REPUBLIC OF TURKIYE
YILDIZ TECHNICAL UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF FOREIGN LANGUAGES EDUCATION
ENGLISH LANGUAGE EDUCATION PROGRAM

MASTER'S THESIS

GAMIFIED WRITING: AN INVESTIGATION INTO ITS IMPACT ON MOTIVATION AND ACHIEVEMENT OF ENGLISH PREPARATORY STUDENTS

İZEL ŞAHİN
227C5034

THESIS SUPERVISOR
ASST. PROF. DR. GÜLÜMSER EFEOĞLU

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İzel ŞAHİN tarafından hazırlanan "Oyunlaştırılmış Yazma: İngilizce Hazırlık Öğrencilerinin Motivasyonu ve Başarısı Üzerindeki Etkisinin Araştırılması" başlıklı çalışma, **21/04/2025** tarihinde yapılan savunma sınavı sonucunda oybirliği ile başarılı bulunmuş ve jürimiz tarafından Yabancı Diller Eğitimi Ana Bilim Dalı İngiliz Dili Eğitimi Tezli Yüksek Lisans Programında **YÜKSEK LİSANS** tezi olarak kabul edilmiştir.

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ABSTRACT

GAMIFIED WRITING: AN INVESTIGATION INTO ITS IMPACT ON MOTIVATION AND ACHIEVEMENT OF ENGLISH PREPARATORY STUDENTS

Writing is considered one of the most challenging skills in second language acquisition (SLA) due to its cognitive and psychological demands (Hyland, 2003). Motivation, a psychological factor, is crucial in acquiring writing skills (Sabti et al., 2019). Educators have been seeking innovative methods to promote and sustain motivation. Among them is gamification which has been widely studied in various fields, including education (Kam & Umar, 2018). Despite numerous studies in language teaching, the impact of gamification on writing motivation and achievement has received limited attention. Considering the gap in the literature, the current study aims to investigate the impact of gamification on writing motivation and achievement of English preparatory school learners with an embedded mixed-methods design utilizing the Academic Writing Motivation Questionnaire (Payne, 2012), achievement tests, and a focus group interview. 61 B1-level Turkish EFL learners at a state preparatory school participated in the study. The study was implemented across a six-week period and during the four-week intervention procedure, participants in the experimental group were asked to complete in-class work and homework assignments and they were encouraged to complete these tasks with the incorporation of points, badges, and weekly leaderboards. Quantitative data was analyzed through paired samples t-tests. General writing motivation results demonstrated statistically significant results for the experimental group ($p < 0.05$) and motivational constructs Enjoyment, Self-Efficacy, and Effort significantly increased in the experimental group. The t-tests revealed statistically significant results for the experimental group's writing achievement ($p < 0.05$) while no differences were observed in the control group. Qualitative data were collected to triangulate the quantitative data through a focus group interview. The thematic analysis conducted according to Braun & Clarke's (2006) framework yielded results supporting the quantitative results. Both quantitative and qualitative data indicated that intervention involving gamification had positive impacts on participants' motivation and achievement in the EFL setting.

Keywords: Gamification, game elements, writing motivation, writing achievement, English language education.

ÖZET

OYUNLAŞTIRILMIŞ YAZMA: İNGİLİZCE HAZIRLIK ÖĞRENCİLERİNİN MOTİVASYONU VE BAŞARISI ÜZERİNDEKİ ETKİSİNİN ARAŞTIRILMASI

Yazma, bilişsel ve psikolojik gereksinimleri nedeniyle ikinci dil ediniminde en zor becerilerinden biri olarak kabul edilir (Hyland, 2003). Yazma becerisinin kazanılmasında psikolojik bir faktör olan motivasyonun önemi büyüktür (Sabti vd., 2019). Eğitimciler motivasyonu artırmak ve sürdürmek için yenilikçi yöntemler aramaktadırlar. Bunlar arasında eğitim de dahil olmak üzere çeşitli alanlarda yaygın olarak çalışılan oyunlaştırma da yer almaktadır (Kam ve Umar, 2018). Dil öğretiminde oyunlaştırma üzerine çok araştırma yapılmasına rağmen, yazma motivasyonu ve başarısı üzerindeki etkisine sınırlı derecede ilgi gösterilmiştir. Literatürdeki bu boşluğu göz önünde bulunduran mevcut çalışma, ön-son başarı testleri, Akademik Yazma Motivasyon Anketi (Payne, 2012) ve bir odak grup görüşmesi kullanarak karma yöntemli bir tasarımla oyunlaştırmanın İngilizce hazırlık okulu öğrencilerinin yazma motivasyonu ve başarısı üzerindeki etkisini araştırmayı amaçlamaktadır. Çalışmaya bir devlet üniversitesinde öğrenim gören İngilizceyi yabancı dil olarak öğrenen B1 seviyesindeki 61 Türk öğrenci katılmıştır. Çalışma altı haftalık bir süre boyunca uygulanmıştır ve dört haftalık müdahale süreci boyunca deney grubundaki katılımcılardan sınıf içi çalışmaları ve ödevleri tamamlamaları istendi ve puanlar, rozetler ve haftalık liderlik tabloları kullanılarak bu görevleri tamamlamaları teşvik edilmiştir. Nicel veriler bağımlı örneklem t-testleri ile analiz edilmiştir. Genel yazma motivasyonu sonuçları deney grubunda istatistiksel olarak anlamlı sonuçlar göstermiştir ($p < 0.05$) ve motivasyonel kavramlar olan Keyif, Öz-Yeterlik ve Çaba deney grubunda anlamlı şekilde artmıştır. Deney grubunun yazma başarısı için t-test sonuçları istatistiksel olarak anlamlı bulunmuştur ($p < .05$). Kontrol grubunda ise herhangi bir fark gözlenmemiştir. Nicel verileri üçgenlemek için odak grup görüşmesi yoluyla nitel veriler toplanmıştır. Braun & Clarke'ın (2006) çerçevesine göre yürütülen tematik analiz, nicel sonuçları destekleyen sonuçlar ortaya koymuştur. Hem nicel hem de nitel veriler, oyunlaştırmayı içeren müdahalenin İngilizceyi yabancı dil olarak öğrenen katılımcıların yazma motivasyonu ve başarısı üzerinde olumlu etkileri olduğunu göstermiştir.

Anahtar Kelimeler: Oyunlaştırma, oyun elementleri, yazma motivasyonu, yazma başarısı, İngiliz dili eğitimi.

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LIST OF ABBREVIATIONS

SLA	: Second Language Acquisition
ESL	: English as a Second Language
EFL	: English as a Foreign Language
SDT	: Self-Determination Theory
PBL	: Points, Leaderboards, Badges
AWMQ	: Academic Writing Motivation Questionnaire

1. INTRODUCTION

This chapter provides an overview of the current study, beginning with the background of the study to contextualize the research, followed by the statement of the research problem to outline the issue the study addresses. Then, it presents the significance of the study, highlighting its importance and potential contributions. Finally, it explains the purpose of the study, followed by the research questions that guide the investigation.

1.1. Background of the Study

Writing is viewed as one of the most important skills in SLA and language learners experience special difficulties while writing in the target language since it requires a great deal of engagement, persistence, and cognitive effort, as well as language proficiency (Altun, 2023; Beaufort, 2007; Hyland, 2003; Lin, 2016; Nourazar et al., 2022). In this context, it can be deduced that motivation is a key factor in L2 writing as it shapes language learners' desire to interact with the target language, their engagement in the tasks, their persistence in their studies, and their achievement (Dörnyei & Ushioda, 2011; Gardner, 2006). Specifically, EFL learners may face more challenges while learning writing skills as they have lower proficiency levels and fewer opportunities to use the language outside of educational settings when compared to ESL learners (Ortega, 2009). In other words, EFL learners need a catalyst to motivate them towards writing (Camacho et al., 2021).

In EFL writing settings, educators often struggle to maintain learner engagement and persistence (Bahous et al., 2011). Therefore, they are adopting innovative teaching approaches, such as gamification. Deterding et al. (2011) define gamification as "the use of game design elements in non-game contexts". Gamification has been utilized by various sectors such as marketing, advertising, business, and education (Koivisto & Hamari, 2019). During the last two decades, it has attracted the attention of the educational field immensely. Plenty of research has been done investigating its effectiveness in several subjects, including Information Technology, mathematics,

science, and languages (Dichev & Dicheva, 2017). Especially for SLA, there are numerous studies examining and exploring the effect of gamification on speaking skills, vocabulary acquisition, grammar teaching, and so forth (Dehghanzadeh, 2020; Ishaq et al., 2021). Nevertheless, only a few studies have focused on the effects of gamification on writing motivation or achievement (Pentikäinen & Kallionpää, 2024).

Several studies propose that gamified courses can enhance motivation and achievement (Alsadoon et al., 2022; Bal, 2019; Chans & Castro, 2021; Chapman & Rich, 2018; Daliranfirouz et al., 2024; Kharizmi et al., 2024; Rincon-Flores et al., 2022). On the other hand, some studies suggest that gamification may fail to increase and sustain motivation, especially intrinsic motivation (Mekler et al., 2017; Hanus & Fox, 2015; Laffey, 2022). Designing gamified settings appropriately in order to yield efficient results regarding motivation and achievement is significant (Kim, 2015). Chou (2015) claims that gamified systems must not be comprised of only points, badges, and leaderboards (PBL) if the designer aims to boost long-term motivation and engagement. There should also be other elements fostering collaboration, ownership, creativity, and so forth. Self-Determination Theory (SDT) (Deci & Ryan, 1985) supports this view by stating that learners should experience autonomy, competence, and relatedness for greater accomplishment. Gamifying courses with only PBL may not lead to favorable outcomes (Chou, 2015). Alongside the application of PBL, providing competence to learners, there is a need to introduce elements into the gamified system associated with autonomy and relatedness.

The current study investigates the effect of gamification on the writing achievement and motivation of EFL learners. Given the growing integration of gamified design in education, understanding its potential to increase learner motivation and improve learning outcomes is essential. Furthermore, the scarce literature on the effect of gamification on writing skills, especially in EFL settings, calls for more research in this area. Therefore, this study seeks to provide a deeper understanding of gamification's impact on writing achievement and motivation.

1.2. Statement of the Problem

The impact of gamification on motivation is a significant aspect of research that requires more attention. Despite extensive research done on motivation in SLA, there is still debate over how gamification supports both types of motivation: intrinsic and

extrinsic motivation. Motivation is a complex construct, and depending on instructional strategies and contextual circumstances, learners may experience both intrinsic and extrinsic motivation (Csikszentmihalyi, 2014). According to some studies, gamification can improve attention and engagement, which may increase intrinsic motivation (Daliranfirouz et al., 2024; Treiblmaier & Putz, 2020). On the other hand, some studies suggest that over-reliance on extrinsic incentives may cause learners to prioritize the extrinsic aspect of the tasks over the intrinsic aspect of learning, consequently impeding long-term motivation (Buckley & Doyle, 2016; Mekler et al., 2017; Philpott & Son, 2022;). In particular, the effect of gamification on writing motivation has received little attention from scholars. Therefore, there is still a need for research in this area.

Another important area of research is the role of gamification in promoting writing achievement. Writing is one of the most significant skills that a language learner needs to develop, requiring consistent practice, a sense of accomplishment, and constructive feedback (Hyland, 2003). Language learners often struggle to maintain engagement and motivation toward learning writing skills (Bahous et al., 2011). In this context, gamified learning settings can assist learners in accomplishing writing goals by providing persistent motivation through elements like instant feedback, personalized learning, and progress monitoring (Chou, 2015; Kapp, 2013; Kim, 2015). Nonetheless, there is still a need for empirical data proving the effectiveness of the gamified elements in EFL writing achievement.

1.3. Significance of the Study

The significance of this study is its potential to contribute to the theoretical and practical aspects of SLA and writing pedagogy. This study offers insights into how innovative teaching methods can improve EFL learners' involvement in writing tasks by investigating the effects of gamification on writing motivation and achievement. The study also aims to demonstrate how comprehending the interaction between intrinsic and extrinsic motivation in a gamified learning setting can assist educators in developing more sustainable and effective teaching strategies. From a pedagogical standpoint, this study can assist educators and curriculum designers in incorporating gamification into writing instruction in such a way as to promote motivation and skill development.

The results of this study may also provide significant guidance for building gamified learning platforms that successfully balance interaction and meaningful learning objectives. Moreover, this study can contribute to the field of educational technology by pointing out how digital tools can enhance language learning and writing achievement in tertiary-level EFL courses.

In conclusion, this study has the potential to enhance language education practices and support the continuous development of digital learning environments by fostering a profound understanding of the effect of gamification on learner achievement and motivation.

1.4. Purpose of the Study

The purpose of this study is to investigate the effect of gamification on writing motivation and achievement among B1-level Turkish EFL learners. Specifically, it aims to examine whether the gamified elements under investigation in this study increase intrinsic motivation, resulting in tangible improvements in writing achievement. The study aims to present empirical evidence on the effectiveness of gamification in fostering a more successful and engaging approach to writing instruction. Moreover, the study aims to offer insights into how gamification can be incorporated into EFL writing curricula to enhance learning experiences and outcomes by examining and exploring motivational shifts and performance outcomes.

1.5. Research Questions

The current study aims to answer the following questions:

1- Does the integration of game elements in writing lessons affect the academic writing motivation of B1-level Turkish learners of EFL at a university preparatory school?
2- Does the integration of game elements in writing lessons affect the academic writing achievement of B1-level Turkish learners of EFL at a university preparatory school?
3- What are the perceptions of B1-level Turkish learners of EFL at a preparatory school on the integration of game elements in academic writing lessons?

2. LITERATURE REVIEW

This chapter aims to provide a comprehensive review of the literature on gamification and its effects on motivation and achievement. The structure of the chapter is as follows: Firstly, a brief history of the term 'gamification', the definitions provided by influential scholars in the field, game elements, and the most influential gamification models are presented. Secondly, motivation is defined and comprehensive motivational frameworks behind gamification are presented. Lastly, motivation, achievement, and gamification are connected to demonstrate the intertwined relationship between one another, and empirical data from previous related research are presented.

2.1. Gamification

The word 'gamification' was first used in its current sense by Nick Pelling, a game developer, in 2003 and it started to be used commonly in 2010 (Werbach & Hunter, 2012). Gamification has been widely employed in many different fields such as marketing, health, finance, and education to increase participation, engagement, and motivation (Kam & Umar, 2018). For instance, it is used to promote motivation to exercise in the field of health, to attract and engage individuals to consume in the marketing field, and to engage and motivate learners in education (Hamari et al., 2014). Scholars have defined gamification in various ways. According to Deterding et al. (2011), gamification is the application of game-design elements into non-game settings. Similarly, Werbach & Hunter (2012) define gamification as "the use of game elements and game-design techniques in non-game contexts" (p. 26). Kapp (2013) defines gamification as utilizing parts of games with the purpose of motivating individuals, enhancing learning, and solving problems.

The following subsections elaborate on game elements based on the pyramid Werbach & Hunter (2012) proposed, widely acknowledged gamification models, and the similarities and differences between Gamification and Game-Based Learning (GBL), which are commonly mistaken for each other.

2.1.1. Game Elements

Kapp (2013) view game elements as the foundation of games and gamification. Game elements vary from leaderboards to achievements, collections, and challenges. Deterding et al. (2011) state that the game elements in isolation do not cultivate a game. In order to build a structured gamified experience, several game elements must be incorporated. In most gamified designs, PBL is employed (Dahalan et al., 2024). Nevertheless, if no other game element is included in the design, the likelihood of failure is high because PBL only focuses on the external aspect of gamification (Chou, 2015). Instead, for a gamified design to succeed, there must be internal motivators, as well. Therefore, understanding gamification, game elements, and their properties is crucial before crafting a gamified platform or setting.

Werbach & Hunter (2012) proposed a pyramid for understanding gamification and it comprised of three layers: Dynamics, Mechanics, and Components.

Figure 1. The Game Element Hierarchy



Source: Werbach & Hunter, 2012, p. 82

2.1.1.1. Game Dynamics

At the top of the pyramid is Dynamics, which refers to motivations and underlying structures that guide player experience (Werbach & Hunter, 2012). Dynamics are abstract elements that frame the way players interact with the gamified system. The primary dynamics are:

- **Constraints** are the limitations exerted on players. For instance, time restrictions or limited resources may be employed to challenge players and optimize their actions.
- **Emotions** are the affective experiences caused by the gamified system. These include excitement, anxiety, or joy.
- **Narrative** is the storytelling aspect of the gamified system offering meaning to the actions of the players.
- **Progression** is the sense of achievement through the integration of levels or unlocking new features in the gamified system.
- **Relationships** are the social interactions among the players encouraging competition or collaboration.

Incorporating these dynamics rather than only integrating superficial game elements into the gamified system ensures that gamification has a deeper effect on the players.

2.1.1.2. Game Mechanics

In the middle of the pyramid is Mechanics which refer to the processes that foster the engagement of the players (Werbach & Hunter, 2012). Mechanics are rules or systems that impact player behavior. When compared to Dynamics, Mechanics provide more specific ways players interact with the gamified system. The primary mechanics are:

- **Challenges** are tasks or objectives that players need to complete in order to make progress.
- **Chance** refers to the random nature of the gamified system, such as the use of spinning wheels to provide unpredictability.
- **Competition** is encouraging players to surpass other players through the implementation of elements like leaderboards or contests.
- **Cooperation** is promoting collaboration and teamwork to enable players to work towards a goal cooperatively.
- **Feedback** is the act of giving immediate responses to the actions of the players through elements like points or rewards
- **Resource Acquisition** refers to collecting virtual goods or experience points.

- **Rewards** refer to tangible or intangible incentives that motivate players to engage in the gamified system.
- **Transactions** are the exchange procedure of resources attained in the gamified system.
- **Turns** refer to altering players to participate in turns.
- **Win States** refer to the ways players can win or lose a game.

2.1.1.3. Game Components

At the bottom of the pyramid is Components which refer to the specific game elements that players directly interact with within the gamified system (Werbach & Hunter, 2012). They are the most visible aspects of gamification and the concrete implementations of Mechanics and Dynamics. The primary components are:

- **Achievements** are the recognitions given for achieving defined objectives.
- **Avatars** are the digital representations of players that foster personalization.
- **Badges** are the visual symbols of achievement or mastery.
- **Boss Fights** are the important challenges that test players' skills.
- **Collections** are the sets of items players collect throughout the gamified process.
- **Combat** refers to battles where players compete with each other.
- **Content Unlocking** refers to rewards or features made accessible after meeting specific criteria.
- **Gifting** is the feature of a game where a player gives resources to another player.
- **Leaderboards** are ranked lists of players, which are used to compare the performance of players in a gamified system.
- **Levels** are the stages of progress that demonstrate player experience or status.
- **Points** are a quantifiable measure of progress or achievement.
- **Quests** are predefined missions or tasks with the purpose of engaging players.

- **Social Graphs** are the networks that demonstrate player interactions and relationships.
- **Teams** are groups in which players work collaboratively in order to achieve an objective.
- **Virtual Goods** are the digital items that players can earn, buy, trade, or gift.

2.1.2. Gamification Models

The following subsections present the most widely acknowledged general gamification models and a gamification model concerning specifically education. The models are presented in chronological order: the MDA Framework (Hunicke et al., 2004), the D6 Model (Werbach & Hunter, 2012), the Octalysis Framework (Chou, 2015), and the Five-Dimensional Framework of Gamification (Toda et al., 2019).

2.1.2.1. MDA Framework

The MDA framework proposed by Hunicke et. al. (2004) categorizes game design as Mechanics, Dynamics, and Aesthetics.

- **Mechanics** are the rules and game elements that build the gamified experience. They comprise points, levels, badges, achievements, and progression bars. These rules and game elements create a structured experience and ensure players comprehend their goals and the path to achieving them.
- **Dynamics** originate from the use of mechanics, and they refer to behaviors and experiences caused by them. In a gamified system, leaderboards may lead to competition, while challenges that require teamwork may lead to collaboration. Dynamics are useful in predicting and shaping player engagement based on the mechanics.
- **Aesthetics** refers to the emotional and psychological effects of gamification on players. The aim of aesthetics is to create an immersive experience for players to feel enjoyment, achievement, or social interaction.

The MDA framework offers valuable insights into gamified system designs. In an educational context, the application of this framework for the design of a gamified system is particularly beneficial as it aims to arouse desired emotional responses in players which is one of the goals of gamification in education.

2.1.2.2. D6 Model

Werbach and Hunter (2012) suggested an approach to gamification consisting of six steps:

1. **Define business objectives:** Defining the objectives in detail is crucial to a well-designed gamified experience. These include the desired outcomes of the design and the role the objectives will play in achieving those outcomes.
2. **Delineate Target Behaviors:** Identifying specific behaviors expected from the players and the way they will be measured is the second step to game design. These target behaviors should foster the objectives of the design.
3. **Describe your players:** The third step is describing the target audience to create an effective game design. Identifying the demographics, preferences, and motivational drivers of the players is significant.
4. **Devise activity cycles:** Even if the gamified design appears to be non-linear, there is a linear progression containing a set of loops in every gamified design. These loops help players remain engaged in the long term. There are two types of loops:
    a. **Engagement loops** involve an action, feedback, and motivation to continue engaging in the experience.

Figure 2. Activity Cycle



Source: Werbach & Hunter, 2012, p. 96

    b. **Progression loops** track the players through levels or achievements. Progression can be demonstrated through leaderboards, points, or unlocking new content.

5. **Don't forget the fun:** A gamified system must be fun. If the fun element is not present, the players are not motivated to engage in the process.

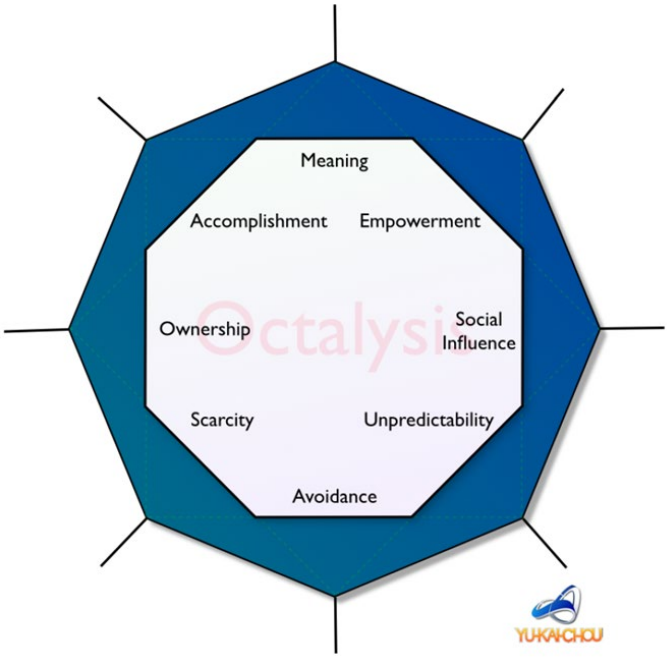
Deploy the appropriate tools: This is the last step of the D6 model, and it is simply putting the design into action. Combining the first five steps, the gamified design is employed with the appropriate mechanics and components chosen.

Although originally proposed for business environments, the D6 model can be easily modified to suit educational environments. The model can help educators to structure a gamified design that promotes engagement and meaningful learning experiences.

2.1.2.3. Octalysis Framework

Octalysis Framework (Chou, 2015) is one of the most comprehensive gamification models. In the model, gamification is categorized into eight core motivational drives that impact human behavior. The model is visualized on an octagon presenting the eight core motivational drives:

Figure 3. The Octalysis Framework



Source: Chou, 2015, p. 24

1. **Epic Meaning & Calling** refers to the belief of the players that they have a mission, and they are working towards something that is greater than themselves. It can be activated by incorporating narratives into the gamified design.

2. **Development & Accomplishment** refers to challenges and progress. Game elements such as leaderboards, badges, and levels are utilized to satisfy this motivational drive.
3. **Empowerment of Creativity & Feedback** refers to the freedom to express creativity and receive feedback.
4. **Ownership & Possession** is related to the motivation of players deriving from a sense of ownership and control. Players may feel motivated by seeing their achievements, trophies, or virtual items, or if they spend time creating an avatar to represent themselves, they may feel a sense of ownership and devote themselves to the process.
5. **Social Influence & Relatedness** is related to motivation originating from the competition and collaboration present in a gamified setting. Encouraging peer recognition, and collaborative or competitive tasks may induce a sense of relatedness.
6. **Scarcity & Impatience** refers to the rare elements present in the environment and the sense they create in the players to attain it. If something is rare or limited, players are expected to be motivated to attain it before anyone else.
7. **Unpredictability & Curiosity** refers to the random and unknown rewards, content, or quizzes unlocked at unexpected moments. This motivational drive is considered to engage the players because they don't know the next step in a game.
8. **Loss & Avoidance** refers to the fear of losing progress, points, or missing out on opportunities. In order not to face a negative consequence, the players keep engaging with the tasks.

2.1.2.3.1. Left Brain vs. Right Brain Drives

Chou (2015) divided six of the core motivational drives into two: left-brain drives and right-brain drives. He stated that the motivational drives on the left side of the octagon (Development & Accomplishment, Ownership & Possession, and Scarcity & Impatience) are related to analytical thinking, ownership, and rationale. Moreover, these motivational drives are related to extrinsic motivation, which means they motivate players by offering them external rewards. Chou (2015) argues that although they are engaging in the beginning, left brain drives are not sufficient for long-term engagement. On the other hand, the motivational drives on the right side of the octagon

(Empowerment of Creativity & Feedback, Social Influence & Relatedness, and Unpredictability & Curiosity) are related to creativity, being social, and curiosity. These motivational drives are related to intrinsic motivation. That is, they motivate players not because they offer a prize, but because they are inherently enjoyable, and they foster long-term engagement.

2.1.2.3.2. White Hat vs. Black Hat Gamification

Chou (2015) divided six of the core motivational drives into two: white-hat core drives and black-hat core drives. At the top of the octagon, the white hat core drives are presented: Epic Meaning & Calling, Development & Accomplishment, and Empowerment of Creativity & Feedback. The White Hat core drives are related to creativity, skill mastery, and meaning. These core drives are associated with positive feelings. At the bottom of the octagon, the black hat core drives are presented: Scarcity & Impatience, Unpredictability & Curiosity, Loss & Avoidance. The Black Hat core drives are related to fear of loss, fear of the unknown, or challenging attempts to achieve goals. These core drives are associated with negative feelings.

Based on the eight motivational drives, the Octalysis Framework offers a strategic approach for effective gamified designs. In the framework, intrinsic and extrinsic motivational factors are balanced, and it prevents over-reliance on external rewards. Nevertheless, the black hat elements should be dealt with carefully as excessive use of those elements may cause anxiety and disengagement among players.

The Octalysis Framework (Chou, 2015) has been extensively utilized in various educational settings. For instance, the Duolingo app incorporates numerous elements in the framework, such as daily streaks (Loss & Avoidance), weekly leaderboards (Development & Accomplishment), and friend quests (Social Influence & Relatedness). Likewise, elements such as competition, collaborative missions, and rewards are present in popular gamified learning platforms such as Classcraft and Kahoot. Therefore, educators can design gamification strategies based on the Octalysis Framework to align their objectives with student motivations, making learning more enjoyable, interactive, and fulfilling for learners.

2.1.2.4. Five-Dimensional Framework

Toda et al. (2019) proposed a gamification taxonomy specifically for educational contexts. In this taxonomy, gamification is divided into five dimensions:

performance/measurement, ecological, social, personal, and fiction. Each dimension is significant for learner engagement, motivation, and the effectiveness of game design.

Figure 4. The Five-Dimensional Gamification Taxonomy



Source: Toda et al., 2019, p. 6

1. **Performance / Measurement Dimension:** The elements in this dimension provide feedback to learners in a gamified setting.
    a. **Progression** provides guidance to the players regarding their advance in the gamified setting. It includes progression bars, steps, and maps.
    b. **Level** provides new perks and opportunities to the players in the gamified setting. It can be skill-based levels, progression-based levels, and so forth.

c. **Points** provide external feedback to the players depending on their actions in the gamified setting. Points are also known as XP (experience points), skill points, or scores.

d. **Stats** provides visual information to the players regarding their progress in the gamified tasks. This includes overall stats and completed stats.

e. **Acknowledgement** provides external feedback to the players by awarding them for their specific actions. This includes badges, trophies, and achievements.

2. **Ecological Dimension:** The elements in this dimension are related to the environment within the gamified system.

    a. **Rarity** refers to limited resources in a gamified setting. Rare components in a gamified setting may lead learners to focus on a specific goal to succeed.

    b. **Economy** refers to the exchange of items in a gamified setting. It can be implemented by allowing players to exchange their accumulated points with certain advantages in the gamified setting.

    c. **Imposed Choice** is related to imposed explicit decisions made by the players to gain advancement in the gamified setting.

    d. **Chance** refers to the randomness of an outcome or a specific event. It can be implemented by assigning random points to specific tasks or spinning a wheel to receive a reward.

    e. **Time Pressure** refers to the limited time employed in a gamified setting to put pressure on the players for them to complete a task.

3. **Social Dimension:** The elements in this dimension are associated with the interaction of the learners in a gamified setting.

    a. **Social Pressure** is related to social interactions building pressure on the learners. It includes peer pressure or collaborative tasks.

    b. **Competition** leads to rivalry among the learners in a gamified setting by challenging them to achieve a goal.

c. **Cooperation** causes the players in a gamified setting to collaborate to achieve a goal.

d. **Reputation** is related to the learners' earned titles in a gamified setting. It is related to social status rather than the skills of the learners.

4. **Personal Dimension:** The elements in this dimension are related to the individual learners in a gamified setting.

    a. **Sensation** is the audial or visual stimulations provided by the gamified setting. It can be achieved through interfaces such as Virtual Reality (VR) or Augmented Reality (AR).

    b. **Objectives** provide the players with a purpose to engage in the gamified tasks. An objective is also known as missions, milestones, and goals.

    c. **Puzzle** refers to the activities integrated into a gamified setting to provide challenges to the players.

    d. **Renovation** refers to the opportunity of a second chance when the players cannot accomplish a goal, such as extra life or boosts.

    e. **Novelty** refers to the updates in a gamified setting. The updates may include new information, content, or elements.

5. **Fictional Dimension:** The elements in this dimension provide meaning to the players in a gamified setting.

    a. **Narrative** refers to the 'karma system' within the gamified settings. Whenever players make an implicit choice, the direction of the narrative changes.

    b. **Storytelling** refers to the story of the gamified setting. It can be implemented through audial or text-based resources.

This taxonomy offers an extensive framework for educators and game designers to incorporate gamification strategies effectively. Moreover, it is a valuable tool for designing gamified learning systems in education by offering effective and student-centered gamification strategies. The framework emphasizes sustained learner engagement by focusing on the significance of designing gamified systems that align

with educational objectives. Educators can create a more dynamic and engaging learning environment for their students with the application of the five dimensions of this framework.

2.1.3. Gamification vs. Game-Based Learning (GBL)

Gamification and game-based learning (GBL) are both pedagogical approaches that integrate games into education; however, they differ in their application and instructional purpose. While gamification is the use of game elements in non-game contexts, GBL is the use of actual games as a learning tool (Karagiorgas & Niemann, 2017).

GBL refers to the use of games as a primary tool for teaching and learning (Plass et al., 2015). It involves real games that are designed to meet educational objectives. The games, either digital or non-digital, are structured to foster engagement, participation, cognitive development, and skill development (Tobias et al., 2014). GBL proposes that learning is most effective when learners are actively engaged in an interactive and immersive experience (Qian & Clark, 2016).

Gamification differs from GBL in various aspects. Gamification is added to existing learning content, while in a GBL setting, the game itself is the learning experience (Al Fatta et al., 2019). Moreover, a gamified environment contains game elements rather than a full-fledged game. However, learning occurs within the games in a GBL setting. In terms of motivation, gamification can foster extrinsic motivation, and it can shift to intrinsic motivation if it is well-designed (Kam & Umar, 2018; Sailer et al., 2017). Whereas, in GBL, intrinsic motivation is the primary focus as individuals engage in only gameplay (Al-Azawi et al., 2016).

Both gamification and GBL are easy to implement in various contexts. However, if they are poorly designed and do not match the objectives, and the needs of the target audience, they are unlikely to achieve their goals.

2.2. Motivational Theories Behind Gamification

Motivation is an important factor influencing human behavior, particularly in learning contexts (Dörnyei, 2005; Tremblay & Gardner, 1995). In SLA, motivation has been extensively studied as a key construct of success. Gardner's (1985) Socio-Educational

Model divides motivation into two: integrative and instrumental motivation. Integrative motivation refers to the desire to connect with the target language and its community. Whereas instrumental motivation occurs when individuals are driven to engage in tasks for practical benefits. Dörnyei (2005) expanded on Gardner's work by proposing the L2 Self-Motivational System, highlighting the role of the Ideal L2 Self (the self future image of oneself as a successful L2 user), the Ought-to L2 Self (the external expectations and pressures), and the Learning Experience (the learning environment influencing learner motivation). Moreover, Deci and Ryan's (1985) Self-Determination Theory divides motivation into two primary motivations as intrinsic motivation, driven by the inherent satisfaction derived from an activity itself, and extrinsic motivation, driven by external incentives or demands. All of these theories suggest that motivation is a complex and multifaceted construct, and it shapes engagement and persistence in language learning.

The following subsections present the foundational motivational theories behind the gamification design applied in this study in detail.

2.2.1. Self-Determination Theory (SDT)

SDT by Deci & Ryan (1985) provides an extensive framework for comprehending human motivation, personality, and well-being. According to the theory, motivation occurs when individuals experience the three fundamental needs: autonomy, competence, and relatedness. These needs are essential in promoting intrinsic motivation, which is related to personal development and well-being.

> **The need for autonomy** in individuals refers to the need to feel freedom of choice in their actions, which allows them to engage in activities solely for satisfaction.
>
> **The need for competence** is an individual's need to believe they are capable and effective in accomplishing desired results.
>
> **The need for relatedness** is the need to build profound connections with other individuals.

According to the theory, when these needs are catered for, individuals become intrinsically motivated and fully engaged in tasks.

SDT (Deci & Ryan, 1985) suggests that motivation is a spectrum. At one end of the spectrum is amotivation which refers to the lack of motivation. In the middle, there is extrinsic motivation which refers to behavior influenced by external forces or incentives. At the other end of the spectrum, there is intrinsic motivation, and it refers to behavior motivated by the inherent pleasure derived from an activity. From amotivation to intrinsic motivation, SDT proposes different forms of motivation:

Amotivation refers to the lack of motivation, where one does not see any value in an activity and lacks engagement. Individuals with amotivation may believe they are incapable of success and view studying as pointless.

External Regulation is the most controlled form of motivation. At this stage, actions are driven by external incentives, such as grades or recognition from others. Externally regulated individuals may earn a reward without any internalization to the activity itself.

Introjected Regulation refers to a form of motivation which is less controlled than External Regulation; however, it is still controlled, and it occurs when individuals engage in a task to avoid guilt, stress, or negative feedback. Although they may not view the task as personally important, they feel compelled to complete it to meet external demands.

Identified Regulation happens when an individual engages in a task because they know the importance and the value of the task, even though they do not enjoy it. These individuals might study to pass an exam because they comprehend the importance of passing exams in their future careers, although they do not care for the act of studying itself.

Integrated Regulation is the most internalized form of extrinsic motivation. At this stage, the tasks align with the individual's values, beliefs, and goals. An individual with integrated regulation may engage in tasks because they align with their career goals, and they view the process as a part of their identity. However, they may not necessarily enjoy the process itself.

Intrinsic Motivation is the most autonomous form of motivation. At this stage, an individual engages in tasks simply for they view them as inherently pleasurable and fulfilling. These individuals complete the tasks purely because they enjoy the process.

SDT (Deci & Ryan, 1985) is widely applied in a variety of contexts, such as sports, health, and education. Research has demonstrated that environments supporting autonomy, competence, and relatedness can promote intrinsic motivation and thus long-term engagement. For example, learners tend to engage fully with the material and perform better in educational settings if they believe their learning experiences are autonomous and meaningful (Núñez & León, 2015). On the other hand, educational settings that only focus on rewards and control can weaken intrinsic motivation, which results in withdrawal and poor performance (Hamari et al., 2014). Moreover, SDT has important implications for well-being, since self-esteem, life satisfaction, and psychological health are linked to meeting the needs of autonomy, competence, and relatedness (Hagenauer et al., 2017; Lin et al., 2014; Manganelli et al., 2018; Ntoumanis et al., 2021; Ümmet, 2015). Overall, this theory offers valuable insights into fostering motivation and personal growth in various aspects of life.

SDT (Deci & Ryan, 1985) provides a comprehensive framework to comprehend motivation by highlighting the significance of intrinsic motivation and the three fundamental psychological needs in promoting well-being and personal development. The emphasis SDT puts on the significance of autonomy, competence, and relatedness provides insights into how individuals can realize and achieve their full potential. The theory aligns with gamification as the three psychological needs SDT emphasizes can be met through gamified settings. Gamification can offer autonomy through choice freedom in tasks, competence through progressively challenging tasks, and relatedness through competition or collaboration within the environment. Consequently, educators can design meaningful gamified experiences by considering the core principles of SDT to create an environment fostering motivation, engagement, and achievement.

2.2.2. Self-Efficacy Theory

Self-efficacy is an individual's belief in their ability to accomplish tasks and achieve goals. Bandura (1977) states that self-efficacy greatly affects how individuals perceive challenges, their motivation to overcome challenges, and their accomplishments. According to Self-efficacy Theory (Bandura, 1977), the confidence individuals have in their abilities encourages them to engage in activities and make an effort to succeed. This belief of individuals has an impact on several psychological processes such as motivation, emotions, and cognition. Hence, self-efficacy can influence learning,

behavior, and performance. In educational settings, learners with high self-efficacy are more prone to set goals, deal with challenges, and engage in difficult tasks (Schunk, 1991). On the contrary, learners with low self-efficacy tend to refrain from difficult tasks and challenges, and they have low levels of motivation. Self-efficacy is influenced by several components including (Bandura, 1977):

Mastery Experiences are one of the most influential components that have an effect on self-efficacy. Successfully completing tasks increases individuals' belief in their ability to accomplish similar tasks in the future. These experiences enhance positive perceptions of an individual on their abilities. On the other hand, experiencing failure can decrease one's self-efficacy.

Vicarious Experiences refer to the effects derived from observing other individuals. Witnessing others succeeding in challenging tasks can lead individuals to believe they also have the ability to succeed. If the observed individuals share similar characteristics with the observant or they share similar difficulties, the impact of vicarious experiences increases. On the other hand, if the observed individual fails, the observant's self-efficacy can be negatively impacted.

Verbal Persuasion refers to encouragement from other individuals. Teachers or peers can increase one's belief in their abilities by providing positive feedback and affirmations. Nonetheless, if an individual receives negative comments or feedback, it may lead to decreased self-efficacy levels.

Physiological and Emotional States influence self-efficacy, as well. When individuals experience physical reactions like excitement, stress, or anxiety, they may feel they will succeed or fail. Experiencing nervousness can be interpreted positively, leading to higher levels of self-efficacy. In contrast, interpreting nervousness negatively may lead to the belief of failure, and thus lower levels of self-efficacy.

The Self-Efficacy Theory (Bandura, 1977) emphasizes the role of personal beliefs in achieving success. The theory provides a comprehensive framework for understanding the factors influencing self-efficacy, and consequently, motivation. Gamification aligns with Self-Efficacy Theory as it aims to provide elements such as challenging tasks that are in line with learners' skills, immediate feedback, and incentives for

accomplishment. With the incorporation of such elements, gamified settings can increase learners' self-efficacy by offering them small successes, visual indicators of improvement, and meaningful feedback. This theory can be valuable for educators in designing gamified learning experiences that increase learners' confidence and motivation, ultimately leading to enhanced performance and achievement.

2.2.3. Goal-Setting Theory

Goal-Setting Theory (Locke & Latham, 1990) is one of the most influential motivational theories. The theory states that specific and challenging goals lead to high levels of effort and performance when the individuals are committed to the goals and receive feedback. The theory was initially established in the context of workplace performance; however, it has also been applied to education, and it has been demonstrated to increase learner motivation, self-regulated learning, and academic achievement (Schunk, 1990; Zimmerman, 2002).

According to Locke & Latham (2002), goal setting depends on several principles, which are especially relevant to student learning and academic motivation:

Goal Specificity: Clearly defined and specific goals increase motivation and performance more than general or vague goals. In educational contexts, clearly defined learning objectives can aid students in showing effort and measuring their progress.

Goal Difficulty: Learners are more motivated when they attempt to achieve challenging yet accessible goals. When goals seem too easy, they fail to attract attention and stimulate effort. Nevertheless, when goals seem too difficult to achieve, learners may become frustrated and unmotivated.

Goal Commitment: Commitment is crucial for attaining goals. Learners tend to commit to a goal when they perceive it as essential and achievable. Self-efficacy beliefs also influence commitment levels. When learners have high levels of self-efficacy, they are more likely to persevere through difficult tasks to achieve their goals.

Feedback: Continuous and meaningful feedback helps learners monitor their progress, make adaptations, and sustain motivation. Feedback should be specific, in time, and constructive to be effective.

Public Goals: Stating goals in public can increase motivation. If learners share their learning goals with teachers, parents, or peers, they tend to be committed to achieving their goals because of external expectations and support.

Control Over Goals: Feeling control over the goal-setting process can increase motivation. If learners are allowed to have autonomy in their goal-setting process, they are more prone to be engaged and have persistence. In educational settings, teacher guidance and student input should be balanced in order to yield improved learning outcomes.

Goal-Setting Theory offers valuable insights into motivational processes that drive individuals to accomplish. The emphasis on specific and challenging goals and feedback is likely to increase motivation, effort, and persistence. The theory aligns with gamification as they both focus on clear objectives, feedback, and autonomy. When gamification and Goal-Setting Theory are integrated, especially in educational settings, the gamified design can become more powerful. They have the potential to create an engaging and motivating learning environment encouraging learners to stay focused and feel a sense of accomplishment. Therefore, the Goal-Setting Theory provides a comprehensive framework for gamification in terms of increasing motivation and engagement in educational contexts.

2.2.4. Flow Theory

Flow Theory (Csikszentmihalyi, 2008) describes a psychological state where individuals are fully immersed in an activity, by being focused, having control of the experience, and feeling enjoyment. This state is called ‘flow’ which happens when there is a balance between the challenge of the activity and the skills of individuals. In this state of flow, the activity itself becomes intrinsically motivating and the individual loses track of time and self-consciousness. Flow is characterized by several key characteristics (Biasutti, 2017):

Challenge-Skill Balance: Flow occurs when the task at hand is appropriately challenging to the skills of individuals.

Action-Awareness Merge: In order to achieve flow, being concentrated and focused on the activities for high performance, awareness and action should align.

Clear Goals: A definite purpose is crucial to sustain flow. When individuals know exactly what they are required to do, it increases their focus and induces flow.

Unambiguous Feedback: When individuals receive real-time feedback on their performance, they have control over the process and accomplishment is more likely to occur.

Concentration and Focus: During the flow state, individuals experience a deep focus on the activity by blocking external distractions and irrelevant thoughts. This deep concentration keeps the flow sustained.

Sense of Control:

Loss of Self-Consciousness: In flow, individuals lose their self-consciousness and are fully immersed in the activity. They are not focused on how others perceive them, and it enhances their performance.

Distorted Sense of Time: In the flow state, individuals often perceive time differently than usual. Either time passes unusually quickly or slowly.

Autotelic Experience: This experience refers to intrinsically motivating activities. In the state of flow, individuals are intrinsically motivated because of pure curiosity and clear purpose.

Flow Theory offers a comprehensive framework for motivation in educational settings and is closely related to gamification as both of them aim to increase motivation and engagement through activities that are balanced in terms of challenge and skill. They both offer clear goals and feedback. The use of game elements has been shown to increase engagement and create circumstances that may foster flow. With gamification strategies, the probability of flow state during activities can be enhanced, improving motivation and performance.

2.3. Related Research

Research has demonstrated that gamification can significantly enhance learner motivation and achievement in educational settings (Alsadoon et al., 2022; Alsadoon, 2023; Bal, 2019; Balci et al., 2022; Chans & Castro, 2021; Chapman & Rich, 2018; Hew et al., 2016; Huseinovic, 2023; Kharizmi et al., 2024). Educators can introduce

novelty and promote active participation in course materials by incorporating game elements into the curriculum. This is especially relevant in language learning, where motivation is a key factor in the engagement of learners with the materials and influences their learning outcomes (Ai et al., 2021). In that respect, gamification is beneficial to motivate learners to participate in activities where their efforts are recognized and rewarded (Saxena & Mishra, 2021). Moreover, it promotes enjoyment with its 'fun' nature which can further foster motivation (Alsawaier, 2018). Although the effectiveness of gamification has been widely studied in various aspects of language learning, research on its effects on writing motivation and achievement remains limited. This section reviews empirical research on the most widely studied language skills in the context of gamification, with a particular focus on its effects on motivation and achievement in writing.

Vocabulary acquisition is one of the most studied areas where gamification has demonstrated promising results (Dehghanzadeh, 2020). Vocabulary acquisition and retention can be challenging through traditional strategies such as memorization, guessing from context, dictionary studies, and oral imitations (Amiryousefi & Dastjerdi, 2010). Studies have demonstrated that gamified vocabulary instruction and practice foster learner motivation and achievement when compared to traditional vocabulary teaching and learning environments. For instance, Glowacki et al. (2018) investigated the effectiveness of gamification on vocabulary achievement and motivation with the application of Kahoot! into tertiary-level courses. They found that gamification indeed was effective on improving learning outcomes and learner motivation. Sadeghi et al. (2022) investigated the effect of gamification on vocabulary motivation with the integration of multiple game elements such as points, leaderboards, and rewards. They also encouraged both competition and collaboration by making learners compete in groups. The findings of the study revealed that learners in the gamified instruction group demonstrated higher levels of motivation and an increase in vocabulary achievement. In another study, Yu (2023) examined the impact of gamified vocabulary learning on learner motivation and learning outcomes and found that learners who received gamified vocabulary instruction showed significantly higher levels of motivation and achievement compared to learners who received traditional vocabulary instruction. As a result, gamification can be viewed as effective in vocabulary teaching and learning.

Grammar instruction can also be enhanced through gamification. Studies having been conducted on the effects of gamification on grammar motivation and achievement focused more on popular gamified learning platforms. For instance, Khalilian et al. (2021) investigated the effect of Kahoot! on EFL learners' structural ability and motivation to learn grammar. As the results of the quasi-experimental study showed, learners receiving grammar instruction through the gamified platform demonstrated higher levels of motivation with better structural ability. Moreover, Ardi & Rianita (2022) conducted a study on the effect of gamification on boosting learner engagement in terms of grammar. They also utilized the language learning platform Kahoot!. The findings of the study revealed that learners demonstrated more engagement and enthusiasm in their studies when they learned grammar through Kahoot!. In a more recent study, Sari & Avifah (2023) explored the perceptions of students on using gamification in grammar classes. They utilized the gamified platforms Quizizz and Wordwall. According to the findings of the study, the majority of the students expressed that gamification increased their curiosity, engagement, and motivation towards learning grammar. Therefore, gamification is perceived as an efficient tool for teaching and learning grammar in educational settings.

Reading is another area where gamification can motivate learners to engage with texts more actively. Several studies have shown that learners who are exposed to gamified reading experiences demonstrate higher levels of motivation to engage with reading when compared to learners engaging with traditional reading methods. Ling (2018) integrated a three-dimensional game into a reading course where learners had an objective and needed to answer questions related to the reading material to achieve that objective. The study's findings revealed that meaningful gamification increased learners' engagement, satisfaction, and motivation to engage with reading. In another study, Jun (2018) investigated the effects of gamification on reading motivation for extensive reading by incorporating game elements such as points, levels, avatars, and leaderboards. The results demonstrated that overall motivation and self-efficacy of learners in the gamified group increased. Moreover, learners in the gamified group spent more time focusing on reading, which was correlated with their motivation ans self-efficacy levels. Similarly, Freiermuth & Ito (2021) investigated the effect of gamification on reading motivation in an extensive reading class. They found that students demonstrated higher levels of motivation. Especially the lower-level readers

who previously showed little interest in extensive reading before the treatment exhibited more motivation toward reading in an extensive reading class. Overall, gamification is considered to be a promising tool to enhance motivation toward acquiring reading skills.

Although there are relatively scarce empirical studies on the effects of gamification on writing skills development, gamification has been shown to enhance learner motivation, engagement, and achievement in writing. Research suggests that incorporating game elements such as PBL can positively impact learner behaviors and writing achievement.

One of the most commonly applied game elements in writing instruction is the digital badge system. For instance, Ly (2021) explored the effectiveness of digital badges as a motivator in teaching summary writing and found that 88.2% of students actively engaged with the tasks to earn badges. The findings of the study also revealed that 64.7% of the students viewed badges as a motivator toward understanding summary conventions, and 47% of the students believed that gamification contributed to their summary writing skills. Likewise, Manthofani et al. (2024) utilized points, badges, and challenges in a narrative writing course to gamify the educational context. They reported that students in the gamified setting demonstrated superior narrative writing skills when compared to those in the control group. These findings indicate that when learners are rewarded for their efforts, they are more likely to sustain their efforts and remain motivated over time.

Game elements that drive competition such as leaderboards have also been found to improve learner motivation and achievement in writing, with contradictory results in one of the studies. In a recent study investigating the effects of game elements such as points, leaderboards, and weekly challenges on writing skills, Chavangklang and Chavangklang (2024) reported that learners demonstrated increased engagement and notable improvement in writing achievement. Similarly, Ahmed (2021) found that a gamification program promoting competition increased EFL writing skills for secondary students, enhancing their motivation to practice writing at the same time. The study highlighted the significance of aligning gamified elements with learning objectives to ensure that students both enjoy the activities and experience meaningful learning. In another study, Laffey (2022) examined the effect of gamification on EFL writing motivation and achievement by incorporating PBL, and time pressure. The

findings indicated that there was an increase in learner's motivation levels while no statistically significant differences were observed between the experimental and control groups' writing achievements.

In addition to the most commonly utilized game elements like PBL, researchers have also examined the role of innovative gamification strategies in writing instruction, such as roleplaying and storytelling. Tantawi et al. (2016) utilized a storyline alongside PBL to improve learners' writing skills and assess their satisfaction levels after the treatment. They found that while the satisfaction levels of the learners remained moderate, their writing skills improved. Lam et al. (2018) incorporated role-play, points, and leaderboards to promote participation in online discussions, and found that after gamifying the online discussions, learner participation increased. Similarly, Ho (2019) combined digital drawing with story-making and storytelling in a gamified flipped classroom. The findings revealed that collaborative gamified learning promoted a positive atmosphere, reduced anxiety, and motivation towards learning writing.

Gamification has also been linked to reduced writing anxiety, which can be indirectly related to increased motivation levels. Yavuz et al. (2020) explored the impact of a gamified learner management system on EFL learners' writing anxiety levels. The focus of the study was on writing anxiety, and it indicated that gamification reduces negative affective factors that hinder writing skills development. The low anxiety levels in a gamified environment may create a less intimidating space for learners to practice their writing skills, potentially fostering writing motivation.

Nevertheless, the positive effect of gamification is not solely dependent on the use of game elements. Rather, the design and implementation of the gamified settings are also important factors influencing the effectiveness of gamification (Kim, 2015). Zhihao and Zhonggen (2022) emphasize the significance of structuring game elements in writing instruction appropriately. They noted that if rewards lose their perceived value, motivation may decline. This highlights the need for careful planning for long-term motivation rather than short-term enthusiasm. Furthermore, Hanus & Fox (2015) posit that it is crucial to consider where and when to implement gamification. More explicitly, if a task is perceived as boring by the students, gamification may work; however, if the students are already intrinsically motivated, gamification may decrease

their motivation levels and thus lead to lower learning outcomes. Therefore, the time, place, and manner of implementation are essential in the context of gamification.

Overall, these studies collectively demonstrate a variety of ways which gamification can increase motivation and the development of writing skills. The incorporation of game elements that promote a sense of progress, reduce anxiety, and create a positive learning environment have the potential to enhance learner engagement and improve learning outcomes in writing instruction. Moreover, related research indicates that gamification is most effective when it is appropriately designed to balance external incentives with meaningful experiences to promote both extrinsic and intrinsic motivation. As researchers and educators continue to explore and update gamified approaches, it is crucial to ensure that these strategies are adaptable and aligned with learner needs and learning objectives.

2.4. Challenges and Considerations Regarding Gamification

Gamification has been considered to have the potential to increase motivation and achievement in educational contexts; (Alsadoon et al., 2022; Alsadoon, 2023; Bal, 2019; Balci et al., 2022; Chans & Castro, 2021; Chapman & Rich, 2018; Hew et al., 2016; Huseinovic, 2023; Kharizmi et al., 2024) however, its effectiveness depends on multiple factors such as the design of the gamified elements, and the balance between extrinsic and intrinsic motivators (John et al., 2023). There are two key concerns related to gamification and its implementation as highlighted by many researchers: the novelty effect and the overjustification effect. This section explains these concerns in relation to educational contexts.

Previous research on gamification highlights that the ‘novelty effect’, the temporary boost in learner engagement and motivation due to the excitement of new game mechanics (Sanchez et al., 2020; Tsay et al., 2020), is a crucial aspect of gamification that needs to be considered. In the initial phases of the application of game mechanics, learners tend to be motivated and engaged more because the new system may seem appealing to them (Rodrigues et al., 2022). However, once the novelty wears off, it is possible for them to get disengaged and demotivated if the gamified system does not address their needs or preferences. In order to prevent a decrease in motivation after the novelty effect fades away, it is important to create a gamified environment that fosters meaningful engagement with the tasks at hand (Tsay et al., 2020).

Another important consideration regarding gamification is the overjustification effect, which refers to a negative effect on intrinsically motivated individuals caused by the use of extrinsic motivators (Deci, 1971). The term 'overjustification' was first used by Lepper et al., (1973) who provided empirical evidence with their experiment on children's drawing behavior. They found that children who previously were intrinsically motivated to draw and rewarded for drawing during the experiment showed less interest in the activity later when the rewards were removed, compared to children who were not rewarded. In gamified contexts, over-reliance on external incentives can lead to this effect, with the potential to harm long-term motivation (John et al., 2023). In order to prevent the overjustification effect from occurring in gamified settings, elements fostering intrinsic motivation should be applied alongside extrinsic motivators (Chou, 2015; Kam & Umar, 2018).

2.5. Conclusion and Research Gap

This chapter explored the theoretical and empirical foundations of gamification in education, language learning, and particularly writing motivation and achievement. The chapter began by introducing gamification, outlining its core principles, and presenting prominent gamification models. Following this, it examined key motivational theories behind gamification to establish a conceptual understanding of how motivation functions in SLA and specifically gamified environments regarding SLA. Then, empirical studies on gamification in language learning were analyzed, with a particular focus on its effects on writing motivation and achievement. Finally, the chapter presented and discussed challenges and considerations in implementing gamification in educational settings. Despite the growing body of research on gamification, gaps remain in understanding the effects of different gamification designs on motivation and their impact on specific language skills; therefore, more research is needed to broaden the evidence within different contexts. More specifically, research targeting writing skills regarding gamified contexts is relatively scarce, calling for more investigation into how different gamification strategies influence writing motivation and achievement. With the purpose of addressing these gaps, the current study aims to investigate the effects of gamification on writing motivation and achievement.

3. METHODOLOGY

In this chapter, the methodology of the study is explained thoroughly. The chapter starts with a brief yet comprehensive overview of the research design of the study, followed by a detailed description of the research setting and the participants. The chapter continues with an elaborate explanation of the data collection instruments and the procedure in well-organized subsections. Finally, the data analysis procedure, consisting of the quantitative and the qualitative subsections, is described in a detailed manner.

3.1. Research Design

The current study aimed to investigate the effects of gamification on writing motivation and achievement. An embedded mixed-methods design was employed in order to explore the quantitative data and explain the qualitative experiences of the participants. According to Creswell & Plano Clark (2021), an embedded mixed methods research design is the combination of procedures that researchers employ to gather a secondary dataset, either qualitative or quantitative, in a study where the secondary dataset answers a question different from the primary dataset, and it is utilized to complement the primary method. This approach encompassed the collection and analysis of quantitative data, which consisted of academic essay writing scores and writing motivation levels of the participants, followed by a subsequent collection and examination of qualitative data, which were the experiences and opinions of the participants in the experimental group on gamification. The quantitative phase primarily built connections, while the qualitative phase provided depth, context, and insight into each aspect of the investigation. Furthermore, the current study is based on well-established theories of motivation such as SDT (Deci & Ryan, 1985), Self-Efficacy Theory (Bandura, 1977), Goal-Setting Theory (Locke & Latham, 1990), and Flow Theory (Csikszentmihalyi, 2008).

3.2. Setting and Participants

The current study was conducted at a state university in Istanbul, Türkiye. The convenient sampling strategy was utilized in this study because of time restrictions and the accessibility of the students in the preparatory school. 61 B1-level Turkish learners of English as a Foreign Language (EFL) participated in this study. While 31 of the participants were female (50,82%), 30 of the participants were male (49,18%). The participants were all adults, their ages varied from 18 to 27, and the mean age of the participants was 19. All of the participants' native language was Turkish and the participants whose native language was not Turkish were excluded from the study. None of the participants were proficient in another language apart from their native language which was Turkish. Participants who could not attend the lessons for at least three weeks of the intervention were also excluded from the study. There was one experimental and one control group present in the study. Prior to the study, all of the participants had been receiving 4 hours-a-week academic writing lessons where they had learned and practiced various essay types. During the data collection procedure, the control group continued to receive 4 hours-a-week academic writing lessons without any modification. In the experimental group, the participants received 4 hours-a-week academic writing lessons with the integration of gamified elements which were utilized in the study.

Table 1. Demographics of the Participants

		N	%
Gender	Female	31	50,82%
	Male	30	49,18%
	Total	**61**	**100%**
Age	18	23	37,7%
	19	24	39,3%
	20	8	13,1%
	21	4	6,6%
	24	1	1,6%
	27	1	1,6%
	Total	**61**	**100%**

3.3. Data Collection Instruments

The aim of this study was to examine the effect of gamification on academic writing achievement and motivation of B1-level Turkish EFL learners. In order to achieve this aim, a gamified design, which included the incorporation of points, leaderboards, badges, and personalization in the form of avatars and freedom of choice in essay topics, was created. This gamified design was utilized to improve the participants' academic writing achievement and writing motivation. In-class paragraph writing tasks and essay task assignments were utilized to practice and assess academic writing. Moreover, the adapted version of the Academic Writing Motivation Questionnaire (AWMQ) (Payne, 2012) by Uzun (2020) was administered before and after the intervention to measure their writing motivation levels. A demographic form was filled out by the participants with the aim of gathering information about the participants. At the end of the data collection procedure, a focus group interview was conducted with volunteering participants from the experimental group to collect data on participants' views and experiences of the procedure. In the subsections of this section, all of the data collection instruments will be explained and discussed in detail.

3.3.1. The Gamified Design

The gamified design in this study drew on various frameworks such as the D6 Gamification Design Framework (Werbach & Hunter, 2012), the Octalysis Framework (Chou, 2015), and the Five-Dimensional Model (Toda et al., 2019), leading to an eclectic gamified design. In the following subsections, the elements incorporated in the gamified design – points, leaderboards, badges, and personalization – are explained and justified in detail through the frameworks that laid the foundations of the gamified design in this study.

3.3.1.1. Points

According to Werbach & Hunter (2012), points in a gamified design have various attributes. Points supply feedback, keep score, demonstrate progress to peers, establish a link between progress and rewards, and provide data to the designer to follow players. Chou (2015) emphasizes that points should be meaningful. Moreover, he states that the objectives that are assigned the most points are the objectives that will be considered the most important by the players. Synthesizing these views, considering the needs of the target learner group, and the target skill that is of concern, the gamified design in this study included a set of criteria for participants to receive points by meeting the criteria. Before the experiment started, the participants were informed about it in detail. A detailed scoring sheet was prepared to keep track of participants' received points and the instructor conducting the lesson took notes of the criteria met by the participants each week. Table 2 demonstrates the criteria, the points assigned for each criterion, and the percentage of each point in comparison to the total of points in the criteria. As can be seen in Table 2, the points assigned to each objective gradually increased concerning the difficulty and the importance of the objectives.

Table 2. Criteria for Earning Points

Criterion	Points	%
Be present in the class	10 points	5.8%
Actively participate in the lesson	15 points	8.8%
Write a paragraph during the lesson	Max 20 points	11,7%

Submit your weekly essay task	25 points	14,7%
Write an essay as homework	Max 100 points	58,8%
Total	**170 points**	**100%**

The first criterion was 'being present in the classroom' on the days the participants had academic writing lessons. When they met this criterion, they automatically received 10 points. The reason for including this criterion was to grant participants a head start. When they actively participated in the lessons – which corresponds to contributing to discussions or asking questions at least two times during the day of the academic writing lessons – they received 15 points. The instructor conducting the lesson was responsible for checking whether participants met this criterion by observing each one of them and taking notes. Moreover, the participants wrote paragraphs during the lessons each week. Amongst these paragraphs, they submitted a paragraph they wrote to their instructor and received a maximum of 20 points according to the five-dimensional analytic paragraph grading rubric. The subheadings of the descriptors in the rubric were Content, Paragraph Structure, Grammar, Vocabulary, and Spelling & Punctuation (Agan & Deniz, 2019). A perfectly written paragraph would receive 4 points from each subheading and 20 in total. Furthermore, the participants had a weekly essay task assigned as homework. Once they submitted their weekly essay task, they automatically received 25 points for solely submitting a work. Finally, they received a maximum of 100 points – or less – from their essays assessed according to a essay grading rubric utilized to assess essays during the procedure. The essay grading rubric (IELTS, 2023) was adapted by the researcher. It was a four-dimensional analytic rubric, and the subheadings of the descriptors in the rubric were Task Achievement, Coherenece & Cohesion, Lexical Resource, and Grammatical Range & Accuracy. A perfect essay would receive 100 points, 25 points from each subheading, according to this rubric.

The points received by the participants according to the criteria were used to create weekly leaderboards and they were accumulated on each participant's profile on the website created by the researcher. The website was created on a free platform, sites.google.com, because it was a convenient option to demonstrate leaderboards,

points, badges, and individual profiles of the participants as it grants its users the freedom to design websites according to a wide range of goals.

3.3.1.2. Leaderboards & Badges

If elements inducing socialness within the gamified setting are not available, students may feel isolated (Toda et al., 2019). Therefore, this study integrated weekly leaderboards into the lessons to create a friendly competitive environment. Chou (2015) defines leaderboards as the act of ranking players depending on a set of criteria that is met by the players. Werbach & Hunter (2012) state that leaderboards demonstrate progress in such a way that badges and points are not able to, as they show where the players are in terms of progress as opposed to their peers. In the current study, the participants were ranked to create a leaderboard each week after receiving points by meeting the criteria. As Werbach & Hunter (2012) emphasize, a leaderboard should not demonstrate only one attribute. Therefore, the participants in this study were expected to have two main purposes regarding leaderboards. The first one was to gain a high rank by receiving points and the second was to earn the badges 'First', 'Second', and 'Third', which were only received by participants who ranked first, second, or third in a week. The leaderboards were published on the main page of the website to which the participants had access.

Werbach & Hunter (2012) define badges in a gamified system as visual representations of achievement. They posit that badges can be awarded for a wide range of achievements, and the variety of badges is left to the imagination of the designer and the needs of the process. Chou (2015) argues that badges should only be given to players once they have truly achieved an objective. In this study, the participants received badges when they completed the objectives set considering the views of aforementioned scholars and by consulting language instructors and language learners. The visuals of badges were created on a free website called Open Badge Design which offers various features to design badges such as shapes, icons, ribbons, and colors.

Table 3. The Achievement Badges

The badge	The objective to receive the badge
	Ranking 1st on a weekly leaderboard
	Ranking 2nd on a weekly leaderboard
	Ranking 3rd on a weekly leaderboard
	Attending every lesson throughout the experiment
	Actively participating in the lesson for two weeks in a row
	Submitting every essay assignment throughout the experiment

	Receiving at least 15 points on an in-class paragraph task
	Receiving at least 80 points on a weekly essay assignment

As previously mentioned, the badges ‘First’, ‘Second’, and ‘Third’ were received by the participants who ranked first, second, or third in a week during the experiment. The badge called ‘Never Missed a Lesson’ was received by the participants who were present in all the lessons throughout the experiment. The badge called ‘Participation Maniac’ was received by the participants who actively participated in the lessons two weeks in a row throughout the experiment. Moreover, the badge called ‘Submission Maniac’ was received by the participants who submitted every weekly essay assignment. Finally, the badges called ‘Paragraph Master’ and ‘Essay Master’ were received by the participants who were graded at least 15 out of 20 points on a paragraph and at least 80 out of 100 points on a weekly essay task, separately.

Before starting the experiment, all of the badges were placed on each participant’s profile on the website under their names and avatars in black and white. Once a badge was earned by a participant, it was colorized to demonstrate that the participant completed the objective and earned that specific badge. All the participants had access to the other participants’ profiles, and they could visit one another’s profiles at any time.

3.3.1.3. Personalization

SDT proposes that autonomy is needed, as well as competence and relatedness, in order to achieve intrinsic motivation (Deci & Ryan, 1985). Gamification may increase or decrease intrinsic motivation depending on various factors, including how the design of the gamified settings fosters autonomy (John et al., 2023). As Saputro et al.

(2019) stated, personalization creates a sense of autonomy. Personalization in gamified settings can be achieved through various types of implementations. Chou (2015) claims that when the players have the freedom of choice in a gamified setting or when they are a part of the game design process, they feel a sense of ownership and have a desire to engage in the game. This study incorporated two personalized gamified elements with the purpose of promoting intrinsic motivation: freedom of choice in essay writing topics and self-created avatars. These elements were chosen because of their ease and appropriateness to implement in a gamified design for academic writing.

According to numerous studies, relying on extrinsic rewards excessively may increase extrinsic motivation and consequently hinder intrinsic motivation (Deci et al., 1999; Mekler et al., 2017; Philpott & Son, 2022). In order to balance the presence of extrinsic motivation and intrinsic motivation, the participants in this study were granted freedom of choice in essay writing topics for them to feel a sense of autonomy in the process. As previously stated, the participants were assigned an essay task each week throughout the experiment. Instead of assigning one essay topic to the whole group, options were presented to the participants, and they chose the topic they would write about.

In this study, the gamified platform was the website the researcher created, which contained individual learner profiles amongst other components. The purpose of creating individual learner profiles was to demonstrate the badges received by each participant. As the name suggests, individual learner profiles were supposed to be personalized. As Birk et al. (2016) highlight, utilizing avatars in gamified settings may increase intrinsic motivation. In order to achieve that, participants were asked to create an avatar depicting themselves or a character they admired, and they were informed that the avatars they created would appear on their individual profiles.

3.3.2. Academic Essay Writing Procedure and Tasks

During the data collection procedure, participants in the experimental and control groups learned and practiced writing Opinion Essay and Problem-Solution Essay. On the second and third weeks of the data collection procedure, participants engaged in the process of writing a fully developed Opinion Essays while on the fourth and fifth weeks, they engaged in the process of writing a fully developed Problem-Solution Essays.

Table 4. A Synopsis of Data Collection

Order	Data Collection Instruments	Time
1	Pre-AWMQ	1st week
2	Demographic Form	1st week
3	Pre-Essay Writing Task	1st week
4A	Opinion Essay Writing	2nd & 3rd week
4B	Problem-Solution Essay Writing	4th & 5th week
5	Post-AWMQ	6th week
6	Post-Essay Writing Task	6th week
7	Focus Group Interview	6th week

The participants in the study were already familiar with the structure of an essay which includes introduction, body, and conclusion paragraphs. However, during the treatment procedure, they focused on the specific structures of the aforementioned types of essays. They not only practiced the general structure of essays but also learned to formulate ideas to write specific thesis statements, topic sentences, and paragraphs appropriate for the types of essays they were engaging in.

Each week, one of the paragraphs the participants wrote was graded by the instructor via the five-dimensional analytic paragraph grading rubric and the subheadings of the descriptors were Content, Paragraph Structure, Grammar, Vocabulary, and Spelling & Punctuation (Agan & Deniz, 2019). A perfectly written paragraph would receive 4 points from each subheading and 20 in total.

The essay writing tasks were assigned to the students as homework after they received instruction on the topic from the instructor throughout the week. They had one essay writing task each week and had three days to complete each assignment. Participants were aware that they were expected to write a fully developed essay consisting of an introduction paragraph that contains the thesis statement, one or two body paragraphs with topic sentences where they elaborate on the topic, and a conclusion paragraph where they summarize the essay and restate their thesis. Every essay task was graded by the instructors via the analytic essay grading rubric (IELTS, 2023) adapted by the researcher. As previously mentioned, the essay grading rubric was a four-dimensional

analytic rubric and the subheadings of the descriptors in the rubric were Task Achievement, Coherence & Cohesion, Lexical Resource, and Grammatical Range & Accuracy, to each it was assigned 25 points for a perfectly written essay. The rationale behind using this rubric in the study was that it was an eligible tool to assess fully developed essays, and the participants were familiar with it.

3.3.3. Academic Writing Motivation Questionnaire (AWMQ)

The AWMQ is a questionnaire developed to assess undergraduate learners' motivation toward writing (Payne, 2012). The questionnaire aims to measure various aspects of academic writing motivation such as extrinsic motivation, intrinsic motivation, and self-efficacy. The questionnaire is in the Likert-scale format from 0 to 4. The items are in the form of statements. 37 items are present in the questionnaire which are divided into 8 constructs. 3 of the constructs were not named due to them not representing a latent variable and having only one item. 5 of the constructs are named Enjoyment, Self-efficacy, Instrumentality, Recognition, and Effort, respectively.

Table 5. Factor Analysis of the AWMQ

No	Factor Name	Relation	Examined…	Items	Variance
1	Enjoyment	Intrinsic motivation	"Participants' enjoyment or apprehension to engage in writing activities"	12	35.27%
2	Self-efficacy	Self-efficacy	"Participants' beliefs about their writing ability"	8	10%
3	Instrumentality	Extrinsic motivation	"Participants' beliefs about writing as a means of achieving success"	5	6.39%
4	Recognition	Extrinsic motivation	"Receiving rewards for writing or feedback on writing"	4	5.12%
5	Effort	Effort	"The effort put forth to tackle a writing task"	3	4.56%
6	-	-	-	3	4.22%
7	-	-	-	1	3.36%

8	-	-	-	1	2.78%

Adapted from: Payne, 2012, p. 21

As demonstrated in Table 5, Payne (2012) highlighted that the 13 items under the construct of Enjoyment were related to intrinsic motivation, and they examined 'participants' enjoyment or apprehension to engage in writing activities' (Payne, 2012). It is stated that the Enjoyment factor was the most important one to assess participants' writing motivation as it included more items in the questionnaire as opposed to the other constructs with 35.27% of the variance. The second construct was named Self-efficacy, and it included 8 items which examined 'participants' belief about their writing ability' (Payne, 2012). These items made up 10% of the variance. The third and the fourth constructs were related to extrinsic motivation and named Instrumentality and Recognition, respectively. The items under the construct of Instrumentality examined 'participants' beliefs about writing as a means of achieving success.' while the items under Recognition were related to 'receiving rewards for writing or feedback on writing.' (Payne, 2012). These constructs made up 6.39% and 5.12% of the variance, respectively. The last construct which was named is Effort. This construct was said to be related to effort, as implied by the name. The items under Effort examined 'the effort put forth to tackle a writing task by the participants' (Payne, 2012). It made up 4.56% of the variance.

In the adapted version used in the current study by Uzun (2020), items 9, 16, 25, and 28 were excluded from the questionnaire with the purpose of adapting it to the aim of their study by preserving the overall organization of the original questionnaire. Moreover, the options were turned from 0 to 4 into 1 to 5. According to Uzun (2020), the rationale behind this adjustment was the ease of recording and analyzing five-point Likert-scale items in the SPSS program. The adapted version of the AWMQ was utilized in this study because the learners participating in the study were at the B1 level of English. Therefore, any misunderstandings resulting from not fully comprehending the original English version of the questionnaire would inhibit the results. In addition, the adjustments made by Uzun (2020) had transformed the questionnaire to better suit the current study. The items excluded from the questionnaire were about written online discussions, creative writing, literary analysis papers, and research papers, none of which aligned with the target learner group in this study. The questionnaire was completed by the participants in both experimental and control groups at the beginning

and at the end of the data collection procedure. 20 minutes were allocated for the participants to fully comprehend and choose options that suit them best.

3.3.4. Demographic Form

The demographic form utilized in this study consisted of parts asking for the participants' ages, genders, hometowns, native languages, English-learning background, self-assessment of four English language skills, and familiarity with gamification. The parts included in the demographic form were developed with the purpose of gaining information about the participants' demographics, their perceptions of the English language, and their initial perspectives on games and gamification.

3.4. Data Analysis

In this section, the details of the quantitative and qualitative data analysis processes are explained in depth.

3.4.1. Quantitative Data Analysis

The data for quantitative analysis was obtained from pre- and post-test AWMQ (Payne, 2012) and writing task scores of the participants. All the data was entered into SPSS software. Normality tests and homogeneity tests were conducted, and according to the results, the data was accepted as normally distributed and homogeneous.

The adapted version of the AWMQ (Payne, 2012) by Uzun (2020) was administered during the first week of the intervention as the pre-test. After five weeks, the same questionnaire was conducted to the same group of participants in the form of a post-test to check if there was any change between the participants' motivation levels after the intervention. Both the experimental and the control groups filled in the questionnaire which contained 37 five-point Likert Scale items. In order to examine whether there was a statistically significant difference between both the experimental and the control groups' general motivation levels before and after the experiment, paired samples t-tests were performed for each group separately. Thereafter, to complement the data on the general motivation levels of each group, five main constructs of the questionnaire were analyzed. As previously stated, the questionnaire was divided into eight constructs; however, as three of the constructs did not represent a latent variable, the remaining five constructs, Enjoyment, Self-efficacy,

Instrumentality, Recognition, and Effort, were analyzed one at a time through performing paired samples t-tests for both the experimental and the control groups' pre- and post-test scores, separately.

The writing achievement of the participants in this study was tested by conducting two essay writing tasks, one prior to the experiment and the other after the experiment. The data collected through the writing tasks were registered in the SPSS software. With the purpose of discovering whether there was a statistically significant difference between both the experimental and the control groups' writing performance before and after the experiment, paired samples t-tests were performed for each group separately.

3.4.2. Qualitative Data Analysis

With the aim of reinforcing the quantitative data collected in this study, a focus group interview was conducted together with the volunteering participants from the experimental group in their native language which is Turkish via Zoom. Braun & Clarke's (2006) Framework laid the foundations of the thematic analysis procedure in this study. This framework, which can be seen in Table 6, is a widely used approach to qualitative data analysis and provides six steps to analyze qualitative data.

Table 6. The Phases of Thematic Analysis

Phase	**Description of the process**
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected

	extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Source: Braun & Clarke, 2006, p. 87

The 35-minutes long record of the interview was transcribed by using the Transkriptor AI tool on the website transkriptor.com and was translated into English. In order to prevent any inaccuracy and misinterpretation, a colleague with relevant expertise reviewed the translation of the interview. After familiarizing the data, initial codes were created. Then, broader themes were assigned to the patterns detected in the transcript and each theme was labelled and defined in detail. The frequency of the subthemes defined was the times they were mentioned by the participants during the interview.

3.5. Ethical Considerations

The current study was conducted in accordance with ethical research principles to ensure the participants' well-being, rights, and privacy. Prior to data collection, an ethical consent was obtained from Yıldız Technical University Institutional Review Board with an issue number of 2024.04. The participants were openly informed about the purpose, content, and procedures of the study. Written informed consent was obtained from each participant, ensuring their voluntary participation. They were also informed that they could withdraw from the study at any stage without any consequences. The anonymity of the participants was maintained by using codes and pseudonyms instead of personal information. Additionally, all collected data were stored securely and used solely for research purposes.

4. RESULTS

This chapter presents the results of the study aligning with the research questions which aimed to investigate the effect of gamification on writing achievement and writing motivation of B1-level Turkish EFL preparatory school students by employing an embedded mixed-methods design. Therefore, the results are drawn from both quantitative and qualitative data, providing a comprehensive understanding of how gamification impacted participants' writing achievement and motivation.

The quantitative analysis focuses on the pre- and post-test results of the AWMQ (Payne, 2012) and writing task scores. In order to determine whether there were statistically significant differences between the pre- and post-treatment measures on motivation and academic writing scores, descriptive data were calculated and paired samples t-tests were conducted. The qualitative findings derived from a thematic analysis of the focus group interview offer further depth by exploring learners' experiences and perceptions of the gamified writing process. The qualitative data complement the quantitative results by offering insights into how gamified elements shaped learners' motivational orientations and engagement with the writing process. The results of the current study contribute to SLA and writing pedagogy by offering insights into how innovative teaching methods can improve EFL learners' engagement and achievement in writing.

In the following sections, the results of the study are presented in detail. Firstly, writing motivation results derived from the pre- and post-treatment scores of the AWMQ (Payne, 2012) are presented in two subsections: general motivation and the five main constructs of motivation, Enjoyment, Self-Efficacy, Instrumentality, Recognition, and Effort. In both subsections demonstrating writing motivation results, descriptive data and the analysis of pre- and post- Likert-scale scores of the experimental and the control group through paired samples t-tests are presented in detail. Secondly, the writing achievement results are displayed, demonstrating descriptive data and the analysis of pre- and post-writing task scores of the experimental and the control group through paired samples t-tests. Lastly, the results from the thematic analysis of the

focus group interview carried out with the volunteering participants from the experimental group in the study are presented in detail.

4.1. Quantitative Findings

4.1.1. Writing Motivation Results

This section addresses the first research question in the study, which inquired about the effect of gamification on the writing motivation of B1-level Turkish EFL learners. In order to answer this question, mean scores were calculated and paired samples t-tests on both the experimental and the control group's pre- and post-motivation results which were derived from the adapted version of AWMQ (Payne, 2012) adapted by Uzun (2020) were conducted. Before the intervention, the participants completed the questionnaire, and after four weeks of intervention, they completed the questionnaire again. In this section, the reliability analyses of the Likert scale are presented. Moreover, general writing motivation and five constructs of writing motivation are explained in two separate subsections by presenting the descriptive data and the results of the t-tests in detail.

4.1.1.1. The Reliability Analysis of the Likert Scale

Payne (2012) measured the reliability of the Likert scale and yielded a Cronbach's Alpha of 0.95. This result indicates excellent internal consistency. Similarly, Uzun (2020) measured the reliability of the adapted version of the Likert scale and yielded a Cronbach's Alpha of 0.92, which indicated excellent internal consistency similar to Payne (2012).

Even though no alterations were made to Uzun's (2020) adapted version of the questionnaire, the internal consistency of the Likert scale was tested for the current study by running Cronbach's Alpha tests for both the pre-test and post-test on SPSS software.

Table 7. The Reliability Analysis of the Likert-Scale

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Pre-test	,837	,847	37
Post-test	,841	,843	37

The Cronbach's Alpha result of the Likert scale in this study was 0.83 for the pre-test, while it was 0.84 for the post-test, both of which indicate good internal consistency.

4.1.1.2. General Motivation Results

General motivation results were obtained from the experimental and control groups' answers to the Likert scale. The answers of the participants were entered into SPSS software. Normality of the data was assessed for both groups' pre- and post-test Likert-scale scores utilizing Shapiro-Wilk tests. The test indicated that the data followed a normal distribution ($p > 0.05$). With the purpose of assessing the assumption of homogeneity of variances, Levene's test was conducted for pre- and post-test Likert-scale scores of both groups. The test indicated that the assumption was met for all the scores ($p > 0.05$). Given the results of the normality and homogeneity tests, the mean scores were calculated, and paired samples t-tests were conducted for both groups to determine whether there were statistically significant differences between pre-test and post-test general motivation.

Table 8 demonstrates descriptive data, including the mean scores and standard deviation, of pre and post-tests of the experimental and control groups' general motivation.

Table 8. The Descriptive Data of General Motivation

Group		N	Mean	SD
Experimental	Pre-test	30	3,14	,38
	Post-test	30	3,30	,38
Control	Pre-test	31	3,04	,44
	Post-test	31	3,11	,38

Table 9 displays the paired samples t-test results for general motivation of the experimental and control groups. The table contains t values, degrees of freedom, mean differences, standard deviations, p values (2-tailed), and effect sizes (Cohen's d).

Table 9. The Paired Samples T-test Results of General Motivation

	t	df	Mean	SD	Sig. (2-tailed)	Cohen's d
Experimental Pretest-Posttest	-2,997	29	-,16396	,29970	,006*	0,5

Control Pretest-Posttest	-1,173	30	-,07672	,36429	,250	0,2

* Statistically significant change

The t-test results for the experimental group shown on Table 11 indicate a statistically significant difference between their pre-test (M = 3.14, SD = .38) and post-test (M = 3.30, SD = .38) for general motivation, $t(29) = -2.997$, $p = 0.006$. Cohen's d indicates a medium effect of $d = 0.5$. On the contrary, the t-test results for the control group do not suggest a statistically significant difference between their pre-test (M = 3.04, SD = .44) and post-test (M = 3.11, SD = .38) for general motivation, $t(30) = -1.173$, p = 0.250. The effect size shown on the table was $d = 0.2$, indicating a small effect.

4.1.1.3. The Results of the Five Main Constructs of Motivation

Payne (2012) categorized the items of the AWMQ into five main constructs, which were labeled as Enjoyment, Self-Efficacy, Instrumentality, Recognition, and Effort. As discussed by Payne (2012) and Uzun (2020), Enjoyment, Self-Efficacy, and Effort constructs are in line with intrinsic motivation, while the Instrumentality and Recognition constructs align with extrinsic motivation. In order to investigate the five main constructs of motivation, the data of the Likert-scale scores of the participants were entered into SPSS software. The data were used to calculate the mean scores of each construct and conduct paired samples t-tests for both groups to determine whether there were statistically significant differences regarding each construct, separately.

The descriptive data demonstrated in Table 10 contains mean scores and standard deviations of the pre and post-tests of the experimental and control groups' five main constructs of motivation.

Table 10. The Descriptive Data of the Five Constructs of Motivation

Construct Name		Group	N	Mean	SD
Enjoyment	Experimental	Pre-test	30	2,53	,43
		Post-test	30	2,70	,46
	Control	Pre-test	31	2,43	,50
		Post-test	31	2,60	,50
	Experimental	Pre-test	30	3,14	,46
		Post-test	30	3,39	,51

Self-Efficacy	Control	Pre-test	31	2,97	,64
		Post-test	31	3,11	,58
Instrumentality	Experimental	Pre-test	30	3,92	,69
		Post-test	30	4,02	,64
	Control	Pre-test	31	4,05	,70
		Post-test	31	3,95	,68
Recognition	Experimental	Pre-test	30	3,66	,54
		Post-test	30	3,70	,62
	Control	Pre-test	31	3,67	,87
		Post-test	31	3,71	,61
Effort	Experimental	Pre-test	30	3,37	,64
		Post-test	30	3,75	,59
	Control	Pre-test	31	2,89	,84
		Post-test	31	3,00	,74

Table 11 displays the paired samples t-test results for five main constructs of motivation of the experimental and control groups. The table contains t values, degrees of freedom, mean differences, standard deviations, p values (2-tailed), and effect sizes (Cohen's d).

Table 11. The Paired Samples T-test Results of the Five Constructs of Motivation

Construct Name	Group	t	df	Mean	SD	Sig. (2-tailed)	Cohen's d
Enjoyment	Experimental Pretest-Posttest	-3,419	29	-,17803	,28522	,002*	0,6
	Control Pretest-Posttest	-2,107	30	-,16935	,44746	,044*	0,3
Self-Efficacy	Experimental Pretest-Posttest	-3,179	29	-,24583	,42356	,004*	0,5
	Control Pretest-Posttest	-1,489	30	-,13710	,51271	,147	0,2
Instrumentality	Experimental Pretest-Posttest	-,782	29	-,09333	,65334	,440	0,1

	Control Pretest-Posttest	,791	30	,09677	,68092	,435	0,1
Recognition	Experimental Pretest-Posttest	-,328	29	-,03333	,55605	,745	0,05
	Control Pretest-Posttest	-,355	30	-,04032	,63277	,725	0,06
Effort	Experimental Pretest-Posttest	-3,954	29	-,37778	,52328	,000*	0,7
	Control Pretest-Posttest	-,678	30	-,10753	,88354	,503	0,1

* Statistically significant change

The t-test results of the experimental group were as follows. The results indicated a statistically significant difference between their pre-test (M = 2.53, SD = .43) and post-test (M = 2.70, SD = .46) for the Enjoyment construct, $t(29) = -3.419$, $p = 0.002$. The effect size was $d = 0.6$, indicating a medium effect. Similarly, the t-test results of the experimental group's pre-test (M = 3.14, SD = .46) and post-test (M = 3.39, SD = .51) for Self-Efficacy indicated a statistically significant difference, $t(29) = -.355$, $p = 0.004$. The effect size for the Self-Efficacy construct was medium $d = 0.5$, as measured by Cohen's d. The results did not demonstrate a statistically significant difference when the pre-test (M = 3.92, SD = .69) and post-test (M = 4.02, SD = .64) of the experimental group were tested for the Instrumentality construct, $t(29) = -.782$, $p = 0.440$. The effect size was $d = 0.1$, indicating a very small effect. Likewise, there was no statistically significant difference between the experimental group's pre-test (M = 3.66, SD = .54) and post-test (M = 3.70, SD = .62) for the Recognition construct, $t(29) = -.328$, $p = 0.745$. The effect size was $d = 0.05$, a very small effect size. Lastly, the results indicated a statistically significant difference between the experimental group's pre-test (M = 3.37, SD = .64) and post-test (M = 3.75, SD = .59) for the Effort construct, $t(29) = -3.954$, $p < 0.001$, with a medium effect size of $d = 0.7$.

The t-test results of the control group were as follows. The results indicated a statistically significant difference between the pre-test (M = 2.43, SD = .50) and post-test (M = 2.60, SD = .50) results for the Enjoyment construct, $t(30) = -2.107$, $p = 0.044$. The effect size measured by Cohen's d was $d = 0.3$, indicating a small effect. On the contrary, no statistically significant difference was found when the pre-test (M = 2.97,

SD = .64) and post-test (*M* = 3.11, *SD* = .58) results for the Self-Efficacy construct were analyzed, *t*(30) = -1.489, *p* = 0.147. The effect size was *d* = 0.2, which points to a small effect. Likewise, no statistically significant difference occurred regarding the pre-test (*M* = 4.05, *SD* = .70) and post-test (*M* = 3.95, *SD* = .68) results of the Instrumentality construct, *t*(30) = .791, *p* = 0.435. The effect was *d* = 0.1, which is very small. Moreover, when the pre-test (*M* = 3.67, *SD* = .87) and post-test (*M* = 3.71, *SD* = .61) results of the Recognition construct compared and analyzed, no statistically significant difference was detected, *t*(30) = -.355, *p* = 0.725. The effect was *d* = 0.06, indicating a very small effect. Finally, there was no statistically significant difference between the pre-test (*M* = 2.89, *SD* = .84) and post-test (*M* = 3.00, *SD* = .74) results of the Effort construct, *t*(30) = -.678, *p* = 0.503. The effect size was *d* = 0.1, which indicates a very small effect.

4.1.2. Writing Achievement Results

This section addresses the second research question of the study which inquired the effect of gamification on writing achievement of B1-level Turkish EFL learners. In order to answer this question, paired samples t-tests on both the experimental and the control group's pre-writing and post-writing tasks were conducted.

Before the intervention, the participants wrote an essay which was a part of their writing course requirements. After the four weeks of intervention, the participants wrote another essay, again as a part of their writing course requirements. The essays were graded by using the essay grading rubric (IELTS, 2023) adapted by the researcher. The essay grades of the participants were utilized for the investigation of the effect of gamification on writing achievement. The essay grades of the participants were entered into SPSS software.

Normality of the data was assessed for both the experimental and control groups' pre- and post-test scores using Shapiro-Wilk tests, as well as by examining skewness and kurtosis values. The Shapiro-Wilk test indicated that only the experimental group's pre-test scores followed a normal distribution ($p > 0.05$), while the other data sets deviated from normality ($p < 0.05$). Nevertheless, when skewness and kurtosis values were examined, skewness values fell within the acceptable range of ±1 (Hair et al., 2013) and kurtosis values fell within the acceptable range of ±2 (George & Mallery, 2011), which suggests approximate normality.

In order to assess the assumption of homogeneity of variances, Levene's test was conducted for both pre- and post-test scores of the experimental and control groups. The test demonstrated that the assumption was met for the pre-test scores (p = 0.089) but violated for the post-test scores (p = 0.023). However, further examination of skewness and kurtosis values showed that skewness values fell within the acceptable range of ±1 (Hair et al., 2013) and kurtosis values fell within the acceptable range of ±2 (George & Mallery, 2011), suggesting that variances were not substantially different between groups.

According to the results of normality and homogeneity tests, the data were treated as approximately normally distributed and homogeneous. Thereafter, the descriptive data for the pre-writing and post-writing tasks were calculated, and paired samples t-tests were conducted to reveal the results of writing achievement for both groups. The following tables in this section demonstrate the results of writing achievement of the participants in this study.

Table 12 demonstrates descriptive data, including the mean scores and standard deviation, of pre and post-tests of the experimental and control groups' writing achievement.

Table 12. The Descriptive Data of Writing Achievement

Group		N	Mean	SD
Experimental	Pre-Test	30	70,93	14,86
	Post-Test	30	78,60	12,33
Control	Pre-Test	31	68,55	19,84
	Post-Test	31	67,42	22,50

Table 13 demonstrates the paired samples t-tests results for writing achievement of the experimental and control groups. The table contains t values, degrees of freedom, mean differences, standard deviations, p values (2-tailed), and effect sizes (Cohen's d).

Table 13. Paired Samples T-test Results for Writing Achievement

	t	df	Mean	SD	Sig. (2-tailed)	Cohen's d
Experimental Pretest-Posttest	-3,216	29	-7,667	13,435	,004*	0,5

Control Pretest-Posttest	,359	30	1,1290	17,4981	,722	0,06

* Statistically significant change

The results of the t-test for the experimental group indicate a statistically significant difference between the pre-test (M = 70.93, SD = 14.86) and post-test (M = 78.60, SD = 12.33) writing scores of the experimental group, $t(29) = -3.216$, $p = 0.004$. The effect size, as calculated by Cohen's d, was $d = 0.5$ which indicates a medium effect. Meanwhile, the results of the t-test for the control group do not indicate a statistically significant difference between the pre-test (M = 68.55, SD = 19.84) and post-test (M = 67.42, SD = 22.50) writing scores of the control group, $t(30) = .359$, $p = 0.722$. Moreover, the effect size was $d = 0.06$, indicating a very small effect.

4.1.3. Focus Group Interview Results

This section addresses the third research question in the study, which inquired about the opinions of B1-level Turkish EFL learners on gamification in academic writing lessons. As mentioned earlier, this study employed an embedded mixed-methods design which indicates quantitative analysis followed by qualitative analysis. In this study, qualitative data was gathered from a focus group interview conducted with volunteering participants from the experimental group with the aim of exploring participants' opinions, feelings, and insights to complement the quantitative data. The interview was conducted by the researcher via a 35-minute long Zoom session shortly after the intervention to ensure that participants had a fresh memory of the procedure and could contribute to the qualitative data at best. 15 volunteering participants from the experimental group were interviewed by the researcher and they were expected to answer the interview questions demonstrated in Table 14.

Table 14. The Focus Group Interview Questions

1	What do you think about implementing gamification in English academic writing lessons?
2	How much did you enjoy the gamification process?
3	Considering the before and after gamification process, how did gamification affect your motivation to write in English?
4	Did the number of writing assignments you completed increase or decrease during the gamification process?
5	Where did you rank on the leaderboards each week? How did it make you feel?

6	How did the badges you earned or did not earn affect your writing motivation?
7	Did you complete in-class work and assignments to receive points or for self-improvement? Please explain.
8	How much did the quests, badges, and weekly leaderboards encourage you to write in English?
9	Which element/elements motivated you more to write in English? Why?
10	How would you summarize gamification in English academic writing lessons in one word or a few words?

Table 15 presents the categories, themes, codes, and frequencies, which refers to how many times a theme was mentioned by the participants during the interview, defined through an inductive thematic analysis procedure following Braun & Clarke's (2006) Framework.

Table 15. Thematic Analysis Results of the Focus Group Interview

Category	Theme	Code	Frequency	Percentage
Engagement & Enjoyment	Increased participation	IP	23	%23,2
	Positive competition	PC	12	%12,1
	Enjoyable Atmosphere	EA	7	%7,07
Motivation	Extrinsic motivation	EM	21	%21,2
	Intrinsic motivation	IM	12	%12,1
Writing Achievement	Improved writing skills	WS	7	%7,07
	Higher writing scores	HS	6	%6,06
Challenges	Leaderboard rankings	LR	6	%6,06
	Possibility of anxiety	PA	5	%5,05

Table 15 demonstrates that Engagement & Enjoyment was the most common category among the participants. The participants mentioned that gamification increased participation, created a positive competitive environment, and established an enjoyable atmosphere. The second most common category among the participants was Motivation, with participants expressing that they were motivated to receive rewards during the gamification process, which referred to extrinsic motivation, and conveyed that they were motivated to accomplish and improve themselves in writing, referring to intrinsic motivation. The next category was Writing Achievement, about which

participants expressed their opinions by mentioning how gamification improved writing skills and increased their writing scores. The last category was about the challenges the participants foresaw and experienced. Participants mentioned that leaderboard rankings might demotivate learners who dislike competition and emphasized the possibility of anxiety during the gamification process. In the following subsections, the themes are explored in depth.

4.1.3.1. Engagement & Enjoyment

4.1.3.1.1. Increased Participation (IP)

Increased Participation was the most mentioned theme in the interview. Participants expressed that the gamification process and the elements incorporated in it increased their participation. The following quotes demonstrate their view:

> *"During the gamification process, I submitted more homework than before. I did my homework to get points and to achieve something." (P1)*

> *"The leaderboards motivated me to study. Even though I could not write a very good essay, I tried to write as much as I could and submit it. It was better for me to write a little badly than not to write at all. I preferred seeing a 50 on the leaderboard to a zero." (P10)*

4.1.3.1.2. Positive Competition (PC)

The fact that gamification established a positive competitive environment in the classroom was mentioned by the participants twelve times. They sensed and experienced the competition, and they enjoyed it as demonstrated in the following quotes:

> *"The competition between me and my classmates influenced me positively and motivated me to write." (P8)*

> *"Because there was a competitive environment and everyone was trying to outdo each other, I wanted to do my homework. I think I was positively affected in that respect." (P7)*

4.1.3.1.3. Enjoyable Atmosphere

Some of the participants mentioned that gamification created an enjoyable atmosphere, and they were affected positively by it. The following quotes show their view:

"I think gamification makes lessons more fun, removes the monotony of the process, and allows you to spend some quality time." (P3)

"Having such an encouraging system in education had a positive impact on me, as it did on many students." (P2)

4.1.3.2. Motivation

4.1.3.2.1. Extrinsic Motivation (EM)

Extrinsic motivation was one of the most mentioned themes in the interview. The participants expressed that they were motivated by the extrinsic rewards of points, leaderboards, and badges incorporated in the study. The following quotes are some of the examples of the participants' opinions:

"The leaderboards motivated me. I was focused on the rankings and always tried to be at the top. This was a very effective element for me." (P7)

"When I saw the leaderboards, I started doing everything to earn points." (P12)

4.1.3.2.2. Intrinsic Motivation (IM)

Intrinsic Motivation was mentioned twelve times by the participants in the interview. They conveyed that the gamification process encouraged them to write in order to improve themselves, as can be seen in the following quotes:

"In this process, students think that while they are striving for something, they will eventually achieve something. Of course, this reflects positively on everyone." (P2)

"We are trying to learn English because we will definitely need it in the future while studying in our departments, but I think I wrote mostly to improve myself during this process." (P7)

4.1.3.3. Writing Achievement

4.1.3.3.1. Improved Writing Skills (WS)

The theme of Improved Writing Skills was mentioned in the interview seven times. The participants expressed that the integration of gamification into their academic writing classes improved their writing skills, as demonstrated in the following quotes:

"The gamification process truly improved my writing skills." (P7)

"Gamification helped us to improve ourselves in terms of writing skills by enabling us to write." (P9)

4.1.3.3.2. Higher Writing Scores

The Higher Writing Scores theme was mentioned six times during the interview. The participants mentioning it revealed that they received higher grades after the gamification process when compared to their previous grades. The following quotes demonstrate some examples:

"Although the last exam was more difficult than the previous ones, I received a better grade in the writing section compared to the previous exams. I think the gamification process contributed to my grade." (P8)

"Gamification allowed us to improve our writing skills and get better grades." (P10)

4.1.3.4. Challenges

4.1.3.4.1. Leaderboard Rankings (LR)

The concerns of the participants regarding leaderboard ranking were mentioned six times during the interview. They conveyed that some people may react negatively to the competitive environment the leaderboards create, as shown in the following quotes:

"Some people may be afraid of being at the bottom of the rankings and may be negatively affected by this." (P3)

"Leaderboards may make some students feel pressured." (P5)

4.1.3.4.2. Possibility of Anxiety (PA)

Opinions on the Possibility of Anxiety were mentioned five times during the interview. Some of the participants thought that the gamified design could lead to stress and one participant experienced anxiety because of the rare badges included in the design, as demonstrated in the following quotes:

"I was anxious about receiving badges. That part was troubling to me. Receiving some badges was easy but the badges you received when you were

the first, second, or third on a leaderboard were hard to achieve as they were rare." (P4)

"Gamification may create a stressful environment for some students." (P13)

5. DISCUSSION

The current study aimed to investigate the effects of gamification on writing motivation and achievement of B1-Level Turkish EFL learners. An embedded mixed-methods research design was employed in the study, with quantitative data analysis followed by qualitative data analysis. 61 B1-Level Turkish EFL learners participated in the study, where 30 of whom were in the experimental group and 31 of whom were in the control group. The research questions of the study were as follows:

1- Does the integration of game elements in writing lessons affect the academic writing motivation of B1-level Turkish learners of EFL at a university preparatory school?
2- Does the integration of game elements in writing lessons affect the academic writing achievement of B1-level Turkish learners of EFL at a university preparatory school?
3- What are the perceptions of B1-level Turkish learners of EFL at a preparatory school on the integration of game elements in academic writing lessons?

In order to answer the first research question, the adapted version of the AWMQ (Payne, 2012) by Uzun (2020) was utilized in the study. The participants in both groups filled in the questionnaire before and after the treatment. The data gathered from the Likert scale were entered into SPSS software and analyzed by calculating mean scores and conducting paired samples t-tests. The results indicated a statistically significant difference regarding the overall motivation of the experimental group (p = 0.006). Moreover, when the motivational constructs were analyzed in depth, there were statistically significant differences in the experimental group's 'Enjoyment' (p = 0.002), 'Self-efficacy' (p = 0.004), and 'Effort' ($p < 0.001$), while there were no statistically significant differences regarding the constructs 'Instrumentality' (p = 0.440) and 'Recognition' (p = 0.745). On the other hand, there was no statistically significant change in the control group's motivation levels (p = 0.250).

With the purpose of answering the second research question, the participants in both groups composed an essay before and another essay after the intervention. The essays were graded out of 100 by utilizing an analytic essay grading rubric (IELTS, 2023) adapted by the researcher. The quantitative data gathered from the essays written by the participants were analyzed accordingly. The results of the analysis demonstrated that there was a statistically significant difference between the experimental group's pre-test and post-test ($p = 0.004$), while there was no statistically significant difference in the control group ($p = 0.722$).

To answer the last research question, a focus group interview was conducted with 15 volunteering students from the experimental group and the interview was analyzed through a thematic analysis. The thematic analysis yielded four categories: 'Engagement & Enjoyment', 'Motivation', 'Writing Achievement', and 'Challenges'. The first category was mentioned the most by the participants during the interview. Subsequently, there were three themes called 'increased participation, positive competition, and enjoyable atmosphere'. Subsequent to the second category, there were two themes called 'extrinsic motivation and intrinsic motivation'. It was the second most mentioned theme in the interview. Subsequent to the third category, there were two themes called 'improved writing skills and higher writing scores'. Lastly, the fourth category included two themes called 'leaderboard rankings and the possibility of anxiety'. Increased participation was the most mentioned theme during the interview followed by extrinsic motivation, positive competition, and intrinsic motivation.

The following sections interpret and discuss the findings in depth regarding the three research questions of the study by referring to theoretical frameworks and connecting the findings to previous research conducted in the gamification field of study.

5.1. The Effects of Gamification on Writing Motivation

This study examined the effects of gamification on B1-level EFL learners' writing motivation. The results of the study demonstrated a statistically significant difference in the overall motivation of participants in the experimental group and a detailed analysis of the motivational constructs revealed valuable insights. In the experimental group, there was a significant increase in the constructs named 'Enjoyment, Self-

efficacy, and Effort'. This indicates that there was an increase in the intrinsic motivation of the participants in the experimental group.

Increased intrinsic motivation in the experimental group can be attributed to several key factors. Firstly, gamification is utilized in educational environments with the purpose of increasing engagement and making learning more enjoyable, which aligns with the principles of Flow Theory (Csikszentmihalyi, 2008). According to the Flow Theory, when learners have clear goals, immediate feedback, and a balance between challenge and skill, they are more likely to be intrinsically motivated. The gamified design in the current study, incorporating game elements such as points, badges, leaderboards, and self-created avatars, likely enhanced the enjoyment of writing tasks. This finding supports previous research on gamification, which often emphasizes increased enjoyment as one of the primary benefits (Birk et al., 2016; Chavangklang & Chavangklang, 2024; Cheong et al., 2013).

Moreover, the significant increase in self-efficacy suggests that gamification promoted a sense of autonomy and competence for the learners in the experimental group. As SDT (Deci & Ryan, 1985) posits, when individuals feel competent and have control over the process, they are driven to be more intrinsically motivated. Furthermore, the Self-Efficacy Theory (Bandura, 1977) claims that the self-efficacy of individuals is affected by several factors such as task completion, observing other individuals succeed or fail, feedback from other individuals, and physiological and emotional states. In this study, gamification likely helped learners gain confidence in their writing abilities by providing achievable challenges, feedback, and rewards. This finding is consistent with previous research which suggests that if a gamified setting fosters autonomy and competence in learners, they exhibit higher levels of self-efficacy (Alsswey & Malak, 2024; Banfield & Wilkerson, 2014; Cancino & Viguera, 2024).

Increased effort indicates that learners in the experimental group were eager to invest time and energy into writing after the treatment. This finding can also be connected to the Flow Theory (Csikszentmihalyi, 2008), as gamification may have helped learners stay focused in the writing process by providing short-term goals, achievable challenges, and rewards, all of which made effort seem worthwhile to the learners. This finding aligns with previous research which highlights the positive effects of gamification on learner effort (Birk et al., 2016; Hanus & Fox, 2015).

Despite the increase in intrinsic motivation, there was no statistically significant change in the extrinsic motivation of the learners in the experimental group. This finding was derived from the analysis of constructs 'Instrumentality' and 'Recognition', showing no statistically significant changes in the experimental group. This suggests that while gamification effectively improved learners' internal drive to write, it did not change their reliance on external motivators such as points and leaderboard rankings (Payne, 2012). The fact that the instrumentality construct did not demonstrate a significant change in the experimental group suggests that gamification did not necessarily alter learners' beliefs about the usefulness of writing for their future academic or professional lives. Moreover, the stability in the recognition construct indicates that learners in the experimental group were not seeking more external validation from their teachers, peers, or grades.

The increase in intrinsic motivation and the stability of extrinsic motivation can be explained in various ways. One of the possible explanations is that gamification may have initially created a structure that drew learners in through external rewards such as PBL. However, as learners became more immersed in the process, they may have started enjoying the activity itself, which contributed to increased intrinsic motivation. Additionally, the gamified setting may have reduced the pressure on learners. As they experienced a more relaxed and interactive environment, they did not have a need for external validation, leading to a stable extrinsic motivation. This interpretation is in line with SDT (Deci & Ryan, 1985), which suggests that extrinsic motivators can initiate engagement; however, their ongoing presence depends on how they interact with intrinsic motivation.

Meanwhile, the control group exhibited no significant difference in overall motivation and four of the motivational constructs. This finding suggests that traditional writing instruction may not be sufficient to structure a setting where learners would be motivated within the same timeframe (Bruning & Horn, 2000). The lack of an engaging environment may not have been as motivating as a gamified setting. This shows the limited capability of traditional writing instruction that may not have the engaging components gamification does. Nevertheless, the control group, without receiving gamified instruction, demonstrated a statistically significant improvement in the Enjoyment construct of motivation. This unexpected result may be attributed to several pedagogical and contextual factors. First of all, if the writing tasks are

perceived as meaningful and relevant, non-gamified instruction can still promote engagement. Moreover, the role of the instructor in shaping classroom atmosphere could have played a part in this result, by creating a supportive and encouraging teaching style. Lastly, positive peer dynamics and group cohesion within the control group may have contributed to an enjoyable learning setting. As Self-Determination theory emphasizes, relatedness is one of the basic psychological needs improving intrinsic motivation, which may explain the observed increase in enjoyment in spite of the absence of gamified instruction (Deci & Ryan, 1985).

5.2. The Effects of Gamification on Writing Achievement

This study examined the effect of gamification on the writing achievement of B1-level Turkish EFL learners, as well. The findings of the study indicated that the experimental group demonstrated a statistically significant improvement in their writing scores, while in the control group, there was no statistically significant change. These findings propose that gamification had a positive impact on writing performance, which supports the view that interactive and engaging instructional strategies can enhance writing performance in EFL contexts (Chavangklang & Chavangklang, 2024; Manthofani et al., 2024; Tantawi et al., 2016; Zhihao & Zhonggen, 2022).

The improvement observed in the experimental group can be explained by the increased motivation and engagement provided by the gamified design employed in the study. As previously discussed in regard to the first research question, gamification contributed to higher levels of enjoyment, self-efficacy, and effort in the experimental group. As Self-Efficacy Theory (Bandura, 1977) states, learners' belief in themselves can greatly affect their motivation, effort, and consequently, their accomplishment. These factors likely played a role in improving writing performance by fostering ongoing practice and persistence. This finding aligns with previous research which suggests that if the students find the writing activities enjoyable and consider themselves competent in writing, they are more likely to make an effort to improve their writing skills, which leads to improvements in writing achievement (Chavangklang & Chavangklang, 2024; Manthofani et al., 2024; Zhihao & Zhonggen, 2022).

Furthermore, the competitive gamified environment may have contributed to their writing improvement by providing more meaningful experiences. Gamified

environments fostering friendly competition or collaboration often create an environment for learners to work harder and eagerly to improve themselves (Caisedo Alvarez, 2023; Sepehr & Head, 2013; Zainuddin et al., 2019). In this study, game elements such as points, badges, and leaderboards were integrated into the writing lessons which might have encouraged the learners to aim for higher scores and strive for better performance, consequently leading to significant improvements in their writing achievement.

In addition, gamification may have provided a low-stakes environment that declined the writing anxiety of the learners. As Yavuz et al. (2022) stated, gamified environments may be beneficial in lowering the anxiety levels of the students. Lower levels of anxiety may have enabled the students in this study to take risks and experiment with the writing activities, leading to improved achievement.

On the other hand, no significant improvement in writing achievement in the control group indicates that traditional writing instruction may not be sufficient to create a meaningful environment for learners to improve their writing skills within the same timeframe. This finding emphasizes the limitations of traditional writing instruction that may not have the motivational and engaging components to engage writing learners fully. Without the game elements, the students in the control group may not have been as motivated to practice their writing as the students in the experimental group, which led to unchanged writing achievement levels.

5.3. The Perceptions of Learners on Gamification

This study also explored B1-level Turkish EFL learners' perceptions and experiences regarding gamification in academic writing classes. A thematic analysis of the focus group interview revealed three major categories:

> **'Engagement & Enjoyment'** encompassed three themes: Increased Participation, Positive Competition, and Enjoyable Atmosphere, respectively.
>
> **'Motivation'** encompassed two themes: Extrinsic Motivation and Intrinsic Motivation, respectively.
>
> **'Writing Achievement'** encompassed two themes: Improved Writing Skills and Higher Writing Scores, respectively.

In addition, some students expressed ‘Challenges’ associated with gamification, specifically on Leaderboard Rankings and Possibility of Anxiety. The qualitative findings of this study provide valuable insights into the perceptions of the students on the integration of gamification into the writing lessons and its effects on their learning experience.

The most frequently discussed category was Engagement & Enjoyment. This indicates that gamification successfully crafted an environment that encouraged learners to participate actively in the writing activities. The emphasis the learners placed on positive competition suggests that the elements fostering competition in the learning environment were mostly considered as motivating rather than discouraging. When the competition element is perceived as friendly and goal-oriented, it can foster participation, effort, and persistence (Caisedo Alvarez, 2023; Sepehr & Head, 2013; Zainuddin et al., 2019). Additionally, the mention of an enjoyable atmosphere is in line with previous studies which propose that gamification can create an environment that learners enjoy and are eager to engage in activities (Birk et al., 2016; Treiblmaier & Putz, 2020). These findings support the quantitative findings of the study by suggesting that gamification both attracted the interest of learners and sustained their engagement throughout the experiment.

The second most frequently mentioned category was Motivation, and it was divided into two themes as extrinsic and intrinsic motivation. Extrinsic motivation was mentioned more than intrinsic motivation, which suggests that external incentives played a more dominant role in learner engagement. Although this finding aligns with previous research which indicates PBL can encourage engagement through extrinsic motivation in educational settings (Daliranfirouz et al., 2024; Ioannou, 2017; Mekler et al., 2017), it contradicts the quantitative findings of the study, which demonstrated that intrinsic motivation increased significantly while extrinsic motivation remained stagnant. This indicates that while students were aware of external motivators, their overall reliance on them did not increase significantly. A possible explanation of this phenomenon is that gamification provided such an engaging experience that initially attracted learner interest through external rewards; however, as students became more immersed in the process, they may have started to enjoy the activities inherently, which may have led to an increase in intrinsic motivation, while extrinsic motivation remained relatively the same. Gamification has the potential to increase intrinsic

motivation through enjoyable and meaningful tasks (Hanus & Fox, 2015). Additionally, the gamified environment may have reduced students' anxiety with a relaxed and interactive environment, possibly leading to the need for external validation to decrease which caused the stability of extrinsic motivation. SDT (Deci & Ryan, 1985) supports this interpretation as it posits that while external motivators can provide initial engagement, their maintenance depends on how they interact with intrinsic motivation.

The third category was Writing Achievement, encompassing the themes of Improved Writing Skills and Higher Writing Scores. This finding is in line with the quantitative findings of the study which demonstrated a significant increase in the experimental group's writing achievement. According to Goal-Setting Theory, (Locke & Latham, 1990) specific and challenging goals result in higher performance levels when individuals are committed to the goals and receive meaningful feedback. In the context of this study, the students' self-perceived improvement in writing may have been reinforced by well-structured challenges and immediate feedback the gamified design provided.

Although positive perceptions of gamification were dominant among learners, some of them mentioned some challenges regarding the competition leaderboards created and the possibility of anxiety deriving from the overall gamified experience. This finding aligns with previous research. In a study conducted by Aldemir et al. (2017), students expressed frustration and distraction regarding the challenges in the gamified design. Moreover, research suggests that if gamification is not implemented appropriately, it may create a stressful experience and discourage learners who do not perform well (Buckley & Doyle, 2016; Hanus & Fox, 2015).

6. CONCLUSION

This chapter aims to conclude the current study. It begins with presenting an overview of the study, followed by a brief summary of key findings, a discussion of pedagogical implications, and finally, the limitations of the study with suggestions for further research.

6.1. Overview of the Study

This study aimed to investigate the effects of gamification on the writing motivation and achievement of B1-level EFL learners at the tertiary level. It specifically sought to examine whether integrating specific game elements into writing instruction increases learner motivation and performance.

In spite of the growing interest in gamification in language education, there is relatively limited research on its effects on writing motivation and achievement. Many previous studies focused on other language skills such as vocabulary, grammar, and reading, leaving a gap in understanding how gamification impacts writing. In addition, gamification is more often associated with extrinsic motivation and its potential to promote intrinsic motivation remains underexplored. Consequently, this study addresses these gaps with an embedded mixed-methods research design, with an aim to contribute to the literature on the effects of gamification on writing motivation and performance.

6.2. Summary of Key Findings

The findings of the study provide valuable insights into how gamification can impact learner motivation and achievement, particularly regarding writing skills. The quantitative findings on writing motivation indicated a significant increase in overall motivation and intrinsic motivation, with extrinsic motivation remaining stagnant in the group with gamified treatment. On the contrary, the control group did not demonstrate significant changes in motivation. These results contribute to existing

literature by suggesting that the gamified design employed in the experimental group created such an engaging environment that students in that group were more motivated to engage with writing tasks (Chavangklang & Chavangklang, 2024; Laffey, 2022; Lam et al., 2018; Ly, 2021). Regarding writing achievement, the experimental group exhibited significant improvement in their writing scores, while the control group did not show any significant progress. These indicate that gamified writing lessons played a significant role in improving students' writing skills which aligns with the results of previous studies on gamification (Chavangklang & Chavangklang, 2024; Manthofani et al., 2024; Tantawi et al., 2016). Finally, the qualitative findings further reinforced the quantitative findings by indicating that learners in the gamified setting enjoyed the process, were engaged with the activities, were motivated to learn writing, and improved their writing skills. However, some students expressed challenges deriving from the use of leaderboards and badges, which potentially may lead to anxiety and discouragement.

6.3. Pedagogical Implications

The current study provides valuable pedagogical insights for the integration of gamification into academic writing lessons for educators and stakeholders. First, the increase in overall and intrinsic motivation highlights that educators should incorporate elements that promote enjoyment, self-efficacy, and effort, such as progress tracking, meaningful goals, and interactive challenges. As the students in the experimental group exhibited and reported greater enjoyment and participation, combining game elements to foster autonomy and relatedness, such as self-created avatars and choice freedom in tasks, is crucial for yielding positive results regarding the implementation of gamification.

Second, the significant improvement in writing achievement of the gamified group suggests that gamification has the potential to foster skill development. Educators can incorporate progressive challenges and achievement-based rewards to support learners in their writing progress and help them consider writing as a goal-oriented and progressive task.

Third, while external incentives may increase motivation, it is crucial to use them strategically as over-reliance on them may lead to overjustification. As the findings revealed in the study, extrinsic motivation remained stable in the experimental group.

This suggests that educators should carefully design gamified experiences to gradually encourage the internalization of motivation. Providing environments supportive of autonomy by granting learners the choice of freedom in task selection and meaningful activities can promote this transition.

Lastly, the current study revealed challenges regarding competition and anxiety, resulting from leaderboards, badges, and the overall gamified experience. Although competition was perceived positively by most students, some of them expressed concerns about performance pressure. Therefore, educators should consider alternative competition-based game elements, such as team leaderboards or optional participation in competitive elements. Through careful design, educators can make gamification a comfortable and welcoming experience for all learners.

6.4. Limitations and Suggestions for Further Research

While the current study provides valuable insights into the effects of gamification on writing motivation and achievement in B1-level Turkish EFL learners, it has several limitations. First, the sample size was relatively small, with 61 tertiary-level EFL learners at a preparatory school. This limits the generalizability of the findings of the study to broader EFL contexts. Larger sample sizes would further enhance the reliability, validity, and generalizability of the findings of the study. Future research should involve larger and more diverse participant groups to investigate whether similar trends emerge, regarding proficiency levels, age groups, and educational settings.

Second, in the current study, the intervention lasted for four weeks, which is a relatively short period. Even though the findings demonstrated positive effects on motivation and achievement, longer experiments may provide a clearer picture of the influence of gamification on writing development. It is especially crucial to determine whether improvements in motivation and performance are sustained in the long term.

Third, this study utilized a combination of points, badges, leaderboards, avatars, and choice of freedom as game elements. Future research may focus on other combinations of game elements to examine their effectiveness on writing motivation and achievement, as they may yield different results.

Finally, the gamified approach utilized in this study focused on the holistic aspect of writing, instead of focusing on the stages of the writing process. Future studies can examine how gamification influences specific aspects of writing, such as brainstorming, drafting, revising, and editing, to determine if certain stages are affected by gamification more than others.

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APPENDICES

Appendix 1. Participant Information Form

15/04/2024

BİLGİLENDİRİLMİŞ OLUR FORMU

1. Aşağıda imzası olan ben **"Oyunlaştırmanın İngilizce Hazırlık Sınıfı Öğrencilerinin Yazma Motivasyonuna Etkisi "** başlıklı çalışmaya katılmayı kabul ediyorum.
2. Bu çalışmayı yürüten araştırma ekibi çalışmanın yapısı, amacı ve muhtemel süresi, hakkında ayrıntılı sözlü ve yazılı bilgi verdi.
3. Araştırmacılara çalışmasıyla ilgili her soruyu sorma fırsatını buldum. Cevapları ve bana verilen bilgiyi anladım.
4. Araştırmacılara bilgilerin ayrıntılarını açıklamama ve benimle ilgili sırları koruması şartıyla benimle bu çalışmayı yapmasına izin veriyorum.
5. Çalışma boyunca tüm kurallara uyacağıma, araştırmacılar ile tam bir uyum içinde çalışacağıma ve konuyla ilgili herhangi bir sorun çıktığında hemen onu arayacağımı kabul ediyorum.
6. Bu çalışma sonuçlarının kullanılmasını kısıtlamayacağımı ve yayın, rapor ve benzeri bilimsel dokümanlarda kullanabileceğini kabul ediyorum.
7. Bu çalışmadan istediğim zaman çıkabileceğimi anladım.

OKUDUM VE ONAYLADIM.

Katılımcının Adı ve Soyadı, Adresi: Tarih, İmza:

Araştırmacının Adı ve Soyadı, Adresi: Tarih, İmza:

Appendix 2. Informed Consent Form

15/04/2024

DENEKLERİN GÖNÜLLÜLÜĞÜ

VE

AYDINLATILMIŞ ONAM FORMU

Yıldız Teknik Üniversitesi Eğitim Fakültesi Öğretim Üyesi Dr. Öğr. Üyesi Gülümser Efeoğlu ve öğrencisi İzel Gür tarafından yürütülen ***"Oyunlaştırmanın İngilizce Hazırlık Sınıfı Öğrencilerinin Yazma Motivasyonuna Etkisi"*** *başlıklı çalışmamıza davet edilmektesiniz. Projenin amacı oyunlaştırmanın yazma motivasyonuna etkisini ölçmek ve yazma motivasyonundaki değişiklikler ile kişilik özellikleri arasındaki ilişkiyi saptamaktır. Bu araştırmaya katılmak tamamen gönüllülük esasına dayanmaktadır. Araştırmaya katılmayan katılımcılar herhangi bir cezaya tabii tutulmayacaktır. Araştırmaya katılım yapıldıktan sonra süreç içerisinde yaşayacağınız herhangi bir zarar durumunda, neden belirtmeksizin araştırmadan ayrılma özgürlüğüne sahipsiniz. Araştırmanın tüm mali giderleri araştırmacılar tarafından karşılanacaktır. Daha ayrıntılı bilgi için her zaman araştırmacılarla iletişime geçebilirsiniz. Araştırmacıların isimleri aşağıda yer almaktadır:*

Araştırma ekibi: *Dr. Öğr. Üyesi Gülümser Efeoğlu, Öğr. Gör. İzel Gür*

Appendix 3. Demographic Form

Demografik Bilgi Formu

1. Ad-soyad: _____

2. Yaş: _____

3. Cinsiyet:

☐ **Kadın** ☐ **Erkek**

4. Doğum yeri: _____

5. Ana dil: _____

6. Bölümünüz: _____

7. Kaç yıldır İngilizce öğreniyorsunuz?: _____

8. Ne tür bir liseden mezun oldunuz? (Diğer ise açıklayınız.):

☐ **Fen Lisesi** ☐ **Anadolu Lisesi** ☐ **Sosyal Bilimler Lisesi** ☐ **Diğer**

_____

9. Öğrenim hayatınız boyunca okul dışında İngilizce kurslarına katıldınız mı? (Evet ise açıklayınız.)

☐ **Evet** ☐ **Hayır**

_____

10. Daha önce yurtdışında bulundunuz mu? ☐ **Evet** ☐ **Hayır**

Evet ise, lütfen aşağıdaki tabloyu doldurunuz.

Ülke Adı	Kalınan Süre	Gitme Amacı	İlgili Ülkede İletişim İçin Kullanılan Dil

11. Bildiğiniz diğer diller ve seviyeleri:

Dil	Seviye

Appendix 3 Continued

12. İngilizce OKUMA seviyenizi aşağıda verilen 5li ölçek üzerinde size en uygun geleni seçerek belirtir misiniz? (1: Çok kötü; 5: Çok iyi)

5	4	3	2	1

13. İngilizce DİNLEME seviyenizi aşağıda verilen 5li ölçek üzerinde size en uygun geleni seçerek belirtir misiniz? (1: Çok kötü; 5: Çok iyi)

5	4	3	2	1

14. İngilizce YAZMA seviyenizi aşağıda verilen 5li ölçek üzerinde size en uygun geleni seçerek belirtir misiniz? (1: Çok kötü; 5: Çok iyi)

5	4	3	2	1

15. İngilizce KONUŞMA seviyenizi aşağıda verilen 5li ölçek üzerinde size en uygun geleni seçerek belirtir misiniz? (1: Çok kötü; 5: Çok iyi)

5	4	3	2	1

16. Hangi İngilizce dil becerisi sizin için en zorudur?

☐ Okuma ☐ Dinleme ☐ Yazma ☐ Konuşma

17. Hangi İngilizce dil becerisi sizin için en kolayıdır?

☐ Okuma ☐ Dinleme ☐ Yazma ☐ Konuşma

18. Bilgisayar/mobil oyunları oynamayı sever misiniz? ☐ Evet ☐ Hayır

19. Ne sıklıkla bilgisayar/mobil oyunları oynarsınız? _____

20. Daha önce oyunlaştırılmış bir ders aldınız mı? (Evet ise açıklayınız.)

☐ Evet ☐ Hayır

_____

İletişim Bilgileri

E-posta adresi:

Telefon numarası:

Appendix 4. Sample Leaderboard

	NAME	XP
1	Angel	170
2	Cherry	164
3	Fairy	157
4	Angus	150
4	Luke	150
5	Isabel	144
5	Chris	144
6	Shane	138
7	Rory	120
8	Lisa	95
9	Monica	45
10	Robin	41
11	Lil y	40
12	Phoebe	39
12	Jo ey	39
13	Barney	25
13	Ted	25
14	Hailey	0
14	Trac y	0

Appendix 5. Sample Learner Profiles



TOTAL EARNED XP

428 XP

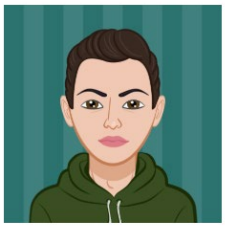
BADGES



EARNED (II) | Not Earned | Not Earned | EARNED



EARNED | Not Earned | EARNED (II) | EARNED (II)



TOTAL EARNED XP

125 XP

BADGES

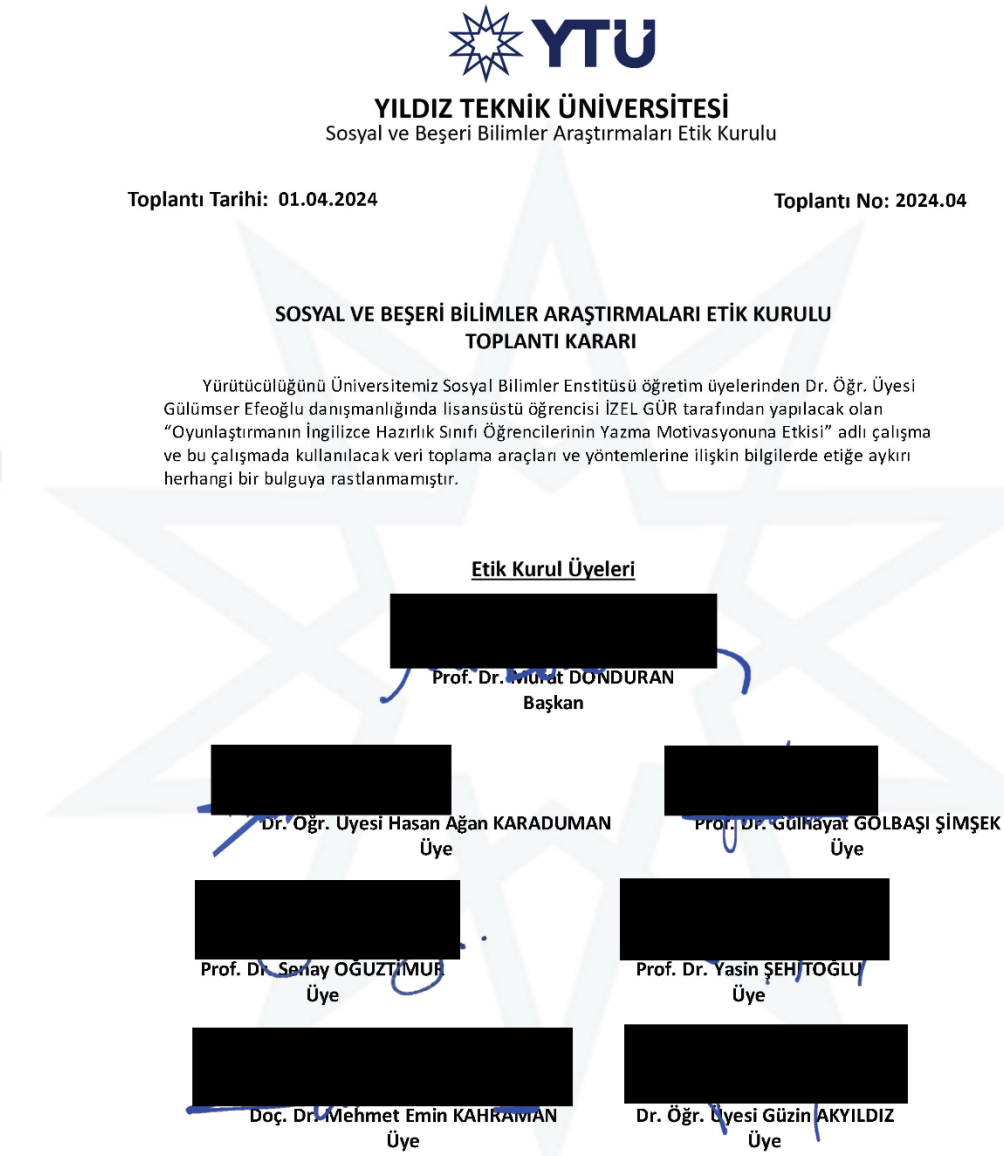


Not Earned | Not Earned | Not Earned | Not Earned



Not Earned | Not Earned | Not Earned | Not Earned

Appendix 6. IRB Approval



YILDIZ TEKNİK ÜNİVERSİTESİ
Sosyal ve Beşeri Bilimler Araştırmaları Etik Kurulu

Toplantı Tarihi: 01.04.2024 **Toplantı No: 2024.04**

SOSYAL VE BEŞERİ BİLİMLER ARAŞTIRMALARI ETİK KURULU TOPLANTI KARARI

Yürütücülüğünü Üniversitemiz Sosyal Bilimler Enstitüsü öğretim üyelerinden Dr. Öğr. Üyesi Gülümser Efeoğlu danışmanlığında lisansüstü öğrencisi İZEL GÜR tarafından yapılacak olan "Oyunlaştırmanın İngilizce Hazırlık Sınıfı Öğrencilerinin Yazma Motivasyonuna Etkisi" adlı çalışma ve bu çalışmada kullanılacak veri toplama araçları ve yöntemlerine ilişkin bilgilerde etiğe aykırı herhangi bir bulguya rastlanmamıştır.

Etik Kurul Üyeleri

[redacted]
Prof. Dr. Murat DONDURAN
Başkan

[redacted]
Dr. Öğr. Üyesi Hasan Ağan KARADUMAN
Üye

[redacted]
Prof. Dr. Gülhayat GÖLBAŞI ŞİMŞEK
Üye

[redacted]
Prof. Dr. Senay OĞUZTİMUR
Üye

[redacted]
Prof. Dr. Yasin ŞEHİTOĞLU
Üye

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Doç. Dr. Mehmet Emin KAHRAMAN
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