time' and 'writing any way' seemed to appeal to students. On the other hand, the majority of the students chose digital assessment. Table 10 shows students' statements without any change or correction.

Table 10

Digital preference statements

Group	*N*	Statements
Level 2	1	"I prefer digital because it is better to me. You play it with your friends and it is more fun. You can concentrate better."
Level 1	5	"Digital because it is more fun." (translated)
Level 2	1	"I prefer digital because you have competition. You see the answer faster and it is exciting."
Level 1	3	"Digital because it is easy." (translated)
Level 2	1	"Digital because it's like a competition. On normal quizzes, we have to write. It is very stressful. But there is one thing that I didn't like on kahoot. You cannot look over wrong answers again."
Level 1	1	"Digital because it is like playing a game to solve questions by looking at the board." (translated)
Level 2	1	"Digital is better because it you use paper, you use stuff that is made with trees. And they cut 17 trees for 1 ton of paper. I don't want even a single tree, so that is why I prefer this."
Level 2	1	"Digital be it is more fun and easy more than writing. Digital is better, I love electronic things. I use less time on kahoot."
Level 2	1	"I prefer the digital version because we use paper and pencil all the time. When we do something on kahoot I get excited and I push myself to do better because of it is a rare occasion. We don't use kahoot that much."
Level 2	1	"Digital because I don't like to write so much and when we do in paper it is like you wait so long but in kahoot when everyone chooses answers and computer say everyone look at answer."

Table 10 (Continued)

Level 2	1	"I prefer digital because it was fun and informative because there was a timer for every question. It was competitive. Sometimes they can cheat but most of the time they can't."
Level 2	1	"Digital because when I doing, I have more fun. It's very different to be in digital. I'm bored of exams in the paper. I can do it when I do in digital. In kahoot there is a time limit. But when I did with time limit, I'm excited."
Level 1	2	"Kahoot is better. I get tired of writing on paper." (translated)
Level 2	1	"I think I do like to prefer digital, because its more easy to answer to questions. Digital is for people that they want everything to be easy, so digital have a big difference than paper."
Level 1	1	"Digital because I remember more on digital." (translated)
Level 2	1	"I like digital because on the computer it is like a game. I prefer digital. I feel excited and happy. Kahoot is the best game with the class."
Level 1	1	"I like digital more because I can make the writing and see them better. But on paper, I cannot do it. And there are pictures, videos." (translated)

Note: *N* presents the number of repetitions expressed by the students.

Note: The translated sentences by the researcher are presented in parentheses.

Figures 13 and 14 show the students' original digital preference statements below. For level 1 students, the researcher shared their translated statements within Table 10.

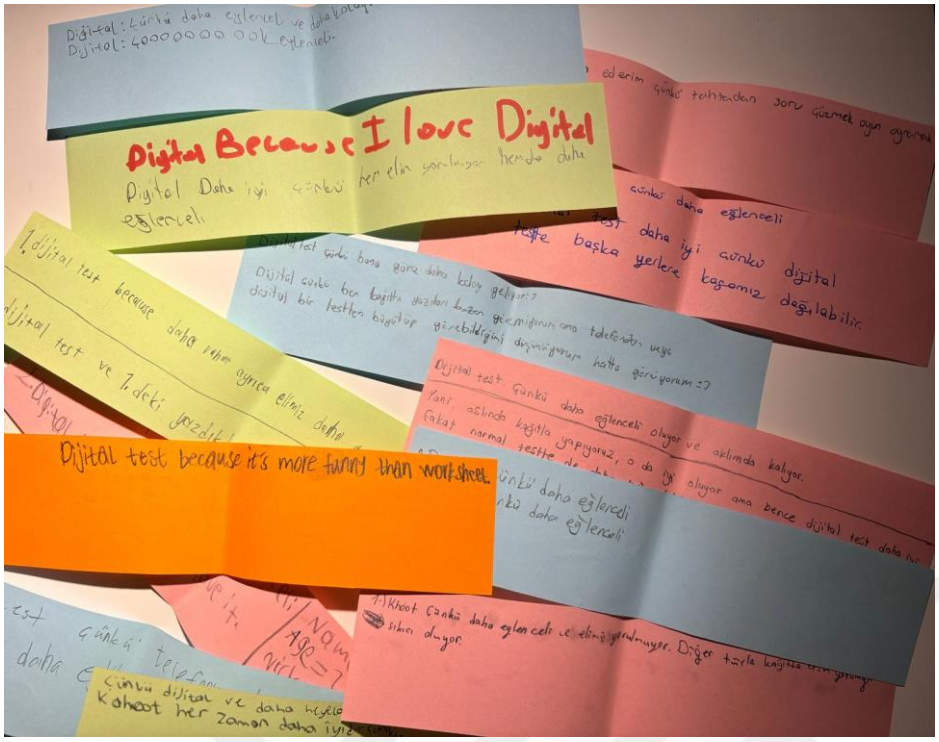


Figure 14. Level 1 students' Kahoot based responses

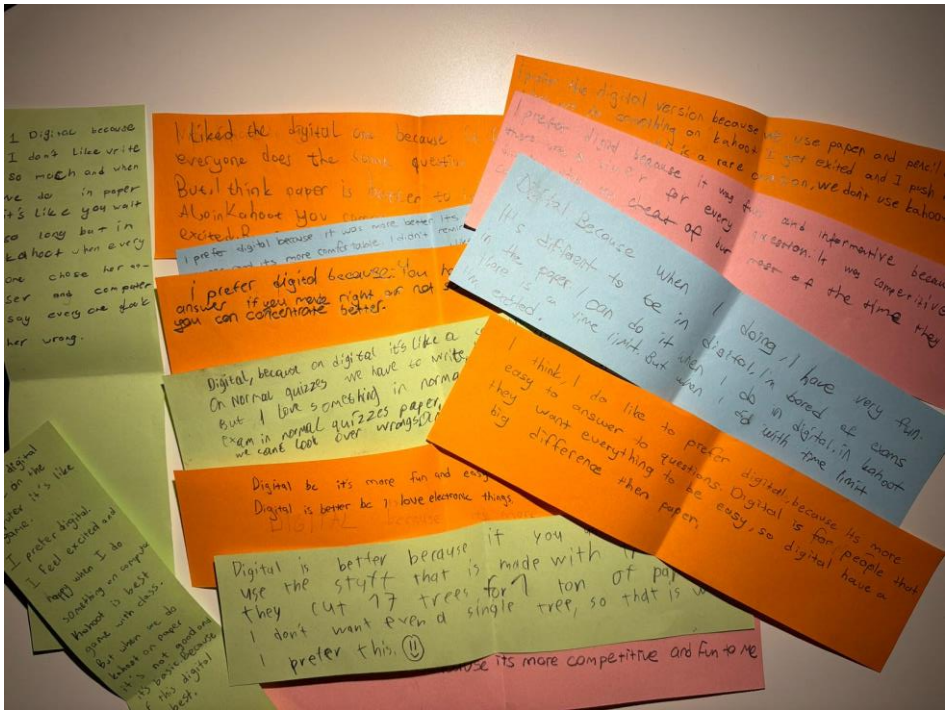


Figure 15. Level 1 students' Kahoot based responses

There were some repetitive answers that were written by both groups of students. Digital gamified tool was regarded as fun and easy by most of the level 1 group students. Level 2 group students repeated its competitive component, and some of them were worried about the environmental issues. They acknowledged the process of making paper and did not want to waste trees just to make paper tests. The most repeated words for digital assessment are shown in the word cloud generated by MAXQDA 24 below.



Figure 16. Positive repetitive words for Kahoot

Finally, there was one student who was not sure what to choose. That student stated as follows: “I like the digital one because it feels different to everyone who asks the same question at the same time. But I think paper is better to improve your writing skills”.

In total, it can be indicated that the overall opinions about DGA were more positive. The students who preferred digital gamified formative assessment outnumbered the students who preferred paper-based assessment. It can be concluded that the implementation had a positive effect on the student participants.

4.3.2. Teacher Interview

In this part, it is important to note that the participant teachers had already been using formative assessment as an end-of-unit test before the study took place. Yet, they always used PBA as a tool. First, they were asked to indicate the purpose and importance of formative assessment according to their views. They all agreed that it is significant to understand the deficiencies of the students and their ability to obtain the lesson objectives. One teacher even said that formative assessment is more important than summative assessment. Participant Teacher 3 expressed:

> "When looked at in terms of direct unit acquisition, we see how much students have achieved these gains in terms of both grammar and vocabulary. In this context, I think it is more useful than summative assessment because when each unit is separate, we can examine the students in more detail".

Since the aim was to implement the new tool, the participant teachers were asked to compare their experiences with each assessment tool and indicate their preferences in line with the reasons discussed during the interview, which were applied after the implementation process was over. Their answers to the interview question 'Considering that you have witnessed both processes, which would be your end-of-unit assessment tool preference in your own teaching process? Why?' are given in Table 11.

Table 11

Teachers' statements on preference

Teacher	Preference	Statements
1	DGA	"It will *definitely* be digital… because I don't think there is any harm in it, provided the necessary precautions are taken. Moreover, there will be more benefits. However, due to the technical facilities of my school, I think it may not be very practical to take it to an environment where there is a computer at all times. It needs certain planning"
2	PBA	"Kahoot can be a good tool for assessment. However, since it is a gamified system, I do not see it as an adequate system in terms of scoring because we only evaluate them within the game. I think it should be paper-based for scoring and grading."
3	Both	"Actually, *of course*, I would like to say paper-based… because we can evaluate students in different areas, including writing. But from now on, … I don't want to ignore this game-based system. That is why I would like to have a system where I can use both together because paper-based alone can be boring. Game-based may also not seem formal enough to students because applications on the internet or computers are games in the eyes of children. That is why I prefer a system that blends the two."
4	DGA	"I prefer game-based because, as I said before, why would I use another when there is something clearly *better* in front of me? Of course, it is game-based."

The positive developments, which were mostly related to the motivation of the students and not their success, were effective in teachers' choosing DGA tools. The main issue teachers touched upon was that students can show their real knowledge when

evaluated in a fun way. On the other hand, they do not want to leave PBA aside and benefit from its positive aspects.

4.4. Research Question 3

There were four main course teachers who were asked to share their observations of students' motivational changes and anxiety, which aimed to find answers to the third research question, which is, ‘What are the perceived benefits and challenges of gamified assessment according to the teachers’ observations?’. Based on their answers, the main themes and their codes were defined to categorize the qualitative data by coding it on MAXQDA 24.

Table 12

Benefit themes with codes

Themes	Codes
Fun	enjoyed
	enjoyable
	happy
	adventure
	joy
Participation	enthusiasm
	more enthusiastic
	willingness
	more willing
	raise hands
	participate
	active participation
	interactive
	involved in the game

Table 12 (Continued)

Motivation		motivated
Descreased Anxiety		less anxious
Others	Learning environment	classroom
		colorful
	Permanent learning	never forget their mistakes
		learn better
		remember better
		ease of learning
	Environmental issues	care
		not pollute
		not cut trees

Main positive themes were defined as ‘fun’,‘participation’,'motivation', ‘decreased anxiety’, ‘others’ including ‘learning environment’, ‘permanent learning’, and ‘environmental issues’. These positive themes are demonstrated in Figure 12 below.

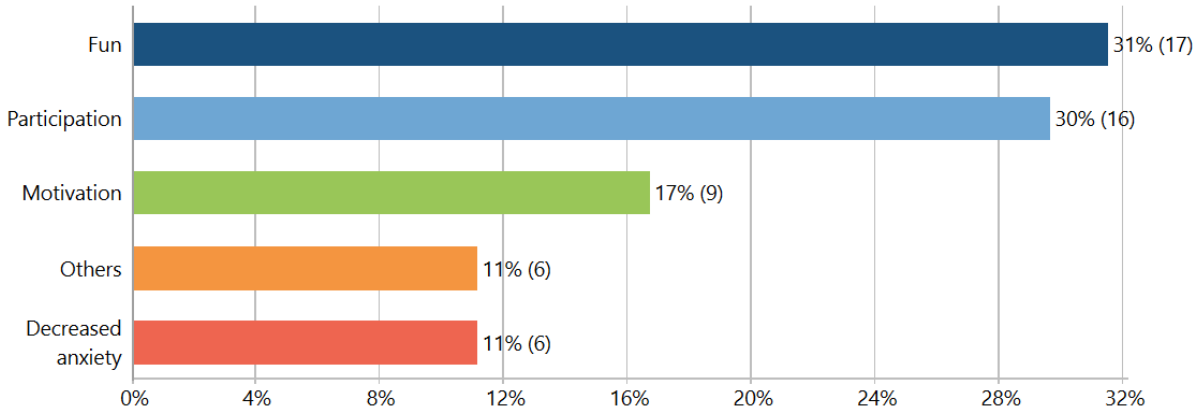


Figure 17. Benefit themes of the teacher interview

Note. Parantheses show the repeatitive numbers of the themes

As demonstrated in Figure 16, positive themes were reported a total of 54 times. The teachers' main focus was the fun element of DGA. It was described as a natural output of Kahoot because it was one of the game-like elements. All the teachers reported that students had a lot of fun during the implementation and asked for the next unit revisions. Unlike PBA, students were happy, as they usually get bored during PBA. Some of the teacher's statements are presented below.

Table 13

Teachers' statements on fun

Teacher	Statement
1	"Even the possibility of Kahoot makes them very happy. There is no need for feedback, I mean; the biggest feedback is their faces and happiness."
2	"When children made comparisons with traditional methods, they said that it was more fun"
3	"Students told me that they enjoyed it more as they also got extra practice on the subject."
4	"It has started to turn from an exam into more of an adventure and they became more and more enjoyable in the lesson."

Following fun, the teachers' second focus was participation. They strongly expressed that students started to actively participate in the lesson. While good students kept participating, low-level students showed a higher level of participation compared to PBA. Teachers' own statements are shown in the table below.

Table 14

Teachers' statements on participation

Teacher	Statement
1	"It created interactive learning."
2	"Enthusiasm affects students' participation."
3	"I observed that students who do not want to show themselves too much in the spotlight were more active in the lesson."
4	"Students who didn't want to take exams in the past started saying let's take a digital test. It was good to see their willingness."

Motivation towards English lessons was one of the biggest changes in the process reported by the teachers, as Kahoot was fun and triggers students' motivation. After the implementation, the students were reported to be willing and enthusiastic about having more assessments. They actively participated in the lessons. These all resulted in an increase in their motivation. Furthermore, teachers specifically mentioned students' motivational change by sharing the statements below.

Table 15

Teachers' statements about motivation

Teacher	Statements
1	"Students involved in the process physically and this psychologically increased their motivation."
2	"They first experience the motivation within themselves."
3	"They started to tend to raise their hands more. Therefore, I can easily say that I observed an increase in motivation, especially in students with low motivation."
4	"They participated willingly even the first time they had it. Their motivation immediately increased."

Anxiety was reported mostly after motivation by the teachers. They connected increasing motivation to decreasing anxiety. Even with the lower group, they expressed that GBA helps students get rid of their anxiety about tests. T4 called Kahoot a "stress-free" application by stating that "the fun element overcomes the stress, and in the end it almost disappears.".

The environment in which Kahoot was applied was reported as one of the benefits by the teachers.

> "You can present this in a very colorful environment. And the kids are having a lot of fun in this environment. It is important that they have fun while learning" (T1).
>
> "Children experience reinforcement process in a fun environement which has a lot of things that appeal to them" (T2).

One of the participants also indicated the environmental roles of DGA, just like some of the students expressed. She focused on what they teach and what they actually do in the classroom. An example is stated below.

> "Moreover, you do not pollute the environment with such applications. We cannot say that we will go on using paper from now on. We teach sustainable developmental goals to our students. We need to be role model for them" (T1).

Another benefit was the students' remembering the subject more after the implementation compared to PBA. Teachers reported that students learn better when they are motivated.

> "They said that with this method, they remembered the subject more and that they would never forget their mistakes" (T2).

"With the decreased negative stress, they learn better and more easily" (T4).

To sum up, Kahoot was an assessment tool that students regarded as fun. The fun element turned the test into a game-like environment. In this environment, students wanted to have more Kahoot tests, and their participation during the lessons increased significantly.

Apart from these benefits, teachers stated the challenges of DGA that they faced or think they might face during the implementation. Their answers were also transcribed and analyzed with the codes on MAXQDA 24. The main themes defined by this analysis are 'technical problems', anxiety, displaying the scores, and chaos. The table that schows the codes for the themes and the graphic that shows the frequency is shared below.

Table 16

Challenge themes with codes

Themes	Codes
Technical Problems	internet connection / no internet
	disconnection / disconnected
	lack of devices /lack vehicles
	technical difficulties
Anxiety	stress
	limited time / time limit
	time consuming
	time anxiety
Displaying Scores	seeing other (friends') answeres
	having wrong answers on board
Chaos	more speaking students
	more loud

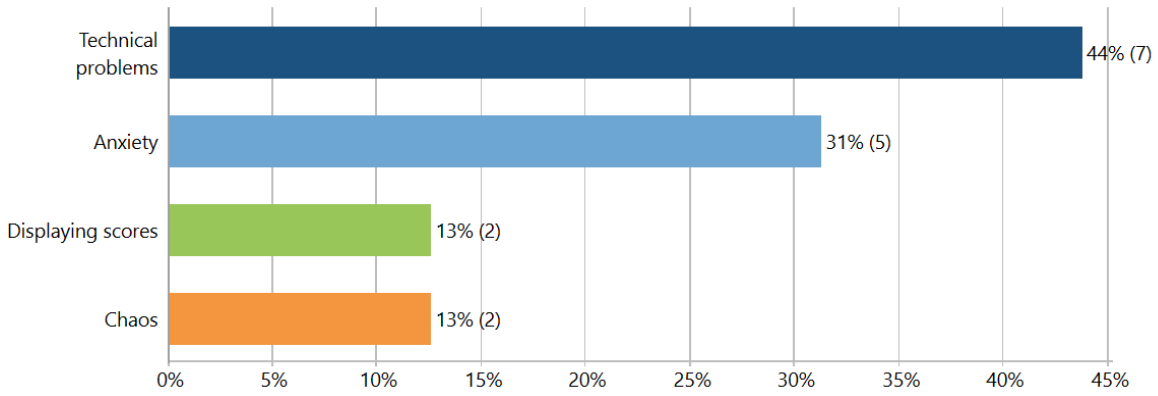


Figure 17. Challenge themes of the teacher interview

As it is depicted in Figure 17, the total number of repetitive challenges is 16. Even though technical problems led the list, there were no technical problems that occurred during the test. It resulted from teachers' general idea of what might happen in the future as they were asked to answer the question based on their experience of using computers and the internet. Some of their statements are presented below.

> "It may cause a loss of motivation in children who lack the necessary vehicles" (T2).
>
> "There may also be connection problems" (T2).
>
> "There is a greater chance of technical problems on the phone" (T4).
>
> "We have not experienced this, but this is an issue that should be taken into consideration. All technical problems are actually a very serious part of this job" (T1).

Anxiety, on the other hand, is an issue that affects students both positively and negatively. Anxiety as a challenge is mostly caused by students' competitiveness and the time limit, according to the teachers. Their opinions are shown below.

"There were some students who experienced anxiety because children are given a certain amount of time in this game, which is mostly a limited time for slow learners" (T2).

"Having wrong answers and not being able to do it themselves can increase the student's anxiety" (T1).

"…We observed that when the student fell behind and their scores started to be lower than others, they felt despair" (T4).

Although displaying the students' scores may cause increasing anxiety, the teachers also indicated that it is an important challenge that may not result in increased anxiety or demotivation but merely unwillingness.

"…Seeing the results of other friends may result in the child not wanting to participate in the test" (T1).

"…Displaying the scores of students, especially students at the bottom of the rankings, because when we take normal exams, exam results are usually not shared" (T4).

The final challenge of Kahoot was chaos. Teachers reported that the fun environment might also cause chaos in the classroom. Besides, the nature of the game causes excitement, which results in a noisy environment. The teachers related statements are presented below.

"…Some students were not be able to focus in that crowd, and crowd creates an environment of chaos" (T2).

"We may move away from our goal due to the chaos. Which nickname they write and which emoji they put… These can change the duration of the 40-minute lesson that we plan" (T1).

In light of all these challenges, teachers improved the conditions by using computers as a tool, explaining the instructions well in the beginning, using stable internet, and providing students' nicknames beforehand. Luckily, almost none of the challenges happened during the implementation process. As it is understood from the theme reports, benefits (*N*=54) outnumbered challenges (*N*=16) even though it caused some chaos in the classroom. It can be implied that the majority of the teachers found Kahoot a useful assessment tool, and they consider using it more in their own classroom teaching and assessment processes.

4.5. Chapter Summary

In this chapter, the results of each research question were presented based on the unit test, response paper, and inerview analysis.

FIFTH CHAPTER
DISCUSSIONS AND CONCLUSIONS

5.1. Introduction

This study replaced a traditional assessment tool, which is paper-based with a digital gamified assessment tool, which is Kahoot, by creating control and experimental groups for the 5th grade EFL students' formative assessments. It aimed at revealing the differences between the groups and showing the motivational changes of the students during the process. There were three main instruments to achieve it: unit tests, student response papers, and teacher interviews. The experimental group had two and a half months of intervention with the Kahoot end-of-unit tests while the control group had the usual paper-based tests at the same time. The experimental group had a student response paper, which was followed by the teacher interview. By doing a thematic analysis of the interview and analyzing the overall results of unit tests via SPSS, it is possible to draw certain conclusions regarding digital formative gamified assessment as a success or failure based on assessment scores. Thanks to the findings presented in Chapter 4, the discussion was predicated on overall findings and presented in this chapter in order with the research questions.

5.2. General Discussions of the Findings

Unit tests were aimed at revealing if there was any significant difference between the control group, which used PBA, and the experimental group, which used DGA formatively. According to the results of each unit test, it was found that there is no significant difference between the groups in whether one of the forms is more successful than the other, even though digital gamified Kahoot test results were slightly higher than paper-based test results. If the meaning of success depends merely on the scores, it can be concluded that the DGA does not have an overwhelming advantage over the PBA. The implementation process, regardless of the results, was one of the most distinctive features of this study because many researchers conducted studies on either student motivation or teacher perceptions. Their data to support the experimental results of this study is therefore limited. Nonetheless, there are some studies that have practiced Kahoot in the classroom.

Kapsalis et al. (2020) supported the results of this study by proving there was no significant difference between the experimental and control groups in their study. Meanwhile, there are other studies proving otherwise. Şad and Özer (2020) stated that Kahoot helps learners increase their scores significantly. Similarly, higher test results were provided thanks to the digital test over the traditional test by Çetin Köroğlu (2021). Furthermore, Yürük (2019) concurred that Kahoot had a beneficial impact on students' levels of achievement.

The response paper was aimed at finding out students' test preferences. According to the results, the majority of the students (*N*=25) preferred to have digital tests, even though there were a few students who chose paper-based tests (*N*=5). As for them, Kahoot was found to be more appealing than paper, thanks to the fun elements it contains. When they have fun, they seem to remember the subjects more, as both participant teachers and students reported. They also took environmental issues into consideration and mentioned not harming the trees to make paper. Based on overall results, this study's response paper results show a great deal of similarity with the students participating in other Kahoot-based assessment studies (Alharti, 2020; Çetin Köroğlu, 2021; Ebadi et al., 2021; Mada and Anharudin, 2019; Şad and Özer, 2020; Yürük, 2019). Creating a colorful, real-like, and fun environment are the most common features of what the Kahoot test provides to assess English (Wang and Tahir, 2020), as providing these conditions in an EFL classroom is very effective on the permanence of learning.

Teacher interviews, on the other hand, revealed teachers' test preferences. Considering that the unit evaluation tests in this study have been used before, it can be inferred that participant teachers prefer traditional methods. Besides, many other teachers use paper-based test methods in their classes (Cirit, 2015). However, the implementation and its impact on students seem to have affected teachers' test preferences, as they stated that they wanted to continue with either only digital tests or a combination of both digital and paper tests. The main reasons for their favorable impression of Kahoot are the previously mentioned motivating factors. Watching students enjoy themselves rather than being stressed about having a test also motivated teachers to use digital tests, which was

also reported by Çetin (2018). Besides, when they use digital tests, they do not have to use paper anymore, which results in not harming the environment, just as the students supported. Digital tests are also good for storing the results, as they must be kept for years. In addition, Kahoot provides easy scoring, which is in line with earlier findings (Çetin, 2018; Çetin and Bakla, 2021; Yürük, 2019). Even though pre-service ELT teachers chose paper-based tests at first, their opinion has changed after the implementation of Cirit's study (2015). Çetin Köroğlu (2021) found teachers' high motivation when Kahoot is used. As a result, it can be inferred that Kahoot predominantly influences the views of teachers in a positive way, as in Wang and Tahir's study (2020). Briefly, the factors that affect teachers' opinions concur with some other findings.

Kahoot was practiced as an alternative assessment method to paper-based assessment methods. Students' motivational change during the implementation of Kahoot as an alternative assessment played a crucial role in the study. There are many studies conducted on the search for an alternative assessment in the literature. Most of them reviewed the related data and investigated the perceptions of pre-service and in-service teachers. Cirit (2015) worked with 40 preservice ELT English teachers to find out their perceptions of alternative assessment. The results of the study revealed that many participants found technology more motivating than paper. Similarly, Çekiç and Bakla's review study based on the implementation of a DFA has been shown to have a substantial impact on students' academic performance thanks to high motivation. Wang and Tahir (2020) stated many motivational factors of Kahoot affecting students as well as its impact on learning. Thus, the most remarkable result to emerge from the qualitative data of this study is that Kahoot has a significantly positive motivational effect on students. Similarly, as indicated by Şad and Özer (2020), the evidence that the researcher found points out that success is not merely achieved with scores. Motivation, in this case, is a significant factor and has many sub-factors discussed in this study. Contrary to quantitative data, qualitative data proved that Kahoot has many benefits for taking students to success. These can be students' active involvement in the lesson, a more learner-centered and fun lesson, immediate feedback, students' willingness to participate, and the permanence of learning.

As noted earlier, all the teachers in this study agreed that Kahoot provides a fun and colorful learning environment, which helps students decrease their anxiety and participate more willingly. This finding correlates with the results reached by the overwhelming majority of researchers in the literature (Alharti, 2020; Çetin Köroğlu, 2021; Kapsalis et al., 2020; Şad and Özer, 2020; Wang and Tahir, 2020; Yürük, 2019). Especially with young learners, Kahoot plays an important role thanks to its fun feature (Mada and Anharudin, 2019), as fun triggers intrinsic motivation. Many of the students thought Kahoot was a fun way to have to take a test, as in many other studies. In the study Çetin (2018) conducted with 23 primary school students, they found Kahoot enjoyable, and they reported that they had a lot of fun. However, in the study Ebadi et al. (2021) conducted, most of the participants' perspectives were negative about using Kahoot as an assessment tool.

One of the most effective ways to learn a subject is through active participation in the lesson. All the teachers in the study indicated students' high participation in the lessons after the implementation. It was a striking finding that even the most silent students started to raise their hands, as Kahoot was an attractive tool for them. This result also shows similarity with some other studies (Alharti, 2020; Çetin, 2018; Mada and Anharudin, 2019; Şad and Özer, 2020; Yürük, 2019). Furthermore, Wang and Tahir (2020) reviewed 93 studies in the literature to find out the benefits and challenges of Kahoot. One of the most repeated benefits in each study was participation, as is found in this study. The correlation that the researcher found is that motivational factors may help students score better with Kahoot tests if they are applied over a longer period of time because their achievement level in class activities may eventually start increasing their test scores.

As can be inferred from the findings, technical problems experienced during the game are one of the most challenging aspects of Kahoot. All the teachers agreed that technical issues are the natural but most important challenges of a digital tool, which confirmed almost every other study on Kahoot (Çetin, 2018; Mada and Anharudin, 2019; Şad and Özer, 2020; Yürük, 2019). Based on the interview, the subsections of this challenge are briefly as follows: The students need a device to participate, which might result in a lack of necessary devices. A stable internet connection is required; however, it

may be disconnected during the game. Students must choose a nickname, which may cause chaos in the classroom. The students can be stressed when they see more successful results from the other students in the leaderboard, which can be prevented by blocking the leaderboard from being seen from settings. These were the teachers' main concerns when they were asked to share their perceptions about challenges. However, it is also important to note that no technical issues occurred during the implementation process. This also proves that problems can be prevented from occurring if, if necessary, precautions are taken.

5.3. Conclusions

Students use technology increasingly day by day, and at the same time, they find traditional methods boring. Teachers make use of technological tools, from smartboards to creative digital homework. However, assessment is a significant consideration that has not been studied sufficiently in terms of its integration with technology. This study, therefore, was conducted with the inspiration of creating a better assessment alternative that might be more appropriate and effective for the students of this digital era. The three main concerns of this study were the implementation of the digital test, students' motivation during the study, and teachers' perceptions of the strengths and weaknesses of this test. For this purpose, Kahoot was chosen as the DGFA. The study took place as a case study conducted with 62 5th grade students and 4 teachers from a private school. The implementation took two and a half months within the two-unit teaching process. The teacher interview was conducted at the end of this process.

Kahoot was presented as the main DGA tool, and all teachers agreed that Kahoot is a useful assessment tool. However, they could not leave paper-based tests aside as they were more formal than Kahoot for students. On the other hand, after observing the positive impact of Kahoot on students, they also stated that an assessment in which they did not use Kahoot was unthinkable. As a result, they suggested a way to use both tools. In addition, almost all students wanted to take more Kahoot tests because they liked them more than paper tests. In short, Kahoot was found to be a successful tool to be used instead of paper-based tests.

According to unit test results, it proved that DGA has no significant difference in students' success when it is used as the only assessment tool. Although it did not confirm some previous research on success, general implications can be made for the use of DGA in EFL classes. Furthermore, this study highlights some other considerations for the ELT field. As formative tests were mainly aimed at assessing the learning process, the experimental group students showed significant changes during the implementation process. These changes were mainly positive and regarded as benefits in this study, and they are perhaps the most important takeaways of this study.

Rather than looking at numerical scores, students' participation might be one of the most effective factors related to success. The results proved that students regarded Kahoot as a game and had a lot of fun when they played it. As teachers also observed, students admitted that Kahoot increased their motivation thanks to the fun that it offered. Moreover, motivation created students' active participation and willingness to participate in the lesson, as well as improving students' language skills. Even though the study took two units, it was a striking fact that the teachers wanted to continue using Kahoot tests for their own teaching. When these results are combined, it can be inferred that continuous use of Kahoot in the classroom for assessment purposes may eventually result in increasing students' success as well as their motivation.

The evidence from the teacher interview implies that Kahoot contributed to students' motivation positively. Students' showing more interest in lessons, increasing and active participation, decreasing anxiety, willingness to take tests, fun and happiness, and caring for the environmental issues resulted from the implementation, as teachers reported in the interview. Regardless of the level, almost all the students in the experimental group were more motivated than the students in the control group. They found Kahoot more interesting and useful than paper as they indicated in the response paper that they could learn better when they had fun. This correlates with the results of the teacher interview. To sum up, this study utters Kahoot as a successful tool by helping students increase their attitudes towards English lessons and assessment.

In conclusion, the researcher regards games as successful assessment tools, even though the unit tests did not significantly prove that. Motivation is simply the most important success achieved in this study, thanks to its implementation. Both the student response paper and the teacher interview revealed that Kahoot triggers more motivation than paper, which results in students increasing their participation in the lesson. Moreover, it both proved that higher scores are probable in the future and filled the gap in the literature in terms of the experimental results.

5.4. Limitations and Suggestions

This study clearly has some limitations. It was conducted only with 62 5th grade students to reveal its impact on young learners, as there were only four 5th grade classes in the school. Working with a larger sample size from different levels might help future research develop more generalized implications because determining the effect of digital games in different classes can provide more insight into which digital games are more useful for.

Additionally, the implementation part of the study lasted only for two units of teaching because the school allowed the implementation to take place for half a term. Longer application periods may produce more accurate results about students' achievements. A whole education year, as a suggestion, could give more accurete results related to both the comparison of the digital and traditional assessment scores and their impact on the students.

Besides, the study was conducted in a private school, in a laboratory with all facilities. Enriching the implementation by conducting it in state schools may yield more important results in terms of the general applicability of it in the curriculum. Despite these, the researcher believes this work could be a springboard for further studies, as the findings substantially improve to our understanding of game-based assessment in comparison to traditional assessment.

As a teacher who works with young learners, the researcher focused on the importance of motivation in affecting students' achievement. She hopes, as a result, that more significant data can be found with longer implementation as motivation increases students' participation, which might eventually impact the students' success positively.

5.5. Chapter Summary

This chapter covered the conclusion of the results, discussions with the related literature, and proposed suggestions for the further studies by indicating the limitations of the study.

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APPENDICES

APPENDIX 1

COMU ETHICAL COMMITTEE APPROVAL

T.C.
ÇANAKKALE ONSEKİZ MART ÜNİVERSİTESİ REKTÖRLÜĞÜ
Lisansüstü Eğitim Enstitüsü Etik Kurulu
Bilimsel Araştırma Etik Kurulu

Sayı : E-84026528-050.01.04-2300181596 03.08.2023
Konu : Başvuru İncelenmesi

Sayın Gülin UNAY

Yürütücülüğünüzü yapmış olduğunuz 2023-YÖNP-0576 nolu projeniz ile ilgili Bilimsel Araştırmalar Etik Kurulu'nun almış olduğu 03.08.2023 tarih ve 10/07 sayılı kararı aşağıdadır.

Bilgilerinize rica ederim.

KARAR 07- Sorumlu yürütücülüğünü **Dr. Öğr. Üyesi Sedat BECEREN**'in yaptığı ve proje araştırmacısı **Gülin UNAY** tarafından gerçekleştirilen "Games as an Assessment Tool: Success or Failure" başlıklı araştırmanın, ilgili **taahhüt edilen izinlerin alınması** ve Bilimsel Araştırmalar Etik Kuruluna sunulması koşulu ile Etik Kurul ilkelerine **uygun** olduğuna oy birliği ile karar verilmiştir.

Prof. Dr. Salih Zeki GENÇ
Kurul Başkanı

APPENDIX 2

SCHOOL ETHICAL APPROVAL

T.C.
BORNOVA KAYMAKAMLIĞI
[redacted]

Sayı : 405-126
Konu : Gülin Unay

19.06.2023

ÇANAKKALE ONSEKİZ MART ÜNİVERSİTESİ
İNSAN ARAŞTIRMALARI ETİK KURULU BAŞKANLIĞINA
ÇANAKKALE

Dr. Öğr. Üyesi Sedat Beceren'in danışmanlığında, araştırmacı Gülin Unay'ın "Oyunlarla Ölçme ve Değerlendirme Başarı mı Başarısızlık mı?" başlıklı araştırması için 17.05.2023 ile 29.12.2023 tarihleri arası, [redacted] İzmir adresindeki kurumumuzda araştırmasıyla ilgili veri toplama çalışmalarına onay verdiğimizi bildiririz.

Saygılarımla,

APPENDIX 3

TEST EVALUATION CHECKLIST

Name /Surname:

Dear Participant,

This checklist is given you to find out the suitability of the test instrument to use in the study. Please have a look at the test given you and fill in the blanks according to your expert opinion.

Test Instrument **Level …… Test ……**	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Criteria	**5**	**4**	**3**	**2**	**1**
1. The questions align with the course subject.					
2. The test items meet the lesson objectives.					
3. The difficulty level of the questions is suitable for the students.					
4. The use of vocabulary matches the target vocabulary use of the unit.					
5. The language used in the test is appropriate for the students.					
6. The students have the background knowledge to answer the questions in the test.					
7. The total amount of the questions is adequate.					
8. The instrument is suitable to apply both formats (digital and paper)					

9. The test items include necessary skills (listening, grammar, vocabulary).					
10. The students are familiar with the test items used in the test.					

APPENDIX 4
INTERVIEW QUESTIONS

EK-1 Görüşme Formu

GÖRÜŞME SORULARI

Tarih ve zaman (Başlama ve Bitiş):

Adı ve soyadı:

Cinsiyet:

Yaş:

GİRİŞ

Merhaba, ben Gülin UNAY. İngilizce öğretiminde geleneksel değerlendirme yöntemi yerine oyun bazlı değerlendirme yönteminin öğrenciler üzerindeki etkisini saptamak adına bir araştırma çalışması yapıyorum. Bu araştırma kapsamında öğretmenlerin uygulama sırasındaki gözlemleri, öğrencilerin motivasyonundaki ve İngilizce kimliğindeki değişimi konusundaki görüşlerine yanıt aramaktayım. Araştırma sonucunda elde edilen bilgilerle öğretmenlerin değerlendirme süreçlerini geliştirmelerine katkıda bulunmak hedeflenmektedir.

Görüşmeye başlamadan önce sizleri bilgilendirmek isterim:

•Görüşmenin yaklaşık 20 dakika süreceğini düşünüyorum.

•Bu görüşme boyunca paylaştığınız bilgiler gizli tutulacaktır. Açıklanan hiçbir bilgi üzerinde isimleriniz belirtilmeyecek ve elde edilen bilgiler hiç kimseye iletilmeyecektir.

•Görüşme sırasında istediğiniz zaman soru sormakta ve görüşmeyi sonlandırmakta özgürsünüz.

•Başlamadan önce sormak istediğiniz başka bir soru var mı?

• İzin verirseniz görüşme sırasındaki konuşmaları kaydetmeyi istiyorum. Bu şekilde, hem zamanı daha etkili kullanabiliriz, hem de görüşmeden sonra cevaplarınızı daha detaylı analiz edebilirim. Sizce de uygun mudur? Herhangi bir rahatsızlık duyduğunuz taktirde görüşme kaydını ve görüşme notlarını sizinle paylaşabilirim.

Bu araştırmaya katılmayı kabul ettiğiniz ve zaman ayırdığınız için teşekkür ederim.

Genel Sorular

1. Hangi üniversiteden mezun oldunuz?

2. Ne kadar zamandır öğretmenlik yapıyorsunuz?

a. Hangi sınıf gruplarına derse giriyorsunuz?

3. Ünite sonu değerlendirmelerinin önemiyle ilgili ne düşünüyorsunuz?

Görüşme Soruları

1. Uygulama sırasında gözlemlediğiniz avantajlar nelerdir?

SUBQ: Öğrencilerin sizinle özel olarak paylaştığı olumlu bir dönüt var mı?

SUBQ: Öğrencilerinizin motivasyonu hakkında ne söylemek istersiniz? Süreçte herhangi bir değişim (iyi ya da kötü yönde) gözlemlediniz mi?

2. Uygulama sırasında gözlemlediğiniz dezavantajlar nelerdir?

SUBQ: Öğrencilerin sizinle özel olarak paylaştığı olumsuz bir dönüt var mı?

SUBQ: Öğrencilerinizin stres seviyesi hakkında ne söylemek istersiniz? Süreçte herhangi bir değişim (iyi ya da kötü yönde) gözlemlediniz mi?

3.Öğrencileri iyi tanıdığınızı varsayarsak, herhangi bir değişim gözlemlediniz mi?

Yönlendirme: Öğrenme hevesi, stres, isteklilik, hırs.

4. Her bir uygulama yöntemine tanıklık ettiğiniz, sizin kendi öğretme sürecindeki ünite sonu değerlendirme tercihiniz hangisi olur? Neden?

Yönlendirme: Kâğıt tabanlı, oyun tabanlı

5. Oyunlaştırılmış değerlendirme yönteminin ilköğretim okullarında uygulanabilir olduğunu düşünüyor musunuz? Evet ise neden? Hayır ise neden?

SUBQ: Sizce herhangi bir beceriyi ölçmede daha çok zorluk yaşanabilir mi?

SUBQ: Bütün öğrenci profillerine uygulamak için uygun olduğunu düşünüyor musunuz?

6. Oyunlaştırılmış değerlendirme yönteminin ünite sonu değerlendirme için kullanımı hakkında başka bir şey söylemek ister misiniz?

APPENDIX 5

LEVEL 1 UNIT TEST 1

Listen and circle.

1. There were six **penguins** / **octopus** in the zoo.
2. The window has a lot of **cracks** / **ice** on it.
3. Jim is going **to the South Pole** / **on an expedition**.
4. The animal has red and green **feathers** / **fur**.
5. Animals like tigers **migrate** / **hunt** other animals.
6. Greg loves swimming in **freezing** / **deep** water.

7 We cannot live if our _____ stops working.

a) fever b) sick c) heart d) skin

8 Mom had to _____ her arm because she injured it.

a) flat b) brain c) bandage d) rest

9 Remember to ask your doctor before you take any _____.

a) pale b) heart c) medicine d) balcony

10 A flower pot fell from the _____ and smashed into pieces.

a) balcony b) bandage c) rest d) flat

11 Mary lives in a skyscraper on the _____ floor.

a) thirty b) thirteen c) thirteenth

12 My dad's going to _____ me a tree house this summer.

a) build b) sweep c) move

13 What's _____? You look pale.

a) wrong b) matter c) happen

14 _____ to visit the United States?

a) I'd like b) Would you like c) Where

15 _____ in the room was having a good time at the party.

a) somewhere b) everyone c) everything

16 We _____ cheat in tests. It's wrong to cheat!

a) should b) would c) shouldn't

17 I can't do my homework. _____ is too difficult.

a) everything b) something

18 If you cannot do it on your own, you _____ ask for help.

a) shouldn't b) should

19 Paul: What did you buy, Julia? Julia:

A I bought a pair of earrings.

B I went to the market.

C They weren't expensive.

20 Paul: Why did you buy them? Julia:

A It was beautiful.

B Because it's my mum's birthday.

C They are good.

APPENDIX 6

LEVEL 1 UNIT TEST 2

1 The streets in Simon's town are wide and _____ and easy to ride bikes on.

a) balcony b) flat c) brain d) plastic

2 We shouldn't use so much _____ because it damages our environment.

a) rest b) plastic c) bandage d) balcony

3 Scientists don't understand everything about how our _____ works. They are still doing research into how it functions.

a) rain b) bandage c) plastic d) brain

4 The hill was hard to climb because it was very _____.

a) flat b) steep

5 I need to go to the _____avenue.

a) five b) fiveth c) fifth

6 Eva: I feel so tired every morning!

Max: You _____ go to bed so late.

a) should b) shouldn't

7 The South Pole is a _____.

a) layer b) continent

8 Some birds _____ in fall to find warm weather.

a) migrate b) hunt

9 Some snakes are _____. You have to go to hospital if they bite you!

a) poisonous b) waterproof

10 Is there any cheese in the fridge?

a) All my friends from school.

b) Yes, there are.

c) No, there isn't.

11 Who will you invite to your party?

a) All my friends from school.

b) Yes, there are.

c) No, there isn't.

12 The bird had a broken _____.

a) fur b) migrate c) wing d) octopus

13 A sea animal with eight arms is an

a) snake b) octopus c) bear d) eagle

14 Who _____ with you at the park?

a) be b) will be

15 When _____ visit us again?

a) they will b) will they

16 George _____ dinner with us tonight.

a) not b) won't have

17 Alice _____ early tonight.

a)won't finish b)not finish

18 There _____ be a lot of people at the party.

a)'s b)'ll

19 Julia: Did you buy anything else? Paul:

A I don't know.

B Yes, I did. I bought a magazine.

C So did I!

20 Paul: Would you like to come and read some of my magazines? Julia:

A Yes, I would love to, thanks!

B I have a headache.

C Yes, I am.

APPENDIX 7

LEVEL 2 UNIT TEST 1

Listen and circle True (T) or False (F)

1	Jake was a butcher.	T	F
2	Sonia was a maid.	T	F
3	Henry was a baker.	T	F
4	Jacquie and Freda used to run errands.	T	F
5	Juliet was a flower girl in the winter.	T	F
6	Kate used to stay in a workhouse.	T	F
7	People used to marvel at the new form of transportation.	T	F

8 Every country has its own _____ and past events.

a) history b) mystery c) island d) rope

9 He wore a black _____ over his left eye.

a) scar b) solo c) eye patch d) sword

10 The story says that Black-Eye discovered a new _____ in the middle of the ocean.

a) history b) island c) loneliness d) rope

11 In the fifteenth century, explorers _____ sailing west to find a shorter way to Asia.

a) was b) were

12 At six o'clock yesterday, Suzie _____ helping her mom in the kitchen.

a) was b) were

13 My mom and dad _____ swimming yesterday. It was too cold.

a) was b) were

14 My mom studied in Japan, and she _____ how to fold origami paper.

a) know b) known c) knowing d) knew

15 My grandparents _____ how to send a text message. They can only use their phones to call their friends and family.

a) know b) knows c) knew d) known

16 My brother _____ that he needs to ask for help if he's struggling with his homework.

a) understand b) understands c) understood d) understanding

17 I _____ how to do it and sent to the gallery.

a) understand b) understands c) understood d) understanding

18 My sister _____ to bake a cake last Saturday.

a) try b) tries c) tried d) trying

19 We _____ steak and chips at the restaurant yesterday.

a) order b) orders c) don't order d) didn't order

20 I think I _____ a strange sound outside the door one minute ago.

a) hear b) heard c) hears d) heared

APPENDIX 8

LEVEL 2 UNIT TEST 2

1 My Aunt Betty works for a big _____ called GetTogether.

a) organization b) website

2 Aunt Betty _____ goes to visit different countries.

a) frequently b) constant

3 It's a _____ that helps people in _____ areas.

a) donate/ improve b) charity/ remote c) charity/ improve d) donate/ remote

4 You _____ do your homework today. You can do it tomorrow.

a) have to b) has to c) don't have to d) doesn't have to

5 You _____ eat a lot of sugar. It's bad for your teeth.

a) must b) mustn't c) don't need to d) need to

6 _____ playing tennis today?

a) How about b) Let's

7 You _____ take an umbrella. It isn't going to rain.

a) don't need to b) must c) mustn't d) need to

8 I have an idea! We _____ upcycle this old plastic bottle.

a) can b) will c) need to d) have to

9 Jane _____ play the piano when she was four.

a) can b) could c) need to d)don't need to

10 I _____ Dave this afternoon. Would you like to join us?

a) was meeting b) 'm meeting c) met

11 Why didn't you answer the phone? _____ you playing tennis this morning?

a) Did b) Are c) Were

12 My grandpa _____ a gold medal in athletics when he was 20.

a) won b) wins c) used to win

13 I'm hungry. I _____ mom and ask her if dinner is ready.

a)'m calling b) called c) 'll call

14 Sally was walking in the park when she _____ a wallet full of money.

a)'s going to find b) found c) was finding

15 Liz never listens to anyone and is so arrogant.

a) Why are you so talkative in the morning?
b) I think it's exhaustion. She works very hard.
c) She thinks she's so important.

16 Please be careful with those glass jars!

a) They're really delicate.
b) He didn't want to share his paints with me.
c) She thinks she's so important.

17 Oh no, why do you think Jo is tired?

a) Why are you so talkative in the morning?
b) I think it's exhaustion. She works very hard.
c) He didn't want to share his paints with me.

18 This word describes someone who does what they want to do and doesn't want to change.

a) arrogant b) stubborn c) forgetful

19 She used to live in a big house _____ she was a maid.

a) who b) that c) where

20 If _____ came to the house, she had to answer the door, make tea, and make sure they were comfortable.

a) no one b) someone c) something

APPENDIX 9

PARENTS' APPROVAL FORM

Sevgili Anne/Baba,

Bu çalışma Çanakkale 18 Mart Üniversitesi yüksek lisans öğrencisi **Gülin UNAY** tarafından yürütülmektedir.

Bu çalışmanın amacı nedir?

Çalışmanın amacı, çocukların dil öğrenimlerinde sürecin bir parçası olan değerlendirmenin geleneksel yöntemler olan yazılı testlerin ve yeni bir yaklaşım olarak dijital testlerin öğrenci başarı ve motivasyonu üzerindeki etkilerini ortaya çıkarmaktır.

Çocuğunuzun katılımcı olarak ne yapmasını istiyoruz?

Bu amaç doğrultusunda, çocuğunuzdan araştırma sürecinde iki adet ünite sonu değerlendirmesi tamamlamasını isteyeceğiz. Çalışmanın sonunda ise bu testlerin öğrencinin öğrenme motivasyonu ve başarısına olan etkileri saptanacaktır. Çocuğunuzun katılımcı olmasıyla ilgili izin istediğimiz gibi, çalışmaya başlamadan çocuğunuzdan da sözlü olarak katılımıyla ilgili rızası mutlaka alınacak.

Çocuğunuzdan alınan bilgiler ne amaçla ve nasıl kullanılacak?

Çocuğunuzdan alacağımız cevaplar tamamen gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir. Elde edilecek bilgiler sadece bilimsel amaçla (yayın, konferans sunumu, vb.) kullanılacak, çocuğunuzun ya da sizin isminiz ve kimlik bilgileriniz, hiçbir şekilde kimseyle paylaşılmayacaktır.

Çocuğunuz ya da siz çalışmayı yarıda kesmek isterseniz ne yapmalısınız?

Katılım sırasında sorulan sorulardan ya da herhangi bir uygulama ile ilgili başka bir nedenden ötürü çocuğunuz kendisini rahatsız hissettiğini belirtirse çalışmaya sorular tamamlanmadan ve derhal son verilecektir.

Bu çalışmayla ilgili daha fazla bilgi almak isterseniz araştırma yürütücüsü Gülin Unay [redacted]) ile iletişim kurabilirsiniz. Bu çalışmaya katılımınız için şimdiden teşekkür ederiz.

Yukarıdaki bilgileri okudum ve çocuğumun bu çalışmada yer almasını onaylıyorum. (Lütfen alttaki iki seçenekten birini işaretleyiniz.)

Evet onaylıyorum____ Hayır, onaylamıyorum___

Ebeveynin adı-soyadı: _____

Bugünün Tarihi:_____

Öğrencinin adı soyadı ve doğum tarihi:_____

APPENDIX 10

PARTICIPANT CONSENT FORM

BİLGİLENDİRİLMİŞ GÖNÜLLÜ ONAM METNİ

Sizi Gülin Unay tarafından yürütülen "Games as an Assessment Tool: Success or Failure" başlıklı araştırmaya davet ediyoruz. Bu araştırmanın amacı dijital oyunların eğitimde bir değerlendirme aracı olarak kullanımını araştırmaktır. Araştırmada sizden tahminen 40 dk ayırmanız istenmektedir. Araştırmaya sizin dışınızda tahminen 3 kişi katılacaktır. Bu çalışmaya katılmak tamamen **gönüllülük** esasına dayanmaktadır. Çalışmanın amacına ulaşması için sizden beklenen, bütün soruları eksiksiz, kimsenin baskısı veya telkini altında olmadan, size en uygun gelen cevapları içtenlikle verecek şekilde cevaplamanızdır. Bu formu okuyup onaylamanız, araştırmaya katılmayı kabul ettiğiniz anlamına gelecektir. Ancak, çalışmaya katılmama veya katıldıktan sonra herhangi bir anda çalışmayı bırakma hakkına da sahipsiniz. Bu çalışmadan elde edilecek bilgiler tamamen araştırma amacı ile kullanılacaktır.

Araştırmacının E- Posta Adresi: [redacted]

☐ Araştırmaya katılmayı kabul ediyorum.

☐ Araştırmaya katılmayı kabul etmiyorum.