

**THE IMPACT OF GAMIFIED GAME-BASED VOCABULARY
TEACHING ON SUCCESS AND MOTIVATION**

Ece SAĐLIK

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**THE IMPACT OF GAMIFIED GAME-BASED VOCABULARY
TEACHING ON SUCCESS AND MOTIVATION**

**A THESIS SUBMITTED TO
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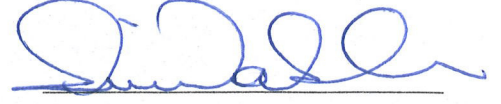
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Ece SAĞLIK

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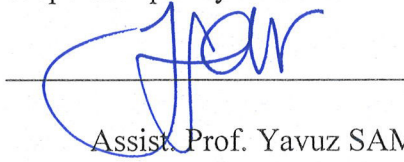
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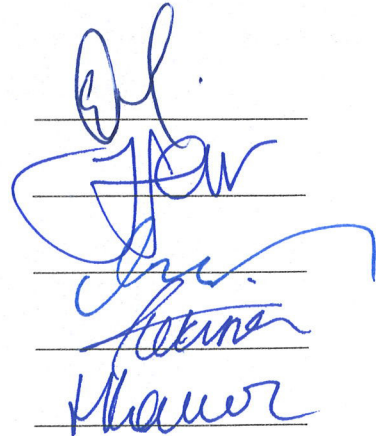
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ABSTRACT

THE IMPACT OF GAMIFIED GAME-BASED VOCABULARY TEACHING ON SUCCESS AND MOTIVATION

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The purpose of this study is to investigate the impact of gamified game-based vocabulary teaching and traditional vocabulary teaching on vocabulary development and motivation of Turkish EFL learners at a language preparatory school of a private university. A sample of thirty-two students at intermediate level participated in this study. Data was collected quantitatively from pre- and post- tests and pre-post vocabulary learning motivation questionnaires, as well as qualitatively from semi-structured interviews. The findings of this study revealed that implementation of gamified game-based vocabulary teaching had positive impact on motivation of Turkish EFL learners, and produced statistically significant differences in the motivation level of experimental group. However, no significant difference was found between the experimental and control group in terms of vocabulary development. The findings also suggested that students perceived gamified game-based vocabulary as an efficient way to learn vocabulary in preparatory programs. Consequently, the result of the study indicated that gamified game-based vocabulary instruction can be utilized as an effective teaching method promoting motivation in vocabulary learning in foreign language education.

Keywords: Gamification, Game-based Teaching, Vocabulary Development, Motivation, Students' Perceptions, Language Preparatory Program, EFL

ÖZ

OYUNLAŞTIRILMIŞ OYUN TEMELLİ KELİME ÖĞRETİMİNİN ÖĞRENCİLERİN BAŞARILARINA VE MOTİVASYONA OLAN ETKİSİ

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Bu çalışmanın amacı, oyunlaştırılmış oyun temelli kelime öğretimi ve geleneksel kelime öğretiminin bir özel üniversitenin hazırlık programında yabancı dil olarak İngilizce öğrenen öğrencilerin kelime dağarcığı gelişimi ve motivasyonları üzerindeki etkilerini araştırmaktır. Bu çalışmada seviyeleri orta düzeyde olan 32 öğrenci yer almıştır. Veriler nicel olarak ön ve son test ve ön ve son kelime öğrenme motivasyon anketinden, nitel olarak ise öğrencilerle yapılan yarı yapılandırılmış görüşmelerden toplanmıştır. Bu çalışmanın bulguları, oyunlaştırılmış oyun temelli kelime öğretiminin yabancı dil olarak İngilizce öğrenen Türk öğrencilerin motivasyonu üzerinde olumlu bir etki yarattığını ve deney grubunun motivasyon seviyesinde istatistiki açıdan anlamlı farklılıklar oluşturduğunu göstermiştir. Bunun yanı sıra, deney ve kontrol grupları arasında kelime dağarcığı gelişimi bakımından hiçbir anlamlı fark bulunamamıştır. Aynı zamanda, bulgular öğrencilerin kelime öğrenmede oyunlaştırılmış oyun temelli kelime öğretiminin hazırlık programlarında uygulanabilecek verimli bir yöntem olarak algıladığını belirtmiştir. Sonuç olarak oyunlaştırılmış oyun temelli kelime öğretiminin yabancı dil eğitiminde kelime öğreniminde motivasyonu yükselten etkin bir yaklaşım olarak benimsenebileceği görülmüştür.

Anahtar Kelimeler: Oyunlařtırma, Oyun Temelli Öğretme, Kelime Dağarcığı Geliřimi, Motivasyon, Öğrencilerin Algıları, Hazırlık Programı, Yabancı Dil Olarak İngilizce Eğitimi



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LIST OF ABBREVIATIONS

EFL	English as a Foreign Language
SDT	Self-Determination Theory



Chapter 1

Introduction

1.1 Overview

The idea of gamification comes from gaming industry, social media, and human psychology which is defined as the usage of game elements in a non-game context (Werbach & Hunter, 2012). Gamification can be described from different perspectives in the way that it has been described from behavioural perspective (Morford, Witts, Killingsworth & Alavosius, 2014). Gamification requires having goals, sub-goals, and progression towards a goal. Players are affected by in-game consequences instantly and, at the same time, directly control their environment. In this process, players create their own strategies for success. Rules and barriers are also essential parts of gamified atmosphere for stability and predictability. The outcome should be ambiguous to make players wonder and keep playing. Lastly, the most important criteria is that no player should be forced to play (Morford et al., 2014). If these elements are taken into consideration, it is possible to gamify any task, process or theoretical context by means of gamification.

Furthermore, using games is a common way in the classroom (Kapp, 2012). Games are known to be effective with regard to increasing motivation (Huizenga, Admiraal, Akkerman, & Dam, 2009), developing problem solving and critical thinking skills and enhancing learning results (Sánchez & Olivares, 2011). Since gamification is the use of game elements, it is explained from educational aspect as the usage of game dynamics, mechanics and components in educational contexts to increase the extent of effectiveness of learning and support target behaviours of learners. It is also a recent trend discovered by teachers to use games as the class itself. Using gamification in the classroom is beneficial because the students are exposed to interactive media and video games at this age, so it may help to make the class more attractive and interesting (Deterding, Sicart, Nacke, & Nixon, 2011; Kapp, 2012; Glover, 2013).

Due to the fact that gamification has just gained importance in educational contexts for a few years, some studies were conducted by using different game elements along with their impact on the learners especially focusing on outcomes such as engagement, participation, motivation, enjoyment, performance and

achievement (Brewer, Anthony, Brown, Irwin, Nias & Tate, 2013; Goehle,2013; Kumar & Khurana,2012; Raymer; 2013; Villagrasa & Duran,2013). However, these studies were mostly based on courses such as Computer Engineering, programming languages, art class, and they were conducted by using game elements in a web tool. Specifically, there are only a few studies gamification and learning a foreign language which are mostly based on the relationship between gamification and language learners' motivational levels which are mentioned in the literature review.

When gamification and vocabulary development of learners are taken into consideration, research on video games explains why vocabulary and games are related to each other. It is suggested that games are not only a source of visual context but also an outline for understanding vocabulary and accurate information (Squire, Giovanetto, Devane, & Durga, 2005). Since the game is effective on vocabulary development itself, using its elements in a non-game context as gamification should also bring more success for EFL students. However, to the knowledge of the researcher, there is a lack of specific studies conducted about gamification and vocabulary development in the area of language education applied in the classroom except applications such as Vocabulary.com Challenge which is a tool including gamification elements like problem-solving, collaboration and independent learning inside.

When all taken into account, although gamification has been previously studied for a few years in second/foreign language learning (Lui, 2014; Abrams & Walsh, 2014; Hasegawa, Koshino, & Ban, 2015; Osipov, Nikulchev, Volinsky & Prasikova, 2015; Perry 2015), there is still a lack of studies in particularly with respect to the vocabulary development and motivation in Turkish EFL learners. Thus, the results of this study are expected to meet the needs of this lack of study related to gamification and EFL learners' vocabulary development along with its effectiveness to aiding motivation and perceptions of EFL students.

1.2 Theoretical Framework

Gamification has been defined by several researchers such as Werbach and Hunter (2012) and Deterding, Dixon, Khaled and Nacke (2011) as the usage of game design elements and techniques in non-game contexts. It is also described in detail as the method to engage people, enhance learning, solve problems and motivate at the

same time by using game-based mechanics, aesthetics, and game thinking (Kapp, 2012).

There are three top elements found in gamification research which are points, leaderboards, and achievements/badges (Hamari, Koivisto & Sarsa, 2014). First, points are applied to give informal feedback and quantify the progress. The leaderboard is a list to show the places of players and it is used for immediate feedback (Werbach & Hunter, 2012). Lastly, badges are defined as the symbols for expected outcomes for individuals (Abramovich, Schunn & Higashi, 2013). They can be used for different purposes such as creating goals, explanations, describing players with the same experiences and giving them status for the declaration of their right (Antin & Churchill, 2011).

According to Lee & Hammer (2011) gamification has an effect on three different areas as cognitive, emotional and social areas. From cognitive perspective, gamification lets students find out their own way by means of immediate and clear effect. As for the emotional aspect, gamification is expected to cause negative emotional impact as well as positive impact, and the feedback's speed and intensity is an effective way of creating more positive environment. Lastly, social aspect is connected to different roles in gamification contexts and finding identity on their own in the environment where learners feel safe.

There are several motivational theories about gamification explaining the psychology behind gamification; but the most well-known theories are Self-Determination Theory, Fogg's Behaviour Model and Four Keys to More Emotions. It is accepted that Self-Determination Theory is the theory that can explain gamification's effectiveness on motivation because of three basic elements as autonomy, competence and relatedness (Groh, 2012; Kapp, 2012). As for Fogg's Behaviour Model, there are three key factors: motivation, ability and the trigger needed to activate motivation. Lastly, Four Keys to More Emotions analyses the reason behind why people play games.

Motivation plays an important role in learning. Even if students have the ability, it is not certain that they can be successful without motivation. Fogg (2002) explains that motivation and ability do not complete each other alone and a trigger is needed to achieve certain behaviour which is supplied by means of gamification. Since gamification includes intrinsic and extrinsic motivation, the game elements can be used for English for foreign language learners. To give an example, while

extrinsic rewards from game elements like levels, points, and badges has a role in engagement; achievement, mastery, autonomy, and a sense of belonging motivates learners intrinsically. The elements of competition, social interaction, and cooperation makes them feel motivated (Muntean, 2011). Since the use of games motivates students because of challenging tasks, they become engaged to the task. Shneiderman (2004) also suggests that teachers can integrate game elements into activities to increase students' motivation. That is why; gamification can be a tool for motivation and English language learning considering all skills including vocabulary as a subskill as well.

1.3 Statement of the Problem

The crucial role of vocabulary in second/foreign language learning is an inevitable fact, as a result the importance of vocabulary teaching is also vital aspect of the language education. While contextualized or traditional method are mainly used in vocabulary teaching, motivation is underestimated in both of them and so learning becomes too difficult to be engaging. Nation (1990) explains that if new vocabulary is learned in second language, it is supposed to be repeated 5 to 16 times. Researchers have determined that this is due to many factors, including: the importance of the word in context (Brown, 1993), the variety of contextual hints, and the learner's curiosity and how well and how much vocabulary they already have (Laufer & Hadar, 1997; Nation & Hwang,1995). However, it is necessary for the teacher to find a way to teach new words without decreasing students' interest by teacher in a motivated and interactive method (Deng & Hu, 2007). Motivation of the students can be enabled while teaching through gamification which can be implemented when gamification is used correctly in classroom to make students part of activities and motivate at the same time (Muntean, 2011).

In addition, most of the students are considered as digital natives, so the way they learn and process information has changed (Prensky,2001). That is why, first learners should be constantly motivated to learn since they lose their attention easily and the as one of the most recent ways the solution is to integrate gamification into teaching to close the gap. Gamification not only makes learning experience better but also make it more engaging, so it can be considered as a bridge between learnings' of digital natives and their motivation.

Considering all the studies conducted gamification on vocabulary development (Lui, 2014; Abrams & Walsh, 2014; Hasegawa, Koshino & Ban, 2015), a lack of research has been found in the area. To this end, this study aims to evaluate the impact of gamification on vocabulary development and motivation among Turkish EFL learners in English language preparatory schools.

1.4 Purpose of the Study

The overall purpose of the study is to investigate and compare the impact of gamified game-based vocabulary teaching and traditional vocabulary teaching on vocabulary development and motivation among Turkish EFL learners at Preparatory School of a private university. In addition, it attempts to find out perceptions of EFL students on vocabulary learning and gamified game-based vocabulary teaching. In general, effectiveness of gamified game-based vocabulary teaching in English language teaching in terms of perceptions, motivation and language performance will be focused in this study.

1.5 Research Questions

The following research questions were addressed in this study:

1. What, if any, impact does gamified game-based vocabulary teaching have on the vocabulary development of Turkish EFL students compared to traditional vocabulary teaching?
2. What, if any, impact does gamified game-based vocabulary teaching have on the motivation of Turkish EFL students compared to traditional vocabulary teaching?
3. What are the perceptions of Turkish EFL students about vocabulary learning and the gamified vocabulary teaching?

1.6 Significance of the Study

Vocabulary has a crucial role in learning a foreign language and the way of learning vocabulary differs according to the learners and learners' styles. In addition to learning styles, keeping the motivation high is also another issue to be considered in learning vocabulary for the generation of digital natives who are being raised up in an interactive world with technology and games. As a result, they are inclined to

become bored in traditional classroom due to the expectations of high level interactivity (Johnson, 2012). Gamification is one of the recent approaches applied in language teaching; and there are some studies conducted related to language teaching via gamification (Osipov et al., 2015; Perry, 2015), there is a need for studies that investigate effect of gamification on vocabulary teaching by designing vocabulary lessons under gamification principles instead of using it with an online application. That is why, this present study aims to make a contribution to teach vocabulary and enhance motivation via one of the recent teaching approaches which is gamification, but the aim is also increase motivational level of the students as well as success. Unlike other studies mentioned above, this study aims to investigate the perceptions of EFL students about vocabulary learning and gamification, which brings qualitative aspect to the study as well.

1.7 Definitions

Motivation: It is a theoretical concept determines the initiation, direction, intensity, persistence and quality of behaviour (Maehr & Meyer, 1997)

Gamification: It is the usage of game elements in a non-game context to create a game-like atmosphere in terms of engagement and action (Deterding et. al., 2011).

EFL: ‘‘EFL described situations where students were learning English in order to use it with any other English speakers in the world – when the students might be tourists or business people. Students often studied EFL in their own country, or sometimes on short courses in Britain, the USA, Australia, Canada, Ireland, New Zealand, etc.’’ (Harmer, 2003, p. 21)

Vocabulary development: "Learning words through listening, speaking, reading and writing, with an emphasis on listening and speaking, especially in Kindergarten and First grade, to promote vocabulary growth" (Graves, 2006, p. 5).

Game-based teaching: It is the process of designing teaching activities so that game characteristics and game principles integrate with the learning activities. (Bauman, 2012)

Chapter 2

Literature Review

2.1 Introduction

This chapter reviews the theoretical background about gamification and motivation in relation to its effect on vocabulary development. First, game-based learning, the definition of gamification is mentioned with elements and then motivation and motivational theories with perspectives in motivational research related to gamification are included in this part. The relationship between gamification and motivation as how gamification can be motivating is examined. After that, gamification in education and foreign language learning is mentioned. Lastly, gamification and vocabulary development is found. In the end, other studies conducted about the topic are noted as well.

2.2 Game-based Learning

Learning consists of two main goals which are which are strengthen the retention and transferability of knowledge. Retention is described as the skill to remember information and knowledge in the same way it was taught. Transferability is the skill to apply the information to solve the new problems. These central goals are effective in the type of learning which can be categorized into three aspects: no learning, rote learning, and meaningful learning. Meaningful learning is associated with problem solving related to transferability of knowledge which is the main aim of education (Anderson& Krathwohl, 2001).

As for game-based learning, it is defined as a type of learning which includes the use of games to aid educational purposes (Micheal& Chen, 2006). Game-based learning is considered as a motivational environment because of the fact that in virtual environments it is easier to bridge the gap between the learning experience and real-life work (Prensky, 2001). Game-based learning constitutes of three parts: input, process and output according to the model of game-based learning (Garris, Ahlers, & Driskell, 2002). It explains how and when learning happens when there is an interaction with a game. The characteristic of an educational game is incorporated with game characteristics such as interactivity, rules, goal, challenge, curiosity, and

control. Then, these features generate a cycle comprised of user judgements like reactions, behaviours, and system feedback. To repeat the cycle, the game is supposed to be motivating and engaging persistently. If the cycle is repeated, self-motivated game play becomes possible. At the end, this engagement turns into achievement of learning outcomes (see Figure 1).

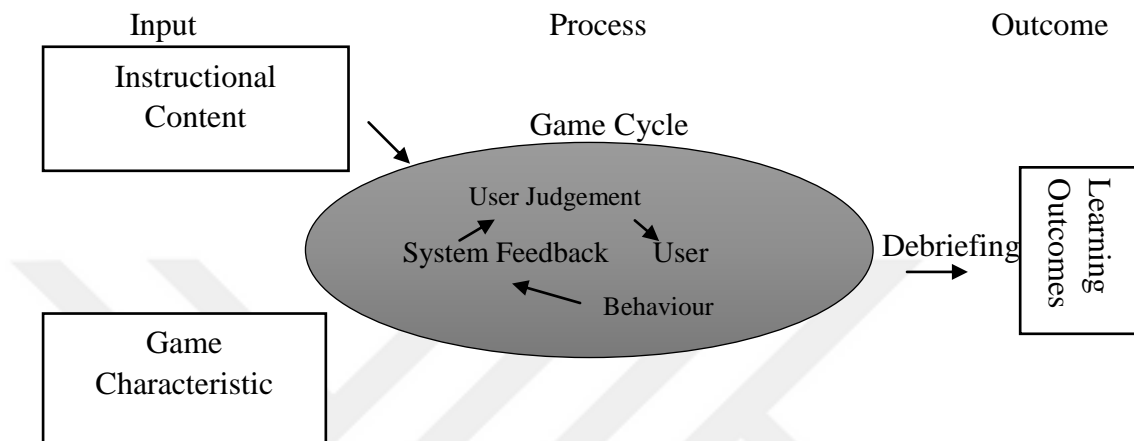


Figure 1. Input-Process-Outcome Game Model (Garris et al.,2002)

Game-based learning has a lot of advantages in terms of contribution to learning outcomes (Huizenga et al., 2009). Firstly, game-based learning is known to increase students' motivation and effective learning (Dickey, 2007; Huang, 2011). It is also possible to keep players' attention for extended period of time by the help of educational games (Becker, 2006). Moreover, games contribute to five learning capabilities: intellectual skills, cognitive strategy, verbal information, attitude and motor skills which are necessary skills in education (Gee, 2007). By means of games, learners' knowledge, behaviours, attitude and skills can be developed as well (Papastergiou, 2009). When it comes to foreign language teaching games are considered as effective tools to increase motivation and attention of the students (Muhanna, 2012). Games can be used both to practice the language and to develop the vocabulary knowledge of the students (Yip & Kwan, 2006).

2.3 Gamification

The main idea of gamification is taking the advantage of game-elements in a non-game context (Kapp, 2012; Deterding et. al., 2011; Werbach&Hunter, 2012; Zicherman & Cunningham, 2011). One of the most common definition of gamification was proposed by Zicherman and Cunningham (2011) as the use of logic of game thinking and game mechanics in non-game contexts to make users interested in solving problems. Werbach and Hunter (2012) describe this particular term as the use of game elements in non-game contexts. Another definition of gamification is the use of game thinking idea and its mechanics to foster learning, engagement and motivation in case of solving problems (Kapp, 2012). According to Squire (2003), gamification should not interfere with the idea of using computer games in education. Due to the fact that games consist of rules with common goals and feedback (McGonigal, 2011; Salen & Zimmerman, 2004), they can be described as interactive, goal-directed problem solving activities guided by rules (Wouters et al. 2013). Gamification includes assimilated game-based challenges, rules, interaction, feedback, and emotions (Deterding et. al., 2011).

Moreover, Kapp (2012) evaluates game thinking as one of the most essential elements of gamification. To be explained in detail, game-based practice is used as a tool for skill acquisition, knowledge acquisition, and strategy automaticity. The reason is that students play and strive to overcome game challenges, so they gradually practice and master the knowledge, strategies, and skills required to win. In addition, feedback provided by games allows players to monitor their progress. The reason is that input from the learner is needed all the time during a good game which results in feedback. (Van Eck, 2006).

Overall, these elements of games are directly applied in gamification. To clarify, challenges as problem solving activities, rules, feedback, progression, emotions, and purpose consist of some elements games to be able to use the games' positive sides and each of them has different functions to be applied in education one by one.

2.3.1 Game elements. Game elements differ according to their purposes and it is possible to adapt them in order to use them in the related environment such

as work, business or education. According to Werbach and Hunter (2012), games consist of different elements which are found in a form of pyramid in different categories used to identify specific features of the games. These three categories of elements are known as dynamics, mechanics and components. They are organized in a decreasing order of abstraction in a way that each mechanic is tied to one or more dynamics and each component is tied to one or more mechanics or dynamics. All elements do not have to be benefited in each design; but the most important part is to make the game fun (see Figure 2).

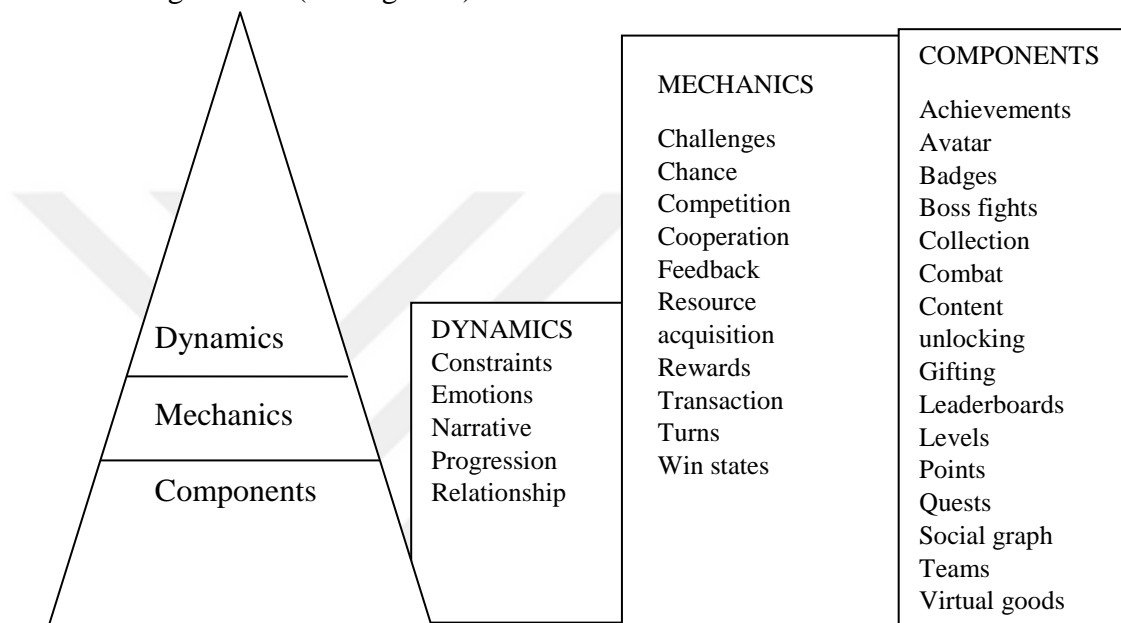


Figure 2. Pyramid of game elements (Werbach & Hunter, 2012 p.78)

As shown in the Figure 2 above, Werbach and Hunter (2012) view dynamics as the highest level in the game element pyramid and the theme to be followed in the whole game. It includes constraints as limitations, emotions which can be positive or negative emotions, narrative as the structure explicitly or implicitly, progression as improvement, and lastly relationships which is communication between friends, teammates, or opponents. That is why, dynamics are the first thing to be thought about in the design of gamification.

Furthermore, mechanics are a more specific level than dynamics since they require more action. They guide the way of players depending on the mechanics used. The difference between dynamics and mechanics is that it is possible to combine more than one mechanic into one dynamic. The mechanics are: challenges

as objectives of the players, chance as a luck sign, cooperation and competition for the feeling of winning or losing, feedback for progression to see students' improvement, resource acquisition, rewards for motivation, transaction, turn and win states to sign of winning (Werbach & Hunter, 2012).

Finally, the lowest level; but the most specific applications are components and some components can be related to mechanics. When game elements are mentioned, these components are considered first in gamification (Werbach & Hunter, 2012). They also suggest that three basic elements which are points, badges and leaderboards (PBL) have been found in their implementation of gamification. Except these elements, levels and rewards are also considered as basic elements (Zichermann & Linder, 2013). As a result, these three uppermost elements can be considered as points, leaderboards and achievements/badges.

A formal list is not found for the game elements; but some researchers (Crumlish & Malone, 2009, Kim, 2008; Zichermann & Cunningham, 2011) evaluate points, levels, leaderboards, challenges and badges as the most universal elements in gamification. On the other hand, according to review of the literature in gamification of education conducted by Nah, Zeng, Telaprolu, Ayyappa and Eschenbrenner (2014), eight game design elements were identified to be used widely in the educational context which are points, levels/stages, badges, leaderboards, prizes and rewards progress bars, storyline, and lastly feedback.

As the first game design element, points are one of the most important elements in gamified teaching. Points are collected from certain activities within the gamification environment. According to Reiss (2004), saving is considered one of his 16 basic desires. Zichermann and Linder (2013) also point out that points go back to our innate desire to keep score and can be used when there is a need to give feedback on accomplishment in a gamified environment. This system's objective is to understand amount of success or achievement. Points can be only simple motivation and given to the students during their performance; but each action's points differ depending on actions. Werbach and Hunter (2012) express that point interest collectors and competitors which equals to achievers and socialisers in gamification user types. Despite the advantage of points as a motivation tool, it is understood that as a sign of poor actual knowledge. However, points can vary in different game

contexts. These points are Experience Points (XP) which are earned at the end of the task and Steam Points as complement in game currency and both of them are used in role-playing games (O'Donovan, Gain & Marais, 2013). Wang and Sun (2011) also add that there is a distinction between regular points and XP points.

As for levels/ stages, it is known as the part of the game and the aim is to give players the idea of improvement during the game. If the player's level is low, it is possible to level up with a short time and less effort. However, more effort and skill are necessary for higher levels. Since it is a type of reward at the end of the task, it might not affect the progression (Goehle, 2013).

As the third game design element in educational contexts, badges are known to be used as a way of representation of an achievement visually. It is gained as a result of task achievement. Zichermann and Linder (2013) describe badges as certain tokens which are signs of goal achievement. Badges are beneficial in terms of motivation and engagement for next tasks (O'Donovan, Gain & Marais, 2013). Werbach and Hunter (2012) also mention that badges could easily be adapted according to specific goals and interests to be able to reach larger audience to catch their interests in ways that a single points system cannot. Lastly, badges provide better interaction and understanding the content in a different way (Wang & Sun, 2011).

When it comes to the leaderboard, it can be defined ranking lists based on players' success and the place to see someone's status in others (Zichermann & Linder, 2013). The first function of this game element is to use it for a certain and immediate feedback during the progression (Werbach & Hunter, 2012). They also accept that players' can focus on the quantity instead of quality to be ranked in a better place. It is also supported in a study by O'Donovan, Gain and Marais (2013), in which five of the game elements which were badges, leaderboard, points, progress bars, and storyline were applied and it was found that leaderboards rank highest when it comes to motivating in the survey as an effective study in terms of engagement and success.

After leaderboards, prizes and rewards are used as a sign of players' success. According to Zichermann and Cunningham (2011), rewards are separated into four categories: status, access, power, and goods. It could be also added that when the

prize or reward is used, its timing and scale should be taken into consideration because it can affect learners' motivation (Raymer, 2011). The next element, progress bars indicates overall goal progression. This element focuses on more general progress unlike badges, and can motivate students when they stay behind in their progress (Nah et al., 2014). As for the storyline, stories are used in the game in the form of a storyline. If the storyline is good enough, students not only keep their motivation and interest high at the beginning of the process, but also at the end of the process (Kapp, 2012). Storyline makes students understand that knowledge is applicable in real world and context makes easy learning and problem solving (O'Donovan, Gain & Marais, 2013). Feedback as the last game design element in education is found useful for learner engagement to catch the flow state which is connected to engagement and necessary concentration for the activity (Csikszentmihalyi, 1997).

In brief, these game elements are considered as the ones which have been used mostly to gamify education. All of these elements serves different functions which can be used in different contexts depending on the design of gamification. That is why, their functions should be taken into consideration in detail according to purpose such as feedback, improvement, achievement or motivation via points, levels/stages, badges, leaderboards, prizes and rewards progress bars, storyline, and lastly feedback.

2.4 Motivation

Motivation is a concept defined from different perspective by different researchers. Motivation is defined in the Cambridge Academic Content Dictionary, as the “reason for doing something”, “willingness to do something, or something that causes such willingness”. Another definition of motivation by Gardner (2010) “the driving force in any situation” (p.89)

Motivation is composed as behaviour's initiation, guidance, intensity, endurance and quality theoretically (Maehr & Meyer, 1997). It both has different dimensions and varies in terms of level as the degree and orientation as the type of motivation (Ryan & Deci, 2000). Brophy (2013) explains motivation in education is the key factor in learning, so it is the sign of attention and effort of students in

learning activities. As for what motivated means Ryan & Deci (2000a) express that “To be motivated means to be moved to do something.” (pg.54).

Lawrence (2011) explains the source of motivation for humans in his “Four-Drive Theory of Motivation”. According to the researcher, four basic drives are found in humans. These drives are; the drive to acquire, the drive to defend, the drive to bond and the drive to comprehend. The first drive is related to get to have what we need from any of our needs. The drive to defend is to protect what we need and the drive to bond is about forming connections. And lastly, the drive to comprehend is the way we try to understand the world. Lawrence (2011) explains clearly what motivates humans with his theory which is linked to motivated individual qualities. According to Gardner (2007), motivated individual is focused on goals and needs to put effort. S/he should be decisive, attentive, excited, self-confident and positive. Finally, the individual person should have desires, expectancies and motives, as well.

2.4.1 Motivational theories related to gamification. There are several motivational theories which explain the relationship between gamification and motivational theories: Self-determination Theory, Fogg’s Behaviour model and Four Keys to More Emotions which are explained in detail below respectively.

2.4.1.1 Self-determination theory. Self-Determination Theory reveals factors affecting motivation in a good way or threatening as intrinsic and extrinsic motivation (Ryan, Rigby & Przybylski, 2006). “Intrinsic motivations are those that derive from our core self and are not based on the world around us. Conversely extrinsic motivations are driven mostly by the world around us, such as to make money.” (Zicherman & Cunningham 2011, 26-27).

The theory suggests, corroborated by empirical data, that human motivation derives from the satisfaction of three basic psychological needs “essential in promoting life satisfaction and well-being”: the “opportunities to experience autonomy, competence, and relatedness” (Levesque, Zuehlke, Stanek, & Ryan, 2004, p. 68). This theory explains human motivation which is separated into three segments: amotivation, extrinsic and intrinsic which can be seen in the figure below (Ryan & Deci, 2000a).

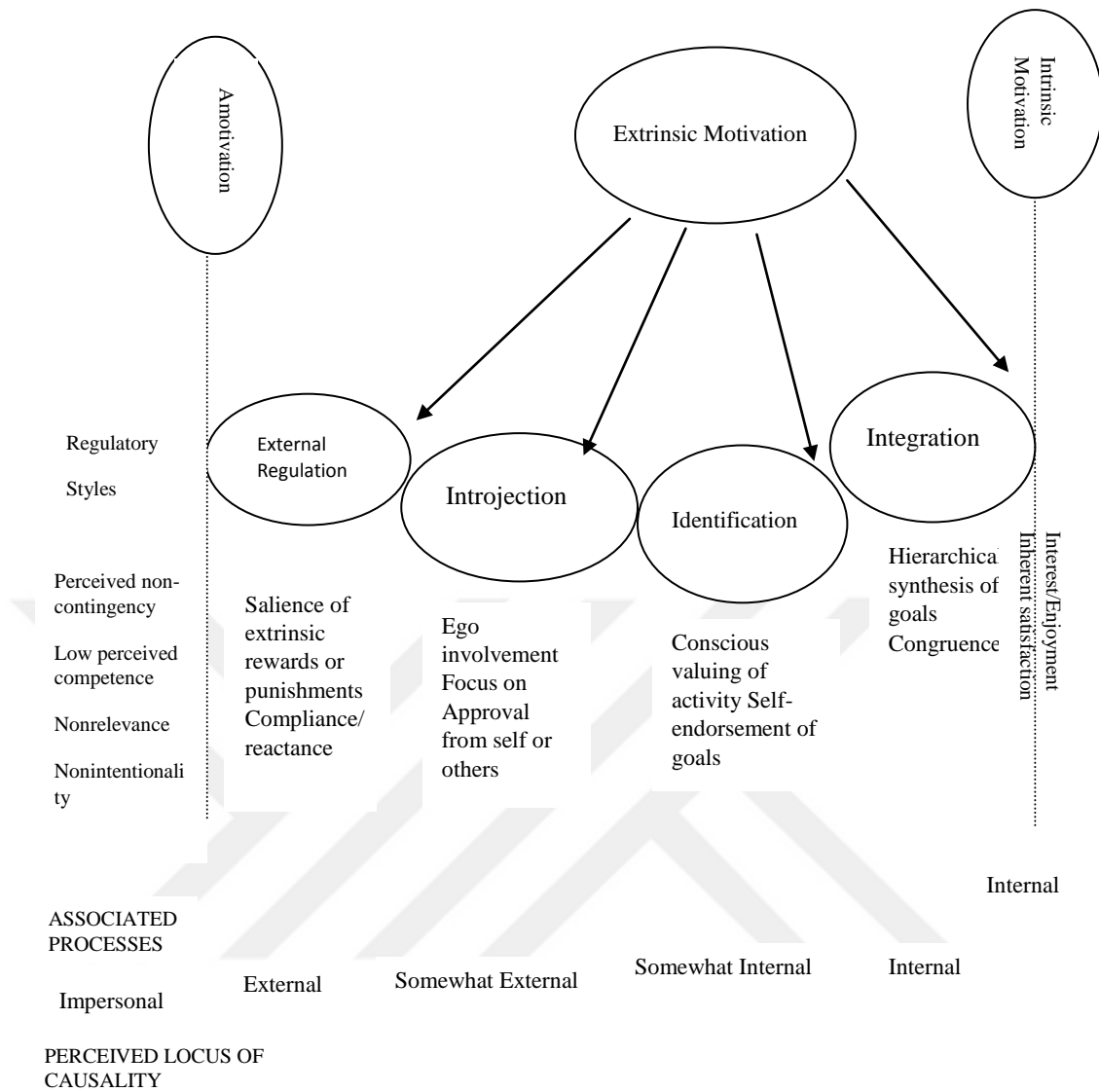


Figure 3. A taxonomy of motivation types-(Ryan & Deci, 2000a).

From these motivation types, specifically two main types namely, intrinsic and extrinsic motivation are studied in education are explained in detail below.

2.4.1.1.1 Intrinsic Motivation. Intrinsic motivation initiates when the engagement is activated just because of learners' own desire to learn or to be challenged due to interest of learners (Alderman, 2008). As Lepper (1998) points out it is important since it brings learners' unique attention and mental concentration on the task. It is an "innate psychological need for competence and self-determination" (Deci et al., 2001, p. 3). According to Harlen and Deakin Crick (2003), learners are interested in both what they learn and learning process on their own. The reason an activity is done not for a specific consequence but for inherent satisfaction. Intrinsic

motivation can be within and between individuals; but it means that it is not for everyone and for any specific tasks (Ryan & Deci, 2000). Three fundamental intrinsic motivations exist in self-determination theory: autonomy, competence, and relatedness (Ryan et al. 2006).

As it is explained by Werbach and Hunter (2012), games can be used as excellent models to explain SDT. Games mostly satisfy the three basic needs: autonomy is satisfied because nobody forces players to play a game, a player can promote competence by accomplishing a mission by themselves and relatedness is satisfied by “sharing achievements with friends” (p.59).

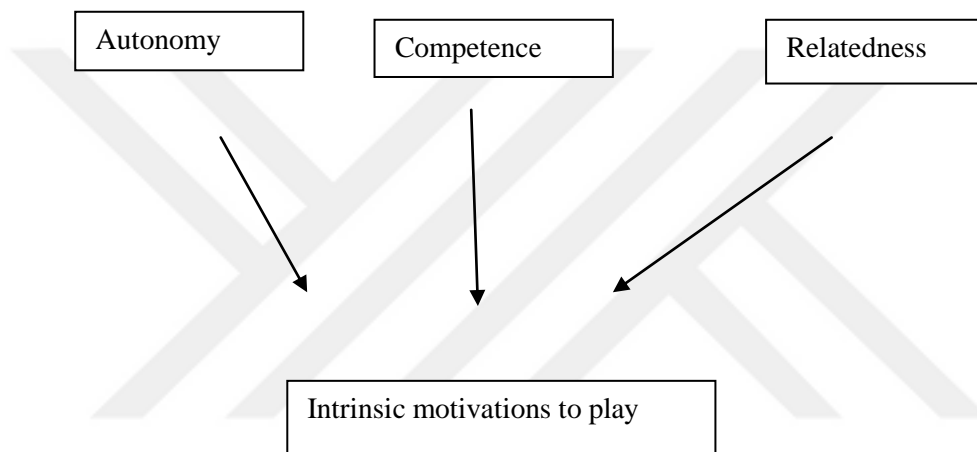


Figure 4. SDT model (Ryan et al, 2006)

As stated by Rigby and Ryan (2011), to be completely motivated intrinsically, three basic concepts of self-determination theory which are autonomy, competence, and relatedness are necessary (Rigby & Ryan, 2011).

Autonomy is the strong desire to initiate things in one’s life in accordance with one’s integrated self (Deci & Vansteenkiste, 2004). Competence is the desire for challenge and being expert in the area (Kapp, 2012). That is, challenges should be interesting and immediate feedback should be given right away for goals expressed clearly (Groh, 2012). Kapp (2012) expresses relatedness as the idea of connection with others. It is also explained as human desire (Rigby & Ryan, 2011). In other words, “relatedness” is the universal desire to interact, connect and experience sense of caring for others (Deci & Ryan, 2000). Overall, it is possible to meet these needs in a different way for each individual; but the important part is their fulfilment is for healthy development and being in a good condition (Deci & Vansteenkiste, 2004).

2.4.1.1.2 Extrinsic Motivation. Extrinsic motivation is doing something to reach an outcome. Unlike intrinsic motivation, instrumental value gains importance instead of enjoyment of the activity. (Ryan & Deci, 2000). There are four types of extrinsic motivation explained within the Organismic Integration Theory a sub-theory of SDT (OIT): One of them is external regulation in which behaviour occurs for an external demand or reward which is the only motivation type recognized by operant theorists. The second one is introjected regulation performed under the influence of pressure to stay away from guilt or anxiety or to satisfy ego. Identification is more self-determined compared to external regulation and introjected regulation since the importance of the activity is understood by the person. The last form of extrinsic motivation is similar to intrinsic motivation considering being autonomous and nonconflicting; but since the focus is on the instrumental value it is still extrinsic motivation. This type of motivation's quality is integration with new regulations (Ryan & Deci, 2000).

According to the theory proposed by Reiss (2014), there are 16 basic intrinsic desires that motivate our actions and define our personalities as acceptance, curiosity, eating, family, honour, idealism, independence, order, physical activity, power, romance, saving, social contact, social status, tranquillity, and lastly vengeance. All of these desires meet their needs one by one.

As a result, these desires should be taken into consideration in gamification. While some people get motivated by extrinsic motivational factors like rewards, the rest of them might get motivated by means of internal factors like interests.

It should be noted that the difference between intrinsic and extrinsic motivation should be taken into account related to applying gamification. While things are done since it is pleasurable in intrinsic motivation, external outcome plays a role in extrinsic motivation. Outcome makes the task appealing as long as it exists as extrinsic motivation; but it is more stable when it is done without an outcome willingly (Perryer, Scott-Ladd & Leighton, 2012).

2.4.1.2 Fogg's behaviour model. Although self-determination theory explains what motivates people, there is still need to explain how the behaviour can be activated. Fogg's Behaviour Model (FBM) identifies three factors to understand

whether the behaviour is activated or not (Fogg, 2009). These three factors are: motivation, ability and triggers.

Motivation

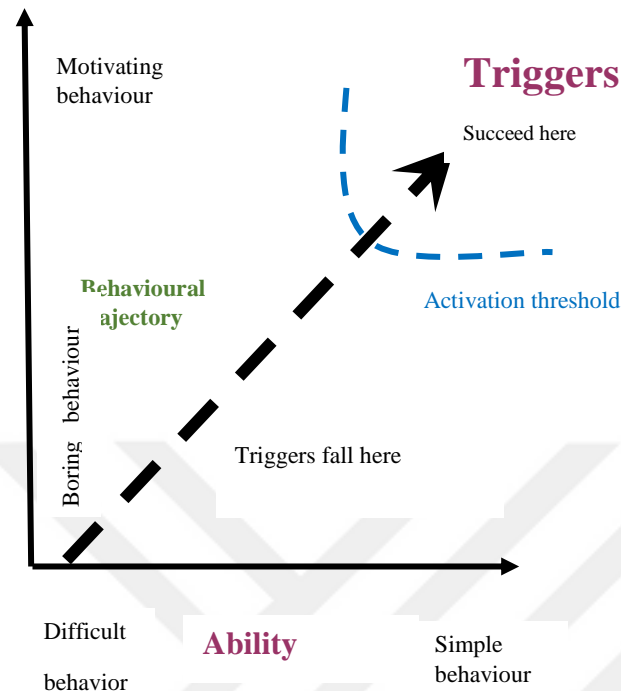


Figure 5. Fogg behaviour model

This model explains the reason of behind gamification and in which all three elements should be combined for activation, so if even one of the factors does not exist, behaviour does not occur. That is why, while motivation is high, the wanted ability should be low and the behaviour should be activated at the correct time.

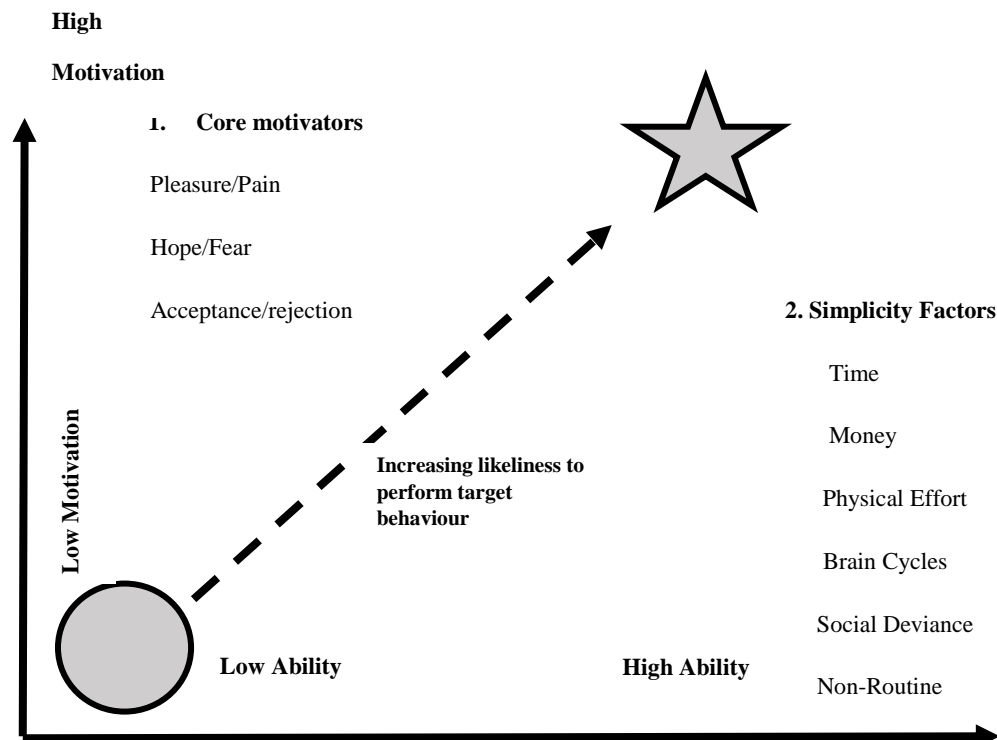


Figure 6. All three factors in the Fogg Behaviour Model's subcomponents

As it is seen in Figure 6 three core motivators in FBM are pleasure/pain, hope/fear, and social acceptance/rejection. When game motivation is thought, SDT's motivators can be used more effectively compared to FBM's three motivators (Ryan et al. 2006). Instead of asking for high ability, this model focuses on simplicity in elements, because it is easier to activate the behaviour and keep motivation high. Elements related to simplicity in behaviour are time, money, physical effort, brain cycles, social deviance, and non-routine. Lastly, triggers can be explained as the starting time of the activity. There are three kinds of triggers which are spark for motivation, facilitator for making action easier, and a signal for reminder.

2.4.1.3 Four Keys to more emotions. This theory explains what makes people play games in four factors. Fun is the first basic motivator when the game is played (Ferrara, 2012; Radoff 2011, 97) Four factors like keys exist to make a game fun which are hard fun, easy fun, altered states and the people factor. People deal with challenges in hard fun; but when enjoyment is more important than improvement, easy fun works with the players. Curiosity is the thing they look for in a game. Altered states meet player's change need. The people factor is about the connection with other people, so the players like interaction in a game (Lazarro, 2004).

2.4.2 Perspectives in motivational researches. Motivation is connected to psychological processes to launch and continue to reach purposeful behaviours (Schunk, Pintrich & Meece, 2012). In motivational research, six principal perspectives related to gamification are found: the trait perspective, the behaviourist learning perspective, the cognitive perspective, the perspective of self-determination, the perspective of interest (Krapp, 1993) and the perspective of emotion (Astleitner, 2000). Each perspective has its own implications according to motivational mechanisms within gamification context. These six perspectives should be taken into account in the design of gamification to choose the correct game elements to motivate students in different aspects.

2.4.2.1 Trait perspective. According to trait perspective, motives are considered as individual characteristics which do not change depending on time and context and influence behaviours such as achievement, need for power, and connection (McClelland, 2009). That is why, three motives can be taken into consideration for gamification. According to Sailer, Hense, Mandl and Kelvers (2013), there are three motives for gamification. The first one is related to strong achievement motive; so the gamification should include achievement and improvement. The second motive is about strong motive; if focus is on status, control and competition in gamification, motivation can be increased. The last motive is about affiliation which is connected to membership in gamification.

2.4.2.2 The behaviourist learning perspective. As Skinner (1963) pointed out, learning occurs via past experiences, positive or negative reinforcement and motivation takes place in the same way as learning by previous stimulus-response bonds. The relationship with gamification can be provided with immediate feedback as a reinforcement and rewards system. (Sailer et al., 2013)

2.4.2.3 The cognitive perspective. In this perspective, motivation is thought as a means-ends analysis in which situation-specific goals, expectancies of the situation and results of the outcome dependent on subjective value gains importance (Heckhausen, 1977; Heckhausen & Heckhausen, 2008). Gamification should provide a clear and achievable goal, the consequences of achieving a goal, the importance of subjective value and mastery orientation.

2.4.2.4 The perspective of self-determination. In Self-determination theory, the psychological needs for competence, autonomy, and social relatedness are hypothesized which is important for intrinsic motivation. Extrinsic motivation can be also a part of motivation when the needs completed (Ryan & Deci, 2000). If the feeling of competence, autonomy and social relatedness are integrated into gamification, it is probable that players can be motivated (Sailer et al., 2013).

2.4.2.5 The perspective of interest. Interest is a motivational variable which is considered affective and cognitive and it varies according to content and interaction with the environment (Hidi, Renninger & Krapp, 2004). As a result, players can be motivated if the content meets their interests and when they get immediate feedback. The feeling of flow can be taken into account by a clear goal,

adaptation the level of difficulty of the task as well as immediate feedback in gamification context (Sailer et al., 2013).

2.4.2.6 The perspective of emotion. This perspective takes emotions into account and in the design of instruction, strategies as instructional strategies affects emotions and which is related to motivational mechanisms (Astleitner, 2004). According to Sailer et al. (2013), players can be motivated by decreasing negative feelings such as fear and anger and increasing positive feelings like sympathy and pleasure.

2.5 The Importance of Vocabulary in Language Teaching and Vocabulary Development in Foreign Language Teaching

Vocabulary is not regarded as one of the main skills such as listening, speaking, writing and reading since it is a sub-skill in language teaching; but it is supposed to be learnt. It has a strong impact on different English skills, such as grammar, reading, writing, speaking and listening (Kayaoglu, Akbas& Ozturk, 2011, p. 24).

According to Nation (2001), there is a relationship between vocabulary knowledge and language use which complete each other. It can be explained that vocabulary knowledge makes easier to use language and when the language is used it can also increase vocabulary knowledge at the same time. Gough (2001) also supports that the amount vocabulary knowledge is in connection with communication skill. Lastly, Wilkins (1972) points to the fact that vocabulary has more value than grammar when it comes to communication. Because of its importance, language teachers are trying to find new ways to make students improve it in an effective way such as gamification.

The period of learning vocabulary seems to be unexciting and problematic for some English Language Learners (Anyaeibu, Jessy & Li, 2012). Although it is problematic, the best approach for vocabulary development could not still be found. There are various ways for vocabulary instruction suggested by researchers. To start with, Nation (1990) found out that it is more likely to learn vocabulary items with 10-16 exposures after the research on ESL textbooks in which there were only five examples for each vocabulary item. That is why, he supported extra exposure in the classroom to increase vocabulary learning. Chun and Plass (1996) compared

incidental vocabulary learning and decontextualized vocabulary lists and the latter one turned out to be more effective in vocabulary development. Later, Decarrico (2001) offered that vocabulary instruction is a combination of explicit teaching combined with activities which provides incidental learning through rich contexts. According to Schmitt (2007) explicit teaching should be the way to teach the most frequent words since it is in direct proportion to necessary comprehension. Lastly, Juff (2009) suggested the combination of word lists and teaching method for vocabulary exposure and retain stronger form meaning links for production.

A current practice in language classrooms that integrate vocabulary into the lesson might be playing games. It is considered as an applicable way to carry out teaching and learning in the language classroom (Richards, 2005). According to Gee (2005), there are 36 principles to be found in video games that can be applied effectively in education. Some of the principles can also be applied to traditional games. The first principle to be applied as one of the most important principles is the one that learning should be active and critical. Everything about a good game requires that the player be actively involved. Games also involve critical thinking and problem solving. When it is passive, students might miss the lesson's important information. The sixth and eighth principles are about the choice and risk. Problems in the game lead gamers to choose and take risks which adds an element of interest and excitement to the game that keeps the player (learner) engaged. Some other principles may be applied are well-ordered problems, challenge and consolidation, just in time (timing and place in the right moment and context), situated meanings, and explore, think laterally, rethink goals. Squire (2011) also supports the fact that games not only teach critical thinking, but also problem solving, systematic thinking, risk taking, and making choices causing consequences. Considering games are an enjoyable and effective way to learn anything, learning via games can motivate the students.

2.6 Motivation and Gamification

Motivation is a complicated issue and people are motivated by means of different things and it is not possible to be motivated by the same thing (Werbach, 2014). To reach the goal of gamification, the right game elements should be used to enhance the application and motivate the users (Werbach & Hunter, 2012).

Niman (2014) states that gamification is connected to intrinsic motivation of students, because it lets students feel fulfilment and enjoyment while they are learning during the process. Playing games supports the autonomy which leads to increase in motivation. The reward system is used in game world based on experiments and failure, so they can get these rewards by thinking differently (Decker & Lawley, 2013). As a result, students are not afraid of failure in this system. Four main parts of Gamification are suggested by Werbach and Hunter (2012) which are Motivation, Meaningful Choices, Structure and Potential Conflicts. First of all, what makes a task motivating should be taken into consideration. If the activity does not make sense, the activity becomes meaningless. Motivation becomes part of Gamification in this part and it keeps player to complete the task. Meaningful Choices is related to freedom in the task. Students should be free to choose how to go further, so choices should aim the success whatever they choose. The structure can be thought as the framework of the concept. When students know what to do next, they can also follow their progression by means of levels and points. Lastly, conflicts act the role of challenges and when students overcome these challenges, they get motivated and feel a sense of achievement. Overall, as Kim (2012) suggests, people are thought to be more engaged and productive when games are included because of several reasons. One of the reasons is that individuals need to use their prior knowledge, use new information in the correct context and learn immediately via feedback (Oblinger, 2004). Since games require active and social participation, it leads learners to apply the knowledge, synthesize it and think in a critical way (Colby & Colby, 2008). Last but not least, game-based environments allow activities which are experiential, situated, problem-based, and give them a chance to become active learners (Boyle, Connolly & Hailey, 2011).

2.7 Gamification and Motivation in Language Education and Foreign Language Learning

Gamification in language education and foreign language learning has recently been experienced as the new teaching style. As Lee and Hammer (2012) explain that although school system includes elements similar to game elements like badges as grades, getting attention of the students seems like a challenge. It is the same case when it comes to second language learning process. According to Brown (1994), there are some personality factors contributing positively to learning second

language. These factors are known as The Affective Domain, Self-Esteem, Inhibition, Risk-Taking, Anxiety, Empathy, Extroversion, Myers-Briggs Character Types, and Motivation. Motivation should be the key factor between language learning and Gamification.

Two types of motivation used in L2 learning are intrinsic and extrinsic motivation which are mentioned above in detailed and they are parts of Self-determination theory. There are three other important types of motivation used in L2 learning which can be connected to gamification as instrumental motivation, integrative motivation, and assimilative motivation. Instrumental motivation is the drive to reach instrumental goals, integrative motivation is the drive to become integrated into a target society, and the enthusiasm to learn a second language and culture at the same time is called assimilative motivation (Graham, 1984). These are all valid in vocabulary learning. For example; when the learners want to get a good mark on an English test they should study appropriate vocabulary to be successful; so they try to achieve that goal for that purpose. As for the relation to integrative motivation with vocabulary learning when learners want to be part of the community and they are highly motivated, they should speak or write like a native speaker so they will focus on expansion of vocabulary, besides using the words in appropriate place. As for Intrinsic and Extrinsic motivation found in Gamification, it is likely to integrate game elements to motivate L2 learners by means of extrinsic rewards using game elements levels, points and badges and intrinsically motivation ideas like achievement, sense of belonging and autonomy (Muntean, 2011). However, it should be reminded that as Kapp (2012) says gamified activities should be designed step by step with challenges separately under the right conditions.

To wrap up, as suggested by Glover (2013), some important points should be taken into consideration when gamification is decided to applied in education. First of all, motivation should be the aim to include it. What is needed to change should be determined and checked if it can be gamified. Since the aim of gamification is to increase motivation, assessment and motivation should be separate. Choosing the right elements according to the students is also very important part of gamification in education. Each activity's explanation should be done clearly and difficulty of activity and necessary time for it should be evaluated fairly.

2.8 Research on Gamification and Education

2.8.1 Gamification and education. Gamification has been applied in the educational and learning contexts by means of diverse game design elements in various studies and the results reveal the effect of gamification with various outcomes (Barata, Gama, Jorge & Goncalves, 2013; Santos, Almeida, Pedro & Koch-Grunberg, 2013; Nicholson, 2013; Brewer et al. 2013).

To begin with, Barata, Gama, Jorge and Goncalves (2013) conducted research and gamified a course called Information Systems and Computer Engineering by adding game design elements into the course. They used experience points, levels, leaderboards, challenges, and badges. At the end of the study, it was proved that these elements caused to increase in student engagement into the course and participation in online course activities such as discussions and queries also became an important part of the course. Although, it did not affect students' grades as much as expected, but student autonomy and attendance to lecture increased which indicated that gamification can be used to promote autonomy and attendance.

In another study by Santos, Almeida, Pedro, and Koch-Grunberg (2013), it was attempted to find out badges' effect on students' learning as a case study. It turned out to be an effective study; because according to the result 90% of the students had the same idea that the badge system is very efficient to make their education more focused and motivated. That is why, badges should be considered to give students a sense of achievement in classroom activities.

Furthermore, Nicholson (2013) aimed to find out the effect of points, leaderboards and an overarching narrative structure on two separate college course over six weeks. While the system was successful for a few high achievers, most of the students could not adapt themselves to the new system at the beginning. However, students started to prefer this system instead of the old one. The results showed that overarching narrative structure was the most successful element since the students' identity according to contexts were chosen. The study could be more successful if the assignment were obligatory and it is pointed out that gamification should be suitable for weaker students at the end of the study.

Lastly, the scoring and prizing system were integrated into the experimental tasks to find a solution to lack of motivation problem on children (Brewer et al.,

2013). According to the findings, task completion rate changed 24% positively with the gamified system. Therefore, it is possible to say that, gamification became a useful tool to increase motivation.

Based on these overviews, gamification had diverse effect on engagement, participation, achievement and motivation in different studies in general. Whereas motivation and engagement increased in some studies, gamification did not have a positive effect on achievement in some of them depending on the study design.

2.8.2 Gamification and language teaching Several studies aimed to investigate the impact of the gamification on achievement and motivation specifically in the area of language teaching which will be summarized in terms of the relevance to this study (Osipov et al., 2015; Perry, 2015).

Osipov et al. (2015) conducted a study called “Study of Gamification Effectiveness in Online e-Learning Systems” for practical foreign language speaking skills training by means of online distance e-learning system in which users would be able to choose to be a teacher or student. Features of the system included pre-defined teaching and learning material seen by both participants at the same time, user motivation via gamification. The system was evaluated according to log files to find out the studying time, the number of connections and game bonus points earned in the system. Time banking, sequential lessons presentation, achievement and badges and peer evaluation were the gamification methods used in the application. As a result, the system was found successful and the authors of research concluded that most of the users were interested in the application and they were able to develop speech communication skills.

One of the studies related to language development “Gamifying French Language Learning: a case study examining a quest-based, augmented reality mobile learning-tool” conducted by Perry (2015) through a new mobile learning tool called “Explorez”. The participants of the study was first year University French students and the main aim was to close the gap between gaming and education by means of quest-based learning and augmented reality. At the end of the study, students got engaged in the learning tool and made progress as expected. Student also were positive in terms of experience and motivation.

2.8.3 Gamification and vocabulary development Several studies attempted to investigate the effect of gamification on vocabulary development specifically as a part of language development (Lui, 2014; Abrams & Walsh, 2014; Hasegawa, Koshino & Ban,2015).

To start with, Lui (2014) aimed to find out the effectiveness of using online flash games “Fling the Teacher” and “Jeopardy” in learning and reviewing vocabulary with the participation of 91 freshmen students in a tertiary institution. Based on gathered findings, most of the students found useful to use interactive online games to review vocabulary as a tool. They also thought they were able to remember new words easily via playing the two games. In spite of the fact that there were some negative comments about the games, the general feedback turned out to be positive in the study.

In another study, Abrams and Walsh (2014) aimed to find out the differences of experiences teaching vocabulary by means of using online resources as a tool comparing an after school program and in school classroom as settings. The main aim was to get the answer for what role gamification has in adolescents’ vocabulary development and attitudes to vocabulary learning. Four features of gaming were taken into consideration: competition, getting points, feedback and public improvement. The Challenge as the game in the website www.vocabulary.com gave chance to the students to become motivated via feedback, points, and levels and it helped them develop vocabulary on their own.

Lastly, Hasegawa et. al. (2015) conducted a study to keep learners studying vocabulary by means of gamification techniques and created a system. The gamifying factors used in the study were growth character system, the time trial question and ranking system and SNS connectivity to create a competitive area. The researchers’ application was evaluated by 27 participants and majority of participants agreed for much of the content especially in the clear points and ranking function of the system.

2.9 Conclusion

Overall, gamification has several benefits in education. First of all, students can feel control over the way their education is carried out. One of the benefits is about students' motivation which can be kept high by goals to reach. And lastly, gamification gives sense of growth to students during the class and they can check their improvement with numbers in a class (Floyd, Portnow & Theus, 2012). Gamification can be a good way to increase motivation and success.



Chapter 3

Methodology

This chapter aims to describe the methodology of the study such as research design, setting, participants and procedure, reliability and validity, and lastly limitations. The procedure section has been also separated into subtitles: types of sampling, data collection instruments, data collection procedure and data analysis procedures, respectively.

The following research questions that were investigated in this study are:

1. What, if any, impact does gamified game-based vocabulary teaching have on the vocabulary development of Turkish EFL students compared to traditional vocabulary teaching?
2. What, if any, impact does gamified game-based vocabulary teaching have on the motivation of Turkish EFL students compared to traditional vocabulary teaching?
3. What are the perceptions of Turkish EFL students about vocabulary learning and the gamified vocabulary teaching?

3.1 Psychological Paradigm

Paradigm is defined as underlying belief system or world view which leads the investigation (Guba & Lincoln, 1994). The most common research paradigms are known as qualitative and quantitative research. While qualitative research is more naturalistic and case-based, quantitative research is objective type of scientific analysis which is done with the subjects of the study apart from the researcher. There are various approaches found in qualitative research such as case studies ethnography, phenomenology, ethnomethodology, interpretative practices, grounded theory, and biographical, historical, clinical research (Denzin & Lincoln, 1994). As qualitative research designs, there are four types of research designs in quantitative research designs: descriptive, correlational, causal-comparative/quasi-experimental,

and experimental research. Considering types of quantitative research designs, quasi-experimental design is a type of quantitative research supported with qualitative data as the experimental group and the control group were selected in a non-random way by the researcher. The reason for selecting convenience sampling is because of the availability of naturally formed groups (Creswell, 1994). In this study, two classes which were selected as the experimental group and the control group were two classes in one of which the researcher had been teaching for about eight weeks. Overall, in the light of this paradigm, this study was based on a quasi-experimental control group design with pre- and post-test.

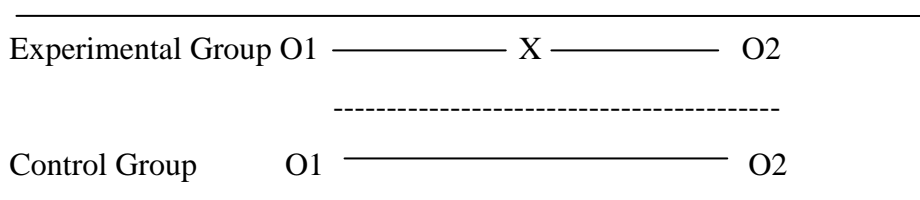
3.2 Research Design

As one of the main approaches in quantitative research quasi-experimental is the research design in which the aim is to examine the effect of an intervention or implementation of gamification to investigate the effect on the result (O'Dwyer & Bernauer, 2013). Creswell (2013) also explains this research design clearly in which while the treatment is applied only in experiment group, the control group is taught with traditional instruction. At the end, researcher compares the results from these groups and investigates the effect of treatment on outcome.

This study was quasi-experimental with a nonrandomized control group. It used a pre-test and a post-test and gathered both qualitative and quantitative data, which required statistical and thematic analysis to triangulate results. The control group design was applied in order to compare the differences in motivation and learning, as well as to find out students' thoughts about gamified game-based vocabulary.

Table 1

Research Design of the Study



In this table, while O1 represents the situation and motivational level of the students before the implementation of gamification regarding to their success and motivation in the pre-test, O2 indicates the result after implementation of gamification and X is the indicator of the treatment.

A pre-test and post-test for vocabulary and motivation were conducted to facilitate comparison of changes in learning and motivation collected at the beginning and end of the eight-week module. Qualitative data was collected as complementary data to check the instructional design's effectiveness. Both the control and experimental group were given pre-test including twenty sentence completion questions from target vocabulary and both groups' statistical analysis scores were compared to the post-test consisting of twenty questions' different from pre-test to investigate their success rate. The same procedure was applied for vocabulary learning motivation questionnaire with fifteen items to find out if there is any significant difference between two groups in terms of their motivational level. Lastly, qualitative data included analysis of semi-structured interviews toward vocabulary learning and gamified game-based vocabulary learning.

3.3 Setting

This study was conducted at an English Preparatory School offered at a foundation (non-profit, private) university in Istanbul, Turkey. In this program, all students are required to take the proficiency exam at the beginning of the academic year to determine whether their level of English is enough to begin their studies in their own departments. To be able to pass their undergraduate programs, their level is supposed to be intermediate (B1) except some departments such as English Language Literature, Applied Translation, and Translation which require upper-intermediate level for the related department. The preparatory school consists of 1000 students most of whom are Turkish EFL students, and the classes generally consist of 16-24 students. The goal of this program is to provide students with writing, reading, listening, and speaking skills necessary for their respective departments.

The preparatory program has a modular system consisting of four modules from A1 to B2, and employs the Common European Framework of Reference for Languages (CEFR). Each module is divided into seven weeks except the final weeks,

and there are 20 hours of English lessons in a week. In intermediate level, students have four hours of writing lessons every week and for the main course, Cutting Edge Third Edition, coursebook is used for this level.

To pass a module successfully, students are supposed to have at least 60 points as an overall grade. Apart from the first week, they take different quizzes including use of English, reading, listening, and writing portfolios each week. At the end of each module, they take the speaking and written final exams.

3.4 Target Population and Participants

For the purposes of this study, the data were gathered from two standard groups of 16 students in each group and 32 students in total. The level of the students in these two groups was intermediate and all of them were supposed to be upper-intermediate level to be able to study in their related departments such as English Language Literature, Applied Translation, and Translation. Moreover, the level of target students was intentionally chosen to be the highest level from the morning shift and afternoon shift since there was only one class of this level in each shift instructed by different teachers to conduct the study effectively. The participants of this study were 13 males, 19 females aged 18-20 studying as an EFL student in a private school in Istanbul, Turkey.

3.5 Procedure

In this part of the study, a detailed information was provided about the sources of data, the types of sampling, data collection instruments, implementation, data analysis procedures, reliability and validity, limitations and lastly delimitations, respectively.

3.5.1 Sources of Data. Types of sampling, data collection instruments and procedures, data analysis procedures, reliability and validity of the study as well as limitations and delimitations were presented in this section of the study.

3.5.2 Data Collection Procedures. In this section, types of sampling and data collection instruments were presented.

3.2.5.1 Types of sampling. Sampling is the process of selecting people from a population of interest to conduct the survey. In spite of the fact that sampling has

four main categories; two groups as probability and purposive are mostly used in sampling procedure in the social and behavioural sciences (Teddlly & Yu, 2007).

Probability sampling techniques are primarily used in quantitatively oriented studies and involve “selecting a relatively large number of units from a population, or from specific subgroups (strata) of a population, in a random manner where the probability of inclusion for every member of the population is determinable” (Compeau, Tashakkori & Teddlie, 2003a, p. 713). Sampling types are categorized as random sampling, stratified sampling, cluster sampling and stage sampling.

On the contrary, in purposive (non-probability) sampling units are selected according to specific purposes to be able to find answers to research questions and it is mostly used in qualitative studies. Four primary types of sampling are found under this category which are convenience, sequential, quota and judgemental sampling.

For the purposes of this study, convenience sampling was conducted for the implementation of gamification and gathering data from control and experimental group because of convenient accessibility and proximity of the subjects for the researcher.

3.5.2.2. Data collection instruments. In this study, data was collected both quantitatively and qualitatively through the use of pre- and post- vocabulary tests, pre- and post- vocabulary learning motivation questionnaire and semi-structured interviews which are described respectively in detail below.

3.5.2.2.1 Vocabulary pre- and post- test. For the purposes of this study, pre- and post- vocabulary tests were prepared according to the worksheets used in the university. According to the prep school system, all materials are prepared by Curriculum and Material Department and students are responsible for target vocabulary which includes 30 words each week and target vocabulary worksheet which has exercises related to target vocabulary. Target vocabulary is prepared according to the level of the students and the main coursebook, and its difficulty is determined by this department in line with these criteria. The common exercise found in target vocabulary worksheet is sentence completion task with the words given above the activity. Sentence completion task was used in both tests which included eight exercises each week.

Since the students would be responsible for seven week's vocabulary, vocabulary pre-and post-test constituted of different questions. In the first week, the game and its system were introduced to the students and it was also played for the practice to be an example for the next weeks, so its target vocabulary exercises were not in the tests. Also, fifth and sixth week's target vocabulary worksheet was the same one, because those weeks were the ones with intense pacing. Students were asked twenty randomly selected vocabulary in pre-test and post-test. These twenty questions were asked in two parts to the students. Overall, students were responsible for 210 words from the first week to the last week and their success would be examined from forty sentence completion exercises to compare the differences before gamified game-based teaching and after the implementation of gamification (see Appendices A & B).

3.5.2.2.2 Pre- and post-vocabulary motivation learning questionnaire. As for the vocabulary motivation learning questionnaire, the questionnaire used by Lin & Cortina (2014) in the study "Effects of Explicit English-Collocation Instruction and Vocabulary- Learning Motivation on L2 Collocation and Reading-Recall Performances" was adapted to customize it to this research setting, and some extra words to the items in the questionnaire were added to the questionnaire.

The original questionnaire comprised of 16 items which were separated into the categories according to interest-value, utility value and expectancy for success in English-vocabulary learning, but one of the items was excluded from the study and two of the items were adapted regarding to the education system of school. Four items as 1st, 5th, 12th and 15th were based on interest value and five items which are 2nd, 4th, 8th, 10th and 11th items were related to expectancy for success in English-vocabulary learning. The rest of the items (3rd, 6th, 7th, 9th, 13th and 14th) constituted utility value items. Moreover, nine of the items were reversed items such as item 3; "Learning English vocabulary worthless."

The first adapted item was the 8th statement; "I have no idea of what's going on in the English-vocabulary learning course" which was turned into: "I have no idea of what's going on in the English-vocabulary learning part of the course." because there was no specific English-vocabulary learning course in the university system and it was only part of main English course. Another adaptation was made on the 10th

statement which was applied to make the statement more specific for the implementation of gamification. While the original item was “I will make a lot of mistakes in choosing appropriate English words”, it was written as “I will make a lot of mistakes in choosing appropriate English words in activities.” The excluded item was 11th item in the original questionnaire as “I enjoy taking English vocabulary courses” since there was no specific English vocabulary courses. Questionnaire included items which were rated on a 3-point Likert scale (i.e., 1 = disagree, 2 = neutral, 3 = agree).

The questionnaire was administered to 16 students in the experiment group and 16 students in the control group before the treatment began for both of them and it was also applied after the implementation of gamification to both groups to find out if the gamified game-based vocabulary teaching made any difference in their motivation between the groups. Moreover, when it was applied after implementation of gamification to the experiment group, students were asked to consider the items according to gamified game-based vocabulary teaching (see Appendix C).

3.5.2.2.3 Pre and post semi-structured interviews. As the qualitative part of the study, in order to get more in-depth information about the participant students’ perceptions about vocabulary learning and gamified game-based vocabulary teaching semi-structured interviews were carried out. While the first interview was conducted before the implementation of gamification, the latter was implemented to get the perceptions after the implementation in English. Six students from the experimental group participated in the interviews. These participants were chosen on a voluntary basis from each team, so there was at least one participant from each group.

The responses given to the interview questions are categorized under the following titles. The first interview included four questions related to vocabulary learning. The first question was designed to learn the role of English vocabulary in learning English. The second question’s aim was to get their views about how they consider themselves as vocabulary learners and the most effective ways to learn vocabulary. The third question was asked to learn what the meaning of learning words is and what they do when they deal with when they encounter a new word. As for the last question, it was prepared to find out their thoughts about the games when it comes to vocabulary learning. As for the second interview, post semi-structured

interview, in the first question students were asked to share their comments about gamified game-based vocabulary teaching and they scored the game in terms of fun, fairness, and usefulness out of 10. In the second question, their feelings during the game were taken into consideration. Finally, the effect of gamified game-based vocabulary teaching on their motivation were obtained throughout their answers (see Appendix D).

3.5.2.2.4 Taboo cards. As a data collection tool for implementation of gamification 210 taboo cards were prepared according to target vocabulary of each week. These cards were done by using the target word's two synonyms and antonym of the word (if it exists) by the researcher. The words synonyms and antonyms were found from the websites <http://www.wordhippo.com/> and <http://www.thesaurus.com/browse/synonym> (see Appendix E). An example of one of the taboo cards can be seen below:

<i>REMAIN (V)</i>	
❖	<i>Continue</i>
❖	<i>Endure</i>
❖	<i>Discontinue</i>

Figure 7. Sample of a taboo card

The following table provides an overview of the research questions and the corresponding procedures:

Table 2

Overview of Research Questions and Corresponding Procedures

Research Question	Data Collection Instrument	Data Analysis
1. What, if any, impact does gamified game-based vocabulary teaching have on the vocabulary development of Turkish EFL students compared to traditional vocabulary teaching?	Vocabulary Pre-Post Test	Descriptive statistics (Mann Whitney U)
2. What, if any, impact does gamified game-based vocabulary teaching have on the motivation of Turkish EFL students compared to traditional vocabulary teaching?	Pre- and Post-Vocabulary Learning Motivation Questionnaire	Descriptive statistics (Mann Whitney U)
3. What are the perceptions of Turkish EFL students about vocabulary learning and the gamified vocabulary teaching?	Pre and Post Semi-Structured Interviews	Content Analysis Miles & Huberman (1994)

3.5.3 Implementation

This study was based on a quasi-experimental research design with a control group and these classes were selected according to their levels. During the study, the experimental group was taught in gamified game-based teaching method while the control group was taught in a traditional way.

The data were collected in a foundation (non-profit, private) university in Istanbul, Turkey. Permission was received by the Head of English Preparatory School at university to collect the data. The data were gathered from three instruments for triangulation process; vocabulary pre-and post-test, pre- and post-vocabulary learning motivation questionnaire and semi-structured interview. The following part explains the data collection procedure in detail.

In the first phase, vocabulary pre-test and pre- vocabulary learning motivation questionnaire were administered to 32 participating students in total (experimental group: 16 students; control group: 16 students). After pre-tests were administered to the two groups during the first week for both groups, implementation of gamification started in the second week after an example game for the experimental group. In addition, pre-focus group interview was implemented in the experimental group to find out students' perceptions about vocabulary learning and also post-semi structured interview was applied to support the quantitative data about the impact of gamified vocabulary teaching as well.

3.5.3.1. Instruction in the experimental group. This group was instructed with gamified game-based teaching which lasted for a seven-week period. The game was played for 50 minutes in one lesson. First of all, gamified game-based method by using the game taboo to teach target vocabulary was introduced to the students in the experiment group after an example game in the first week. Team leaderboards were constituted according to the order in attendance sheet. The game and the rules were handed out all the students. They were informed in a detailed way about the system of method. Since there were only 30 words from each week, 2 of the words were considered as the bonus points to the winning team in that week. Each team were competing with spontaneous 7 words from target vocabulary. The target vocabulary was given to the students at the beginning of the week and the game was

played on Friday before their quizzes done every week. It was decided to be conducted on Friday in the third lesson; because it was the only day and hour when all students were in class and it was also a kind of preparation for the exam as well. There were four teams and students were also able to compete individually in their team, too. The main purpose of the game was to explain the word without using the banned words written on the game card. If they explained the word in a minute, they would get 1 points individually and as a team. When it was a tie, two more words added from previous week words which was counted as two points (see Appendix F).

Table 3

Team Leaderboard

Team 1			
A	B	C	D
1	2	2	0
out of 2	out of 2	out of 2	out of 1

Team's Total Score: 5

As for what was used from gamification elements, points, leaderboards (team leaderboard), and reward were used; because point is considered as a self-element and leaderboard is known as a social element. The reward was benefited to keep the students' motivation high. Namely, the game was combined with game elements to gamify the teaching. The procedure lasted 6 weeks and it was separated into two parts as the first three weeks and the last three weeks to give them a chance to win the game in the second phrase. As mentioned earlier, rewards are categorized into four components: status, access, power, and goods (Zichermann& Cunningham, 2011). From these rewards access and goods were chosen to motivate the students. While teams were given access to speaking practice and study tips, the winner as an individual would get a book. That is, the first three week's winner team's reward would be extra speaking lesson. The winning team's reward at the end would be specific study tips for the final exam. Lastly, the winner of the whole game would get a book related to his/her department.

3.5.3.2 Instruction in the control group. As for the control group, they were given target vocabulary in each week as in the experimental group. However, they were only given a worksheet as a handout to practice on their own and the answers were checked later in class. While the game was played during the third lesson on Fridays before the quiz in the experimental group, the instructor of the control group followed the pacing and taught what she was supposed to teach in that lesson. There was no specific instruction and time for target vocabulary by the instructor. That is why, the worksheet related to vocabulary was given as a homework and the answers were checked in the lesson.

To summarize, the students in both groups had the same classes; but gamified game-based vocabulary teaching was applied to the experimental group to understand the difference between traditional teaching and gamified game-based vocabulary teaching in terms of success and motivation. After the treatment, students in the experimental group's thoughts were asked about the system as a semi-structured interview. Lastly, both groups were administered post-tests for motivation and vocabulary knowledge and the results were compared.

3.5.4 Data analysis procedures. For this study, both quantitative and qualitative data were gathered and analysed. To decide on the data analysis methods to be used, the normality of score distribution was examined by means of the Kolmogorov-Smirnov test. The results indicated that the data showed a nonnormal distribution ($z=0.87$; $p=0.04$), so nonparametric tests were to be used. For the quantitative part, data were collected by means of pre- and post- tests and pre- and post- questionnaires which were calculated through SPSS (Statistical Package for the Social Sciences) version 21 reporting descriptive statistics as well as Mann Whitney U test to investigate if there was a significant difference between these two groups' motivation level and vocabulary development before and after the implementation of gamified game-based vocabulary teaching and traditional vocabulary teaching.

Moreover, quantitative data were complemented through semi-structured interviews before and after the implementation of gamification. The obtained data was analysed using content analysis (Miles & Huberman, 1994). First, labels were constructed according to research questions via the open coding of the data. Then,

categories were found under the labels as themes considering the aspects of vocabulary learning and gamified game-based vocabulary teaching.

To identify the degree of inter-rater reliability, two colleagues in the field of English Language Teaching (ELT) identified themes from the codes which were similar to the themes constructed by the researcher.

3.5.5 Reliability and Validity. Trustworthiness plays an important role regardless of the type of research as qualitative and quantitative research. Guba (1981) mentions four criteria to be effective in a research (as cited in Shenton, 2004) which are credibility, transferability, dependability and lastly confirmability related to internal validity, external validity, reliability and objectivity, respectively. In order to establish trustworthiness in this study, each criteria was analyzed one by one according to the research.

Lincoln and Guba (1985) credibility is considered one of the most significant factors to establish trustworthiness in research. To ensure credibility, triangulation and examination of previous research findings as strategies are carried out in this study. According to Brewer and Hunter (1989), when different methods are used, it compensates limitations caused by individuals and reveals their advantages at the same time. The data from semi-structured interviews as the qualitative part of the study were analyzed to enrich data collected from pre-post tests and vocabulary learning motivation questionnaire as quantitative data. Also, previous research findings were analyzed to ensure the possibility of research.

Transferability is known as another criterion for trustworthiness which is the degree of the study to be applicable in other context (Merriam, 1998). To ensure transferability thick data collection of the data as study setting and participants was provided in a detailed way.

Dependability of a study is understood when the study is applied in the same context via the same methods including the same participants again on the condition that same results can be obtained. To meet this criteria, the researcher supplied every detail of data collection, procedures and data analysis process.

Lastly, to establish conformability, triangulation method was applied in this study with two types of quantitative and qualitative research methods to supply data by means of pre- and post- tests and semi-structured interviews.

3.5.6 Limitations. In this study, there are some limitations to be taken into consideration. Firstly, the study was conducted only in one level and a preparatory school of a foundation university. That is why, the study has limited external validity which is an obstacle to generalize the results in different contexts with a larger population.

Secondly, when it was thought there were 1000 students in the preparatory school, the size of the participants as 16 students were considered as extremely little. Also, because of the time constraints within the school, the time allocated for the study was not a long process. As a result, in a larger period of time, the results could have been slightly different.

Another limitation was due to different instructors in the experimental and control group because there was only one intermediate class in the morning and afternoon shift. That is why, the instructor in the experimental group could have been more effective to take the activities under control in the control group.

The last limitation could be related to the limited context evaluation. While the students were responsible for all vocabulary at the end of the module, this study was only able to measure their success based on 40 vocabulary words. A broader selection of words could have yielded more extensive results.

3.5.7 Delimitations. There are a few delimitations to the present study. Firstly, different data collections tools such as reflective essays by the instructors could provide a greater insight regarding the impact of gamified game-based vocabulary teaching. However, the researcher preferred to conduct the study from the students' point of view. Secondly, the researcher could be the instructor in both classes. However, the limited number of the students in the intermediate level prevented this situation.

Chapter 4

Results

4.1 Overview

This chapter covers the results regarding the comparison of gamified game-based vocabulary teaching to traditional vocabulary teaching to find out the impact on vocabulary development and motivation and explore the perceptions in relation to vocabulary learning and gamified game-based vocabulary teaching at a foundation (non-profit, private) university in Istanbul, Turkey. Data were collected respectively through vocabulary pre-and post-test, pre-and post-vocabulary learning motivation questionnaire and pre-post semi-structured interviews. The rest of this chapter presents and discusses the findings of each research question addressed in this study in detail.

4.2 Findings about the Differences Regarding Students' Vocabulary Development After the Implementation of Gamified Game-based Vocabulary Teaching and Traditional Vocabulary Teaching for Turkish EFL Students in Prep School

In this section, the pre-test and gain vocabulary scores between pre-test and post-test of the experimental and control group are presented to examine the effects of gamified game-based teaching on EFL learners' success on vocabulary development. Mann Whitney U Test was utilized for the inter-group analysis in order to see whether there were any statistically significant differences between the experimental and control groups in terms of pre-test scores, and gain vocabulary scores on vocabulary test which can be seen in Table 4 and Table 5.

Table 4

Inter-Group Statistics of Vocabulary Pre-test Scores

	<i>N</i>	<i>Xrank</i>	$\sum rank$	<i>U</i>	<i>z</i>	<i>p</i>
Experimental	16	18.69	299.00	93.00	-1.32	0.185
Control	16	14.31	229.00			

As it is clear in Table 4, the students in experimental group showed higher achievement than those in the control group. Mann Whitney U test showed that there was no significant difference between the groups ($p>.05$) in terms of their pre-vocabulary scores. In other words, the groups were homogenous before the treatment and therefore comparable.

In order to see the effects of the treatment gain-test scores of experimental and control groups were compared in Table 5 after the implementation of gamified game-based vocabulary teaching.

Table 5

Inter-Group Statistics of Gain Vocabulary Scores

	<i>N</i>	<i>Xrank</i>	Σ <i>rank</i>	<i>U</i>	<i>z</i>	<i>p</i>
Experimental	16	15.31	245.00	109.00	-0.72	0.471
Control	16	17.69	283.00			

When gain vocabulary scores are compared, it is found that there was no significant difference between the groups ($p>.05$) in terms of their gain vocabulary scores at the end of the study.

4.3 Findings about the Differences Regarding Students' Motivation After the Implementation of Gamified Game-based Vocabulary Teaching and Traditional Vocabulary Teaching for Turkish EFL Students in Prep School

This section presents the findings gathered from the quantitative data about the motivation questionnaire. Firstly, the findings from the quantitative data indicate pre-motivation statistics of scores overall and then subscales of motivation questionnaire are also compared between the groups in terms of interest value, utility value and expectancy value. The same procedure is followed for the post-motivation statistics and gain motivation statistics with the same subscales which can be seen below.

Table 6

Pre-Motivation Statistics of Score

<i>Groups</i>	<i>N</i>	<i>Xrank</i>	Σ <i>rank</i>	<i>U</i>	<i>z</i>	<i>p</i>
Experimental	16	13.27	220.50			
				84.50	-1.654	0.098
Control	16	19.22	307.50			

According to the results reported in the table above, there was no significant difference between the groups ($p > 0.05$) in terms of their overall motivation scores. In other words, the groups were homogenous before the treatment and therefore comparable.

Table 7

Pre-Motivation Statistics of Score in Terms of Interest, Utility and Expectancy Values

<i>Groups</i>	<i>N</i>	<i>Xrank</i>	Σ <i>rank</i>	<i>U</i>	<i>z</i>	<i>p</i>
Experimental	16	15.88	254.00			
Interest				118.00	-0.389	0.697
Control	16	17.13	274.00			
Experimental	16	12.75	204.00			
Utility				68.00	-2.368	0.018*
Control	16	20.25	324.00			
Experimental	16	15.19	243.00			
Expectancy				107.00	-0.805	0.421
Control	16	17.81	285.00			

As shown in the results presented in Table 7, there were no significant difference between the groups ($p > .05$) in terms of their interest-value and expectancy for success in English-vocabulary learning scores before the treatment. However, there was a significant difference between them ($p < .05$) in terms of their utility-value scores, in favour of the control group.

Table 8

Gain-Motivation between Pre-Post Motivation Statistics of Scores

	<i>N</i>	<i>Xrank</i>	Σ <i>rank</i>	<i>U</i>	<i>z</i>	<i>p</i>
Experimental	16	21.41	342.00			
				49.50	-2.979	0.003*
Control	16	11.59	185.00			

$p < 0.05$

As displayed in the table above, there was a significant difference between the groups ($p < .05$) in terms of their gain motivation scores at the end of the study. In other words, gamified game-based vocabulary teaching led to a significant improvement ($Xrank = 21.41$).

Table 9

Gain-Motivation between Pre-Post Motivation Statistics of Scores in Terms of Interest, Utility and Expectancy Values

<i>Groups</i>	<i>N</i>	<i>Xrank</i>	Σ <i>rank</i>	<i>U</i>	<i>z</i>	<i>p</i>
Experimental	16	18.28	292.50			
Interest				99.50	-1.119	0.263
Control	16	14.72	235.5			
Experimental	16	20.31	325.00			
Utility				67.00	-2.396	0.017*
Control	16	12.69	203.00			
Experimental	16	20.38	326.00			
Expectancy				66.00	-2.379	0.017*
Control	16	12.63	202.00			

$p < 0.05$

As shown in Table 9, although there was no significant difference ($p > .05$) between the groups in term of their interest-value scores at the end of the study, the experimental group significantly outperformed the control group in utility scores ($p < .05$; $Xrank = 20.31$) and expectancy for success in English-vocabulary learning scores ($p < .05$; $Xrank = 20.38$).

4.4 Findings about the Students' Perceptions Regarding Vocabulary Learning and the Implementation of the Gamified Vocabulary Teaching

With regard to answering the third question about the perceptions regarding vocabulary learning and gamified vocabulary teaching before and after implementation of gamified game-based vocabulary teaching, semi-structured interviews were carried out with the 6 students from experiment group to provide qualitative evidence.

4.4.1 Findings about the role of English vocabulary in English as a Foreign Language. To begin with, the participants were asked about the role of English vocabulary in foreign language and respondents' answers could be grouped into two parts as educational and functional perspectives; but it was clear from the answers that they were all aware of the importance of vocabulary. From educational perspective, the following comments were evaluated:

[...] If I don't know the necessary words, no matter how easy the activity is, it becomes impossible to do it. That's why, vocabulary is important to be successful in the educational life. (Ahmet, Interview data, 4th October, 2016)

[...] When there are too many unknown words in a text, it gets harder to understand the text, so answering the questions turns into second problem, as well. (Mert, Interview data, 4th October, 2016)

As for the functional perspective, students provided answers such as considering vocabulary as the central of language, the key of the success, relationship with the main skills in English language learning as shown below:

[...] Vocabulary is the heart of English language learning because without enough vocabulary, students cannot understand, speak, read or write. (Emel, Interview data, 4th October, 2016)

[...] If you know enough vocabulary, there is no need to worry about communication. It is more important than grammar. (Utku, Interview data, 4th October, 2016)

[...] If you put vocabulary into the first place, your learning of English becomes faster. Everything you will learn in a language includes vocabulary." (Yağmur, Interview data, 4th October, 2016)

In brief, as mentioned in the comments above, vocabulary was considered an important part of English by the students not only educationally but also functionally. It could be concluded that students were eager to learn vocabulary in the lesson.

4.4.2 Findings about participants' consideration as an effective vocabulary learner. With regard to answering the second question which was about whether they consider themselves as an effective vocabulary learner and the ideas about the most effective way. To put it simply, while some of the students were sure of themselves about being effective vocabulary learner, even though the rest of them had their own ways to learn vocabulary, they could not consider themselves as effective vocabulary learner as shown below:

[...] Definitely, because I know how I can learn and keep them in my mind. I do not try to learn all the words because it has to be used a lot to be learned for me. Using vocabulary as much as possible to internalize the vocabulary is my strategy. (Emel, Interview data, 4th October, 2016)

[...] According to me, I am a good vocabulary learner. I do not look the word up in dictionary all the time. I try to guess the meaning from the text. Then, if I am interested in learning more about it or to make sure I sometimes check online dictionary. (Mert, Interview data, 4th October, 2016)

[...] Vocabulary sometimes drives me crazy. I do not know how to keep them in my mind, but trying different strategies would work. Asking to the teacher and taking note are my ways to try to learn. (Onur, Interview data, 4th October, 2016)

[...] Being an effective vocabulary learner depends on mood. If it is necessity, I try to learn it just because it is obligatory. (Yağmur, Interview data, 4th October, 2016)

To summarize, regarding the answers above it could be concluded that it would be difficult to evaluate all the students as effective vocabulary learners completely, but it could be referred that there were certainly different strategies used by them to learn vocabulary.

4.4.3 Findings about what participants do when they encounter a new word. When the participants were asked how they understand when they have learned a word and if it is not learned for sure which strategies they follow, they provided three different types of understanding and strategies which were emphasized in the following comments:

[...]I understand that there is no problem with the word when I use the word unconsciously. If I am not sure, I do not skip over it, instead I check it up. Then, I have to write the word on a sticky note paper to memorize it. (Emel, Interview data, 4th October, 2016)

[...]When I am finally able to explain the word in English, it is enough for me to consider that it is learned. If I am not sure, I check its synonyms and write its meaning at the same time. I can learn more words through this way. (Ahmet, Interview data, 4th October, 2016)

[...]I have to see the word in context after a long time and I should not need to check its meaning again to consider myself learned. I write the word with its translation and the sentence I learned from to remind myself. (Mert, Interview data, 4th October, 2016)

Based upon the statements of the respondents, it was concluded that words must have been internalized and used unconsciously to be considered learned and strategies differed according to the students for the new words encountered.

4.4.4 Findings about the role of games on vocabulary learning. The responses gathered for last question of this study revealed that games have positive or neutral effect to learn new vocabulary. That is why, the responses were classified under two categories; neutral and positive ones as shown below:

[...] I think, games are beneficial because even if the focus seems like the game, vocabulary is seen as a tool, but it is vice versa. (Ahmet, Interview data, 4th October, 2016)

[...] Playing games is motivating, so playing games for vocabulary also sounds motivating. (Yağmur, Interview data, 4th October, 2016)

[...] Games are games, so it should stay as a game, not a tool to learn new vocabulary. (Onur, Interview data, 4th October, 2016)

[...] I am not very keen on playing games in my daily life, so I don't think that it appeals to everyone. (Mert, Interview data, 4th October, 2016)

Overall, the answers revealed that students were aware of the importance of vocabulary and they also had different ways to learn it. However, it could be stated that while almost half of the students did not support using games in vocabulary learning, the other half of the students supported the idea of using games as a tool.

4.4.5 Findings about the participants' comments about gamified game-based vocabulary teaching. In an attempt to find the comments of students about the games, students were asked whether they wanted to tell about the game and the process overall. The main key themes mentioned were related to its difficulty, their favourite part, downside and good side of the game. The following quotations from four of the participants can be seen below:

[...] When we first played the game, I thought it was going to be a lot easier, but it was difficult to explain the words without using the taboo words. It was difficult, but it was totally fun. (Emel, Interview data, 17th November, 2016)

[...] My favourite part was working as a team and individually at the same time. Team work was one of the best parts of the game; because we created our own strategy. (Ahmet, Interview data, 17th November, 2016)

[...] The competition atmosphere forced us to play and motivated. I found the words' difficulty level a little bit unfair. Some of the words were too easy to explain, but some of them not. (Mert, Interview data, 17th November, 2016)

[...] It became the part of the lesson; but I did not feel like we were in the lesson which was definitely good. (Utku, Interview data, 17th November, 2016)

As the second part of the question, participants were asked to give Taboo a fun score, a fairness score, and an effectiveness score, out of ten. Table 10 shows the results of these ratings.

Table 10

Ratings of the Game, "Taboo" by Students

	Fun Score*	Fairness Score*	Effectiveness Score*
Ahmet	8	7	9
Emel	7	8	9
Mert	6	9	7
Onur	6	7	8
Utku	8	8	7
Yağmur	5	7	6

*Scores are out of 10.

As shown in the table above, the mean fun score was 6.66 out of 10, the mean fairness score was 7.66 out of 10 and the mean effectiveness score was 7.66 out of 10. From these results, we can understand that fairness and effectiveness of the game were considered equal, the fun score was lower than fairness level and effectiveness level.

4.4.6 Findings about the participants' feelings during the game. In this part, participants were asked to choose from emotions, if any, they felt when they earned points, leadership, bonus points in the game which were happy, powerful, safe, selfish, strong, confident, greedy, sad, confused, competitive, excited, or angry. While competitive was mentioned 6 times, confident and powerful were both chosen 4 times. Also, happy was mentioned 2 times and one emotion chosen only once was excited which can be seen below in the table. In brief, it was concluded that competitive atmosphere was felt during the game which led to confidence and power more than other emotions.

Table 11

Participants' Numbers of Feelings during the Game

	<i>Happy</i>	<i>Powerful</i>	<i>Safe</i>	<i>Strong</i>	<i>Confident</i>	<i>Competitive</i>	<i>Excited</i>
<i>Points</i>	2	1	-	-	3	-	-
<i>Leadership</i>	1	3	-	-	-	2	-
<i>Bonus Points</i>	-	-	1	-	-	4	1

4.4.7 Findings about the feeling of success and strategies used at the end of the game. In an attempt to find out the feelings of students about success and strategies followed during the game, positive thoughts were generally shared. Specifically, when the students were asked about strategies and the effect of target vocabulary worksheet, two of the students expressed that it was sometimes useful, while the rest expressed their ideas about taking advantage of target vocabulary worksheet in their success. Some of the following quotations derived from the students' answers are given below:

[...] When I got to explain the vocabulary successfully, I felt like I learned it. I had to use English, so I was able to think English after getting used to the game. It would be difficult without target vocabulary worksheet, though. (Ahmet, Interview data, 17th November, 2016)

[...]When I got to explain the vocabulary successfully, the idea of achievement made me feel good. I tried to explain as simple as possible as a strategy. (Onur, Interview data, 17th November, 2016)

[...]When I got to explain the vocabulary successfully, I felt that I was appreciated by my friends. I used reminders when we learned that word in the class as a strategy; but working on the list also helped me a lot. (Yağmur, Interview data, 17th November, 2016)

To summarize, the interview findings showed that target vocabulary worksheet was a crucial tool for most of the participants and some other strategies such as using reminders were created by participants at the same time.

4.4.8 Findings about how gamified game-based vocabulary teaching was perceived by students. As for the answer to the fourth and last research question with respect to the perceptions of students on gamified game-based vocabulary teaching on motivation, students were categorized into two groups as more motivated and no change. When they were asked why they were more motivated or why there was no change about the motivation, the reasons they provided were related to competitive atmosphere, being fun and interesting activity for more motivated students, the fear of failure and lastly, the difficulty of some words for the students who were not motivated at all. The responses can be seen in the following quotations:

[...] I was more motivated, because it felt like a competition and it made me study on vocabulary more. (Ahmet, Interview data, 17th November, 2016)

[...] It was different from our usual lessons, so it made the lesson enjoyable. (Onur, Interview data, 17th November, 2016)

[...] I sometimes got excited because it was a team work and it was going to affect their success, too. It was nice but neutral for me. (Emel, Interview data, 17th November, 2016)

[...] If the words I tried to explain had been easier, I would have been more motivated. (Mert, Interview data, 17th November, 2016)

In addition, students' team leaderboards and points could also be taken into consideration to support and understand the interview results in a better way and the effect of gamification on their motivation. When the points were checked, while the minimum score of a team was 3, it increased to 5. When it comes to maximum scores, it was 12 and 11 at most with the previous weeks' words and bonus points as a winner team. In the first three weeks, the 3rd and 4th team were competing with each other compared to the other teams, and in this round each team won once except the first team. However, only the 1st and 4th teams were the winners in the second round. When the whole game was evaluated, each team was able to win at least once, which motivated them even in the last minute (see Appendix G&H).

To sum up, in the light of responses in this interview, students mostly shared positive comments about the game and considered that it as fair and useful rather

than just fun. Competition and confidence were the feelings they experienced as well. As it was expected, the feeling of success made them feel good. When it comes the motivation, it can be inferred that gamified game-based vocabulary teaching did not have negative effect on their motivation. Shortly, it can be also concluded they created their own strategies for the game.



Chapter 5

Discussion and Conclusions

5.1 Discussion of Findings for Research Questions

The purpose of this study was to investigate the effect of gamified game-based vocabulary teaching on success in terms of vocabulary development and motivation to find out whether it will make any differences on these factors between experiment and control group. Moreover, this study also aimed to explore participants' perceptions on vocabulary learning just before the treatment and gamified-game based vocabulary after the treatment. In this study, data were collected through both quantitative and qualitative data collection instruments, which comprised pre- and post- vocabulary tests, vocabulary learning motivation questionnaire and semi-structured interviews. The following sections discuss the findings of each research question in depth.

5.1.1 Discussion of findings of RQ 1: What, if any, impact does gamified game-based vocabulary teaching have on the vocabulary development of Turkish EFL students compared to traditional vocabulary teaching? The first research question attempted to investigate the impact of gamified game-based vocabulary teaching on vocabulary development in comparison to traditional vocabulary teaching on Turkish EFL students. The analysis showed that there were no significant statistical differences in vocabulary development between the groups which were taught using gamified vocabulary teaching and traditional vocabulary teaching.

To put in simply, gamified game-based vocabulary teaching did not cause any significant difference on their success compared to traditional vocabulary teaching. The reason behind this finding might be different background knowledge of students related to vocabulary. In line with this argument, Cromley & Azevedo (2007) found in their study of reading comprehension that both vocabulary and background knowledge could be considered as mediums to understand and affect students' achievement to practise their problem solving strategies when the meaning is solved. That is why, it is thought that vocabulary is a sign of background knowledge which relates them to each other. One of the reasons of this finding might be due to the fact

that students in the experimental group focused on the game more than trying to learn the words by means of creating their own strategies to win the game as a team.

Another reason behind this finding may be because of the fact that the students in control group might have studied target vocabulary on their own more than experiment group which led to close the gap between them and experiment group. Since there is an increase in both groups, the effect of gamified game-based vocabulary teaching on experiment group should not be denied, either. It can be concluded from the fact that game based learning can be an educational tool because games activate the cognitive, emotional, and social areas of students (Lee&Hammer,2011). In addition, it can be regarded as an excellent channel for learning (Trybus, 2012). However, it should be noted that since there is no significant difference between experimental and control group, game mechanics' effect used as points and leaderboards in this study might not have positive effect in terms of vocabulary development. As mentioned by Werbach and Hunter, points are accepted as a sign of poor knowledge and when it comes to leaderboards, quantity might be considered more than quality which leads to less success.

Furthermore, the findings of the current study were in accordance with and Domínguez et al. (2013) and Hanus and Fox (2015) research studies which revealed that gamification had no significant effect on students' success. In the latter study, it was found that students' taught by means of gamification were less successful than the ones taught with traditional method.

5.1.2 Discussion of findings of RQ 2: What, if any, impact does gamified game-based vocabulary teaching have on the motivation of Turkish EFL students compared to traditional vocabulary teaching? The second question aimed to find out whether there would be any difference on the motivation level of Turkish EFL students' after gamified-game based vocabulary teaching in comparison with control group. With regards to this question, vocabulary learning motivation questionnaire comprised of three sub-scales; interest, utility and expectancy value was administered to the students in both groups.

As for the subscales of motivation questionnaire, when the gain value scores were compared, it was found that there was no significant difference according to

interest-value scores at the end of the study between two groups, but the experimental group was found a lot more motivated compared to control group in terms of utility and expectancy for success in English-vocabulary learning scores. As it was seen in the results, both groups were interested in learning vocabulary although experiment group was more aware of the importance of vocabulary in terms of usage in the future and positive about learning English vocabulary.

The reason behind this finding might be related to two main types of human motivation: intrinsic and extrinsic motivation as mentioned in the self-determination theory. As explained earlier, game elements can affect motivation positively in an extrinsic and intrinsic way such as extrinsic rewards from game elements such as points, and these game elements can also create achievement, mastery, and a sense of belonging which affects the learners intrinsically (Muntean, 2011). When game elements are combined with games, motivation increases in a certain way. In this study, students not only got motivated by game elements extrinsically, but also they were affected from achievement, competition, and a sense of belonging because of the team work intrinsically. In addition, they were given rewards as a team and individually at the end of the game which increased their motivation.

Another reason behind this finding might be due to the fact that the study was conducted in two parts and in teams. Even if they could not win in the first round, they kept playing the game because they were given another chance to keep their motivation high. As for teams, they were able to compete in teams, among the teams, and individually which also motivated them.

When the findings were analysed according to the pre- and post- questionnaire results, the gamified-game based vocabulary taught group's motivation increased much more in comparison with control group. These findings are in accordance with those of Akpolat and Slany (2014), and Landers and Landers (2015), Hew and Huang and Chu and Chiu (2016) where students' motivation were positively affected in a gamified course compared to control group and game mechanics such as leaderboards, points, and rewards were important incentives in educational environment for intrinsic motivation.

5.1.3 Discussion of findings of RQ 3: What are the perceptions of Turkish EFL students about vocabulary learning and the gamified game-based vocabulary teaching? As for the last question, semi-structured interviews were administered to the participants of the study to identify their perceptions in relation to vocabulary learning and the gamified game-based vocabulary teaching. The answers of the participants were analysed via content analysis inductively.

According to the data gathered, vocabulary was considered as an essential part of language in terms of educational and functional perspectives and regarding the students' answers, even if they did not consider themselves as effective vocabulary learners, all of them had their own strategies to learn vocabulary. Vocabulary was regarded as a problematic issue for ineffective vocabulary learners. It was also found that students had different understanding with regards to considering a word learned by them which indicated that learning could be in various ways and gamified game-based vocabulary teaching would not be effective for all students. Lastly, their opinions were asked about the place of games in vocabulary learning and it was concluded that most of the students were in favour of games in vocabulary and thought that it could be an effective way to learn instead of a traditional way.

Other important findings in this section were gathered after the implementation of gamification via the second part of semi-structured interview. The questions in this interview were related to their perceptions about implementation of gamification. First, it could be referred from the comments, the answers included both advantages and disadvantages of game. Teamwork and competition made them motivated; but the disadvantage was the difficulty of some words which caused some of the students think that the game was not fair. However, the reason of this might be they chose the words randomly and since it was the target vocabulary of specific week they were all mixed. The next question aimed to evaluate the game in terms of fairness, effectiveness and fun aspects. The game was found to be fair and effective in the same amount, and less fun than being fair and effective. It could be understood that the design of the game was evaluated positively. As for the feelings, they felt competitive at most, and confident and powerful, and lastly happy, respectively. Moreover, feeling of success when they got to explain the vocabulary, motivated them as expected.

In conclusion, the findings were in line with the findings from the first semi-structured interview and descriptive results of the study specifically related to motivation. It can be stated that implementation of gamification can be taken into consideration in prep school EFL classrooms.

5.2 Practical Implications

This study has both descriptive and practical implications for the effect of gamified game-based vocabulary teaching in EFL learners. As discussed before, there is limited number of specific studies on gamified vocabulary teaching including game inside with particular game elements and this study aims to provide insights to insufficient literature in its specific context.

In the light of the findings, some pedagogical implications can be made as well. The results provide insights about the perceptions of the Turkish EFL learners about vocabulary learning and gamified game-based vocabulary teaching. First of all, activities that increase learners' motivation should be practised more often in EFL classes. Instead of using only games as a tool while teaching, game elements should be included to make the activity more appealing. Lastly, the importance of learning should be highlighted beside motivation when the game is included with its elements. Overall, the findings of this study are significant and crucial for implementation of gamified game-based vocabulary teaching in EFL classrooms as a method.

5.3 Conclusions

The result of this study indicated that whereas gamified game-based vocabulary teaching had positive contribution to students' motivation in the experiment group; its effect on success was neutral. In other words, there was a significant difference between the two groups with regards to motivation. However, there was no significant difference between the two groups in terms of their success when gain scores were taken into consideration. Moreover, the data collected through semi-structured interviews with the experiment group clarified that they were highly motivated and shared mostly positive perceptions about the gamified game-based vocabulary teaching in such aspects as team work, competitive area and effective method.

To conclude, the aim of this study was to compare the gamified game-based vocabulary teaching and traditional vocabulary teaching in EFL classrooms in terms of motivation and success. The findings of this study demonstrated that gamified game-based vocabulary teaching could be considered as an effective method to increase students' motivation in comparison to vocabulary development.

5.4 Recommendations for Further Research

The present study provides some recommendations for further study. First and foremost, the present study took place in a private foundation university with 32 students and did not include instructors. Hence, the same treatment can be applied in the other classrooms with different levels to strengthen the findings of the present study. Another suggestion is that different data collections instruments and data analysis procedures could be used with the same group of participants to investigate the effectiveness of this particular research design. Last but not least, the treatment could be extended to a longer period of time.

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APPENDICES

Appendix A. Vocabulary Pre-Test

Name:

Surname:

PART A: Complete the sentences with the correct forms of the words in the box.

Consuming	Cliff	Warning	Insistent	Mystery
Observable	Treat	Deservedly	Consideration	Praise

1. Safety is our main
2. Watch out your steps on the edge of the It is higher than it looks. The rocks are very slippery.
3. The exact origin of the universe remains a
4. Her first novel won a lot of from the critics.
5. As the group didn't leave the place, he intended only to fire shot.
6. There are some changes in her behaviours. Her teacher seems pleased.
7. She was that they should all meet for dinner and didn't stop until we agreed.
8. Penny doesn't think that her co-workers her as an equal.
9. Limonlu Bahçe is a popular restaurant.
10. The legal process was time-..... and expensive. Both parts agreed on negotiating about the issue.

B. Complete the sentences with the correct forms of the words in the box.

Suspect	Attractive	Sensational	Merger	Valuable
Bully	Stalker	Deliberate	Permanently	Rest

1. He moved here in 2008. He won't move again.
2. This was a attempt to mislead us. It was not by mistake.
3. We want to make the club to a wider range of people. Thus, we will renovate the place and redesign the menu.
4. The doctor told him that he should for a few days. Too much work caused the health problem.
5. A was arrested today in connection with robbery. The evidence in the crime scene indicates that the robber is an acquaintance.
6. There has been a lot of talk about the of Google and YouTube. Google bought YouTube for \$1.65 billion.
7. The journalist desired news far too much that he ended up exaggerating. Having reading the news, people were shocked.
8. The new application allows its users to track the internet history of a person including the amount of time spent online. I doubt it is even legal.
9. A was arrested today in connection with robbery. The evidence in the crime scene indicates that the robber is an acquaintance.
10. He was able to provide the police with some information.

Appendix B. Vocabulary Post-Test

Name:

Surname:

PART A: Complete the sentences with the correct forms of the words in the box.

Imaginary	Pushy	Outrage	Solve	Astonished
Satisfied	Consider	Feature	Vintage	Furiously

1. I didn't want to look too That's why I stopped calling her to join the club. She is welcome whenever she wishes to be in!
2. The clothing has been very popular among Hipsters. The style usually refers to clothing that imitates the style of a previous era.
3. If you buy an old house, you have to the cost of repairs.
4. The town's main are its beautiful church and ancient marketplace.
5. We must protect older people from harm, whether it is real or
6. We were to find the temple still in its original condition after all these years.
7. In the meeting, I was opposed to the cuts. We needed that money for the children. Even thinking about it irritates me.
8. The response to the jury's verdict was one of He shouldn't have been sentenced to imprisonment for 4 years.
9. Charlie thinks money will all his problems.
10. The company is very popular because of their policy: If you are not completely, you can get your money back.

PART B: Complete the sentences with the correct forms of the words in the box.

Abuse	Qualified	Depend	Distracting	Combat
Teasingly	Hesitation	Foundation	Expectantly	Dedication

1. I think John is the best leader in the team. He has experiences and he has had training on this field several times.

2. She thanked the staff for their and enthusiasm. They all had worked for 3 weeks, day and night.

3. Clinton has helped millions of HIV sufferers in low and middle income countries. You can support them by donating \$100 per year.

4. The rescued dogs have been the victims of physical

5. He looked at Sarah when the exam results were about to be announced. They studied a lot to pass the test and he believed that they had done well in the exam.

6. I would have no in recommending Philip for the position. He is the best employee we have for the job.

7. She on her son for everything. She can barely walk up to the kitchen.

8. I find it too to work with the television on. Some of my colleagues can even watch a movie while working at home.

9. I hate it when John talks about my accent

10. The aircraft was shut down in

Appendix C. Vocabulary Learning Motivation Questionnaire

Name:

Surname:

	1 (Disagree)	2 (Neither)	3 (Agree)
1. I like learning English vocabulary.			
2. I will have trouble understanding English vocabulary because of the way I think.			
3. Learning English vocabulary is worthless.			
4. Usage of English words is easy to understand.			
5. Knowing many English words makes me happier.			
6. Learning English vocabulary is a complicated task.			
7. Learning English vocabulary is not useful to the typical professional.			
8. I have no idea of what's going on in the English-vocabulary learning part of the course.			
9. I use English vocabulary in my everyday life.			
10. I will make a lot of mistakes in choosing appropriate English words in activities.			
11. I found English vocabulary learning difficult.			
12. I am interested in learning information on English vocabulary learning.			
13. I will have no application for English vocabulary in my profession.			
14. Learning English vocabulary is irrelevant to my life.			
15. I am interested in learning English vocabulary.			

Appendix D. Pre-Post Semi-Structured Interview Questions

Pre- Semi-Structured Interview Questions:

- 1.What is the role of English vocabulary in English as a foreign language?
- 2.Do you consider yourself as an effective vocabulary learner? If yes, please share the most effective ways to learn vocabulary.
- 3.How do you understand when you have learned a word? What do you do when you see a word which you are not sure that you have learned before?
- 4.Do you think games are effective tools to learn new vocabulary? If so, how?

Post- Semi-Structured Interview Questions:

- 1.Do you have any comments about the game that you would like to tell us? Give Taboo a fun score, fairness score, usefulness scores out of 10 in terms of vocabulary learning.
2. How did you feel when:
You earned points in the game, Taboo:
 happy powerful safe selfish strong confident greedy sad confused excited angry competitive other: _____
You earned the leadership in the game, how did you feel?
 happy powerful safe selfish strong confident greedy sad confused excited angry competitive other: _____
If you have earned bonus points as a team in this game:
 happy powerful safe selfish strong confident greedy sad confused excited angry competitive other: _____
3. Finish this sentence. When I got to explain the vocabulary successfully.....Did target vocabulary worksheet help you to find the vocabulary? If not, how did you manage it?
- 4.What impact has the gamified game-based vocabulary teaching learning model had on your overall motivation? Are you more motivated, less motivated, or no change? Explain why.

Appendix E. Taboo Cards

GAIN (V)	FED UP (ADJ)	CONSTANTLY (ADV)
<ul style="list-style-type: none"> ❖ Acquire ❖ Get ❖ Lose 	<ul style="list-style-type: none"> ❖ Annoyed ❖ Discontented ❖ Pleased 	<ul style="list-style-type: none"> ❖ Continually ❖ Always ❖ Unusually
COMMUTE (V)	SIGNIFICANT (ADJ)	ANCIENT (ADJ)
<ul style="list-style-type: none"> ❖ Travel to work ❖ Go back and forth ❖ Stay 	<ul style="list-style-type: none"> ❖ Important ❖ Meaningful ❖ Insignificant 	<ul style="list-style-type: none"> ❖ Antique ❖ Old ❖ Modern
LIVELY (ADJ)	SPECTACULAR (ADJ)	POLLUTION (N)
<ul style="list-style-type: none"> ❖ Energetic ❖ Active ❖ Passive 	<ul style="list-style-type: none"> ❖ Wonderful ❖ Amazing ❖ Ordinary 	<ul style="list-style-type: none"> ❖ Dirtiness ❖ Contamination ❖ Cleanliness
SUDDENLY (ADV)	EVENTUALLY (ADV)	SENSATIONAL (ADJ)
<ul style="list-style-type: none"> ❖ Unexpectedly ❖ Abruptly ❖ Expectedly 	<ul style="list-style-type: none"> ❖ Finally ❖ In the end ❖ At the beginning 	<ul style="list-style-type: none"> ❖ Amazing ❖ Astounding ❖ Ordinary

INTEREST (N)	WASTE (V)	SCENERY (N)
<ul style="list-style-type: none"> ❖ Curiosity ❖ Passion ❖ Disinterest 	<ul style="list-style-type: none"> ❖ Misuse ❖ Disuse ❖ Economize 	<ul style="list-style-type: none"> ❖ View ❖ Landscape ❖ Panorama
ABANDONED (ADJ)	BARGAIN (N)	WARNING (N)
<ul style="list-style-type: none"> ❖ Deserted ❖ Isolated ❖ Adopted 	<ul style="list-style-type: none"> ❖ Deal ❖ Negotiation ❖ Disagreement 	<ul style="list-style-type: none"> ❖ Cautionary ❖ Threatening ❖ Cautioning
HUGE (ADJ)	EMPLOYEE (N)	TRAIN (V)
<ul style="list-style-type: none"> ❖ Enormous ❖ Great ❖ Tiny 	<ul style="list-style-type: none"> ❖ Worker ❖ Labourer ❖ Employer 	<ul style="list-style-type: none"> ❖ Educate ❖ Qualify ❖ Learn
ESSENTIAL (ADJ)	FIND OUT (V)	IMPATIENT (ADJ)
<ul style="list-style-type: none"> ❖ Necessary ❖ Crucial ❖ Needless 	<ul style="list-style-type: none"> ❖ Discover ❖ Ascertain ❖ Conceal 	<ul style="list-style-type: none"> ❖ Intolerant ❖ Restive ❖ Patient

INTENSIVELY (ADV)	DEFINITELY (ADV)	PROPERLY (ADV)
<ul style="list-style-type: none"> ❖ Extensively ❖ Fully ❖ Partially 	<ul style="list-style-type: none"> ❖ Certainly ❖ Absolutely ❖ Doubtfully 	<ul style="list-style-type: none"> ❖ Correctly ❖ Accordingly ❖ Inappropriately
CHALLENGING (ADJ)	ACCURATE (ADJ)	ARRANGE (V)
<ul style="list-style-type: none"> ❖ Difficult ❖ Tough ❖ Easy 	<ul style="list-style-type: none"> ❖ Proper ❖ Exact ❖ Imprecise 	<ul style="list-style-type: none"> ❖ Organize ❖ Plan ❖ Disarrange
PERMIT (V)	PUNISH (V)	RESCUE (V)
<ul style="list-style-type: none"> ❖ Allow ❖ Concede ❖ Ban 	<ul style="list-style-type: none"> ❖ Penalize ❖ Slate ❖ Commend 	<ul style="list-style-type: none"> ❖ Save ❖ Extricate ❖ Abandon
VIVID (ADJ)	ASSOCIATE (V)	COMBAT (N)
<ul style="list-style-type: none"> ❖ Powerful ❖ Rich ❖ Dull 	<ul style="list-style-type: none"> ❖ Connect ❖ Relate ❖ Separate 	<ul style="list-style-type: none"> ❖ Battle ❖ Action ❖ Agreement

FEATURE (N)	SIGHT (N)	CLIMATE (N)
<ul style="list-style-type: none"> ❖ Characteristic ❖ Trait ❖ Whole 	<ul style="list-style-type: none"> ❖ Scene ❖ Display ❖ Concealment 	<ul style="list-style-type: none"> ❖ Weather ❖ Temperature ❖ Atmospheric conditions
SCENERY (N)	CONSIDER (V)	CLIFF (N)
<ul style="list-style-type: none"> ❖ Landscape ❖ Neighbourhood ❖ Surrounding 	<ul style="list-style-type: none"> ❖ Regard ❖ Examine ❖ Disregard 	<ul style="list-style-type: none"> ❖ Crag ❖ Hill ❖ Slope
BAY (N)	MONUMENT (N)	AVOID (V)
<ul style="list-style-type: none"> ❖ Inlet ❖ Shoreline indentation ❖ Harbour 	<ul style="list-style-type: none"> ❖ Memorial ❖ Remembrance ❖ Statue 	<ul style="list-style-type: none"> ❖ Escape ❖ Keep away ❖ Face
MIDDAY (N)	PUSHY (ADJ)	LANDMARK (N)
<ul style="list-style-type: none"> ❖ Noon ❖ Lunchtime ❖ Midnight 	<ul style="list-style-type: none"> ❖ Forceful ❖ Assertive ❖ Quiet 	<ul style="list-style-type: none"> ❖ Marker ❖ Notable sight ❖ Historical sight

WORTH (N)	FLOAT (V)	EXTRAORDINARY (ADJ)
<ul style="list-style-type: none"> ❖ Value ❖ Cost ❖ Worthlessness 	<ul style="list-style-type: none"> ❖ Drift ❖ Hover ❖ Sink 	<ul style="list-style-type: none"> ❖ Unusual ❖ Odd ❖ Ordinary
COMPLEX (ADJ)	CONTAIN (V)	ANNUAL (ADJ)
<ul style="list-style-type: none"> ❖ Complicated ❖ Sophisticated ❖ Simple 	<ul style="list-style-type: none"> ❖ Cover ❖ Comprise ❖ Exclude 	<ul style="list-style-type: none"> ❖ Yearly ❖ Once a year ❖ Twelve-monthly
ATTRACTIVE (ADJ)	PRAISE (V)	INDUSTRIAL (ADJ)
<ul style="list-style-type: none"> ❖ Appealing ❖ Charming ❖ Ugly 	<ul style="list-style-type: none"> ❖ Compliment ❖ Honour ❖ Criticise 	<ul style="list-style-type: none"> ❖ Industrialized ❖ Modern ❖ Domestic
VALID (ADJ)	IMPRESSION(N)	ARTY (ADJ)
<ul style="list-style-type: none"> ❖ Acceptable ❖ Authorized ❖ Unjustifiable 	<ul style="list-style-type: none"> ❖ Impact ❖ Effect ❖ Influence 	<ul style="list-style-type: none"> ❖ Pretentious ❖ Illusory ❖ Affected interest

RESTLESS(ADJ)	ATTRACTION(N)	IDENTIFY (V)
<ul style="list-style-type: none"> ❖ Disturbed ❖ Twitchy ❖ Relaxed 	<ul style="list-style-type: none"> ❖ Charm ❖ Fascination ❖ Repulsion 	<ul style="list-style-type: none"> ❖ Classify ❖ Recognize ❖ Confuse
RECOGNIZE(V)	FOUND (V)	ORDINARY (ADJ)
<ul style="list-style-type: none"> ❖ Identify ❖ Distinguish ❖ Deny 	<ul style="list-style-type: none"> ❖ Set up ❖ Start ❖ Close 	<ul style="list-style-type: none"> ❖ Usual ❖ Regular ❖ Uncommon
CHARITY (N)	NUMEROUS (ADJ)	BULLY (V)
<ul style="list-style-type: none"> ❖ Donation ❖ Fund ❖ Unkindness 	<ul style="list-style-type: none"> ❖ Many ❖ Plentiful ❖ Few 	<ul style="list-style-type: none"> ❖ Intimidate ❖ Terrorise ❖ Aid
DEDICATE (V)	ABUSED (ADJ)	STALKER (N)
<ul style="list-style-type: none"> ❖ Devote ❖ Commit ❖ Refuse 	<ul style="list-style-type: none"> ❖ Badly treated ❖ Injured ❖ Aided 	<ul style="list-style-type: none"> ❖ Chaser ❖ Falconer ❖ Follower

DELIBERATELY (ADV)	FEARSOME (ADJ)	YELL(V)
<ul style="list-style-type: none"> ❖ Consciously ❖ Purposely ❖ Unintentionally 	<ul style="list-style-type: none"> ❖ Scary ❖ Frightful ❖ Calming 	<ul style="list-style-type: none"> ❖ Shout ❖ Scream ❖ Burke
CHASE (V)	EMPHASIS (N)	DISTRACTION (N)
<ul style="list-style-type: none"> ❖ Pursue ❖ Run after ❖ Escape 	<ul style="list-style-type: none"> ❖ Importance ❖ Attention ❖ Ignorance 	<ul style="list-style-type: none"> ❖ Interruption ❖ Interference ❖ Order
DISCREET (ADJ)	ATTITUDE (N)	FULFILL (V)
<ul style="list-style-type: none"> ❖ Cautious ❖ Attentive ❖ Careless 	<ul style="list-style-type: none"> ❖ Approach ❖ Belief ❖ Point of view 	<ul style="list-style-type: none"> ❖ Accomplish ❖ Achieve ❖ Abandon
MENTION (V)	PERMANENT (ADJ)	QUALIFY (V)
<ul style="list-style-type: none"> ❖ Refer ❖ Comment ❖ Ignore 	<ul style="list-style-type: none"> ❖ Constant ❖ Durable ❖ Temporary 	<ul style="list-style-type: none"> ❖ Certify ❖ Be suitable ❖ Disqualify

EXTRACT(V)	NASTY (ADJ)	SECURE (ADJ)
<ul style="list-style-type: none"> ❖ Remove ❖ Draw out ❖ Insert 	<ul style="list-style-type: none"> ❖ Disgusting ❖ Awful ❖ Pleasant 	<ul style="list-style-type: none"> ❖ Safe ❖ Protected ❖ Endangered
CONTESTANT (N)	COMPETE (V)	REMAIN (V)
<ul style="list-style-type: none"> ❖ Competitor ❖ Candidate ❖ Challenger 	<ul style="list-style-type: none"> ❖ Contest ❖ Participate ❖ Surrender 	<ul style="list-style-type: none"> ❖ Continue ❖ Endure ❖ Discontinue
ASSERTIVE (ADJ)	TRAINEE (N)	ENTHUSIASM (N)
<ul style="list-style-type: none"> ❖ Confident ❖ Decisive ❖ Unsure 	<ul style="list-style-type: none"> ❖ Beginner ❖ Apprentice ❖ Learner 	<ul style="list-style-type: none"> ❖ Eagerness ❖ Devotion ❖ Disinterest
COMBINE (V)	VOLUNTEER (N)	GRADUATE (V)
<ul style="list-style-type: none"> ❖ Connect ❖ Unite ❖ Divide 	<ul style="list-style-type: none"> ❖ Helper ❖ Unpaid worker ❖ Forced 	<ul style="list-style-type: none"> ❖ Complete education ❖ Finish ❖ Pursuit

TWIST (V)	FATE (N)	ADOPTION (N)
<ul style="list-style-type: none"> ❖ Curl ❖ Spin ❖ Uncurl 	<ul style="list-style-type: none"> ❖ Destiny ❖ Fortune ❖ Misfortune 	<ul style="list-style-type: none"> ❖ Fostorage ❖ Fostering ❖ Adopting
REUNITE (V)	SEPARATE (V)	STRANGELY (ADV)
<ul style="list-style-type: none"> ❖ Meet ❖ Join ❖ Split 	<ul style="list-style-type: none"> ❖ Keep apart ❖ Break ❖ Attach 	<ul style="list-style-type: none"> ❖ Oddly ❖ Peculiarly ❖ Normally
OBSESSED (ADJ)	INSURANCE (N)	DEPEND (V)
<ul style="list-style-type: none"> ❖ Captivated ❖ Consumed ❖ Unconcerned 	<ul style="list-style-type: none"> ❖ Protection ❖ Guarantee ❖ Coverage 	<ul style="list-style-type: none"> ❖ Rely ❖ Hinge on ❖ Be conditioned
PADDLE (V)	FLARE (N)	GASP (V)
<ul style="list-style-type: none"> ❖ Drift ❖ Navigate ❖ Discourage 	<ul style="list-style-type: none"> ❖ Fire ❖ Flame ❖ Glow 	<ul style="list-style-type: none"> ❖ Inhale ❖ Choke ❖ Exhale

HEAD (N)	BRACE (V)	IMPACT (N)
<ul style="list-style-type: none"> ❖ Chief ❖ Leader ❖ Director 	<ul style="list-style-type: none"> ❖ Support ❖ Prepare ❖ Weaken 	<ul style="list-style-type: none"> ❖ Effect ❖ Influence ❖ Unimportance
SOLID (ADJ)	FRIGHTEN (V)	BREAKDOWN (N)
<ul style="list-style-type: none"> ❖ Stable ❖ Hard ❖ Unstable 	<ul style="list-style-type: none"> ❖ Scare ❖ Terrify ❖ Calm 	<ul style="list-style-type: none"> ❖ Collapse ❖ Disruption ❖ Mental health
DISTANT (ADJ)	MISCHIEVOUS (ADJ)	INSANE (ADJ)
<ul style="list-style-type: none"> ❖ Far ❖ Remote ❖ Nearby 	<ul style="list-style-type: none"> ❖ Naughty ❖ Playful ❖ Well-behave 	<ul style="list-style-type: none"> ❖ Crazy ❖ Mad ❖ Sensible
PRODUCE (V)	IMAGINARY (ADJ)	RELEASE (V)
<ul style="list-style-type: none"> ❖ Generate ❖ Create ❖ Consume 	<ul style="list-style-type: none"> ❖ Fictional ❖ Fantastic ❖ Real 	<ul style="list-style-type: none"> ❖ Announce ❖ Issue ❖ Publish

HILARIOUS (ADJ)	OUTRAGEOUS (ADJ)	FURIOUS (ADJ)
<ul style="list-style-type: none"> ❖ Amusing ❖ Funny ❖ Boring 	<ul style="list-style-type: none"> ❖ Barbaric ❖ Violent ❖ Gentle 	<ul style="list-style-type: none"> ❖ Extremely angry ❖ Very mad ❖ Calm
INHABITANT (N)	APPARENTLY (ADV)	INSIST (V)
<ul style="list-style-type: none"> ❖ Citizen ❖ Settler ❖ Foreigner 	<ul style="list-style-type: none"> ❖ Obviously ❖ Clearly ❖ Vaguely 	<ul style="list-style-type: none"> ❖ Claim ❖ Assert ❖ Demand
MANNER (N)	TREAT (V)	HOST (N)
<ul style="list-style-type: none"> ❖ Custom ❖ Habit ❖ Disorganization 	<ul style="list-style-type: none"> ❖ Behave ❖ Act ❖ Regard 	<ul style="list-style-type: none"> ❖ Owner ❖ Moderator ❖ Guest
ADDICTED (ADJ)	PURCHASE (V)	INCOME (N)
<ul style="list-style-type: none"> ❖ Dependent ❖ Devoted ❖ Indifferent 	<ul style="list-style-type: none"> ❖ Buy ❖ Earn ❖ Spend 	<ul style="list-style-type: none"> ❖ Salary ❖ Wage ❖ Earnings

ADORE (V)	TRANSMISSION (N)	CATCHY (ADJ)
<ul style="list-style-type: none"> ❖ Admire ❖ Idolize ❖ Hate 	<ul style="list-style-type: none"> ❖ Communication ❖ Transportation ❖ Conveyance 	<ul style="list-style-type: none"> ❖ Addictive ❖ Captivating ❖ Ignorable
CUSTOM (N)	PREVENT (V)	GADGET (N)
<ul style="list-style-type: none"> ❖ Traditional action ❖ Practice ❖ Novelty 	<ul style="list-style-type: none"> ❖ Stop ❖ Avoid ❖ Advance 	<ul style="list-style-type: none"> ❖ Device ❖ Apparatus ❖ Tool
DESERVE (V)	SEEK (V)	REWARD (N)
<ul style="list-style-type: none"> ❖ Earn ❖ Gain ❖ Fail 	<ul style="list-style-type: none"> ❖ Explore ❖ Look for ❖ Ignore 	<ul style="list-style-type: none"> ❖ Prize ❖ Award ❖ Penalty
SOLUTION (N)	CONSUMER (N)	ADMIT (V)
<ul style="list-style-type: none"> ❖ Explanation ❖ Resolution ❖ Problem 	<ul style="list-style-type: none"> ❖ Buyer ❖ Customer ❖ Seller 	<ul style="list-style-type: none"> ❖ Confess ❖ Accept ❖ Deny

ENCOUNTER (V)	SATISFACTORY (ADJ)	ACCESS (N)
<ul style="list-style-type: none"> ❖ Come across ❖ Confront ❖ Avoid 	<ul style="list-style-type: none"> ❖ Acceptable ❖ Sufficient ❖ Inadequate 	<ul style="list-style-type: none"> ❖ Admission ❖ Connection ❖ Entry
SUPPLY (V)	RELY (V)	EQUIPMENT (N)
<ul style="list-style-type: none"> ❖ Contribute ❖ Provide ❖ Give a resource 	<ul style="list-style-type: none"> ❖ Have confidence ❖ Commit ❖ Disbelieve 	<ul style="list-style-type: none"> ❖ Supply ❖ Material ❖ Tool
DELIVERY (N)	HESITATE (V)	INCREDIBLE (ADJ)
<ul style="list-style-type: none"> ❖ Transfer ❖ Distribution ❖ Hold 	<ul style="list-style-type: none"> ❖ Wait ❖ Be uncertain ❖ Continue 	<ul style="list-style-type: none"> ❖ Unbelievable ❖ Improbable ❖ Believable
MERGE (V)	CURE (N)	GRAVITY (N)
<ul style="list-style-type: none"> ❖ Combine ❖ Unite ❖ Separate 	<ul style="list-style-type: none"> ❖ Treatment ❖ Medication ❖ Injury 	<ul style="list-style-type: none"> ❖ Pressure ❖ Force of attraction ❖ Weight

IMPLANT (V)	DEMAND (V)	DETERIORATE (V)
<ul style="list-style-type: none"> ❖ Insert ❖ Fix ❖ Place 	<ul style="list-style-type: none"> ❖ Require ❖ Force ❖ Request 	<ul style="list-style-type: none"> ❖ Decay ❖ Degenerate ❖ Get better
EXPECTANCY (N)	INVISIBLE (ADJ)	REVENGE (N)
<ul style="list-style-type: none"> ❖ Anticipation ❖ Belief ❖ Distrust 	<ul style="list-style-type: none"> ❖ Hidden ❖ Unseen ❖ Visible 	<ul style="list-style-type: none"> ❖ Attack ❖ Grievance ❖ Forgiveness
SUSPICIOUS (ADJ)	DARE (V)	PRETEND (V)
<ul style="list-style-type: none"> ❖ Doubtful ❖ Distrustful ❖ Sure 	<ul style="list-style-type: none"> ❖ Brave ❖ Attempt ❖ Abstain 	<ul style="list-style-type: none"> ❖ Fake ❖ Fool ❖ Reveal
VINTAGE (ADJ)	MYSTERIOUSLY (ADV)	VALUABLE (ADJ)
<ul style="list-style-type: none"> ❖ Classic ❖ Old ❖ Modern 	<ul style="list-style-type: none"> ❖ Inexplicably ❖ Mystically ❖ Apparently 	<ul style="list-style-type: none"> ❖ Precious ❖ Important ❖ Worthless

BUDGET (N)	PROFITABLE (ADJ)	NOMINATE (V)
<ul style="list-style-type: none"> ❖ Account ❖ Cost ❖ Debt 	<ul style="list-style-type: none"> ❖ Cost-effective ❖ Advantageous ❖ Unprofitable 	<ul style="list-style-type: none"> ❖ Select ❖ Elect ❖ Reject
COMPOSE (V)	SUE (V)	ADDICTED (ADJ)
<ul style="list-style-type: none"> ❖ Build ❖ Comprise ❖ Destroy 	<ul style="list-style-type: none"> ❖ Accuse ❖ Charge ❖ Disclaim 	<ul style="list-style-type: none"> ❖ Dependent ❖ Compulsive ❖ Indifferent
REFUND (N)	COMPENSATION (N)	OBSERVE (V)
<ul style="list-style-type: none"> ❖ Compensation ❖ Repayment ❖ Payment 	<ul style="list-style-type: none"> ❖ Repayment ❖ Payment ❖ Debt 	<ul style="list-style-type: none"> ❖ Examine ❖ Notice ❖ Ignore
REWARD (N)	ASTONISHED (ADJ)	TEASE (V)
<ul style="list-style-type: none"> ❖ Prize ❖ Award ❖ Loss 	<ul style="list-style-type: none"> ❖ Amazed ❖ Surprised ❖ Shocked 	<ul style="list-style-type: none"> ❖ Annoy ❖ Provoke ❖ Flatter

Appendix F. Instructions to Play Taboo

Contents:

30 Cards (180 Cards in total)

Object:

Explain the word in a minute and score 1 point individually and as a team as well and score the most points by making your team guess the words without using its synonyms and antonym* (taboo words) to get the leadership.

*Some words do not have antonym, so check the synonym as the taboo word in your card.

Getting Ready to Play:

Players are divided into four teams according to the classroom list and four players are included in all of the teams. The game cards consist of weekly target vocabulary of the module. The first week will be counted as a trial week to learn the game. The rest of the module is divided into two parts: the first three weeks and the last three weeks as two rounds.

How to Score a Point:

Each time a word is guessed, the clue giver and the clue giver's team score a point. Each player gets to play as long as s/he makes his/her team guess the word correctly.

Winner team gets extra two points at the end of the game each week.

In addition, in case of a tie between two teams two extra words are added from previous week words counted as two points.

Lastly, when the player use any of the taboo words, s/he loses the chance and the clue-giver of the team changes.

At the end of the game; the first round 's winner team gets extra speaking lesson with their native teacher. The second round's winner team gets specific study tips for the final exam. Lastly, winner of the whole game gets a book related to his/ her department.

Appendix G. Team Leaderboards' Scores

1st Round:	Team 1	Team 2	Team 3	Team 4
2 nd Week	5	3	6 +2 team bonus	5
3 rd Week	7	6	8	10+2 team bonus
4 th Week	8	9 + 2 team bonus	8	6
Total Score	20	20	24	23
2nd Round:				
5 th Week	7	6	8	9+2 team bonus
6 th Week	6	8	7	9+2 team bonus
7 th Week	9+2 team bonus	5	6	8
Total Score	24	19	21	30

Appendix H. Team Leaderboards' Subscores

	1 st Round:																																				
	Team 1	Team 2	Team 3	Team 4																																	
	5	3	8	5																																	
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Appendix I. Curriculum Vitae

PERSONAL INFORMATION

Surname, Name: Sağlık, Ece

Nationality: Turkish (T.C.)

Date and Place of Birth: 12 September 1990, İzmir

Marital Status: Single

Phone: +90 534 364 10 52

email: ece.sglk@gmail.com

EDUCATION

Degree Graduation	Institution	Year of
MA	Bahcesehir University	2017
BA	İstanbul University	2013
High School	İzmir Anatolian Teacher Training High School	2008

WORK EXPERIENCE

Year	Place	Enrollment
2013-2014 Counsellor	Academix	Education
2014- Instructor	Beykent University	English

FOREIGN LANGUAGES

Advanced English, Pre-intermediate Spanish

CERTIFICATES

Washington High School (Certificate of Attendance as an Exchange Student)
Iowa/USA

University of Zaragoza (Spanish Course: A1 Level) Zaragoza/ SPAIN

Galatasaray University (Spanish Course: A2 Level) İstanbul / TURKEY

HOBBIES

Movies, Books, Languages, Travelling, Puzzle.

