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**DOKUZ EYLÜL ÜNİVERSİTESİ  
EĞİTİM BİLİMLERİ ENSTİTÜSÜ**



**DEPARTMENT OF FOREIGN LANGUAGE EDUCATION  
ENGLISH LANGUAGE TEACHING PROGRAM  
DOCTORAL DISSERTATION**

**THE EFFECTS OF DIGITAL GAMING ON TURKISH EFL  
(ENGLISH AS A FOREIGN LANGUAGE) LEARNERS'  
WILLINGNESS TO COMMUNICATE**

**HALENUR OCAKTAN ÇELİKTÜRK**

**İzmir  
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**DOKUZ EYLUL UNIVERSITY**

**GRADUATE SCHOOL OF EDUCATION**

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## ETİK İLKE VE KURALLARA UYGUNLUK BEYANNAMESİ

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## ÖZET

### **DİJİTAL OYUN OYNAMANIN YABANCI DİL OLARAK İNGİLİZCE ÖĞRENEN TÜRK ÖĞRENCİLERİN İLETİŞİM KURMA İSTEKLİLİĞİNE ETKİSİ**

İngilizce dili, dünya çapında iletişime imkân vermekte ve teknolojik gelişmeler bu iletişimi hızlandırmakta ve kolaylaştırmaktadır. Ayrıca teknolojik gelişmeler, İngilizce öğrenenlerin dijital ortamlar aracılığıyla İngilizce etkileşimde bulunma şansına sahip olmalarını sağlamaktadır. Dijital oyunlar, öğrencilere İngilizce etkileşimde bulunma şansı vererek dijital materyallerin İngilizce öğretiminde kullanılmasının önünü açan dijital bağlamlardan biridir. Ayrıca, İngilizce dilini dijital oyun bağlamları aracılığıyla öğrenmek, İngilizce öğrenenlerin yalnızca bilişsel alanlarını değil, aynı zamanda İngilizce iletişim kurma istekliliği, konuşma kaygısı, motivasyon, öz- güven ve risk alma gibi duyuşsal alanlarını da etkilemektedir. Bu anlamda, dijital oyunların İngilizce derslerine entegre edilmesinin, çağın yeniliklerini yakalayarak hem İngilizce öğrenenlerin hem de eğitimcilerin beklentilerini karşılayarak İngilizce öğretim sürecini zenginleştirecek deva olduğu düşünülebilir.

Bu çalışmanın amacı, dijital oyun oynamanın yabancı dil olarak İngilizce öğrenen öğrencilerinin ikinci dildeki iletişim kurma istekliliği ve konuşma kaygısı, motivasyon, öz- güven ve risk alma ve İngilizce dili kullanımı gibi duyuşsal faktörler üzerindeki etkilerini araştırmaktır. Bu çalışma 2021-2022 eğitim-öğretim yılında Türkiye'deki bir devlet lisesinde gerçekleştirilmiştir. Mevcut çalışmanın 36 katılımcısı iki sınıftaki 10. sınıf öğrencilerinden oluşmaktadır. Araştırmada, veri toplama ve analiz sırasında önce nicel verilere, ardından nitel verilere öncelik veren, açıklayıcı sıralı karma araştırma deseni kullanılmıştır. Nicel kısımda ön-test son-test tasarımı yarı deneysel araştırma deseni tercih edilmiştir. Böylece, rastgele atanan deney ve kontrol gruplarına iki anket (İngilizce iletişim kurma istekliliği ve duyuşsal faktörler) ön ve son test olarak uygulanmıştır. Ön testlerden sonra deney grubu (N= 18) ile sınıf içi ve sınıf dışı etkinlikler şeklinde tasarlanan 10 haftalık dijital oyun seansları uygulanmıştır. Buna karşılık, kontrol grubu (N= 18) bu aşamada geleneksel öğretim planını sürdürmüştür. Uygulama sürecinden sonra son testler uygulanmıştır. Veri toplama ve analizlerin tamamlandığında, nicel veri sonuçlarını netleştirmek için deney grubuyla birinci

yarı yapılandırılmış görüşmeler yapılmıştır. Son olarak, deney grubundaki katılımcılarla son testlerde düşen veya sabit kalan puanların gerekçelerini aydınlatmak amacıyla yarı yapılandırılmış takip görüşmeleri yapılmıştır. Katılımcıların İngilizce dil kullanımlarını analiz etmek için katılımcıların oyun oturumlarının ilk ve son haftasındaki ses kayıtları ve yazılı sohbet metinleri toplanıp analiz edilmiştir. Nicel verileri analiz etmek için Sosyal Bilimler İstatistik Paketi (SPSS), (18. ve 22. Sürüm) kullanılmıştır. Nitel veriler için ise tematik analiz yapılmıştır.

Araştırmanın sonuçları, öğrencilerin dijital ve yüz yüze ortamlarda İngilizce iletişim kurma istekliklerinin dijital oyun yoluyla arttığını ortaya çıkarmıştır. Ayrıca sonuçlar, öğrencilerin İngilizce konuşma kaygılarının 10 haftalık dijital oyun seansları yoluyla azaldığını göstermiştir. Nicel veri analizi, motivasyon, özgüven ve risk alma yetenekleri açısından istatistiksel olarak anlamlı bir değişiklik ortaya koymamıştır. Nitel veri analizi, ikinci dildeki iletişim kurma istekliliğini ve duygusal faktörleri (motivasyon, öz güven ve risk alma) artırmak ve ikinci dil konuşma kaygısını azaltmak için dijital oyun oynamanın İngilizce derslerine entegrasyonuna ilişkin katılımcıların yapıcı algılarını ortaya çıkarmıştır. Son olarak, sonuçlar, öğrencilerin sabit ifadeleri (örn., Tamam, iyi) ve Türkçeyi kullanmayı bırakmaları nedeniyle son hafta daha uzun cümleler kurma, zaman eklerini kullanma ve kelime seçimleri gibi özelliklerle İngilizce kullanımlarının nitelik açısından ilk haftaya kıyasla arttığını göstermiştir. Ancak öğrencilerin İngilizce kullanımlarında sonuçlar, nicelik açısından, istatistiksel olarak anlamlı bir değişime işaret etmemektedir.

Sonuç olarak, dijital oyunların İngilizce derslerine entegrasyonu hem öğrenenlerin hem de eğitimcilerin ihtiyaçlarını karşılamaktadır. Ayrıca zenginleştirilmiş İngilizce dersleri, bilişsel ve duyuşsal alanları geliştirerek öğrenenlerin dil öğrenme süreçlerine yardımcı olma açısından olumlu sonuçlar doğurmaktadır. Dijital oyunların İngilizce derslerine entegrasyonu konusunda daha belirgin sonuçlara ulaşabilmek için benzer çalışmaların diğer yaş gruplarından oluşan daha geniş bir örneklemede, farklı konular ve genişletilmiş duyuşsal faktörlerle yapılması gerekmektedir.

**Anahtar kelimeler:** İngilizce iletişim kurma istekliliği, dijital oyunlar, duyuşsal faktörler.

## **ABSTRACT**

### **THE EFFECTS OF DIGITAL GAMING ON TURKISH EFL (ENGLISH AS A FOREIGN LANGUAGE) LEARNERS' WILLINGNESS TO COMMUNICATE**

The English language permits worldwide communication, and technological developments accelerate and facilitate that communication. Furthermore, technological advancements enable English language learners to have a chance to interact in English through digital contexts. Digital games are one of the digital contexts paving the way for employing digital materials in English language teaching by enabling learners to have a chance to interact in English. Furthermore, learning the English language through digital game contexts has an impact on English learners' not only cognitive domains but also affective ones, such as their willingness to communicate, speaking anxiety, motivation, self-confidence, and risk-taking abilities in English. In this sense, integrating digital games into English classes might be assumed to be a panacea to enrich the English language teaching process by catching up with the era's innovations and meeting the expectations of both English learners and educators.

The objective of the present study was to investigate the impacts of digital gameplaying on English as a foreign language (EFL) learners' willingness to communicate in the second language (WTC in L2), affective factors involved L2 speaking anxiety, motivation, self-confidence and risk-taking, and the English language use. The present study was conducted in a state high school in Turkey in the 2021-2022 academic year. The 36 participants of the current study were 10<sup>th</sup>-grade students in two intact classes. The study employed an explanatory sequential mixed-methods design, prioritizing quantitative data first, followed by qualitative data during data collection and analysis. For the quantitative part, pre & post-test quasi-experimental research design was favored. Thus, the two questionnaires (WTC in L2 and affective factors) were applied as pre and post-tests to experimental and control groups that were randomly assigned. After the pre-tests, a 10 week-long digital gameplay sessions were implemented with the experimental group (N= 18) as in and out-class activities. In contrast, the control group (N= 18) maintained their traditional instruction plan during that phase. After the implementation process, the post-tests were conducted. When data collection and analyses were completed, the first semi-structured interviews were held with the experimental group to clarify the quantitative data results. Finally, follow-up semi-structured

interviews were conducted with the participants in the experimental group to enlighten the justifications for their declined or stabilized scores in the post-tests. For analyzing English use, the voice records and written chat scripts of the participants in the first and the last weeks of gameplay sessions were collected and analyzed. To analyze the quantitative data, the Statistical Package for Social Sciences (SPSS), Versions 18 and 22, was used. For qualitative data, a thematic analysis was conducted.

The results of the study revealed that students' WTC in L2 in digital and face-to-face environments enhanced through digital gameplaying. Furthermore, the results demonstrated that the students' L2 speaking anxiety declined through a 10 week-long digital gameplaying. The quantitative data analysis did not reveal a statistically significant change regarding motivation, self-confidence, and risk-taking abilities. The qualitative data analysis revealed constructive perceptions of the participants regarding the integration of digital gameplaying into English classes to increase WTC in L2 and affective factors (motivation, self-confidence, and risk-taking) and decrease L2 speaking anxiety. Lastly, the results indicated that the students' English use improved in terms of quality, such as making longer sentences and applying tense markers and word choices in the last week since the students abandoned using set phrases (e.g., OK, good) and the Turkish language compared to the first week. However, in terms of the quantity of English use of the students, the results did not indicate a statistically significant change.

To conclude, the integration of digital games into English classes meets the needs of both learners and educators. Furthermore, enriched English classes yield affirmative outcomes in terms of assisting learners in their language learning process through improving cognitive and affective domains. Similar studies should be conducted with a larger sample, consisting of other age groups, through varied topics and extended affective factors to get more apparent results regarding the integration of digital games into English classes.

**Keywords:** Willingness to communicate in English, digital games, affective factors.

## CHAPTER I

### INTRODUCTION

#### 1.1. Background of the Study

Second language learning, which means learning a language apart from one's native language, requires gaining and boosting the competencies and performances of the learners through the tasks in the target language (Wenden, 1986). Additionally, second language learning at schools involving developing learners' thinking and brain skills (Cook, 2016) is an obtrusive field since it incorporates its principles and theories (Conteh-Morgan, 2002), which may vary from time to country (Cook, 2016). In today's world, for instance, the English language has spread from its origin country to the entire world by being spoken by the majority of people around the world. Thus, the English language is called *English as an International Language (EIL)* (Crystal, 2003; Jenkins, 2000; Sharifian, 2009) due to the rapid rate of globalization of the world in which the globalized citizens who are aware of both their and others' cultures to meet on common ground. Based on the prerequisites of the English language, English language teaching has gone through a new era intending to meet the expectations of humans (Bektaş-Çetinkaya, 2012) to have the capacity to have authentic interactions in English.

*Willingness to Communicate (WTC)*, for instance, is one of the critical factors having either motivating or demotivating aspects in the *Second Language (L2)* learning process (Kang, 2005), which may affect individuals differently (Yashima, 2002). As Yashima et al. (2004) assert, WTC is an enabling concept to comprise the speakers' first language and second-language communication. It has an expanding vision from learners' first language to the second language regarding that it was grounded on the speaker's first language beforehand. After that, it was expanded to a second language. WTC, in terms of native language, refers to a propensity to initiate or avoid oral interaction (Burgoon, 1976). Afterward, WTC is depicted as one's wish to start communication under anticipated circumstances (MacIntyre et al., 2001).

WTC is an approach combining psychological, linguistic, and communicative aspects of language learning and aims to find reasons behind the communication problems of the learners with a heuristic approach (Dörnyei et al., 1998). As it can be inferred from the description of WTC, when L2 learners have a high level of WTC, they may become more active participants in the language learning process both in in-class and out-class by becoming a member of authentic communication and autonomous learners who do not need teachers' assistance to initiate the communication (Kang, 2005). According to Yashima et al. (2018),

“When the readiness to communicate reaches a threshold, language use is triggered” (p. 117). Since communication as a key to interacting with others is a demanded ability while learning a foreign language, deficiencies in communication may result in a lower level of WTC (Baker & MacIntyre, 2003).

Correspondingly, WTC can be associated with affective factors as well. To illustrate, increased speaking anxiety among learners depending on the learning atmosphere lowers WTC (Young, 1990). Likewise, it is stated that WTC is related to motivation, which explains the communicational desires of the learners in the target language (McCroskey & Baer, 1985). Finally, it is asserted that WTC is directly related to learners’ attitudes and self-confidence (Bektaş-Çetinkaya, 2009).

Affective factors consisting of feelings, attitudes, and beliefs are supposed to influence the input and output process of second language learning (Ni, 2012) of each learner individually (Cook, 2016), like WTC. Furthermore, they may be inferred as prognostic aspects of language learning (Henter, 2013) since they may have an impact on the second language acquisition process either by blocking to catch the input because of aroused emotional states such as fear and anxiety (Krashen, 1982) or by encouraging learners (Tasnimi, 2009). As Horwitz et al. (1986) state, anxiety, which is a feeling of tension or tenseness, may be one of the challenges in the learning process of learners since it may prevent learners from reaching their purposes. Anxiety, in general, is based on performance flaws of learners, particularly in oral performances; it may have spreading effects (Henter, 2014). Thus, when anxiety is particular to an area, it is given a branch name like *foreign language anxiety* or *communication anxiety*. Foreign language anxiety may be considered responsible for adverse reactions to language learning (Horwitz, 2001). Because of communication anxiety, learners may tend to avoid speaking in the target language (Cheng et al., 1999). Another affective factor in the second language is L2 motivation, which is described as a “driving force to sustain the learning process” (Dörnyei, 1998, p. 117). Motivation, in general, is a vital component of foreign language learning to assist learners in finding their ways (Gilakjani et al., 2012). Therefore, it may be seen as a triggering factor for language learners to increase their abilities in the target language, and it is thought that it would be related to all language components (Dörnyei, 2001). In parallel with it, a strong bond between language learning and motivation affects second language learning as aptitude does (Dörnyei, 1998; Tremblay & Gardner, 1995). It is admitted as an influence on learners’ classroom achievements as well (Oroujlou & Vahedi, 2011). Self-confidence in a second language is associated with learner achievement, which has both direct

and indirect roles by imposing learner attitude (Clément et al., 1994). Lack of self-confidence may result in being fearful and doubtful in language classes (Ni, 2012). Therefore, self-confidence can be seen as an encouragement for language learners to follow their routes in a determined and courageous way (Ni, 2012). The risk-taking ability of learners affects their language performances in classes by either taking part in or avoiding the activities (Zafar & Meenakshi, 2012). It is identified that risk-taker learners make use of the opportunity to be engaged in the target language, which may result in progress (Cervantes, 2013). As it can be inferred, L2 speaking anxiety, motivation, self-confidence, and risk-taking possess affective factors in learning English.

Depending on the advances and outcomes of technology utilized in a global world, technological dissemination happens by changing the habits of humans (Nelson & Phelps, 1996). In accordance with technological developments, innovations have been replaced in education following other fields due to the globalized world (Waschauer, 2002). As McLoughlin and Oliver (1998) state, computers were used to develop drills and practice first, depending on behaviorism. Then, they were utilized to advance learners' discovery-based skills consistent with cognitivism. When it was understood that language learning requires social dimensions, computers were used to improve the social skills of the learners through reflective techniques. To illustrate, *Information Communication Technology (ICT)* has paved the way for integrating computers and the internet into classrooms as *Computer-Assisted Language Learning (CALL)* (Young, 2003). When mobile devices were enhanced enough, portable education became possible for language learners, called *Mobile-Assisted Language Learning (MALL)* (Al-Qasim & Al-Fadda, 2013). Since technology and its advantages spread into the everyday lives of humans, new generations were born into the technological world and therefore adapted to the technological devices from birth as they have been growing up using and playing with them (Jones et al., 2010). Pertaining to technological innovations, digital games, like classical pen and paper or board games, have started to be implemented in classroom settings to increase the language abilities of the learners as well (Zou et al., 2019).

Games are employed in educational settings to enrich the learners' learning environments through social and linguistic skills since they represent the second language to learners by enabling a non-threatening atmosphere (Sørensen & Meyer, 2007). When the learning environment is enhanced with games, learners have a chance to be exposed to real-life situations as games combine tasks and strategic aims simultaneously. Hence, *gamification* and *Game-Based Learning (GBL)* have appeared in education (Wood et al., 2013). The term

gamification means engaging in game-based essentials in a non-game environment that differs from game-based learning, enabling learners to improve their learning process by developing their problem-solving skills (Al-Azawi et al., 2016). Game-based learning aims to keep a balance between the real world and the game context (Cózar-Gutiérrez & Sáez-López, 2016).

*Digital Game-Based Language Learning (DGBLL)* offered by Prensky (2003) originated in digital-based learning resulting from game-based and game-based language learning. DGBLL offers socialization in the target language via linguistic skills in agreement with the Vygotskian point of view, stating that learning happens thanks to cognitive and sociocultural aspects (Hung et al., 2018). Thanks to the dynamic conveniences of DGBLL, including the optimization of the learning environment according to the needs and features of learners, it can be seen as an option for traditional learning, which follows a linear order (Kim & Lee, 2015). Thus, digital games are implemented in classroom settings to increase the learners' language abilities (Zou et al., 2019). Digital games are technologically enriched games enabling "problem-solving spaces that use continual learning and provide pathways to mastery through entertainment and pleasure" (Gee, 2009, p. 65). They are employed in language learning as well to reinforce the language learning process together with their effects on the WTC of learners (Reinders & Wattana, 2014). Therefore, digital games are integrated into English language teaching environments (Reinhardt, 2017) since they enable learners to reach a combination of community and a second language (Sykes, 2018). Furthermore, González (2017) states that the games support learners' speaking developmental process. As it is understood, employing digital games designed by principles of DGBLL in the language learning field may assist learners in reaching authentic communication in L2 by increasing learners' WTC level in L2, self-confidence, risk-taking, and motivation, and decreasing their L2 speaking anxiety.

*Minecraft*, a digital game that enables discovery of a new world without having walls and allowing modification of the environment, proposes creative and exhilarating experiences for its players. Since the game fosters collaboration, computer skills, peer tutoring, time zones, geography, science, math, cultural difference awareness, language skills (Smolcec & Smolčec, 2014), and communication, it can be favored by young and adult individuals (Ellison et al., 2016) besides it is preferred for educational purposes. The game can be a practical supplementary means for face-to-face communication regarding language learning in and outside the class to reinforce student communication (Kuhn, 2018). As a result, pertaining to its benefits, an edition for educational purposes, *Minecraft Education Edition (MEE)*,

providing educators with creating lessons by manipulating the games according to duties and monitoring the chatting and participation of the learners in the game (Kuhn, 2018), was designed.

## 1.2. Statement of the Problem

English is named a *Lingua Franca* (Seidlhofer, 2005) and an *international language* (Jenkins, 2006), meaning a global language; therefore, it is the critical component of worldwide communication (Smokotin et al., 2014). Globalization allows the rapid sharing of information due to technology, and it entails the way to encounter online communication in which “speakers locally ‘transform’ linguistic resources and mutually construct a fairly broad set of common lexico-grammatical characteristics” (Dewey, 2007, p. 347).

For authentic communication, learners need to have a high level of WTC whereas a low level of L2 speaking anxiety (Alemi et al., 2011). It is known that the students who communicate better in the target language are the ones who have lower anxiety levels (Steinberg & Horwitz, 1986). Hence, to contribute to the communication abilities of learners, the anxiety level should be at an ideal degree (MacIntyre et al., 1999). Therefore, the learning environments of the learners may be optimized by proposing a real-life context.

Similarly, the classroom environment is a prominent figure in the WTC levels of learners. Therefore, the classroom environment should be set to encourage and inspire learners to participate in communication (Khajavy et al., 2016). Hence, it can be inferred that English affords authentic communication while contacting a foreigner as long as the speaker desires to start and maintain it.

It is acknowledged that digital games offer real-life language learning environments, and they contribute to encouraging learners to gain enhancement in the target language. At the same time, they are used in second language learning education (Skyes, 2018). Thus, digital games can be utilized to overcome communication challenges and trigger the WTC of learners. To illustrate, Lee (2019)’s study, which examined factors affecting Korean students’ WTC, paves the way for integrating technological applications into the classes to increase learners’ WTC since it was found that learners’ WTC is prompted during the interaction in digital contexts. Likewise, Reinder and Wattana (2014) indicate that learners’ motivation, authentic language usage, interaction abilities, and WTC are fostered through digital games.

When it comes to the Turkish context, it is seen that Turkish EFL university students in the ELT department have challenges in communication resulting from speaking anxiety

(Şenel, 2012). In terms of the Turkish high school students' speaking abilities and problems, the mechanic usage of the target language may be reasoned for the speaking problems of the learners (Toköz-Göktepe, 2014b). For treating Turkish EFL learners' articulation difficulties, internet-based pronunciation teaching is presumed to be more beneficial for learners than traditional teaching (Hismanoğlu & Hismanoğlu, 2011). Furthermore, integrating technology into classes can overcome the lack of Turkish students' motivation as well (Tosuncuoğlu, 2012).

All in all, the study aims to investigate the effect of the digital game *Minecraft, Education Edition (MEE)* on learners' WTC in L2, affective factors (L2 speaking anxiety, motivation, self-confidence, and risk-taking), and English use with an aim to enrich the literature by combining the technology and communication abilities of Turkish EFL learners. Since MEE offers opportunities for educators and learners, this version is adopted in the study. It is anticipated that using digital games assist learners in increasing their WTC in L2 levels and English use together with their affective factors except L2 speaking anxiety.

### **1.3. Aim and Significance of the Study**

The current study is conducted to fill the research gap regarding WTC in L2 in digital and face-to-face settings, affective factors, and the English language use combined with employing a digital game in the Turkish EFL context. Furthermore, to get more detailed information about the effects of digital games on Turkish EFL learners' WTC in L2, use of the English language, and affective factors like L2 speaking anxiety, motivation, self-confidence, and risk-taking, the study is conducted by utilizing a digital game *Minecraft, Education Edition* thanks to its opportunities and trustworthiness in educational settings in the scope of catching up with the innovations in a globalized world.

The English language has contributed to worldwide communication by erasing the borders to make them open to every part of the world (Ciprianová & Vanco, 2010). Thus, there has been a demand for authentic communication in L2; however, it may not occur all the time due to affective or psychological factors. English classes have vital roles in today's globalized world to support language learners to improve their communication abilities. The studies in the Turkish context indicate Turkish EFL learners' oral production problems (Şenel, 2012; Toköz-Göktepe, 2014b), and technology integration is presumed to be a solution for that (Hismanoğlu & Hismanoğlu, 2011; Tosuncuoğlu, 2012). Starting from that point, the study may shed light on the communication problems of Turkish EFL learners by integrating Digital Game-Based Language Learning (DGBLL) as employing technology. The study may have

promising outcomes regarding expanding the use of digital games for dealing with WTC and the learners' affective factors. Additionally, the study may be involved in the research field by including the Turkish EFL context to compare and contrast the existing research results.

The studies merging WTC with digital contexts and games have revealed promising outcomes in terms of increasing learners' WTC in L2 levels (Henry & Thorsen, 2019; Horowitz, 2019; Kartal & Balçıklanlı, 2018; Lee, 2019; Yeh et al., 2017). Therefore, the current study aims to fill the gap in the Turkish context by combining WTC in L2, affective factors, and English use with digital game playing. Hence, the study's findings may bring innovative ideas to the ELT field by offering a profound understanding of the topic. Because the study is conducted as mixed-methods research by combining quantitative and qualitative research methods, it may allow focus on the problem by giving the reasons behind the topic. Furthermore, in terms of the Turkish context, the study may contribute to further studies since the study is conducted with teenagers, and it is expected to draw their attention via technology; hence, the results may live up to expectations to be implemented in the other studies. Based on the background of the study, it may contribute to the English language teaching field to be adapted in the future.

The current study focuses on WTC in L2 in varied dimensions as digital and face-to-face environments by gathering different contexts into one heading: WTC in L2, based on further studies (Lee & Lee, 2020; Lu, 2021; Reinders & Wattana, 2014). In terms of multi-face WTC in L2 and digital gameplaying with teenage learners, it has yet to be investigated so far in the Turkish EFL context. Thus, the object of the current study is to provide a pioneering insight into literature. Moreover, regarding the merged contexts adopted to WTC in L2, the study's findings may bring a more profound perspective regarding WTC in L2 levels of Turkish EFL learners thanks to integrating digital games into English classes.

What is more, the study's findings regarding WTC in L2 levels, affective factors, and English use of learners may bring implications by providing a convenient point of view to encourage both learners and educators. Additionally, the study may have been a fruitful supplier for English language educators and scholars to organize the curriculum and lesson plans by adding a new perspective to the existing literature. Thus, other researchers may benefit from the completion and findings of the study for their studies on the same and related topics.

#### **1.4. Research Questions**

The study mainly focuses on the impacts of the digital game on participants' WTC in L2 in digital and face-to-face environments and in and out of class. All research questions addressed in the study are presented below.

1. Do digital games have any impact on Turkish EFL learners' overall WTC in L2?
2. Do digital games have any impact on Turkish EFL learners' WTC in L2 in face-to-face and digital environments?
3. Do digital games have any impact on affective factors (L2 speaking anxiety, motivation, self-confidence, and risk-taking)?
4. What are the perceptions of the learners about digital games in terms of WTC in L2 and affective factors?
5. Do digital games have any impact on the English language use of Turkish EFL learners?
  - a. Is there a significant increase in the quantity of language that Turkish EFL learners produced in the experimental group at the beginning and the end of the study?
  - b. What is the quality of the English language that Turkish EFL learners produced in the experimental group at the beginning and the end of the study?

#### **1.5. Limitations of the Study**

The study is conducted in one public school with volunteer participants from 10<sup>th</sup>-grade learners in two intact classes. Thus, the two intact classes are assigned as control and experimental groups through a random assignment as a part of a quasi-experimental research design (Fraenkel et al., 2012). Since the study is carried out in only one public school, the study's results may not be generalized to the entire population.

Secondly, since the researcher of the study takes a teacher-researcher role, the internal validity threats are well considered, and the planning phase is done in a detailed way.

Thirdly, the classes' size, determined by the Ministry of National Education as 40 students in each class, may result in unclear points during gameplay sessions, especially in class regarding the noise.

Lastly, since the study is conducted in a state school, learners' access to gameplay sessions may not be flawless due to the lack of technological equipment in the school.

### 1.6. Assumptions of the Study

The assumptions of the study are considered in all phases of the study, and based on these assumptions, the findings are reached. These assumptions are listed below.

1. It was assumed that the invited participants would be willing to participate in the study.
2. It was assumed that the measurements would measure the constructs in a valid and reliable way for the participants; therefore, they were appropriate for the object and scope of the study to be employed.
3. It was assumed that all the participants were truthful while answering the items in the questionnaire applied as pre and post-test.
4. It was assumed that the participants in the experimental group gave honest and sincere responses during the semi-structured interviews in the qualitative phase of the study.
5. It was assumed that the researcher kept rapport with the participants during the study.
6. It was assumed that the findings of the study illustrate participants' actual representations regarding their WTC in L2 and affective factors.

### 1.7. Definition of Terms

The definition of terms involves the variables and the concepts used in the study. All the terms are explained in accordance with their use in the study to stay on the purpose of the study.

**Second language (L2):** The study employs a second language, the English language, under the view of a different language from the learners' native language (Wenden, 1986).

**Willingness to Communicate (WTC):** In this study, WTC is defined as a concept belonging to learners' eagerness to communicate in learners' second language (MacIntyre et al., 1998), covering both face-to-face and digital atmospheres. WTC in a face-to-face atmosphere covers both in-class and out-class WTC in L2. The in-class WTC consists of learners' desires to interact in the target language with their teachers and classmates, and the out-class WTC covers the desire to communicate with acquaintances or friends (Lee & Lu, 2023). WTC in online atmospheres consists of both WTC in digital settings and computer game settings. WTC in digital settings covers digital atmospheres where learners can participate autonomously (Lee & Lu, 2023). WTC in computer game atmospheres is based on digital computers and learners' desires to initiate communication (Wattana, 2013).

**Affective factors:** In the study, affective factors are defined as variables that may be affected through digital gameplay. The study marks affective factors such as L2 speaking

anxiety, motivation, self-confidence, and risk-taking related to the individuals' second language learning process in terms of positive or negative effects on the process (Lee & Lu, 2023).

**L2 Speaking anxiety:** In the study, L2 speaking anxiety is accommodated as a sub-category of language anxiety, described as tension while learning, speaking, and listening (MacIntyre & Gardner, 1994) that impacts language learning (Lee, 2014). Therefore, in the study, L2 speaking anxiety is admitted as a likelihood of potential trouble due to the use of new vocabulary or phrases (Lee & Lee, 2020) while producing the second language orally (Lee, 2014).

**Motivation:** In the current study, motivation is identified as an affective factor that may potentially have an impact on the second language learning process (Gardner & Smythe, 1975; Dörnyei, 1998). The study accommodates motivation as a triggering factor in second language learning as a combination of cultural and educational contexts in which educators, learners, and materials play vital roles (Gardner & Smythe, 1975). Moreover, motivation covers learners' eagerness and views towards L2 learning (Lee & Lee, 2020). Thus, motivation is used as an affective factor that may be affected by digital gameplay sessions.

**Self-confidence:** The study defines self-confidence as learners' ideas or evaluations about their potential capabilities (Dörnyei & Csizér, 1998; Park & Lee, 2005), which may affect their second language learning and producing processes (Lee & Lee, 2020), either making them active participants or not (Aoyama & Takahashi, 2020) by providing them demanded support (Al-Hebaish, 2012).

**Risk-taking:** The current study regards risk-taking as an affective factor that may influence the second language learning process in terms of playing a determiner role in learner participation in activities or communication (Cervantes, 2013) by making learners aware of the pros and cons of communication and success in second language learning (Yadav, 2014; Young, 1991).

**Digital game:** In the study, the term digital game is utilized as *Minecraft, Education Edition*, which is a kind of digital game that allows players to create their game worlds based on their creativity (Ekaputra et al., 2013), enabling teachers to control the flow of the game (Kuhn, 2017).

**Digital game-based language learning (DGBLL):** In the study, DGBLL is employed regarding Prensky (2003)'s concept, which is grounded on using digital games to enhance learners' language interaction using game mechanics and principles.



## CHAPTER II

### THE THEORETICAL FRAMEWORK AND LITERATURE REVIEW

This chapter begins with games and expands by giving information about digital games and their principles. Then, the elected digital game, *Minecraft*, is explained together with regarding studies. Next, the chapter explains *Willingness to Communicate* and describes it through studies conducted in different contexts. Finally, the chapter specifies *Affective Factors* consisting of *L2 speaking anxiety, motivation, self-confidence, and risk-taking* briefly first, then it involves the studies regarding them.

#### 2.1. From Games to Digital Games

Digital media tools are progressing day by day depending on the advances in the technological world. These tools may be admitted as a kind of conveyor carrying language, culture, and information to the universe; therefore, they play a crucial role in making the world equalized for all people (Gee & Hayes, 2011). Of the products of these digital media tools, games are accommodated in the world.

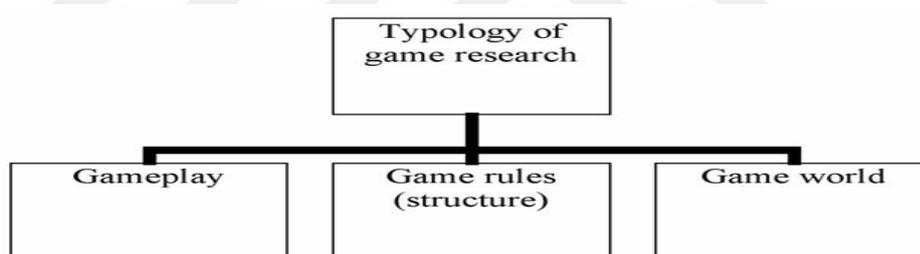
“A game is a goal-directed and competitive activity conducted within a framework of agreed rules” (Lindley, 2003, p. 10). According to Salen and Zimmerman (2004)’s elaboration, gameplaying covers selecting the options and then starting to move based on the selections happening in a context with purposeful items. Similarly, as Salen and Zimmerman (2005) indicate, games are enriched by the colors, objects, sounds, and signs referring to varied duties and meanings in the game world, which may be discovered by players just as what humans do in real life. Furthermore, in the representation offered by games, the pieces of cultures and environmental features (Prensky, 2001b) are included. Games do not comprise single or essential items; conversely, they involve concrete and abstract items such as game mechanics, motivation, and sociocultural foundations (Plass et al., 2015). Games are based on rules; thus, they are rule governed (Salen & Zimmerman, 2004; Sykes et al., 2010).

Games, in particular, grab both children’s and adolescents’ attention, and therefore, they may spend most of their time with the activities and tasks of the games; as a result, they may grasp new information while enjoying the game (Arnseth, 2006). It may be because, as Lindley (2003) indicates, games are the concepts combining play and engagement. Likewise, as Prensky (2001b) states, games are part of fun and play; subsequently, they may form a basis for learning through growing pleasure among players. Reinhardt and Thorne (2020) assert that games are “learning environments that are intentionally designed to guide players to higher levels of skill and challenge over time” (p. 410).

So as to analyze the games, Salen and Zimmerman (2005) have offered the terms “*play*” and “*game*”. According to the explanations that they offered, play and game can be covered by one another. To illustrate, in the first explanation, games are admitted as the subcategory of play since playful activities generate play; in the second explanation, play is a part of the game consisting of rules and culture. According to Salen and Zimmerman (2004)’s description, games comprise designs enabling them to be analyzed. Based on the design schemas, games are investigated as rules, play, and culture. The rules can be understood as the organization of the games that help players make sense of the lucidity of the game. Play is the practice of the players while joining the activities presented by the game. Culture covers the game context combined with players, games, and environments’ contributions to the game. According to Ang et al. (2008), games are described under three titles: gameplay, game rules, and game world, as shown in Figure 1 below.

**Figure 1**

*Game Components* (Ang et al., 2008, p. 534)



The diagram illustrates that game rules are shaped firmly, and through obeying these rules, the likelihood of being the winner or not is determined, and they make the games different from other plays (Prensky, 2001b). Gameplay, however, is more than game rules since it involves the activities determined to achieve goals. Lastly, the game world includes the narrative aspects of the game, involving the characters and setting as well (Ang et al., 2008).

Salen and Zimmerman (2005) have justified the game components as design, context, participant, and meaning. The first element, design, is the context of the game formed by game designers by making players members in that context to enable them to have game experiences. The second one, context, is the style or manner of the game. The context of the game provides interaction by means of an object, narrative, or space discovered by the players. The interaction may happen with other players as social interaction or the game mechanics at any level of the game. It is implied that the context of the games is not free from cultural aspects, which is

parallel with the idea offered by Prensky (2001b). Additionally, the players promote the context through their game experiences with cultural aspects. The third one is the participant, which means the players of the games are included in the game's world. The last one is the meaning, which is the discovery of the players about the game concept.

Salen and Zimmerman (2005) have expanded on the explanations about games as meaningful play. It is clarified that games ensure meaningful play for players, which are full of experiences fruitful for learning. It is because games may afford incidents in a context to make a choice, deciding on the moves on an individual basis or having contact with others, then actions based on the decision. In the end, meaningful play may be achieved since players see the results after the game moves. The outcomes may lead them to follow gameplays, meaning that players become experienced due to meaningful play, and they may form an opinion about what the game tells its players in terms of its narrative.

### **2.1.1. The Value of Games**

In accordance with the growth of technology, digital games have become more prevalent all around the world (Young et al., 2012). In parallel with this development, people begin to be exposed to other languages apart from their first languages to play the game, and they share their plays (Reinhardt & Thorne, 2020). This leads to a more in-depth search for digital games to be used in the broader field.

According to De Freitas (2006), there are four main types of games: educational, online, serious, and simultaneous, yet there is no sharp distinction among these game types. Educational games are the ones that are enriched by specified purposes and results to present a beneficial experience for learners, and these types of games are generally utilized as game-based learning (De Freitas, 2006). They may be mentioned by a variety of names, such as instructional, entertainment, or serious games (Subrahmanyam & Renukarya, 2015). Online games, however, can be played with many players synchronously. Serious games can be used for educational games as well, and simultaneous games are used to create a reflection of the natural world (De Freitas, 2006).

Video games arouse and trigger non-players to start playing games (Plass et al., 2015). As Gee (2010) states, video games are preferred since they enable learners to comprehend faster and easier. Furthermore, video games may foster innovative thinking, expertise, and professional life skills (Admiraal et al., 2011). Moreover, video games enable players to have space to develop their problem-solving abilities as a result of challenging tasks in the games (Gee, 2012).

Digital games differ from other entertainment tools as they have a rule-based system to allow players to manipulate these rules (De Grove et al., 2014). According to Royle (2008), digital games may accelerate student engagement since they motivate learners and offer a problem to be solved by students. Besides, the narrative of games increases the actuality of the incidents of the game, and lastly, the characterization in the game triggers full participation. As Sykes et al. (2010) point out, digital games may promote not only engagement and motivation for players but also social interactive atmospheres for their players.

As Prensky (2001b) states, digital games cover six qualities: rules, goals and objectives, outcomes and feedback, conflict or challenge, interaction, and story. Unlike Salen and Zimmerman (2004)'s metaphors about the bond between play and game, due to rules, games are discerned from plays by giving players limitations while reaching their goals, as Prensky (2001b) indicates. Goals are accepted as incentive issues for players. The feedback in the games is the replay of the players' decisions and actions, which makes the game bilateral; the outcomes are the perspective of players about how they evaluate themselves. The conflict or the challenge is the tasks or problems presented to players to be overcome to keep the motivation and engagement of the players at a proper rate to remain in play. Interaction in the games is actualized in two ways. First, interaction can be maintained between the player and the game. Feedback, for instance, may be the sample for that. The second one means the social interaction that can be fulfilled among the players. Both interaction types carry the meaning for players to reach their goals. The last component of the game is that it has a story or represents a meaning. Thus, games have meaningful stories behind them, and consequently, they attract attention.

Digital games have many opportunities, and therefore, they may facilitate education (Prensky, 2001b). First of all, games are a way of fun and play, and thus, they trigger enjoyment and involvement. They have rules which give the structures to the players, and they have goals that motivate learners. Owing to their adaptability, they foster flow, a state where the learners can manage complex tasks with perfectly balanced attention and concentration. The feedback helps to learn. The win states foster satisfaction among players, which is reinforced by the competitive atmosphere of the games. During gameplay, learners try to solve problems (Royle, 2008), and that may result in increased creativity. The collaborative aspects of the game offer interaction with social groups, and the game's narrative arouses feelings to motivate learners.

With the creation of digital games, new teaching methods have appeared, including integrating technology and technological tools into classes. These methods are mentioned in the following parts.

## **2.2. Game-Based Learning (GBL)**

When games are utilized in education, it is termed under the pedagogical issue as “*Game Based Learning (GBL)*”. It “refers to the use of video games to support teaching and learning” (Perrotta et al., 2013, p. i). This type of learning has begun to be used for child education at first; however, it has spread to adult education as well (Pivec et al., 2003) since it offers compelling learning experiences appropriate for all levels of learners (De Freitas, 2006). GBL does not mean using or not utilizing leisure-use video games since the games, which are educational or not, can be used (Perrotta et al., 2013).

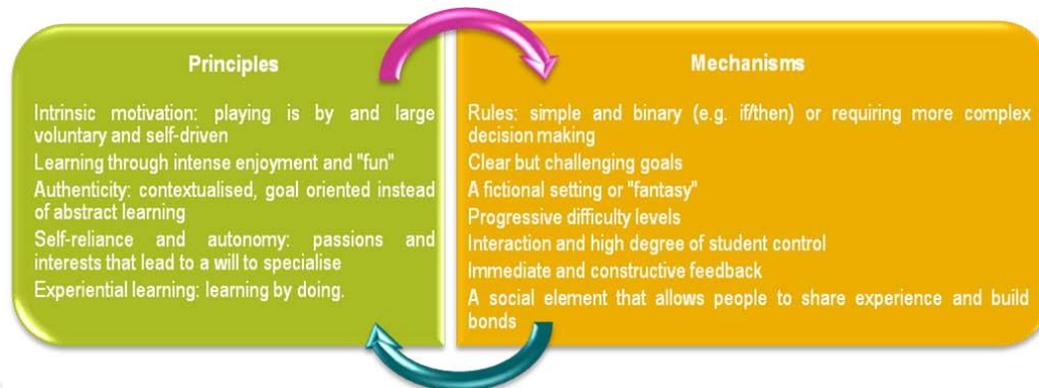
### **2.2.1. Principals of Game-Based Learning**

In GBL, the principles and mechanisms of the games should be considered together since mechanisms indicate the capability of the games in time based on the educational purposes together with the principles that are connected (Perrotta et al., 2013). As Admiraal et al. (2011) state, while implementing GBL in courses or classes, the learners’ abilities and the game challenges need to be considered together to be able to make the process more meaningful. They specify that GBL might help learners get the expected skills, such as being interested in the topic and working in a cooperative way in a competitive atmosphere in a more enjoyable way.

One of the principles of GBL is intrinsic motivation, which requires players’ desire to participate in the game rather than being forced (Perrotta et al., 2013). Since intrinsic motivation is self-driven, individual factors like curiosity, collaboration, control, and familiarization may have a role (Admiraal et al., 2011).

**Figure 2**

*The Principles and Mechanisms of Game-based Learning* (Perrotta et al., 2013, p. i)



### 2.2.2. Variations of Game-Based Learning

Game-based learning has similar-principled variations that differ from GBL in some respects. For instance, “*edutainment*” is designated as another way of implementing games in school contexts. As Egenfeldt-Nielsen (2007) indicates, edutainment, a blended name consisting of entertainment and education, means utilizing computer games at schools based on proper learning theories since the 1970s. Nilsson (2018) states that it covers using games designed for educational purposes, including entertainment. The learning principles may have roots in behaviorism, cognitivism, or socio-cultural aspects. To illustrate, as Egenfeldt-Nielsen (2007) explains, if edutainment is arranged according to behaviorism, the drill-like activities include reinforcement and correct responses. In terms of cognitivism and constructivism, the games are designed to increase motivation among players by promoting meaningful learning by employing scaffolding and problem-solving activities. If edutainment is arranged based on socio-cultural aspects, activities having social interaction are added.

Egenfeldt-Nielsen (2007) underpins the problems of the computer integration process into education in terms of teacher roles since teachers were neglected in the beginning, and computers came first. However, Egenfeldt-Nielsen (2007) states that teachers’ importance was understood after a while. He concludes that the use of computer games for educational purposes requires thorough arrangement.

The other one is *gamification*, which has similar aspects to GBL; however, it is not the same. Unlike GBL, gamification, which is newer (Perrotta et al., 2013), requires using game-like issues in activities by prompting game-like mechanics and thinking (Kiryakova et al., 2014) to encourage learners to motivate them (Plass et al., 2015).

### 2.2.3. Digital Game-Based Learning (DGBL)

“*Digital Game-Based Learning (DGBL)*” is a term that was offered by Prensky (2001b, 2003) at first, and then it became more prevalent.

“Digital game-based learning (DGBL) is an instructional method that incorporates educational content or learning principles into video games with the goal of engaging learners” (Coffey, 2009, p. 1). As Van Eck (2015) specifies, thanks to digital games, didactic learning has become more enjoyable for learners since DGBL includes “learner interest, learner-control, real-world augmentation, and interaction” (Chang et al., 2018, p. 155).

DGBL has its roots in 21st-century features in accordance with the development and exposure to technology, which creates digital natives (Prensky, 2001a, 2003, 2009). When e-learning environments pave the way for online information exchange, DGBL becomes well-known (Squire, 2005). Meanwhile, new generations are more bound to technology; they prefer games in their lives as a part of technology; therefore, they get effortlessly used to DGBL in time (De Freitas, 2006). According to Prensky (2009), as digital technology is developing, it has a positive effect on peoples’ intelligence since it leads to increasing human wisdom towards digital wisdom to become more pragmatic and practical. In parallel with the digital world, it can be seen that due to games, the learning capacities of children have improved compared to previous generations (Janarthanan, 2012).

In DGBL, learners may have an opportunity to experience the real world as a result of the well-designed and planned purposes of the digital games, which may be fruitful for learners to feel motivated, engaged, and interested (De Freitas, 2006). Therefore, learners may take the opportunity to feel and experience the concepts of the games (Lindley, 2003). As Reinhardt and Thorne (2020) indicate, digital games may be seen as the common point where learning components like motivation and social relations come together. As Gee (2005) elaborates, digital games may be part of learning since they trigger deep learning in terms of both having fun and learning simultaneously.

Gee (2005) proposed a list for checking the features of the games combined with learning principles so as to reinforce the theory, which claims games are the prompter of deep learning. According to Gee (2005)’s specifications, the criteria were under three main categories: empowered learners, problem-solving, and understanding to get the best game versions.

The first main category, *empowered learners*, comprises co-design, customize, identity, manipulation and distributed knowledge subheadings. Co-design is based on learners’

active participation in the learning process. Thanks to games, players interactively participate in gameplaying, and they can make decisions about the tasks of the game. The second sub-category, *customize*, states that learning involves varied learning styles; therefore, games can meet this expectation in as much as games can be manipulated based on the needs. The third sub-category, *identity*, is related to deep learning and commitment, including getting a new perspective on identity through games since games may evoke passion by means of game characters with whom players may identify themselves with. The fourth sub-category, *manipulation and distributed knowledge*, indicates that the players feel more powerful when they control and manipulate the tools. Thus, games allow players to manipulate the characters, which may foster their cognitive development.

The second main category, *problem-solving*, enables learners with well-ordered problems. As a sub-category, well-ordered problems include well-designed problem-solving tasks, such as challenges during the games, to support practice in real-life challenges.

The last main category, *understanding*, includes strategy and experience learning. As a sub-category, strategy and experience learning offers strategies similar to daily life experience to complete tasks. It may trigger gaining experience for learners; in this way, they acquire experience for the game circle like in real life (Gee, 2005).

According to Gee (2005), what is outstanding in games is that performance comes before competence, which is the opposite in educational life since the competencies of the learners are expected to be reached at a certain level to improve performance. However, due to the collaborative nature of games, players may progress in some skills through the information exchange among distinct levels of players. The games increase the risk-taking feeling but decrease the possibility of failure, not to demotivate players. The players are heartened to make discoveries and think logically, and they feel the bond among the game activities instead of seeing them separately. Thus, good games may be seen to be investment tools for the characters of the players.

As Gee (2005) elaborates, with those digital games designed with precise purposes and systems called *good games*, learning may be improved both in schools and workplaces since it is specified that good games offer an interaction for the players, which can be done through feedback between the players and the game or the interaction among the players (Gee, 2007). As Gee (2003) indicates, the features of good games should respond to the demands and purposes of the players first. In addition, games should include the information spread into the game combined with challenging tasks to make the players more motivated and engaged

during the game. In this way, players may have more success in analyzing and solving the problems, and they may create their own logic system about the game's procedure and design. Good games help players develop automatization of competence as expertise since similar challenging tasks are introduced in a beneficial order suitable for the development of the players. Besides, players can customize the game process based on their needs and abilities, giving them more connection to the games. Finally, good games give opportunities for the players to control the characters in the game, and they feel that they have more investment in games when they manipulate the characters. Therefore, good games are preferred most by the players and schools or families (Gee, 2003).

Based on the features mentioned above, digital games may be seen as trustworthy tools. However, it may not be the situation for all cases unless it is known how to facilitate learning via games. To illustrate, Subrahmanyam and Renukarya (2015) describe the pathways of digital games under four categories: The first is "time", which creates a changed time for players that differs from the one spent in class with the help of game mechanics. Thus, they indicate the value of arranged time for learners to get the maximum benefit level. The second one is called a "formal" structure, which is part of a game system, including feedback and goal-oriented activities that have promising effects on the development of cognitive skills of the learners. Based on that criterion, the use of games and their mechanics play a crucial role in maintaining learners' skill development. The third one is the "context of game", which covers the theme of the game, such as fantasy, helping, or caring, in which players get personalized meanings. Thus, it is mentioned in the study that game context may be presumed either a facilitator or demotivator for learners unless dynamic care on how to use it is not given. The last one is the "use of social context". It favors the needed capabilities for players, like collaboration in today's world. It is indicated that the orientation of the use of social contexts offered via games starts with analyzing theoretical and practical knowledge. In brief, these four qualifications that digital games have to regulate the adaptation of the games for the developing world and its demands.

While getting assistance through DGBL in classes, teachers may have doubts and need clarification on implementing the games in the most purposeful and meaningful way (De Freitas, 2006; De Freitas & Oliver, 2006). As De Freitas and Oliver (2006) highlight, implementing games has its basis, which may support teachers in combining digital games with their class routines. Therefore, they offer four-dimensional aspects: context, learner, internal representational world, and process of learning about how to implement games in classes. In terms of contextual aspects, the support about how to integrate the game may be

planned. The learners' needs, interests, and demographic features can be determined before the organization of games as a learner aspect. The method and plan of using the game are determined through the internal representational world, and in this way, the learning outcomes can be matched with the game implementation process. Lastly, the process of learning is related to increasing the effectiveness and benefit of games. As De Freitas (2006) states, the implementation of games requires well-planned and designed steps to support the educational process. The key features of using games are ordered as shown below (De Freitas, 2006).

1. As a first step, learning consequences are recognized.
2. Then, activities are chosen to reinforce learning consequences through proper evaluation.
3. The game is arranged in this collection of tasks, assignments, and evaluation procedures.
4. The session's objectives, desired learning outcomes, and post-session reflection (debriefing) are considered before beginning the session or sessions.
5. Based on peer, self, tutor feedback, or a combination of these, the evaluations of the session are conducted.
6. The efficiency of the session is checked according to the participants' responses.
7. Lastly, based on the responses, the session is re-regulated (De Freitas, 2006).

### **2.2.3.1. Digital Game-Based Language Learning (DGBLL)**

It is known that digital games are the result of the integration of popular culture (Gee & Hayes, 2010) and the modern era (Thorne et al., 2012), and they affect most players from all over the world; they have become more popular than usual (Cornillie et al., 2012). One of the reasons why digital games grab people's attention may be that the basis of digital games is the inspiration of human interaction, which is carried to the virtual world (Gee, 2012).

Digital games may have contributions to many fields, such as military or management (Thorne et al., 2012). Language learning is one enriched area (Reinhardt et al., 2014; Sykes et al., 2010). Digital games have gained popularity in language learning with the help of *Computer-Assisted Language Learning (CALL)*, enabling the integration of computers in the language learning process in a smooth way (Nilsson, 2018). They have started to be integrated into the learning process as *Digital Game-Based Language Learning (DGBLL)* to meet the language learning dynamics in an appropriate way for 21st-century skills (Reinhardt & Thorne, 2020). As a subcategory of game-based and digital-game-based learning, the outcome of DGBLL is to vary the L2 learning process with digital games (Cornillie et al., 2012). Like language learning, DGBLL has its dynamic nature and process included in its outcomes (Reinhardt & Thorne, 2020).

### **2.2.3.1.1. The Benefits of DGBLL**

It is known that games may boost the language learning process no matter whether they are played with single or multiple players since they supply players with social interaction by forming digital spaces (Reinhardt et al., 2014) since they raise the opportunity for more people's interaction which is not possible through formal education (Godwin-Jones, 2014). From this point of view, digital games can be presumed to be mediation tools for reinforcing language learning and cultural artifacts from which learners may transmit their habits. As Reinhardt and Thorne (2020) state, digital games contribute to the shift from teaching language through presentation to learning it as a natural human activity, including collaboration, problem-solving, and social interaction. Furthermore, Reinhardt et al. (2014) indicate that digital games have an impact on motivating learners with communicative challenging tasks when compared to traditional learning. Lastly, since games resemble aspects of the language learning process with their systems, they may ameliorate it (Sykes et al., 2010).

According to Reinhardt and Thorne (2020)'s summary of the benefits of digital games on language learning, digital games' designs may be fruitful in learning a second language. First of all, digital games enable proper linguistic environments where learners have an opportunity to practice the language by being exposed to the language and by using the language in an active way to communicate with the players in a meaningful context that the game provides to them. Secondly, games can manipulate the time for players to complete tasks different from the real world, and the time pressure may push learners to produce the language better. Additionally, repeated play, called iterative play, accelerates the language learning process since learners may feel more secure thanks to the explanations and instructions. Thirdly, learners practice the language with the players who focus on the same purposes during the game, and this partnership may encourage learners to use the language in a more fluent way to express themselves. Fourthly, in-game environments, the goal-oriented tasks provide learners with meaningful and purposeful language use and practice of what learners have learned. Moreover, learners can get directive feedback united in the gameplay, including both for linguistic meaning and form, without interrupting the gameplay sessions. Fifthly, games allow players to communicate by using the target language to make their purposes come true, improving the coordination among the players linguistically. Sixthly, playing games may help enrich linguistic and intercultural competence, which is a demanded capability of developing a digital world (Thorne, 2010) of the players since they are exposed to various cultures and environmental issues during the game. It is one of the requirements of the language learning process, which may result in an investment in the personality of learners. Seventhly, thanks to

portable technological devices such as mobile phones, they may accelerate gameplaying sessions in terms of their availability and practicality (Kukulka-Hulme, 2009). Therefore, learners may feel more independent from computer screens. Because of these reasons, not only computers but also mobile devices can be used. The last property is that games may give the necessary support and assistance for learners' mental and linguistic development since, owing to the digital elements and devices, the English language may be seen from an unfamiliar perspective rather than just as a school subject. Thus, thanks to that support, learners may increase their autonomy.

In the following paragraphs, related studies are mentioned regarding the relationship between digital games and their effects on language learning. To illustrate, Gee (2012) conducted a study to examine the effects of digital games on the language learning process; thus, he experienced his own gameplay and learning practices through the real-time strategy (RTS) game in which players have civilizations and interact with others' civilizations to reach more quality ones during the game because of compound and challenging game principles. In that study, it was found that learning from playing games does not have a straight line stabilized for all learners. Instead, the experiences, choices, or attitudes of the learners towards a specific game can vary from one learner to another.

Previous studies (Enticknap-Seppänen, 2017; Grimshaw et al., 2016) examining playing digital games and the influences on learners' oral abilities have reached promising results. To exemplify, Grimshaw et al. (2016) investigated the relationship between a digital game, including a team working to control the spaceship (*Spaceteam*), and ESL learners' oral proficiency. Twenty students with varied levels of second language participated in the study and were separated into two groups: control and experimental. The participants in the experimental group played the game for 15 minutes as a part of the warm-up activity for six weeks, and the control group continued their traditional learning activities. Quantitative results indicated that the groups did not significantly differ in oral proficiency development; however, the experimental group's post-test results were better than the control group. Qualitative results indicated that students in the experimental group felt motivated to play the game. Therefore, it was concluded that digital games may contribute to the oral development of students in the target language.

Another study carried out by Enticknap-Seppänen (2017) was to determine the insights of undergraduate tourism learners in Finland about the learning environment and their oral interactions in English. To conduct the study, two groups of 1<sup>st</sup>-year tourism students involving eight teams played the game *Go Animate*, which was appropriate for the niche areas

of the players since it was related to tourism guidance. The quantitative results indicated that students' engagement and oral capabilities in English were increased due to collaborative teamwork, but the qualitative results showed that students' expectations were not met sufficiently because of game constraints. Therefore, it was concluded that digital games may contribute to the oral proficiency of the students when they are enriched by collaborative group work in which students have a chance to support each other. Correspondingly, Nilsson (2018) mentioned the relationship between digital games and oral proficiency through a literature review work, and he concluded that digital games might help learners lower their anxieties when it comes to their oral proficiencies owing to digital games' collaborative atmospheres.

#### **2.2.3.1.2. Merging Digital Games with English Lessons**

It is realized that digital games may enrich the language learning process (Enticknap-Seppänen, 2017; Gee, 2012; Grimshaw et al., 2016; Nilsson, 2018); thus, the integration of them into language classes may foster enhanced learning. So as to implement digital games in the educational process, the game activities can be regulated to include meaningful and purposeful tasks to encourage learners to collaborate to complete them (Sykes et al., 2010). In order to bring digital tools, such as digital games, into language classes, the features and principles of the games and the education should be matched. For this match-up, Thorne and Reinhardt (2008) offer a name for this integration process as *bridging activities*. This includes increasing the learners' critical awareness of language use by engaging in platforms, practicing the language, and sharing their experience, with the assistance of the instructor, in classes around the world.

There are varied perspectives on merging digital games with the English language process. To illustrate, Thorne and Reinhardt (2008) propose how to make a bridge between digital games and foreign language syllabi by drawing attention to some points, such as the purpose and genre of the language used in chatting boxes of the games and the variations of them. Furthermore, Rankin et al. (2006) conducted a pilot study in order to determine the appropriate approach to develop the use of games for language learning. Thus, four ESL students participated in the study. The students played the digital game *Ever Quest* for four hours a week in groups for four weeks. In the end, the post questionnaires, including vocabulary, were applied to get the results. It was found that the use of games improves students' vocabulary acquisition, conversational skills, and English proficiency in general by providing them with a proper environment to facilitate social interactions enriched by frequent use of vocabulary in a conversation. Therefore, it was enlightening that using games providing social interaction with its players is a valuable facet for language learners.

Nevertheless, Sykes et al. (2010) suggest the implementation process of the games into language classes in two ways. The first one is by favoring a task-based approach enriched by the games' goal-directed activities. To illustrate, the quests of the games can be divided into pieces to be discussed in the classes as in-class activities. Secondly, just like Thorne and Reinhardt (2008)'s bridging activities offer, Sykes et al. (2010) propose that students' literacy skills may be improved through the texts that learners chose before, during, and after the gameplay sessions. The texts can be chat messages or captions and instructions of the game. While working on these texts, learners make analyses and examinations of the text components during social interaction. However, according to Arnset (2006), there are two particular ways to carry digital games. First of all, games may be implemented as playing to learn, aiming to reach target skills at the end of the game. In this way, the focus is on learning; thus, newly acquired skills and information should be assessed. Playing to learn has its roots in cognitive aspects of the games since its mental process-oriented approach claims that schools may be enhanced with games to enrich the classical school activities and make learning more entertaining. The second way is learning to play, where the focus is playing rather than learning. However, based on this method, learning is the second result blended with the game tasks covering cultural and social aspects. In this manner, learning happens when learners join and complete tasks involving building up language use and new identities. Thus, learning may become more purposeful and meaningful both for educators and learners since this type of implementation is based on a sociocultural view of digital games.

#### **2.2.3.1.3. Another Perception of Digital Games: Multiple Player Online Games (MMOG)**

According to DGBLL design, existing digital games can be adapted to be beneficial for instructional purposes, or new educational or serious games can be formed. However, creating a new game requires both financial and time-wise necessities most of the time (Thorne et al., 2012). The created games should meet players'/learners' expectations and interests, and they should foster engagement (Ellis, 2009). Thus, adapting an existing game may be an option for DGBLL, such as what Reinders and Wattana (2012) assert, which is mentioned in a detailed way in the following parts. What is pivotal in this process is the reexamination of the educational contexts in terms of interaction among players to share information (Thorne et al., 2012).

In parallel with the advancements in digital game technology, the way the games are played may be changed (Reinhardt & Thorne, 2020). For instance, nowadays, digital games can be played by an individual player or with multiple players (Sykes et al., 2010) online,

called *multiple-player online games (MMOG)*, or offline as well (Reinhardt et al., 2014). MMOGs are seen as crucial ways of language learning because they enrich the language learning atmosphere when they are included in the language learning process called a *synthetic immersive environment (SIE)* (Cornillie et al., 2012; Sykes et al., 2010). SIE aims for authentic and social surroundings through the target language simulations, goal-oriented tasks, and feedback as a facilitator and motivator for learners seen in MMOGs (Sykes et al., 2010). MMOGs are examples of *commercial off-the-shelf (COT)* games that do not have a direct aim to teach language, yet they may support language learning of the players in an incidental way (Cornillie et al., 2012). These games may not provide a flawless process for language teaching all the time since the parameters such as linguistic features, vocabulary use, and syntactic features cannot be determined and examined before gameplay or game adoption process like in educational or called serious games (Godwin-Jones, 2014).

The nature of MMOGs supports learners to pass the following levels of the games, and they provide them with not only a collaborative platform where the players have a chance to make language practice but also feedback that can be given by game mechanisms in an explicit way or by other players during the collaboration in an implicit way (Sykes et al., 2010). Thus, learners have both engagement and learning simultaneously (Cornillie et al., 2012; Nilsson, 2018; Sykes et al., 2010). The tasks suggested through MMOGs are smoother than the ones done in class since they are integrated into gameplay, including collaboration; therefore, this may be advantageous for language learning (Sykes et al., 2010).

As Sykes et al. (2010) elaborate, MMOGs are the channels that trigger the composure of social interactive atmospheres. Moreover, these games build virtual worlds for players to take control over through leading and changing avatars (Peña & Hancock, 2006; Sykes et al., 2010; Thorne, 2010; Thorne et al., 2009) and direct the process with the help of social interaction (Godwin-Jones, 2014) thanks to chats available during games (Thorne, 2010). Players' control may make them feel as if they are included in this virtual world (Gee, 2012). In this way, immersive atmospheres appropriate for language learning can be reached (Sykes et al., 2010; Young et al., 2012).

Sykes et al. (2010) identify that MMOGs comprise goal-directed and social activities that are manipulated consistently with the learners' opposite desires when utilized as language learning tools. Goal-directed activities include reinforcing items or rewards named quests, enabling progress in games (Sykes et al., 2010). Goal-directed activities are formed owing to MMOGs' created virtual worlds, including fantasy, where players must use their abilities to accomplish the current tasks to go beyond the next level (Godwin-Jones, 2014). In terms of

language learning approaches, goal-directed activities may be viewed as a task-based language learning approach in which language teaching is reached via tasks consisting of meaningful activities demanded by learners to get help from their own abilities to complete and accelerate language learning at the end (Ellis, 2009; Larsen-Freeman, 2000; Nunan, 2006). Social-directed activities are rooted in the games' social artifact roles, including interaction and communication (Sykes et al., 2010). Likewise, as Gee (2012) states, digital games may be renamed as summons to having social interactions among their players. Therefore, players may use the English language to be able to take part in the social communities that the game created (Thorne et al., 2009). Social activities in MMOGs enable learners to experience a real-life communication atmosphere where they have the opportunity to reflect on themselves (Sykes et al., 2010). In doing so, they are included in the language socialization process by participating in social speech communities, which are part of second language development (Thorne et al., 2009). So as to have a meaningful and purposeful interaction with speech communities in their second language during gameplays, players demand their sociolinguistic skills (Godwin-Jones, 2014), including convenient pragmatic transfer in terms of both socio-pragmatic and pragma-linguistics (Ellis, 2008; Kasper, 1992) while chatting. Language socialization in gameplays can happen in another way through character selection and control (Sykes et al., 2010) when players may be exposed to varied genres of speech during collaborative and interactive talks (Thorne et al., 2009). The character selection and commanding process may gain a new perspective for players since they use their characters' lenses to make the game world meaningful. Thus, they make an emotional investment in their characters, which creates an identification with them (Sykes et al., 2010). This emotional investment and identification may trigger the development of intercultural competence of the players, as Sykes et al. (2010) state.

As mentioned above, MMOGs grab players' attention and give opportunities for their players to interact during the game (Reinhardt et al., 2014). To illustrate, a digital game called *World of Warcraft (WoW)*, which is an example of MMOG, has reached ten million subscribers varied in age, gender, and linguistic backgrounds worldwide (Cornillie et al., 2012; Godwin-Jones, 2014), boosts the player engagement through collaborative tasks (Gee, 2012). Similarly, the game *The Sims* is thought to result in worthwhile outcomes for language learners' vocabulary development. Generally speaking, popular digital games may enable players to meet on common ground: using a common language, which is generally a second language for them. Thus, digital games can be seen as tools or artifacts that enrich L2 learning in any environment where they are played (Reinhardt & Thorne, 2020; Sykes et al., 2010).

#### **2.2.4. Perspectives paving the way for DGBL: Cognitive, Sociocultural, and Motivational Foundations**

Although DGBL can be seen as a pedagogy by itself, how and in which perspectives digital games are integrated into educational settings is a niggling phenomenon (Plass et al., 2015). Thus, games are seen as a striking factor in enhancing the learning process, including both cognitive and social foundations (Thorne et al., 2009). The cognitive (Tobias et al., 2014) and sociocultural perspectives are common senses of using games in educational contexts (Plass et al., 2015), including interaction, collaboration, and cognitive processing activities in the game (Reinhardt & Thorne, 2020). The structural view is based on repetition and translation activities in the games (Reinhardt & Thorne, 2020). When games are decided to be implemented in an educational context, the perspectives shed light on their adoption. To illustrate, if the cognitive perspective is chosen, learners are expected to access information, yet when the sociocultural perspective is chosen, the learners are expected to have social interactions (Plass et al., 2015).

##### **2.2.4.1. The Cognitive Perspective on DGBL**

Cognitive development is described as the process that includes the structures of knowledge by Piaget (Piaget, 1964). According to the educational principle based on Piagetian philosophy, as Kovalik and Kovalik (2002) elaborate, it is to grow the human mind. Piaget (1964) states that in order to know something, the human mind has to operate on it since knowledge cannot be copied; on the contrary, it needs an act. Therefore, the human mind amends the object. Learning, on the other hand, is not totally the same as the stimulus-response action since response comes first in cognitive learning, which is the opposite of stimulus-response learning and has its own stages regardless of the environmental factors of the human (Piaget, 2005). According to Gelman (1978)'s description, cognitive development is gathering the concepts in human minds.

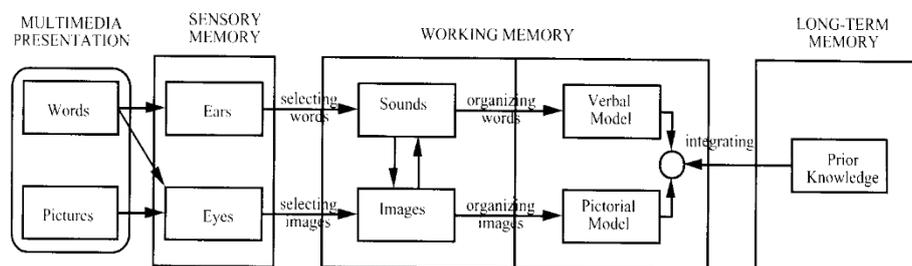
Gameplay sessions can reinforce cognitive development as a result of activating the schemas of the learners (Lindley, 2003); that is, activation in the human mind may be accelerated by the "learning by doing" principle (Arnseth, 2006). In this perspective, games are the essential materials to support learners' cognitive development since they offer spontaneous activities, which are the needs of the human mind's construction (Kovalik & Kovalik, 2002) where the information gathered from games may be conveyed to the human mind (Arnseth, 2006). Games may be used for educational purposes, and they are identified as "practice games" and "symbolic games" based on their targets, as Kovalik and Kovalik (2002) assert. "Symbolic games", which are the ones that may pave the way for digital games,

are the particular preference preferred for the foreign language education process because, through them, players may advance their cooperation and communication skills together with other players with whom they have diverse cultural backgrounds (Kovalik & Kovalik, 2002). It is because digital games enable learners to practice their cognitive capabilities (Mayer, 2005). Additionally, digital games may deepen learning, offering a combination of past learnings and experiences gained during gameplay sessions (Lindley, 2003).

It is identified that “people learn better from words and pictures than from words alone” (Fletcher & Tobias, 2005, p.117). The cognitive theory of multimedia learning, which is admitted as a framework combining cognitive learning aspects and instructional designs (Paas et al., 2003) in the human information system (Mayer, 2005), supposes that humans learn by activating their cognitive process through collaboration of “dual channels for visual/pictorial and auditory/verbal” (Mayer, 2005, p. 31). To illustrate, with the use of games, learners may focus on varied parts of language items or texts as a result of their shifted attention, starting from game tasks to ending in target learning items (Arnseth, 2006). As Mayer (2005) specifies, the three components of the cognitive theory of multimedia learning are dual channel, limited capacity, and active processing. This means that humans have a limited capacity for information for distinct auditory and visual channels to make the information meaningful through integrating the upcoming information into the existing ones, known as the activation process (Mayer, 2005).

**Figure 3**

*The Representation of the Cognitive Theory of Multimedia Learning (Mayer, 2005, p. 37)*



According to the representation of the cognitive theory of multimedia learning by Mayer (2005), three types of memory provide the learning process of the information in an active way, which is different from the implicit theory of learning. This model can be described as a process that starts with picking up the appropriate words and pictures and then unifying them to reconcile with the previous knowledge of the learner (Mayer, 2005). As Mayer (2005)

states, the critical point is the quality of the material serving the message since learning is accelerated when the material includes proper guidance.

As Sweller (2005) asserts, “*Cognitive Load Theory (CLT)*” is based on mixing human cognitive structures into instructional designs to be able to get the maximum advantage. CLT consists of activations, which are the basis for the cognitive load, which is an information presentation stage on working memory (Paas et al., 2003, 2005). It indicates that information is obtained as a result of element interactivity, which can be at a low or high rate (Paas et al., 2003). During low-element interactivity, the latest information can be learned individually, while high-level interactivity requires deeper processes. Correspondingly, ideal learning is specified as the balance of current information based on varied sources to lessen the cognitive load (Woo, 2014). When the instructional design is analyzed in accordance with the cognitive perspective, it is indicated that extraneous cognitive load theory deals with the design of the task (Paas et al., 2003). It is better if it is kept at a minimum level, unlike intrinsic cognitive load theory, which deals with learning directly, as Paas et al. (2003) propose. It is related to the difficulty level of the tasks and their relations (Hawlitschek & Joeckel, 2017). In other words, intrinsic cognitive load is related to the material itself and includes requirements of element interactivity on working memory capacity needs (Paas et al., 2003). Extraneous cognitive load can be related to intrinsic cognitive load since it is not seen as quite vital if the intrinsic load is low (Paas et al., 2003). The third type of cognitive load, called germane cognitive load, is under the instructional designs’ influence in terms of the engagement of the learner (Schrader & Bastiaens, 2012). This type of cognitive load can accelerate the schemas of the human mind, and as a result, it may facilitate learning (Paas et al., 2003). When devices and game designs enrich instructional designs, virtuality is increased, and as a result, the cognitive load may be lowered to working memory. Furthermore, the virtual presence described as the deep virtual activation of the learner may increase the cognitive capacity through the learner’s attention, which may be fostered (Schrader & Bastiaens, 2012). Due to the instructional procedures of multimedia learning, the overload cognitive load may be diluted through the power of visuality (Chang et al., 2018).

Furthermore, computer games may help learners in terms of providing intrinsic and extrinsic support since the former provides the information that is demanded to go on the game; the latter is not associated with the gameplay sessions since it begins in the learner’s self (Schrader & Bastiaens, 2012). In order to decide whether there is a difference among the learners who have support devices in educational computer games or who do not have the scope of intrinsic and extrinsic support, Schrader and Bastiaens (2012) conducted a study. The

experimental research design was carried out with 8th-grade learners, including gameplaying called *Elektra* without support, with extrinsic support, and with intrinsic support with the groups. The study stated that the learning outcomes might be enriched with the help of additional support. Furthermore, it was found that support devices are more effective when they are utilized as intrinsic support.

#### **2.2.4.2. Sociocultural Perspective on DGBL**

When digital games are conceptualized in the light of a sociocultural perspective, it is understood that Vygotsky's sociocultural theory (SCT) has paved the way. As Jaramillo (1996) reports, sociocultural theory identifies that the social experiences of humans have an effect on their interpretation abilities of the world. Likewise, Vygotskian theory implies that children are active and social learners, and social interaction is crucial for their cognitive development (McLeod, 2019; Verenikina, 2003). Thus, it can be presumed that a child may be under the influence of the world that he or she lives in regarding its effects on his/her ability to think (McLeod, 2019). Additionally, participation in social and cultural activities is at the center of this theory, which is thought to help the psychological development of humans as well (Scott & Palincsar, 2013). In Vygotsky's SCT, the importance of social and cultural phenomena is emphasized since when they come together, they occur in humans' behaviors (Lantolf, 2000). As a result, it is assumed that more active participation in social activities and internalization brings a broader perspective and understanding of the world as the outcome (Scott & Palincsar, 2013).

In children's lives, their parents, peers, or the ones who have more knowledge than them may play a vital role in the course of culture transfer and collaborative interactions (McLeod, 2019). During the transfer period, children get help from internalization so as to make the world meaningful (Lantolf, 2000). "Internalization is the process through which a person moves from carrying out concrete actions in conjunction with the assistance of material artifacts and other individuals to carrying out actions mentally without any apparent external assistance" (Lantolf, 2000, p. 14). During the internalization process, a child may try to imitate other humans. However, that imitation includes internalizing the world, which means it is beyond a perfect-matched imitation of the others (Lantolf, 2000). It is because the internalization of the world that children go through covers cultural and social actions and language (Lantolf, 2000).

Since learning is not seen as a developmental process following the same procedures regardless of the social, cultural, and environmental factors that it follows in the cognitive development in Piagetian perspective, SCT states that learning may trigger the internal

developmental process of humans (Scott & Palincsar, 2013). Thus, the “*Zone of Proximal Development (ZPD)*” was offered to explain the distance between the individuals’ actual and possible level, which can be reached thanks to the support and assistance of adults or peers of children (Hitosugi et al., 2014; Lantolf, 2000; Scott & Palincsar, 2013). In another saying, ZPD is the difference between what a person can do with or without an assistance scaffold, which is assistance from a peer or a teacher (Lee, 2015) or mediation (Lantolf, 2000; Van Der Stuyf, 2002; Verenikina, 2003).

ZPD can be seen in natural and educational life since human beings take part in social learning atmospheres while learning new things from childhood to adulthood. During that process, the reinforcement of more knowledgeable ones may have an impact on their discoveries about the world (Verenikina, 2003). In light of the Vygotskian perspective, ZPD can be adopted by teachers at schools to make learners participate in socio-culturally collaborative learning atmospheres, which may result in the cognitive development of learners (Lantolf, 2000). ZPD theory elaborates on the role of teachers as being facilitators rather than authorities in the classes (Jaramillo, 1996) since when a teacher touches on ZPD, learners may be aware of their actual potential (Aljaafreh & Lantolf, 1994; Lee, 2015). Besides, it contributes to the importance of cooperative learning (Scott & Palincsar, 2013), where learners have a chance to do activities that cannot be done on their own; thus, the internalization of the knowledge can happen through another mediation (Lantolf, 2012) since as ZPD suggests, a learner works with another learner who is more knowledgeable than her (Lantolf, 2000; Lee, 2015). The key points here are that the assistance should be appropriate for the level of the learner, and it should be given when it is demanded to encourage learners to discover his/her own potential (Aljaafreh & Lantolf, 1994).

One of the elements of SCT is the *mediation* of the cognitive development of the human mind via culture and interaction (Lantolf, 2000; Lee, 2015). As Lantolf (2000) reports, people do not learn directly from the physical world; instead, they learn through mediation, which can be tools, circumstances, artifacts, or other individuals. As it is described, “mediation is the instrument of cognitive change” (Donato & MacCormick, 1994, p. 456). It assists people while they are making meaning of the world, inasmuch as human minds require a mediator so as to reach higher mental abilities (Donato & MacCormick, 1994; Lantolf, 2000). For that reason, humans may generate and adapt physical, social, and mental artifacts (Lantolf, 2011). Semiotics, for instance, are seen as mediation tools to support individuals in internalizing knowledge (Scott & Palincsar, 2013) as well. Mediation in accordance with symbolic artifacts indicates that humans benefit from symbols or artifacts in order to express themselves. In this

way, they create objects that can be surpassed from one generation to another to be redrawn (Lantolf, 2000a; 2000b). The classification of mediation is represented in Lantolf (2000)'s study through Vygotskian lenses. It is indicated that mediation can be done through regulation or symbolic artifacts. In terms of regulation, the human mind follows three steps to develop cognitive ability. In the first form of mediation, *object regulation*, children may be directed by objects since they can easily be distracted by them. In the second form, called *other regulation*, children are bound by others' assistance or mediation to complete the tasks. In the last form, called *self-regulation*, children are able to complete the action without or with help, which is at a minimum rate (Lantolf, 2000).

In SCT, language is admitted as one of the tools mediating the human mind (Lantolf, 2011; Verenikina, 2003) to communicate with the rest of the world (McLeod, 2019) and to grow and support cognitive progress via interaction and culture (Lantolf, 2000). The language acquisition process of children that is admitted as a social phenomenon in accordance with the Vygotskian perspective (Ehrich, 2006) includes social interaction and cultural transmission, which is supported by their parents' or caregivers' scaffolds (Van Der Stuyf, 2002) and thereby children may learn the language which exists externally (Verenikina, 2003), and they may internalize new information by adding it into their prior knowledge (Aljaafreh, & Lantolf, 1994; Lantolf, 2000; Van Der Stuyf, 2002).

Language learning happens through language internalization and goes through three stages in the Vygotskian perspective: social or external speech, private or egocentric speech, and inner speech (Jones, 2009). In the meantime, children internalize the language. They may use social speech while communicating with others (Jones, 2009) since social speech is an overt speech that is directed to others (Jones, 2009). Then, they begin to produce private speech. It is a way of collaboration for children since it is an overt type of speech resembling the interaction between an adult and a child (McLeod, 2019). Children make use of private speech and direct it to themselves (Jones, 2009) to mediate their cognitive thoughts and plan their strategies; thus, it is supposed to indicate their development (Lantolf, 2000; McLeod, 2019). Private speech can be presupposed as an agency between social and inner speech admitted as a representation of thoughts of the children in an overt way (Jones, 2009; McLeod, 2019). When children get older, they start to use private speech less than before (McLeod, 2019), and they adapt to inner speech, which is a covert type of speech (McLeod, 2019) directed by themselves (Jones, 2009) in time. Therefore, inner speech is assumed to be the indicator of the independence of the children (Jones, 2009).

The language acquisition process may be scrutinized with regard to the mediation process consisting of three stages: object, other, and self-regulation as well. These stages are followed during the language acquisition process depending on the children's language acquisition phases since language is also a mediation tool. At first, they have object regulation, meaning they use objects to think. Then, they become other-regulated, which implies they get mediation from their parents, siblings, or peers to think. In the last stage, they become self-regulated, indicating they do not need other-governed assistance since they fulfill their internalization process (Aljaafreh & Lantolf, 1994; Lantolf, 2000).

In SCT, learning a second language occupies a crucial place since Vygotsky claims that learning a foreign language necessitates learning the culture as a way of mediating as well (Lantolf, 2000; Verenikina, 2003). As Vygotsky indicates, one of the advantages of SCT at schools is enabling teachers to evaluate learners from a broader perspective rather than demanding traditional assessment systems (Lantolf, 2000). Furthermore, language learning at schools may be based upon interactions and dialogues between naïve and experienced learners to trigger scaffolding among them (Lantolf, 2000). As seen, with the help of SCT, students may be encouraged to acquire a foreign language, like procedures they follow during their first language acquisition process.

SCT dominates not only educational but also instructional backgrounds. For instance, the valuable navigation in the daily lives of the learners coming from digital games may be done through the fantasy in the games; thus, they result in the scaffold of cognition (Ricker & Richert, 2021). The study conducted by Ricker and Richert (2021) to see the relationship between exposure to digital games as cultural tools and the metacognition development of children by utilizing video games indicated that the variables might influence metacognitive development. The time, player profile, and type of games may vary in change among the children. Similarly, as Subrahmanyam and Renukarya (2015) declare, games may improve collaboration and social interaction among players, which may result in improving the learners' social skills in their daily lives.

In consideration of SCT and language learning, games have been investigated so as to whether they prompt using private speech or not. The studies (Ibrahim, 2019; Montero & de Dios, 2006) portray promising results about using games to promote private speech of learners. To illustrate, Montero and de Dios (2006) conducted an experimental study in order to measure the impact of private speech on the task performance of the participants. Ninety participants from different age groups 5, 7, and 9 participated in the study. The study followed two sessions as implementations. In the first session, the participants were observed based on task difficulty.

In the second one, they completed activities as a part of the tangram puzzle. During the task activities, they were observed as to whether they used private speech consisting of free and obstructed or not. The former did not include music, but the latter included listening to music in the course of tasks. As a result, it was indicated that the use of private speech depends on the performance and the difficulty of the tasks.

Likewise, Ibrahim (2019) aimed to observe the use of a foreign language during video gameplaying through an explanatory case study conducted with 3 participants, consisting of Arabic learners. The gameplay sessions were held in Arabic as an out-class activity lasting four weeks. Students left their comments both in Arabic and English during interviews. The results reflected that gameplaying fosters learners' foreign language use, considering the support for learners by means of exposure to the foreign language, gaining autonomy to make self-assessments, and having both verbal and non-verbal linguistic interactions during gameplay with other players and the avatar. Additionally, the gameplay is valuable in accordance with providing a source enriched by vocabulary and structures in the target language and fostering actions to proceed in the game. Furthermore, it was stated that gameplay sessions trigger using private speech while the players are engaging in tasks offered by the game.

The importance of ZPD during the language learning process and its effects has been declared by many (Aljaafreh & Lantolf, 1994; Lee, 2015; Shaffer & Clinton, 2006; Sykes et al., 2010). To illustrate, Aljaafreh and Lantolf (1994) conducted a study with nine adult participants taking an ESL writing and reading course at Delaware University to investigate second language learning in the scope of ZPD. During the course, participants wrote essays, and they got feedback to correct their errors. A ZPD group of 3 participants attended a collaborative session to make participants realize the errors in their writing rather than explicitly correcting the mistakes. In doing so, tutors drew the participants' attention to the problematic parts of the writing. The interlanguage development was measured based on the self-regulation progress of learners and product-oriented criteria based on their writings. The results shed light on SCT in second language learning. It was indicated that language cannot be learned individually since this process is based on mediation ruled by others to be able to foster the ZPD of learners, which is done collaboratively via proper assistance and guidance. Besides, the regulation strategies of the learners should be used as a criterion for learners' language development in addition to linguistic development.

Another study by Lee (2015) was conducted at Christopher House, where low socio-economic neighborhoods get an education, aimed to measure the impact of SCT on second

language learning. Thus, SCT was adopted with the adult learners for one semester. The results illustrated that being sensitive to cultural issues, the teacher-student relationship, and the interacting learning atmosphere play a crucial role in the second language learning process. It is understood that the interacting atmospheres encourage learners to reach their ZPD rather than traditional learning atmospheres.

Moreover, it may be assumed that the use of technology has supremacy in SCT since it is realized that digital games may come together with complex tasks instead of focusing on them individually (Sykes et al., 2010). According to Shaffer and Clinton (2006), for instance, human thoughts are interconnected with tools; therefore, it is implied that the mediation of the human mind in virtual atmospheres is offered according to what SCT offers.

#### **2.2.4.3. Motivational Foundations on DGBL**

DGBL has been examined in terms of motivational perspectives with a view to being advanced and adopted into education. In this part, motivational foundations that are linked with DGBL are given in categories paving the way for regulating the gameplays in accordance with social cognitive theory (Bandura, 2001) and self-determination theory (Deci & Ryan, 2008), in addition, dominating gameplays in the scope of gratification paradigm (Schutter & Malliet, 2014) and the flow theory (Csikszentmihalyi, 1990).

According to Bandura (2001), the shift from behaviorist models based on input-output to dynamic computational models, which state that environmental issues function as a prompter for the activation of the human mind, has paved the way for making sense of human agency. As Bandura (1986) articulates, social cognitive theory shapes the future choices of humans in the scope of motivation as a result of their previous activities' outcomes. Besides, humans can lead themselves based on their perceptions and inner thoughts (Bandura, 2001). As Bandura (2001) asserts, social cognitive theory has four fundamental concepts to elucidate human behaviors. To illustrate, based on the intentional features of human agency, humans have a chance to choose their activities. Forethought provides controlling the chosen and future activities. Self-reactiveness supports the motivational aspects of future decisions and choices about activities. Lastly, self-reactiveness works as a metacognitive property of the human mind, enabling self-efficacy for self-regulation (Bandura, 2001). When social cognitive theory is integrated into digital games, it was proposed that a self-regulatory system may shape the internet and game usage of humans (LaRose et al., 2003; Lee & LaRose, 2007). To exemplify, Lee and LaRose (2007) implemented a study with 538 college students to determine the use of video games in a social cognitive theory framework. The results showed that the use of video games increased according to the low self-control of the participants based on their

thoughts about video games, which were viewed as a cure for their negative emotions. In conclusion, it was found that video games may be seen by individuals as a pastime activity or for relieving negative emotions.

Another theory associated with motivational foundations is “*Self-Determination Theory (SDT)*”, specified by Deci and Ryan (2008), which is mainly based on motivation in the scope of self-regulation, the psychological needs of humans, and the environmental factors affecting the motivation of individuals. According to that paradigm, as Deci and Ryan (2008) indicate, SDT covers humans’ causality orientations and life goals, unlike autonomous and controlled motivation types. It means that SDT is different from both motivation types (intrinsic – extrinsic) since it focuses on the regulations of human behaviors such as orientation and the long-term targets of the human directing their choices. A study was carried out by De Schutter and Malliet (2014) to specify the sources of motivation and perceived needs of the older game players with 239 participants by combining both paradigms mentioned above. According to data analysis gathered through online questionnaires and interviews, it was found that several types of motivation control persons. However, according to the results, the motivation types of the players are categorized as continually motivated, contextually motivated, and socially motivated. Based on the categorization, the people in the first category play the game to satisfy their cognitive and affective needs rooted in the game experience. The players in the second category play the game to escape other activities since their motives are rooted in escapism. The players in the third category play the game to collaborate and to beat other players. Lastly, the study illustrates the perceived needs, which are the cognitive needs described as brain exercise and the affective needs described as emotional experiences (De Schutter & Malliet, 2014).

To explain the significance of the motivational factors during gameplays, the “*Gratification Paradigm*” (De Schutter & Malliet, 2014) and “*Flow Theory*” (Csikszentmihalyi, 1990) are prominent phenomena. The first one, the gratification paradigm, focuses on the investigation of motivational factors triggering the gameplays and the factors using the media more generally, was presented by De Schutter and Malliet (2014). The theory was used in a study conducted by Korhonen et al. (2009). In that study, the factors of gratification in line with factors such as competition, social, fantasy, arousal, interaction, diversion, and challenge were investigated to find the most common ones among the participants consisting of university, high, middle, and elementary school students through a survey study. The results indicated that the most common factor fostering gameplay was social factors keeping players’ emotions in balance equilibrium. It may be because, according to

responses in the study, players enjoyed the feeling of beating the other player, and the competition in the games played as if it was a reinforcing factor. The study enlightened the issue that players do not prefer games for learning aspects, unlike television, since they think that they get information through television. According to Nabi and Krcmar (2004)'s gratification theory, the incentive moment to show interest in media tools may be different from the outputs of the experience, such as the difference between starting and ending points. Thus, it can be used for cognitive and behavioral dimensions.

The other theory is the flow theory offered by Csikszentmihalyi (1990), which is the optimal size and way of the activities to reach maximum benefit. The term *flow* is described as “a state of concentration so focused that it amounts to absolute absorption in an activity” (Csikszentmihalyi, 1990, p. 1). It provides order in the game to regulate the difficulties or easiness of the game (Prensky, 2001). Thus, when the flow is reached, people feel robust, and they have total concentration on what they do during the process, which may result in full participation with a complete sense of enjoyment and the slightest sense of anxiety or stress regardless of the age or sex of the players (Csikszentmihalyi, 1990). It is due to flow experience's enabling robust matching between the challenging tasks offered in the game and the ability of the players to cope with them (Csikszentmihalyi, 1990; Prensky, 2001b). In brief, “flow experience is a sense of concentration, immersion, engagement, enjoyment, free control, loss of oneself, and satisfaction” (Chang et al., 2018, p. 156). The flow theory has basic steps that result in enjoyment when combined. These bases are described by Prensky (2001b) as follows:

1. Having a chance of completing the task;
2. Concentrating on what we are doing;
3. The task having clear goals;
4. The task providing immediate feedback;
5. One acts with deep, but effortless involvement, that removing from awareness the worries and frustrations of everyday life;
6. One exercises a sense of control over their actions;
7. Concern for the self disappears, yet, paradoxically the sense of self emerges stronger after the flow experience is over;
8. The sense of duration of time is altered. (Prensky, 2001b, p.3)

The flow theory adopted as “*Game Flow Theory*” by Sweetser and Wyeth (2005) explains the enjoyment of the players when they play computer games since it is admitted that in computer games, player enjoyment plays a key factor (Sweetser & Wyeth, 2005). The theory

has eight adopted elements consisting of concentration, challenge, skills, control, clear goals, feedback, immersion, which may be seen as being involved in the game in order not to beware of daily stuff, and social interaction, which may be seen as one of the reasons why players prefer playing games to socializing (Csikszentmihalyi, 1990). As Sweetser and Wyeth (2005) advocate, the demanded criteria of the games, which can be thought of as enjoyable enough, are based on concentration, challenge, the skills of the player and control, clear goals, feedback, immersion, and social interaction are demanded.

As Sweetser and Wyeth (2005) indicate, the first element of games, concentration, is required to assist players in gameplaying. Therefore, varied stimuli should be presented to draw their attention and keep it. Additionally, the tasks should be kept at an optimum rate and level in order to motivate players. The second element, challenge, is needed to push players according to their capabilities. As a third element, player skills, the games should be designed to develop learners' skills. Thus, game mechanics can be designed to reinforce player skills. Furthermore, game tutorials or manuals should be explanatory. The fourth element, control, means that players should have a sense of manipulating game actions. Thus, games should be designed to tolerate errors that players may make in order to support them to maintain in the game. The fifth element, clear goals, states that games should offer vibrant goals that are accessible at proper times. The sixth element, feedback, is the system that informs players at proper times about their progress and actions in the game. The seventh element, immersion, is described as the players' engagement in the game. Therefore, games should provide players with an appropriate atmosphere in which players are focused on gameplay rather than daily challenges or emotions. The last element, social interaction, is an opportunity for players to communicate during gameplay, which can be written or oral. Thus, games should enable players to have social groups outside the game atmosphere.

As seen above, the criteria should meet the needs of both game players and game designers. The game flow theory identifies that "games must keep the player's concentration through a high workload, but the tasks must be sufficiently challenging to be enjoyable" (Sweetser & Wyeth, 2005, p. 4). The theories and foundation on incorporating digital games mentioned above provide guidelines for educators, enabling them to form game-patterned lessons through a scientific perspective. In the following part, a specific digital game is mentioned, which was utilized in the present study.

### 2.2.5. A Digital Game: MINECRAFT

This study employs the digital game *Minecraft*, which is based on an open-world theme, triggering its players to explore and generate the game (Lane & Yi, 2017) and played by a wide range of players from youngsters to adults (Lane & Yi, 2017; Smolčec et al., 2014). What makes this game so popular around the world is that it offers modification within multiplayer sessions, which triggers authenticity and collaboration among different players around the world (Uusi-Mäkelä, 2015). The game was created by Majong Ab in 2009 (Callaghan, 2016; Uusi-Mäkelä, 2015). The purpose of the game is to collect the materials to construct items such as buildings, areas, playgrounds, neighborhoods, cities, or even a new world regarding the creativity of the players, which helps players survive in the game (Uusi-Mäkelä, 2015). Therefore, players build their own worlds made from blocks (Lane & Yi, 2017). The game shapes an environment where players can achieve success based on their creativity and collaborative efforts (Schifter et al., 2013). Thus, the game is referred to as a *sandbox*, which is a metaphor meaning that the players may explore and shape their ideas based on the game mechanics (Lane & Yi, 2017; Schifter et al., 2013; Smolčec et al., 2014), with a possibility to have unlimited areas where players appreciate the suitability for all levels of expertise (Smolčec et al., 2014). Therefore, the time needed to learn the game is less than other games (York, 2014), and it is played by an immense online community (Dodgson, 2019). Thus, it is admitted as one of the MMOGs since it combines collaborative and creative ideas in the game (Callaghan, 2016). Nevertheless, it may be simpler than other types of MMOGs (York, 2014) because of the game's open-ended system.

*Minecraft* provides players with two modes of survival and creativity, as mentioned in Lane and Yi (2017)'s paper. In survival mode, players aim to discover the required tools within the goals that they create to be able to survive since they may run into a monster attack. Conversely, in creative mode, on the other hand, players do not have attacks since they concentrate on creating videos based on their constructions, and they may visit other players' worlds. In this mode, players can focus on interaction and crafting without any chance of failing. As Dodgson (2019) articulates, in survival mode, players have restricted supplies, unlike in creative mode, offering non-restricted supplies. The third mode of *Minecraft*, which is more appropriate for use in educational purposes, is *Minecraft Education Edition (MEE)*. In this mode, teachers can take administrative roles by participating in the game sessions to control the process and give instructions to the students by forming them into virtual areas (Callaghan, 2016; Uusi-Mäkelä, 2015). This edition may be assumed as a more conservative factor in preventing hazardous effects of the game described as using foul language among the

players since the teacher has guaranteed the time of the play sessions, s/he can regulate them, and this may hinder students from becoming addicted to the game (Smolčec et al., 2014). Although the game has a specific mode for education, when it is used for educational purposes, teachers have the power to control and manipulate the content in all three modes (York, 2014).

Studies (Callaghan, 2016; Lane & Yi, 2017; Schifter et al., 2013) related to *Minecraft* may have been associated with theoretical frameworks owing to the game's creative atmosphere, and they have pointed out ensuring results regarding employing the game in educational settings. To illustrate, Lane and Yi (2017) indicate that *Minecraft*, within Vygotsky's cognitive development, can be utilized to support the students' cognitive development by means of making the game a digital medium in which students may improve their social skills, including collaboration and reaching necessitated support from their peers and their teachers as scaffolding.

Callaghan (2016)'s collective case study aimed to investigate the use of MEE through cognitive lenses at an upper secondary school in Sydney. Students were offered project-based learning or Minecraft club. The ones who participated in the *Minecraft* club were supplied with a questionnaire. Two distinct worlds were utilized for the ones participating in the *Minecraft* club and multimedia class. Participants were expected to share their experiences on the blogs. Based on the observations, the students were eager to use MEE. The players indicated that the game assisted their learning in math and science. The study reports that collaboration among players and their engagement increase due to gameplay. Besides its potential to help students gain a detailed knowledge of computers, it may result in becoming a digital native as well. Furthermore, cognitive abilities and the authenticity of the activities are supported. Lastly, as Callaghan (2016) asserts, teacher roles play a crucial part in guiding and assisting learners by motivating and engaging them at the maximum level.

In the study conducted by Schifter et al. (2013) within an English literature class, Piaget's constructivism was chosen as a framework; thus, the study aimed to combine constructivism and *Minecraft* to aid the cognitive development of the students using *Minecraft* as a tool. In tandem with constructivism, learners were expected to construct knowledge by means of meaningful interaction with their peers to add current information to their schemas. To implement the study, 20 participants consisting of 9th and 10th-grade students were assigned to explore the depiction and plot of the English literature pieces. Then, they were asked to divert their narrative works to videos, to either *Minecraft* or another application such as a camcorder. Students had a chance to connect the game both inside and outside the classroom. According to the results of the group who used *Minecraft*, the identification of the

concepts and characterization were better than the ones who did not use it. Moreover, thanks to the game, this process involved active participation in the process compared to doing it by means of text. Thus, *Minecraft* may be seen as a way to construct knowledge through analyses and experimentation for English literature classes, as the study indicates.

*Minecraft* is one of the preferred games to be implemented into the classes because of its benefits on education by bridging the gap between formal and informal learning (Uusi-Mäkelä, 2015). Moreover, Uusi-Mäkelä (2015) states that the game's open-ended system has a resemblance to problem-based learning used in the educational context. However, the only difference is that the problems are player driven. For instance, Lane and Yi (2017) indicate that this game is employed in educational contexts thanks to the skills required in the game, such as collaboration, cooperation, and creativity, which are valid both for the authentic and educational world. During the game, the interaction is enriched and supported by digital atmosphere through collaborative tasks (Schifter et al., 2013). Smolčec et al. (2014) articulate that the skills that can be developed through *Minecraft* are socialization, creativity, collaboration among players, computer, language learning, geography, science skills, being more understanding of cultural differences, and enhancing intrapersonal skills.

Moreover, Dodgson (2019) suggests that the skills can be developed with the help of *Minecraft* in English language education by creating a mutual understanding among the players as a result of English usage. First, the game atmosphere is suitable for players to discover novel items in a collaborative way consisting of novice and experienced players. Alternatively, when players make a discovery, the excitement may increase to encourage learners to communicate using English. Secondly, the survival mode of the players pushes learners to make instant and accurate decisions, improving their creative thinking abilities. Thirdly, to play the game more accurately, learners may need to research the game process on the net, which may contribute to their knowledge about how to use digital tools. Fourthly, players may form their own language if there is a lack of language in the gameplay. Lastly, since games offer a limitless world for the players, the productivity skills of the learners are improved. Finally, Smolčec et al. (2014) report that *Minecraft* has fruitful assistance for students to improve their listening skills through watching *Minecraft*-made videos to understand the logic of the game. Besides, while playing the game with other players, students can have audio or text chat, which can increase the development of listening, writing, discourse, grammar, and spelling ability of the students.

The above mentioned studies have specified that *Minecraft* has promising effects on enhancing its players' abilities. In this perspective, the impacts of *Minecraft* in educational contexts have been examined as well. To illustrate, a study was conducted by Marklund and Taylor (2016) in order to ensure how it could be implemented in schools. The context of the study consisted of two case studies at a K12 school in Sweden. During a five-month period, 17 game-based activities were generated for learners who are in the 5th and 7th grades. MEE was preferred in that study because of its flexible themes, allowing teachers to customize. All the activities were designed to increase student collaboration; therefore, students were asked to work in groups of novices and experienced ones. According to the results, game-based learning may be advantageous for learners by making them more enthusiastic and active participants if it is designed and executed in a careful way. Besides, the role of teachers in that type of education may be a leading factor in determining the quality of the education because of their facilitator and guiding roles.

Based on the positive influences of *Minecraft* on education, integrating it into language lessons has been a matter of fact as well. Thus, in order to examine the impacts of the integration of *Minecraft* on language lessons, Uusi-Mäkelä (2015), York (2014), Irvin (2017), and Dodgson (2015) conducted their studies in varied educational contexts, and they found favorable outcomes. For instance, Uusi-Mäkelä (2015) conducted a study in the light of GBL and its adaptation at schools. To do that, a case study employing both qualitative and quantitative research methods was applied at a Finnish upper secondary school to discover how MEE helps language learning, in particular, which language parts are supported by *Minecraft*. Two interventions consisted of playing MEE as a part of their class routine. The results of the first intervention stated that playing the game led to the creation of an authentic communicative atmosphere for the students where they may develop their competencies and abilities. Besides, games might provide a medium for balancing formal and informal learning activities reinforced with collaboration and cooperation. The results of the second intervention illustrated that the ability to learn got the highest scores in the questionnaire aimed at measuring the effects of the game on language parts. Pragmatic and sociolinguistic competencies got low scores, unlike Uusi-Mäkelä (2015)'s expectations, and the short duration of the intervention explained it. As a result, it was concluded that the games may be fruitful for language classes.

In another study carried out by York (2014), *Minecraft* was utilized to provide a safe and immersive atmosphere for Japanese learners who learn English and help them pass the proficiency test. The project covered developing the curriculum, designing activities, building

lessons, and providing input for learners via *Minecraft*. The activities were designed with the help of its adventure and survival modes. The tenses were enriched by *Minecraft* survival mode; imperatives, question formation, and information sharing were enhanced through adventure mode. All those activities included cooperation between students and the teacher. While doing the activities, the teacher stopped and asked students to change their peers and talk about their experiences. According to the results of the study, York (2014) suggested that existing plug-ins might be effective for language learning, especially for vocabulary parts, and creating roads may be an excellent way to practice grammar. At the end of the project, students gave feedback about the process, and they explained that a social learning atmosphere was triggered, and speaking and listening were emphasized. Thus, it was found that using the game assists in the L2 learning process.

In Irvin (2017)'s study, it was mentioned the experiences of using *Minecraft* for students learning Spanish as a second language. First, teachers were recommended to use *Minecraft* in their lessons to encourage students to create their worlds based on the targets of the units and parts of the topics. For instance, he suggested the benefits of vocabulary activities since it may be helpful if the learners create their worlds and describe them using the target language. Ultimately, the students have created their e-portfolios in this way. During the game process, students were encouraged to communicate in the target language to increase their oral ability as well. According to Irvin (2017), the classes enriched by *Minecraft* are better at increasing students' engagement and achievements than traditional classes without games.

In Dodgson (2015)'s study, which aimed to examine the implementation of *Minecraft* into the language learning process, he gave the integration ideas of it in language classes in a study that was carried out with 5th-grade Turkish EFL learners in an English course that he gave in Turkey. He included *Minecraft* in the lessons and gave his ideas about the implementation process based on that study. The first idea was "breaking blocks" to increase engagement. Thus, students made a collaborative group work on creating a story via *Minecraft* after finishing the unit. He stated that the gap between the real world and the classroom atmosphere was bridged. Secondly, "placing blocks" might be utilized to help learners gain autonomy. Therefore, experienced and novice students were requested to work together to learn the game better. "Building blocks", as it was stated in the study, was beneficial for players to work on commands. In the activity, experienced learners guided novices during the process, including item crafting within a collaborative work. "Crafting blocks" was a way of increasing students' creativity since the students created novel projects through *Minecraft*. To illustrate, they formed a zoo, created varied biomes, and made presentations and videos about

the worlds in the game by retelling activities. The last idea, “writer’s block”, focused on learners’ writing skills. For the activity, learners were asked to write a journal including their game journeys and routines. To Dodgson (2015), with the help of *Minecraft*, the students become eager to learn, and they feel more enthusiastic about the lesson. In addition, through exploration and experience in the game, players’ English is improved.

All in all, it seems clear that incorporating *Minecraft* in language classes results in increased learner engagement (e.g., Dodgson, 2015) and cooperation among learners (e.g., York, 2014). Furthermore, it assists in enhancing learners’ oral ability and performance (e.g., Irvin, 2017; York, 2001).

### **2.3. Willingness to Communicate (WTC)**

The term “*Willingness to Communicate*” (WTC) has changed and evolved with the contributions of various scholars (Burgoon, 1976; Cao & Philp, 2006; Kang, 2005; MacIntyre et al., 1998; MacIntyre et al., 2001; MacIntyre et al., 2003; McCroskey, 1992; Yashima, 2002; Yashima et al., 2018) because it has processes in itself in terms of its name, scope, and point of view.

Willingness to communicate is a concept used in language acquisition as one of the individual differences among learners (Ellis, 2008). The outcome of willingness to communicate originated by Burgoon (1976) as unwillingness to communicate, “which is a chronic tendency to avoid or devalue oral communication” (Burgoon, 1976, p. 60). Thus, unwillingness to communicate is based on alienation, introversion, self-esteem, communication apprehension, and reticence. Then, McCroskey (1992) turned this term into a more positive concept by naming it as willingness to communicate. WTC is grounded on the first language of the speaker (McCroskey & Baer, 1985). McCroskey (1992)’s WTC definition is based on the speaking desire of the interlocutors after they increase the positive relations by decreasing the ambiguity. This WTC concept is more related to trait-like predisposition, which is more persistent against contexts (McCroskey, 1992). The trait-like WTC has a more constant tendency to speak in various contexts (MacIntyre et al., 1998).

When it comes to second language (L2) acquisition, it is realized that there are differences among L2 learners in terms of willingness and avoidance of speaking in the target language (MacIntyre, 2007). The difference shed light on the outcome of L2 WTC, and then MacIntyre et al. (1998) expanded WTC to a second language as L2 WTC. The WTC in second language concept is defined as “readiness to enter into discourse at a particular time with a specific person or persons using a L2” (MacIntyre et al., 1998, p. 547) and “the probability of

engaging in communication when free to choose to do so” (MacIntyre et al., 1998, p.546). The clarification between WTC in the first language (L1) and in L2 is done (MacIntyre, 2007) as an elaboration of the competence and experience in L1 (MacIntyre et al., 2003). It is specified that L2 WTC covers not only speaking but also comprehension of written language (MacIntyre et al., 1998).

To Yashima et al. (2004), the purpose of language learning is to foster more quality communication among learners who may have varied cultural and linguistic backgrounds. In parallel, the focus on authentic language use in the language learning process resulting from the use of communicative methods (Kang,2005) increases the importance and popularity of WTC; therefore, the willingness of the learners is seen as a panacea for developing learners’ communication skills by using the language.

According to Yashima (2012)’s identification, as long as learners do not want communication outside the class, they may have trouble even when they find a job. What is more, if the learners have a higher level of WTC, it may be an indicator of reaching more authentic-like communication (MacIntyre et al., 2003). Besides, McCroskey and Richmond (1990) indicate that WTC does not consist of a single phenomenon since it is affected by either cognitive (choosing or not choosing a message in a speech determined by the brain) or situational factors (incidence of features of personal traits and feelings). According to MacIntyre et al. (1998), WTC is influenced by communication apprehension, perceived communication competence, being introverted or extroverted, self-esteem, the degree of familiarity among the interlocutors, the formality degree of the speaking atmosphere, the topic, and the evaluation of the speech. These variables affecting WTC can range based on the age or gender of the interlocutors (MacIntyre et al., 2002). As MacIntyre (2007) states, WTC is an individual difference, and it has non-linguistic outcomes on the language learning process. It is because L2 WTC is related to learners’ motivation, attitudes toward the international community, and personal traits (Asmalı, 2016). In this sense, there is an indirect relation between learners’ WTC and personal traits, and the direct relation is between learners’ attitudes, self-confidence, and WTC (Bektaş-Çetinkaya, 2009).

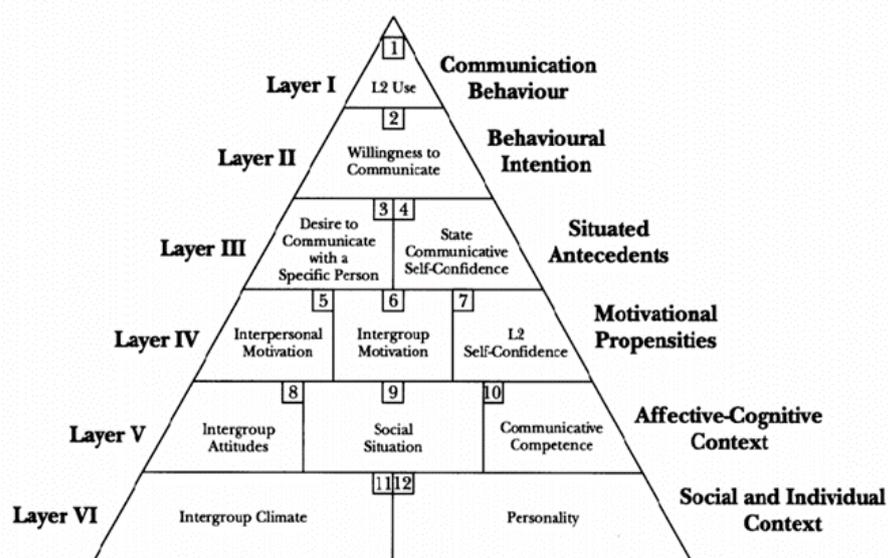
MacIntyre et al. (1998) proposed the “heuristic model of WTC” represented in a pyramid model consisting of six layers, which is shown in Figure 4 below. According to that pyramid model, the combination of both trait and state variables in harmony with psychological, educational, and linguistic approaches and their impacts on willingness to communicate in a second language (Yashima, 2012) are indicated. At the bottom levels of the

pyramid, more stable variables, and at the top levels, state variables are represented (Yashima, 2012). To put it unusually, the first three layers of the pyramid describe situation-specific influences on WTC, and the last three layers describe more enduring, stable influences on WTC (MacIntyre et al., 1998). To illustrate, the predisposition to communicate with a person at a specific time is inserted at the top of the pyramid, and the intention to initiate the communication with effects depending on specific situations and enduring impacts is shown in other layers (Macintyre et al., 2001).

As Yashima (2012)'s clarification of the pyramid, in the last layer of the pyramid, the variables intergroup climate and personality are hypothesized to have a direct impact on L2 WTC. In the fifth layer, the variables indicate the cognitive and affective factors of the person, including intergroup attitude, communicative competence, and social situation. In the fourth layer, the motivational factors are represented in terms of one's intention to start communication and being confident in the communication. From the third layer to the top, state variables are represented. The third layer demonstrates the desire to communicate with a specific person at a specific time and state self-confidence. Unlike L2 self-confidence, state self-confidence is a more enduring variable than cognitive or affective one. In the first and second layers, L2 WTC is placed to specify the communicative aspect of learning L2.

**Figure 4**

*Heuristic Model of WTC* (MacIntyre et al., 1998, p. 547)



### **2.3.1. WTC Studies in ESL and Turkish EFL Contexts**

The concept of WTC and its components are mentioned above. It may be reached that WTC is a vital issue for language classes, and thus, it has been investigated both in “English as a Second Language” (ESL) and “English as a Foreign Language” (EFL) contexts.

In order to investigate the factors affecting WTC in L2 in classrooms, studies have been conducted in varied contexts. Although the context may vary, a common factor, classroom environment (Cao & Philp, 2006; Fatima et al., 2020), is an affecting factor on WTC levels of learners. To illustrate, Fatima et al. (2020) aimed to investigate the effect of personality and affective factors and classroom environment on WTC in L2. Two hundred thirty-four randomly selected state university students from Pakistan took part in the study. The data were gathered through a questionnaire consisting of L2 WTC, openness to experience, extraversion, perceived communication competence, L2 speaking anxiety, and class atmosphere. According to the results, it was found that classroom environment and personality factors play a vital role in the L2 WTC of the participants. Additionally, perceived communication anxiety and L2 anxiety were found to be the most influential factors of L2 WTC. By grabbing pedagogical attention, the study indicates the significant factors for the second language learning process.

Likewise, Cao and Philp (2006) investigated the trait-like and situational characteristics of WTC in their study. Thus, L2 WTC measured as self-report and L2 WTC in classroom contexts were examined. Ten students from an intact class in New Zealand participated in the study. The data were gathered through class observations, participant interviews, and questionnaires over four weeks. It was found that learners’ WTC in the classroom context is under the influence of both state-level and trait-level WTC. The size of the groups, the familiarity of the interlocutors, and the topic and interest play a vital role in shaping participants’ WTC in class. Similarly, the interaction between dyads was found to be the most contributing factor to participants’ level of WTC in class. As a result, it may be inferred that the study portrays the classroom context’s effect on the level of WTC of the participants.

In a similar vein, in another study, WTC in L2 in classroom settings was delved into by investigating trait and state-level WTC in a classroom context. Thus, to reach an understanding of the reason why learners avoid communication by combining both levels of WTC and to examine the communication behavior of the learners, Yashima et al. (2018) conducted an interventional study. The participants of the study consisted of 21 EFL learners

at a Japanese university. The data were collected through questionnaires, observations, interviews, and reflection papers of the participants. The intervention was done in one of the five English classes by making initiation-response feedback missed for learners. The group discussions were held from the second week to the thirteenth week, and students practiced for the discussion in smaller groups. It was found that repeated discussions lower situated anxiety in class when the teacher's control is lessened. Besides, it was discovered that students might challenge themselves in the light of WTC.

Another perspective has been brought via studies seeking the effects of learning atmospheres and impacts on WTC in L2. It seems noticeable that in terms of the effects of the learning atmosphere on learners' WTC levels, having an international experience (MacIntyre et al., 2001) or experience plan (Yashima et al., 2004) dominates WTC in L2 levels of learners. For instance, Yashima et al. (2004) conducted a study to scrutinize WTC in L2 communication behaviors both inside and outside the classroom context and variables having an impact on WTC. In order to conduct the study, two cohort investigations were made with Japanese adolescents. The study concluded that a high level of L2 WTC may contribute to the tendency to start communication in class settings. Having self-confidence in L2 and perceived communication adhere to the level of WTC. Lastly, motivation may have an impact on participants' self-confidence.

In another study, Yashima and Zenuk-Nishide (2008) conducted their study at a Japanese high school to measure the learning context's impacts on proficiency in international posture, L2 WTC proficiency, and frequency of communication. One hundred and sixty-five students attended the study in two cohorts divided between studying abroad and at home. The questionnaires were applied to two cohorts at separate times. The results illustrated the advantageous aspects of studying abroad in terms of proficiency development, attitudinal and behavioral changes, and international posture. It was found that the participants who study abroad have more interest in international activities and more information about how to start communication outside the class compared to the other group who study at home.

Similarly, MacIntyre et al. (2001) conducted a study based on the hypothesis that social support and language orientations may have an influence on WTC. Thus, in the study, WTC was measured in class with four skills (reading, speaking, listening, and writing), with 79 French immersion students in 9<sup>th</sup>- grade in Canada participating in the study. The study examined the orientations toward language learning English in line with job, travel, friendship, personal knowledge, and school success through a questionnaire. The results showed that

language learning has an effect on the level of participants both inside and outside the classroom. Besides, it was found that when participants' friends give social support, it has an effect on the high level of WTC outside the classroom, and it affects the orientations for language learning, such as travel and friendship with people speaking French.

When it comes to the Turkish context, Turkish learners' WTC levels and the connection between WTC and affective factors have been examined. To illustrate, Bektaş - Çetinkaya (2005) conducted her Ph.D. dissertation to investigate the willingness of Turkish EFL university students in a Turkish context and measure the WTC model, including social-psychological, linguistic and communication variables in that context through a hybrid model research design. The results revealed that the students are motivated to learn English, somewhat willing to communicate in English, and have moderate motivation to learn English. Furthermore, it was found that there is a direct relation between participants' WTC level and their attitude toward the international community and perceived linguistic self-confidence. However, there is an indirect relation between their level of WTC, their motivation to learn English, and their personality.

Likewise, to measure the relationship between personality traits and WTC in L2, Öz (2014) conducted a survey study with 168 participants from a state university in Turkey. In terms of personality traits, extraversion, agreeableness, and openness to experience were specified as the factors predicting L2 WTC of learners. Furthermore, in Öz et al. (2015)'s study, which measured the relationship among communication factors, affective factors, and L2 WTC, motivation was found to have an indirect effect on WTC like in Bektaş- Çetinkaya (2005)'s study. In that study, 134 participants from a state university in Turkey participated in the study. Besides, communication apprehension was found to be a strong predictor of Turkish EFL learners' WTC. Based on the results, males and females differed in terms of scores since females got higher scores in motivation and L2-self. In comparison, males got higher scores in other variables (integrativeness, self-perceived communicative competence, attitudes toward learning situations, instrumental orientation, and WTC).

To examine the effects of individual factors on Turkish learners' WTC, Bergil (2016) conducted a study with 73 foreign language preparatory class students from Amasya University who participated in the study. The data were gathered through the WTC scale, and in order to get the instructors' views, another WTC scale adopted by researchers was conducted by the speaking course instructors. The results indicated that participants' level of WTC is affected by the activity and task. Besides, it was found that extroverted students' WTC

level is higher than introverted ones. Furthermore, it was indicated that the participants are more eager to participate and communicate in group discussions rather than communicate with a stranger. Thus, the study concluded that the activities in preparatory classes may be regulated to encourage learners to use English in varied contexts.

In another perspective, the L2-self, one of the individual factors, has been investigated in accordance with its impact on WTC. To illustrate, Erten (2016) conducted his study to find a relation between L2-self as a motivational factor and L2 WTC. The data were collected through scales, and 96 university students participated in the study. It was found that L2-self is a predictor of L2 WTC. Thus, it was concluded that L2-self, which is an individual factor, may have an impact on communication in English, and it may affect the language learning process.

Similarly, Bursali and Öz (2017)'s study aimed to measure the relationship between the ideal L2-self and WTC in class. 56 students from the ELT department at a private university in Turkey took part in the study. Through the study, the significance of L2 ideal self's on Turkish learners' L2 WTC was reached. Besides, it was found that 32% of the participants have high, 30.4% of them have moderate, and 37.5% of them have low L2 WTC in class. In a similar vein, in terms of WTC in L2 levels of the participants, Başöz and Erten (2018)'s study, which measured perceived WTC levels of Turkish EFL learners at a state university both inside and outside the class and whether there is a difference between the level of in-class and out-class WTC of learners indicated that participants have more desire to communicate in English out of class than in class. In addition, it was found that Turkish learners have a moderate level of WTC in English. Likewise, in Öz (2014)'s study, similar WTC in L2 level of Turkish EFL learners was found. The results indicated that 20% of the participants have high L2 WTC, 66% have moderate L2 WTC, and 14% have low WTC in Turkey.

The above mentioned studies indicate that WTC has varied interactions (e.g., Bektaş-Çetinkaya, 2005) since it has been investigated through various issues. What was specified is that the level of learners may be increased through in-class activities (e.g., MacIntyre et al., 2001) or social support (Yashima & Zenuk-Nishide, 2008). In terms of the WTC level of learners in the Turkish context, learners' WTC in L2 levels are determined as moderate (e.g., Öz, 2014).

### 2.3.2. WTC Studies in Digital Context

Another context where WTC has been examined is the digital context in parallel with the advances of technological developments with an aim to enhance it. Thus, WTC has been investigated through activities or digital games in and outside the class.

In the light of game-based theory, games have been integrated into WTC studies (e.g. (Wattana, 2013) to determine the relationship between them. Although most of the studies (Henry & Thorsen, 2019; Horowitz, 2019; Kartal & Balçıkanlı, 2018; Lee, 2019; Lee et al., 2019; Reinders & Wattana, 2012, 2014; Wattana, 2013; Yeh et al., 2017) portray affirmative outcomes with regard to the use of digital environments or games on learners' WTC levels, one study (González, 2017) does not confirm constructive sides of the use digital games on WTC in L2, which are clarified in the following paragraphs.

The study conducted by Reinders and Wattana (2012) aimed to find out the impact of MMOG games on the quality and quantity of L2 interaction and WTC. There were 16 fourth-grade undergraduate students at a university in Thailand. For the study, the digital game *Ragnarok-Online* was chosen because of its popularity and availability for modification. The study consisted of three computer gameplaying sessions, including collaborative tasks and chats. Participants completed WTC questionnaires after each session within a collaborative debriefing, and their chat texts were utilized as a written document for data analysis. The results indicated that gameplay has an encouraging impact on L2 interaction among players, yet that impact is not promising for the accuracy and complexity of the interaction due to a lack of communication flow. Regarding WTC, the results revealed that gameplay has a positive impact. The study elaborated that those games may open a gap to attract communication by encouraging players to participate.

Similarly, another study carried out by Wattana (2013) in the scope of his Ph.D. dissertation reached parallel results in terms of the positive relation between WTC and gameplays with the study conducted by Reinders and Wattana (2012). In a more detailed way, Wattana (2013)'s study employed a pseudo-empirical research design in order to determine the effects of gameplay on the quantity and quality of L2 interaction and WTC of Thai students. The participants consisted of 30 fourth-grade undergraduate students from one intact class. The procedure included completing face-to-face sessions related to the unit and attending gameplay sessions lasting six sessions: half of them were text-based, and the other half consisted of voice chats. Randomly selected participants were interviewed after each gameplay session, and the chats were examined to get the data. The two sets of prepared

questionnaires by the researcher were applied after face-to-face and gameplay sessions. The results were compared to determine the difference between face-to-face and gameplay activities. It was found that gameplay has a vital role in the quantity of L2 interaction, increasing WTC and perceived communicative competence and lowering the anxiety level of the participants. Moreover, the results indicated that students are not eager to take part in L2 communication in class settings, but they are more eager in-game environments. Another study that reinforces the use of games to increase learners' WTC was done by Reinders and Wattana (2014) to investigate the experiences of five university students from Thailand who participated in a game-based learning program for fifteen weeks. Based on the results gathered from interviews, it was found that interaction abilities and WTC are fostered through digital games.

Yeh et al. (2017) expanded the scope of their WTC study by aiming to measure the impacts of DGBL on participants' academic achievements and motivation, in addition to their WTC levels. Thirty-nine undergraduate students took part in the study. According to the results, the group with game-based learning activities got higher scores on motivation, L2 WTC in class, and academic achievements. Therefore, the study implied that DGBL may have fruitful outcomes for language students. In addition, Henry and Thorsen (2019) conducted a study to examine student engagement and the use of digital games in immersion classes in Sweden. To do that, an activity consisting of playing a digital game was designed to overcome the communication fears of reluctant students in 7<sup>th</sup>-grade. During the activity, students were requested to conduct their interactions in English, and they worked in small groups. It was found that WTC is triggered as a result of environmental factors like pleasure and success through digital games. Lastly, Kartal and Balçıklı (2018) conducted a mixed-methods study with 65 first-year university students in Turkey to measure the effects of the virtual world on WTC and the communication anxiety of Turkish EFL learners. To implement the study, the participants in the experimental group were asked to complete ten real-life tasks, including role-play activities in a virtual world. According to the results, virtual worlds may have the potential to reinforce authentic communication, increasing the level of WTC and lowering the communication anxiety of participants. However, based on the participants' answers, one problematic aspect of virtual world dialogues may be the lack of body language.

Horowitz (2019), on the other hand, conducted a study to investigate the relationship between time spent on playing video games, the level of WTC in English, and the communication anxiety of learners. The correlational study that employed quantitative research design was utilized, and two questionnaires measuring participants' level of WTC

and English use during gameplays were applied to the participants consisting of 76 ESL college students from Puerto Rico. The results indicated a significant relation between time spent on online gameplay and the participants' WTC level and communication anxiety. Correspondingly, the study illustrated that time spent on online games may reduce the communication anxiety level of the participants while increasing the level of WTC.

Unlike the studies above, which reached positive relations between digital games and WTC, in González (2017)'s study, which aimed to search for perceptions about the use of digital games and L2 WTC, learners' WTC levels did not change despite their constructive feelings about the use of games. That exploratory study was conducted with 43 second-year students. The participants got thirty hours of English classes enriched by games like *Kahoot* and *Quizlet* to develop their L2 oral skills appropriate for the student's course. To gather the data, the participants were divided into two groups, morning and afternoon, and they were supplied with a questionnaire about their perceived language competence and position to use digital games before and after the thirty hours of English classes. The study concluded that students' fear of evaluation by the teacher may result in a low level of WTC.

WTC studies have been conducted in digital contexts apart from digital game contexts as well. Like the use of digital games, digital contexts have resulted in enhanced WTC among the participants (Lee, 2019; Lee et al., 2019). For instance, to investigate Korean and Taiwanese students' L2 WTC inside and outside of class and in digital contexts through quantitative and qualitative data, an explanatory, mixed-methods study was conducted by Lee et al. (2019). The results indicated that both students with L2 WTC in the class got the lowest scores. According to qualitative results, both students' L2 WTC was affected by L2 speaking anxiety, and Korean students' L2 WTC might be affected by the English environment and teacher pedagogy as well. It was concluded that Asian learners' WTC may be triggered through instructional and institutional backing, which is based on learners' needs and interests. Lee (2019) conducted another study to search for the activities affecting WTC. 98 Korean students from three universities aged over 18 attended the study. According to the results, it was stated that participants' L2 WTC is affected by contextual, socio-political, and individual variables. Moreover, the study indicated that WTC is triggered during the interaction in digital contexts.

After digital context's assistance to learners' L2 WTC was uncovered, researchers (Lee & Dražati, 2019; Lee & Lee, 2020; Lee & Lu, 2023) have opened a new window into L2

WTC in digital contexts merged with affective factors (motivation, grit, self-confidence, and L2 speaking activity) to get a deeper insight.

To illustrate, Lee and Drajati (2019) conducted their study to examine the relationship between “Informal Digital Activities” (IDLE) and affective factors (motivation, grit, self-confidence, and L2 speaking activity) and L2 WTC. One hundred eighty-three university students from the Indonesian EFL context attended the study. The data were gathered through a questionnaire. It was indicated that L2 WTC is correlated with all affective variables and IDLE activities. L2 WTC’s predictor was found to be productive for IDLE activities, grit, self-confidence, and motivation. Correspondingly, Lee and Lee (2020) conducted a quantitative study to examine the relation between affective factors on WTC: motivation, self-confidence, risk-taking, L2 speaking, and grit both inside and outside class and in digital settings. 176 graduate and undergraduate Korean students took part in that study. It was indicated that L2 WTC is positively correlated with motivation, self-confidence, risk-taking, and virtual intercultural experiences; however, it is negatively correlated with L2 speaking anxiety, which signifies parallel results with Lee and Drajati (2019)’s study. Furthermore, it was specified that motivation and grit are positive predictors of L2 WTC in class settings; on the other hand, L2 speaking anxiety is a negative predictor. Additionally, self-confidence and risk-taking are positive predictors of L2 WTC outside the class; however, self-confidence and virtual intercultural experience are positive predictors of WTC in digital contexts. Lastly, according to data results, it was specified that younger learners have high levels of L2 WTC in digital settings, and there is a relation between their self-confidence and L2 WTC in digital settings. Lastly, Lee and Lu (2023)’s study aimed to measure the relationship between the motivational self-system consisting of WTC in EFL class and the digital setting was conducted. The participants consisted of 417 Chinese middle school students. It was found that L2 itself may be a facilitator of L2 WTC both in class and in digital settings. Moreover, it was concluded that L2 WTC is increased when students’ current L2-self and ideal-self are at a near rate.

All in all, the above mentioned WTC studies, including digital games and contexts, illustrate the positive aspects of digital materials to assist learners with their level of WTC in L2.

#### **2.4. Affective Factors**

Learning a second language may be affected by cognitive, affective, demographic, and metacognitive factors according to individual learners or learning contexts (Henter, 2014). Affective variables are favored in order to get a deeper perspective on the individual learner

differences among second language learners by focusing on emotional and mental variables, mood, and manner of the individuals (Ni, 2012; Pyun et al., 2014) depending on the learning atmospheres. It was found that affective variables have an impact on the language learning process in terms of both language competence and production of learners (Ni, 2012). In this study, affective factors, consisting of L2 speaking anxiety, motivation, self-confidence, and risk-taking, were employed; thus, they are justified in the following part of this chapter.

#### **2.4.1. L2 Speaking Anxiety**

“Anxiety” is described as an individual’s response to a perilous condition (Freud, 2013). Brown (2000) states that anxiety is a feeling that every human feels as uneasiness. As Horwitz et al. (1986) identify, anxiety may prevent individuals from doing something because of its emotional impact on them. Learning is one of the areas affected by the feeling of anxiety (Horwitz, 2001). According to MacIntyre and Gardner (1989), anxiety can trigger or block learning, named as facilitating and debilitating anxiety, respectively. While facilitating anxiety may result in positive consequences on the language learning process, debilitating anxiety may have profound consequences (Young, 1990). Therefore, anxiety level may work as a determiner of the achievements of learners since when there is an excessive amount of anxiety level, for instance, the likelihood of low achievement increases (Tercan & Dikilitaş, 2015).

From an educational perspective, it is seen that anxiety is classified as a trait and state anxiety. Trait anxiety may be admitted as a more endurable type of anxiety that can be observed on varied occasions, whereas state anxiety may emerge in different situations (Woodrow, 2006). Then, another categorization of anxiety is identified based on its occurrences and distinction (Horwitz et al., 1986) regarding the situations and areas (Woodrow, 2006) as being distinct for a specific area. When anxiety is assumed to be specific to one area, it is admitted as specific anxiety (Horwitz, 2010; Woodrow, 2006). Anxiety-occurring language learning belongs to this category, and it is termed “*Foreign Language Anxiety*” (FLA) (Horwitz, 2010). As a result, anxiety is grouped under three categories (trait, state, and specific anxiety) from an educational perspective (Henter, 2014).

“Language anxiety can be defined as the feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening, and learning” (MacIntyre & Gardner, 1994, p. 284). Having anxiety in a second language may have an influence on learning a second language since second language learners may feel concerned and feel as if they get lost in their target language (Lee, 2014). As Horwitz et al. (1986) express, foreign language anxiety has three components, including communication apprehension, test anxiety, and fear of negative evaluation. Communication apprehension

means having concerns or worries while interacting with others because of feeling shyness, and those negative feelings during communication can happen by interacting with one speaker or in groups (Horwitz et al., 1986). According to MacIntyre and Gardner (1989), it is because of learners' limited vocabulary knowledge that they cannot express their more profound ideas, and as a result, they feel insecure. The second component of foreign language learning anxiety is test anxiety, which is explained as having doubts about unsuccessful performance. Test anxiety can be seen among students who have trouble since students are accustomed to having tests during their educational processes (Horwitz et al., 1986). This type of anxiety may occur as a result of academic assessment procedures done at schools (MacIntyre & Gardner, 1989). The last component of foreign language anxiety is fear of negative evaluation. It can be seen as an extended version of test anxiety since it includes not only academic thoughts but also social feelings (Horwitz et al., 1986) as well. It is identified as having fears about being negatively evaluated by others; thus, it includes avoidance as well (Horwitz et al., 1986). According to MacIntyre and Gardner (1989), learners may have this type of anxiety due to their lack of ability to impress, which may have a negative social impression on others.

Foreign language anxiety covers speaking anxiety, called "*L2 Speaking Anxiety*", involving learners' feelings during the output stage of language learning. As Lee (2014) states, learners may prefer to avoid taking risks while communicating in the target language since they have limited knowledge. Moreover, they may need clarification about how to convey their opinions to other speakers. As a result, they may encounter hesitation and frustration problems during the output stage due to their high level of anxiety affecting their second language speaking performance (Lee, 2014). As Woodrow (2006) states, anxiety's debilitating influences on the speaking performance of learners may result in adaptation problems to the target culture and environment as well. Thus, speaking anxiety in L2 plays a crucial role in the process of second language learning (Tercan & Dikilitaş, 2015). As a result, language classes aim to eliminate the anxiety of learners so as to make students more successful (Aydın, 2014).

Foreign language anxiety has been an intriguing area in the language learning field to reach the causes and the ways of eliminating it based on processes of language learning. In general, studies have pointed out that either output (MacIntyre & Gardner, 1994; Woodrow, 2006) or both input and output stages (MacIntyre & Gardner, 1989) of the language learning process may cause L2 speaking anxiety in learners. For instance, in MacIntyre and Gardner (1994)'s study, measuring the anxiety level of 97 students at the input, processing, and output stages, it was indicated that students have a high level of anxiety at the processing stage of the language, and thus, they have difficulties while processing the knowledge. In another study,

carried out by MacIntyre and Gardner (1989) in order to investigate how to cope with anxiety according to theoretical perspectives with 104 participants, it was found that there is a relation between foreign language anxiety and foreign language proficiency, and it can be identified as a separate anxiety type rather than included in general anxiety. In addition, it has an effect on both the input and output of the vocabulary. Lastly, Woodrow (2006)'s study examining the level of speaking anxiety of Australian English learners was carried out with 275 participants. It was concluded that communication with native speakers might increase the level of L2 speaking anxiety of learners.

Additionally, L2 speaking anxiety may be a predictor of learners' oral achievements since learners may have dilemmas during retrieval procedures. To exemplify, Pyun et al. (2014) conducted a study to examine the relationship between affective variables and oral achievements of Korean EFL students with 104 participants at the university level. It was indicated that when the level of anxiety is high, learners' oral achievement and linguistic self-confidence decrease. In a similar vein, to investigate anxiety and speaking in learners' perspectives grounded on in-class activities, Young (1990) conducted a study. Based on the data results gathered from 244 participants consisting of university and high school students, learners' speaking anxiety is rooted in speaking in class depending on the activities and teacher attitudes in error correction feedback sessions.

L2 speaking anxiety has been investigated in the Turkish EFL context in order to examine the level of oral anxiety and its sources as well (Aydın, 2014; Balemir, 2009; Öztürk & Gürbüz, 2014; Tercan & Dikilitaş, 2015). As detailed in those studies, the familiar anxiety sources of Turkish learners are evaluation (Aydın, 2014; Balemir, 2009; Öztürk & Gürbüz, 2014; Tercan & Dikilitaş, 2015), speaking and teachers' presence in class (Çubukçu, 2008; Tercan & Dikilitaş, 2015), and speaking without preparation (Aydın, 2014; Öztürk & Gürbüz, 2014).

For instance, Çubukçu (2008) conducted a study to investigate whether Turkish EFL learners' anxiety levels are related to their self-efficacy levels. The participants consisted of 100 junior-level students from the English teacher training program. It was indicated that students' anxiety levels get higher when they are in language classes rather than other classes since they feel that their friends speak better. It was also found that the teacher's presence affects them negatively, which is supported by Tercan and Dikilitaş (2015)'s study as well. Moreover, it was stated that the learners are not as anxious as when speaking with a native speaker; therefore, they feel worried while speaking in language classes, which also points to a parallel result with Tercan and Dikilitaş (2015)'s study.

Balemir (2009) carried out a study in a state university context in order to research the sources of speaking anxiety of Turkish EFL learners and the relation between learners' speaking anxiety level and their proficiency. It was indicated that the reasons for the anxiety of Turkish EFL learners are being negatively evaluated by their teachers, as found in other studies (Aydın, 2014; Öztürk & Gürbüz, 2014; Tercan & Dikilitaş, 2015), testing and teaching procedures, and learners' personal beliefs. It was found that in terms of learners' speaking anxiety, class sizes, oral exams, students' self-assessment ideas, speaking capabilities, and fears of evaluation by teachers, teachers' attitudes, vocabulary, and pronunciation knowledge are pivotal in their speaking anxiety levels.

Similarly, Aydın (2014) conducted a study to discover the sources of speaking and writing anxiety of Turkish EFL learners with 36 participants at a state university in Turkey. According to data results, it was stated that the level of speaking anxiety of learners increases when they have concerns about having less capability, and they have negative self-assessments about their performances. It was stated that the sources of students' speaking anxiety are found to be their worries about being evaluated by their teachers, which correlates with studies (Balemir, 2009; Öztürk & Gürbüz, 2014; Tercan & Dikilitaş, 2015) being marked in class by their peers and teachers when they speak in class, speaking without doing any preparation to speak, which supports Öztürk and Gürbüz (2014)'s study, their desire to be accurate and fluent during their speeches, transmitting false social impression while expressing themselves because of their lack of vocabulary knowledge, not being able to get teachers' messages and questions while speaking and lastly, the impact of their educational and social background. The results shed light on the use of songs in order to lessen the anxiety level of students as well. Nevertheless, it was indicated that while listening to songs, students still feel worried since they focus on the possibility of misunderstanding the words of the song.

In a similar vein, a study was conducted by Öztürk and Gürbüz (2014) in order to examine the speaking anxiety of learners with 383 participants consisting of preparatory-level students at a state university. It was found that students feel anxious when they encounter an immediate question in class, which correlates with Aydın (2014)'s study. As stated, other reasons for the speaking anxiety of learners are determined as fears of negative evaluation, which supports other studies (Aydın, 2014; Balemir, 2009; Tercan & Dikilitaş, 2015) and pronunciation errors while speaking. Furthermore, it was concluded that having second language anxiety at an ideal rate that is not ultra-low or ultra-high may help learners speak in a correct manner by alerting them to focus on their speech.

Lastly, Tercan and Dikilitaş (2015) carried out a study in order to investigate the reasons for the speaking anxiety of Turkish EFL learners. The participants of the study consisted of 159 university-level students in a preparatory class. It was found that the sources of speaking anxiety of Turkish EFL learners result from having concerns while speaking in public, speaking without any preparation, and speaking in class when there is a teacher who has authority, which supports Çubukçu (2008)'s study. Besides, students' fears about misunderstanding the speakers during the question-answer stage and being evaluated as a part of the assessment at school lead to high speaking anxiety that shows similarity to other studies (Aydın, 2014; Balemir, 2009; Öztürk & Gürbüz, 2014). The study enlightened the relationship between anxiety levels and the onset of learning English as well. According to data results, when the onset time gets earlier, the anxiety level of learners gets higher because of a lack of mental capabilities.

Another perspective is the relationship between digital gameplaying and learners' L2 speaking anxiety levels. Thus, based on the conducted studies (Horowitz, 2019; Reinders & Wattana, 2014), it seems that playing digital games may be seen as a way of lowering the anxiety levels of learners. To illustrate, Reinders and Wattana (2014) conducted a study to investigate the impact of digital games on learners' WTC, together with self-confidence and anxiety. According to data results gathered before and after gameplay, it was found that while learners' level of self-confidence is increasing, their anxiety level is decreasing. Likewise, Horowitz (2019) conducted a study in order to measure the effect of time on online games and the level of anxiety and communication skills of the learners in an ESL context with 76 participants at the college level. It was specified that more time on online games leads to lower anxiety levels for learners.

#### **2.4.2. Motivation**

“Motivation is responsible for determining human behavior by energizing it and giving it direction” (Dörnyei, 1998, p. 117). Additionally, “*motivation*” is in charge of the humans' decisions on choosing and progressing the activity (Dörnyei & Skehan, 2003) since it acts like a decision-maker in human life by triggering or blocking an idea or action in almost every one of the decisions humans make (MacIntyre, 2002). As a result, motivation is pivotal in varied disciplines, from health to education, because of its striking assistance, which is production, as declared by Ryan and Deci (2000).

Language learning requires a process in which learners are actively involved; therefore, the sustainability of the process plays a crucial role. Since motivation may be a prompter of human actions, it may have role in language learning as well (Gardner & Smythe,

1975). It may be because learning a second language is more than a necessity in today's world so as to get involved in society; therefore, motivation may be admitted as a vital factor affecting the language learning process (Dörnyei, 1998; Gardner & Smythe, 1975).

Motivation has been investigated in terms of the second language learning field as several individual factors since it can be seen in variations among learners' levels and types of motivation (Gardner & Smythe, 1975; MacIntyre, 2002). When the level of motivation cannot reach a sufficient rate, learners' likelihood of achieving their long-term goals may lessen (MacIntyre, 2002). Therefore, it is admitted as a signing issue in the success and rate of the language learning process (Dörnyei, 1998). L2 motivation, in particular, can be seen as a combination of individual and social dimensions involved in both cognitive and environmental issues (MacIntyre, 2002).

As Gardner (2000) states, motivation has been examined in an ESL context consisting of French people who speak and learn English as a second language. Then, according to what Dörnyei (2010) clarifies, based upon globalization in the world, motivation studies have been expanded from ESL contexts to EFL contexts. As Dörnyei and Ushioda (2013) point out, Gardner and Lambert have conducted studies in ESL contexts; Dörnyei has carried out motivation studies in EFL contexts; furthermore, since Gardner and Lambert have worked in ESL context, their man interested is examining motivation in terms of attitudes of learners towards L2 community and language; therefore, their conceptualization of motivation is admitted as social-psychological motivation (Aydın, 2014).

As Gardner and Smythe (1975) specify, L2 motivation covers cultural and educational contexts. Cultural context may contribute ideas, thoughts, and beliefs of the learners, which may have an impact on their language learning process; however, educational context is regarded as the system and programs and their complements, such as teachers, materials, and learner interests. These two contexts work together to shape the learner's characteristics. Cultural context feeds *integrativeness*, which means having an interest in the target language due to an interest in the target culture and community and having the desire to communicate with the members of the community. Educational context, on the other hand, feeds the attitudes of learners toward language learners. As revealed by Gardner and Smythe (1975), these contexts may have a coexisting factor on integrativeness and attitudes of learners towards second language learning. In the end, with the help of two contexts and their feeding issues, learners' motivation affecting their language use and success is determined. The relation between cultural and educational contexts and motivation is shown in Figure 5 below.

**Figure 5**

*Contexts Affecting Motivation in L2* (Gardner & Smythe, 1975, p. 14)



Motivation in Gardner's lenses is described as having a disposition to learn a language based upon goal-directive desires (Dörnyei, 1994). By expanding the idea of motivation in terms of social concepts, the *Socio-Educational Theory* proposed by Gardner (Dörnyei & Schmidt, 2001) is based on explaining the reasons L2 achievement resulting from gaining a native-like proficiency in L2 (Dörnyei & Schmidt, 2001) through adjustments done by learners so as to get cultural and verbal patterns of L2 and be integrated into target community (Gardner, 2010).

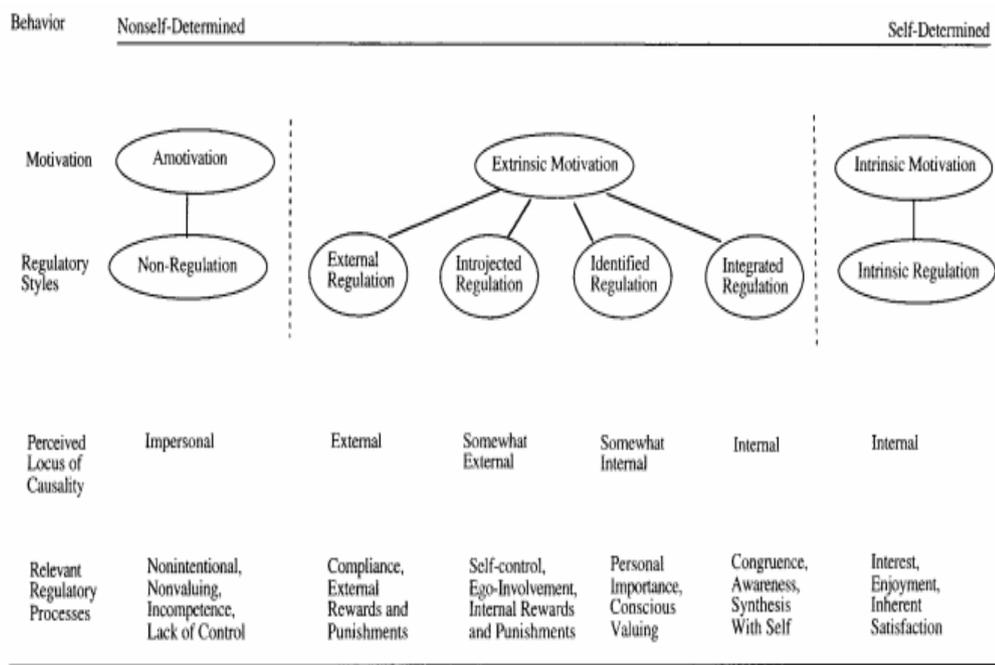
In socio-educational theory, motivation is admitted as a critical factor affecting the language learning process by providing sufficient effort to learn the language, achieve the goals, and enjoy the tasks (Dörnyei & Schmidt, 2001). As a vital component of L2 achievement, motivation is fed by learners' integrativeness and attitudes toward learning situations. The term integrativeness is utilized as an orientation determining a disposition towards the target group and being a part of it (Dörnyei, 2003) as well. Thus, integrativeness is seen as an openness to the target culture and respect for it. According to Gardner (1968), integrativeness may lead to an integrative motive or orientation as having a desire to be a part of a target community, which can be reinforced by families' positions towards the target language and culture at home. It is enlightened that parents may take either active or passive roles in the L2 learning process of learners by encouraging them obviously, in other words, actively, or by setting an example through their attitudes towards the target language and community without doing it explicitly (Gardner, 1968). Rather than having an integrative motivation, learners may have a satisfactory motive to learn L2 so as to reach their goals, such as having a job or passing the class. This type of motive is called *instrumental motivation*,

which enables learners to have the desire to learn and have success in L2 as well (Noels et al., 2000).

Based on the educational developments, which trigger a shift from behavioral approaches to cognitive ones, motivation has started to be investigated through cognitive lenses (Anjomshoa & Sadighi, 2015; Dörnyei & Ushioda, 2013). In terms of the cognitive view, motivation is seen as an internal process happening in the human mind, shaping the actions of humans as a result of environmental and self-perceptual factors (Anjomshoa & Sadighi, 2015; Dörnyei & Ushioda, 2013). For instance, “*Self-Determination Theory (SDT)*”, developed by Deci and Ryan (2008), explains motivation types and their contributions to the language learning process according to learners’ inner capabilities. In this sense, learners determine class atmosphere during lessons; therefore, the learners’ motivation rate and type require a necessity known by teachers (Anjomshoa & Sadighi, 2015). Based on SDT, there are three types of motivation: amotivation, extrinsic motivation, and intrinsic motivation. If learners’ feeling of motivation comes as an insider factor to learn, it is termed *intrinsic motivation*, or if they are motivated based on external sources, this is *extrinsic motivation* (Anjomshoa & Sadighi, 2015). In other words, intrinsic motivation is the “inherent tendency to seek out novelty and challenges, to extend and exercise one’s capacities, to explore, and to learn” (Ryan & Deci, 2000, p. 70). Extrinsic motivation is the “performance of an activity in order to attain some separable outcome” (Ryan & Deci, 2000, p. 71). Although integrative and intrinsic motivation types have similar aspects, they are not the same since the purpose of integrative motivation is to be part of the target culture and society; however, intrinsic motivation is an internal incentive that makes learners feel blissful (Anjomshoa & Sadighi, 2015). *Amotivation* is described as having a lack of intention to act (Ryan & Deci, 2000). The theory includes regulations that learners use according to the type of motivation that they have. As seen in Figure 6 below, offered by Ryan and Deci (2000), regulations that are abided by type of motivation through environmental or inherent resources or both may determine the differences among learners according to their life goals.

**Figure 6**

*Self-determination Theory and its Components* (Ryan & Deci, 2000, p. 72)



Motivation is reconceptualized based on a process-oriented approach, which states that language learning requires adequate time to be accomplished; thus, motivation can be examined during this time (Dörnyei & Ushioda, 2013). To do that, motivation is separated into preactional, actional, and post-actional phases, including deciding on motivation based on the tasks, keeping the chosen motivation at a sufficient rate, and revising motivation after the task respectively (Dörnyei & Ushioda, 2013).

According to Dörnyei (2012), motivation may be related to the learners' system. Therefore, a new conceptualization, a motivational self-system, is used in the EFL context in parallel with advancements in English as a worldwide language (Dörnyei & Ushioda, 2013). When motivation is investigated in accordance with developments, a socio-dynamic perspective can be reached (Dörnyei & Ushioda, 2013). The concept consists of three motivational concepts: ideal-L2-self, ought-to L2-self, and L2 learning experience. As Dörnyei (2010) clarifies, the ideal-L2 self is a potent trigger of L2 learning since when learners want to achieve the language learning process, the ideal-L2-self bridges the gap between learners' existing and ideal selves (Lai, 2013). On the other hand, the ought-to L2-self enables learners to escape from negative encounters during the language learning process since the

ought-to-L2-self meets the requirements (Dörnyei, 2010; Lai, 2013). The last component, the L2 learning experience, is based on the actual learning atmosphere and experience (Dörnyei, 2010).

Motivation studies within ESL and EFL settings cover motivation types and their effects on language learning. To illustrate, integrative and instrumental motivation were examined in line with L2 acquisition through a qualitative study by Carrió-Pastor and Mestre (2014). The study found that learners' forethought ideas affect the activities in classes. It was found that learners who have instrumental motivation do not communicate with the rest of the class; however, the ones who have integrative motivation are open to interaction with others. It was concluded that both types of motivations have an influence on L2 learning success. When it comes to the Turkish context, in terms of motivation types and their effects on L2 learning, parallel (Engin, 2009) and distinctive results (Bektaş-Çetinkaya, 2012; Bektaş-Çetinkaya & Oruç, 2010; Toköz-Göktepe, 2014a) can be seen. To illustrate, in order to investigate the types of motivation preferred by learners during the L2 learning process, Engin (2009) conducted a study at a state university in Turkey with 44 participants in two preparatory classes. It was found that learners support integrative motivation rather than instrumental motivation while learning a second language. Besides, it was indicated that when students have both types of motivation, integrative and instrumental, their language learning process is directed more positively by teachers.

Discrepantly, in Toköz-Göktepe (2014a)'s study measuring the attitude and motivation of learners in the Turkish context, with 90 participants consisting of first-year students at a state university, it was found that learners have a high level of instrumental motivation depending on their professional needs in the future. Furthermore, it was revealed that learners' ideal L2-self-thought is found at a high level since, according to learners, they can speak like a native speaker in the future. Similarly, Bektaş-Çetinkaya and Oruç (2010) conducted a descriptive study in order to determine Turkish university students' motivation to learn English and the effect of it on their lives. In addition, the study aimed to clarify the motivation differences among learners at public and private universities. Two hundred and twenty-eight participants consisting of university-level students in two distinct university contexts, private and public, took part in the study. According to the results, participants from two contexts were moderately motivated. Besides, private university students were more motivated than public university students. A well-paid job was a primary motivating factor in both contexts, which may be correlated with Toköz-Göktepe (2014a)'s study. Additionally, it was found that having connections with the international communities is the second motivating

factor of the participants at both universities. Correspondingly, Bektaş-Çetinkaya (2012) conducted another study in order to obtain detailed information about Turkish university students' motivation and orientations with 115 participants in preparatory classes at a public university. Comparable results were found in the previous study (Bektaş-Çetinkaya & Oruç, 2010), and the desire to have a well-paid job and international connections are the primary motivating factors of the learners in the Turkish context.

By expanding the research scope of motivation to a relationship between motivation and socioeconomic status, another study by Bektaş-Çetinkaya and Oruç (2011) was applied in order to investigate the effects of socioeconomic status and physical learning environments on learners' motivation at private and state universities. It was indicated that private university learners have a higher level of motivation, as found in their prior study (Bektaş-Çetinkaya & Oruç, 2010). In addition, it was determined that social class and equipment availability in classes play a significant role in the level of motivation.

With regard to motivation types of female and male Turkish learners, distinct outcomes can be seen. To exemplify, in Şakiroğlu and Dikilitaş (2012)'s study, which aimed to determine the multiple factors of motivation conducted at a university in Turkey with 129 participants from preparatory classes, it was indicated that female learners have a high level of motivation, mainly extrinsic motivation. Additionally, it was found a positive correlation between learners' proficiency and their motivation level. However, In Akay (2017)'s study, investigating reasons for the demotivation of high school students in English classes and demotivating factors, it was found that female learners have higher demotivation than males, unlike found in Şakiroğlu and Dikilitaş (2012)'s study. According to data analysis, it was claimed by the participants of the study that the reasons for their demotivation are due to their lack of interest in English, the attitudes of course teachers, the class environment, and course materials. In order to turn these factors into remotivating factors, it was suggested to have more enjoyable lessons, including learn-by-doing activities. To the participants, using technological tools in classes and spending more time on speaking activities can be a solution. As a result, the study sheds light on the desires of high school students' expectations and their wish to use virtual atmospheres more frequently.

Based on the technological innovations, the influences of technology integration into classes have been a striking area. The studies mainly reveal optimistic outcomes (Hava, 2021; İter, 2009; Li, 2021; Mahayanti et al., 2020; Rasti-Behbahani, 2021; Shahriarpour, 2014; Tosuncuoğlu, 2012; Woo, 2014) regarding the use of virtual environments to increase the

motivation levels of learners. Nevertheless, using digital tools in language classes is sometimes presumed to be a time-consuming activity in spite of its benefits (Hava, 2021). To illustrate, Ilter (2009) aimed to determine the contributions of technology to university-level learners' motivation. The participants of the study consisted of 350 students in a preparatory class. It was found that there is a variation between male and female students in terms of thoughts about using technology since, according to female students, using technology is beneficial, and computer-based lessons are enjoyable. The study signified the importance of using authentic materials in language classes as well. As the participants stated, authentic materials are more effective in improving their language skills. It was revealed that when technology is used in classes, learners are motivated, and their language-learning process is enriched and more meaningful. Therefore, it was concluded that EFL learners in Turkey support the integration of technology.

Similarly, to determine the use of technology in class in terms of motivating learners and their effects on learners in class, Tosuncuoğlu (2012) conducted a study in the Turkish EFL context. It was found that computers can be used as a prompter for learners to work collaboratively in classes since, with the mediation of technology, learners feel more secure during communication and collaboration phases enriched by student engagement. It was identified that computers may be beneficial to be able to manage student participation in classes, offering enjoyable experiences for them. Correspondingly, in Woo (2014)'s study measuring the effects of digital games on learners' motivation, performance, and cognitive load with 63 participants who were university-level students, it was found that there is a positive correlation between the motivation and performance of learners. Likewise, the study examining the influences of digital games on self-regulated learning was carried out by Mahayanti et al. (2020) with 144 participants consisting of young learners of English. It was found that gameplaying contributes to learners' metacognition skills and motivation levels.

Hava (2021)'s study aimed to determine the influences of digital storytelling on learners' motivation and satisfaction in language learning. The pre-experimental study was done with 80 participants consisting of pre-service teachers at a state university. The participants created a digital story within a nine-week implementation process through video editing programs like *VivaVideo* or *MovieMaker*. According to the results, digital storytelling improves learners' vocabulary, writing and speaking skills, and self-confidence. However, despite the beneficial effects of digital storytelling on learners' motivation and satisfaction, it was indicated that the activity is time-consuming and unnecessary for their language-learning process.

Technology integration into the vocabulary learning process results in increased motivation levels as well. To exemplify, Shahriarpour (2014)'s study on vocabulary learning and digital games indicates that digital games make vocabulary learning more convenient than traditional learning since learners' interests and motivations are supported. Similarly, the importance of digital games in increasing motivation during vocabulary learning is emphasized by Rasti-Behbahani (2021). Finally, in Li (2021)'s study conducted with 70 college students to explore game-based vocabulary learning and its effects on learners' motivation and self-confidence, it was found that the motivation and self-confidence of learners are increased through game-based learning.

Motivation can be related to WTC as well. When motivation is examined through being associated with WTC in Altiner (2018)'s study conducted on 106 participants at a state university in Turkey, it was found that a higher level of motivation means a higher level of WTC. Furthermore, motivation is the predictor of WTC.

#### **2.4.3. Self-confidence**

“*Self-confidence*” consists of ideas and beliefs, including evaluations and judgments on a person's value (Park & Lee, 2005) about what a person can do or perform on specific tasks; thus, it is not directly related to a person's actual capabilities (Dörnyei & Csizér, 1998). It is identified as “belief in your own capabilities to successfully perform that activity” (Brown, 2000, p.154). It may play a vital role in determining or leading the way of human actions in accordance with evaluating the actions as good or bad for them since self-confidence has an effect on making decisions and taking actions in human life; it reflects its outcomes into one's educational life as well. As it is articulated, self-confidence may take a facilitating or debilitating role in one's academic achievement (Al-Hebaish, 2012). In classes, for instance, self-confidence ensures a belief about accomplishing a task since learners become more willing to be involved in activities (Aoyama & Takahashi, 2020).

Furthermore, it is clarified that when learners lack self-confidence, they feel frightened, shy, or unwilling to participate in class activities (Loan, 2019; Ni, 2012). In terms of foreign language classes, learners with high self-confidence may feel that they have enough ability to accomplish the task. Thus, they may outperform other learners since self-confidence provides enough support to succeed in foreign language learning (Al-Hebaish, 2012).

Ni (2012) identifies self-confidence as substantial since it encourages learners to experience new things and provides the required support for learners to pursue initiated actions. This is why self-confidence is seen as a contributing factor to L2 development

(Rahmah, 2017), L2 learning performance (Loan, 2019), and L2 proficiency (Edwards & Roger, 2015). According to Soyoo (2018), self-confidence provides learners with an atmosphere where they can improve their knowledge bit by bit. In order to assist learners in enhancing their self-confidence, it is suggested that teachers should explain the role of trust in awareness of students' capabilities. In addition, they should know what students have succeeded in. As can be perceived, learners' self-confidence development is a matter of fact for the language learning process.

Factors prompting self-confidence have been investigated through various studies. Generally speaking, self-confidence is under the influence of external factors, L2 familiarization (Rahmah, 2017) and proficiency (Edwards & Roger, 2015), learning environment (Loan, 2019), and feedback during the language learning process (Ni, 2012). For instance, Rahmah (2017) conducted a study with two participants in order to get an in-depth understanding of the development of self-confidence of Indonesian users of English. According to data gathered through interviews, it was found that self-confidence can be affected by external factors such as power relations between the learners and the target community. Moreover, learners' L2 identity's familiarization may increase learners' self-confidence. Another study was carried out by Edwards and Roger (2015) to investigate the process of self-confidence development of an English learner. The results of the study indicated that the development of self-confidence has a bound system. A cyclical relation can be seen among L2 proficiency, self-confidence, and WTC learners. When a learner's language proficiency improves, the L2 self-confidence and WTC increase as well. Loan (2019) conducted a study to reach students who have enough confidence to speak in L2 classes with 165 participants consisting of first-year English students at a university. According to the results, it was found that having a low level of self-confidence leads to low attendance in speaking classes. The study illustrated that self-confidence is dependent on the learning environment, positive attitudes of teachers, and frequency of corrections. Therefore, the study highlights the value of self-confidence in the language learning process as well. Finally, in order to seek valuable tips that English majors can use, Ni (2012) conducted a study with 50 participants consisting of English majors. Based on the results, it was suggested that feedback and guidance given by teachers are guiding factors in developing self-confidence and lessening the anxiety level of learners.

The positive relationship between a high level of self-confidence and speaking performances of learners has been revealed (Akyol, 2003; Al-Hebaish, 2012; Park & Lee, 2005; Pyun et al., 2014). To illustrate, a study investigating the relationship between anxiety

and self-confidence of Korean English learners and their oral performances was applied by Park and Lee (2005). The study indicated that high levels of anxiety may result in low grades in oral performance; however, high levels of self-confidence may bring high grades in oral performance. In order to measure self-confidence and academic achievement in oral presentations, Al-Hebaish (2012) conducted a study with 53 participants consisting of undergraduate female English majors. The results indicated a positive correlation between self-confidence and academic achievement. It was found that self-confident learners feel ready to speak in public. The results of the study indicated that in order to increase success in the oral performance of learners, their self-confidence should be supported. Lastly, the study expresses that self-confidence may be a key factor for effective communication in L2.

Similarly, in the study aiming to get a deeper understanding of the pronunciation strategy of learners carried out by Akyol (2003), it was found that a lack of self-confidence leads to poor communication skills since it may cause a restriction. Lastly, Pyun et al. (2014) conducted a study in order to focus on the relationship between affective variables and oral success in Korean as a foreign language context. According to data gathered from 104 participants, it was clarified that a high level of success in oral performance depends on having a lower level of anxiety, being confident, and being eager to take risks.

The use of video games in language classes has pointed to constructive findings in terms of triggering the self-confidence levels of learners (Jabbari & Eslami, 2019; Nino & Evans, 2015; Soyooof, 2018). For instance, Soyooof (2018) conducted a study so as to measure the effects of video gaming on learners' self-confidence. The participants were male Iranian EFL students. The results indicated that playing video games may have a triggering effect on developing learners' self-confidence since video games enable learners to increase their motivation and engagement. Likewise, Jabbari and Eslami (2019)'s study demonstrated that MMOG games' atmosphere in which learners have a chance to run across varied communication types through L2 might make learners more self-confident. The results showed that gameplaying contributes to learners' metacognition skills and motivation levels. Lastly, in their study, Nino and Evans (2015) stressed the significance of digital games on self-confidence as well.

#### **2.4.4. Risk-taking**

*“Risk-taking”* is described as “the willingness to venture into the unknown” (Young, 1991, p. 10). When human beings take risks, they become aware that they may be in risky conditions (Cervantes, 2013). Risk-taking can be observed best when learners try to experience

new things in classes (Al-Obaydi, 2020) without having doubts or fears (Zafar & Meenakshi, 2012). It is articulated to be an influential factor in learning (Shatz, 2015) since learners who are good at taking risks enrich their learning process (Zafar & Meenakshi, 2012). Therefore, as Young (1991) identifies, learning can be seen as a gift resulting from taking risks. Learners' risk-taking ability may be influenced by their beliefs and attitudes (Rhéaume et al., 2021).

In language learning classes, risk-taking is seen as a factor of success in language learning (Zafar & Meenakshi, 2012) since risk-taking determines students' participation in activities and communication in the target language (Cervantes, 2013). Communication, in its natural being, is based on the risk-taking of interlocutors; therefore, language learners learn how to take risks during their language learning process; on the contrary, they cannot learn the target language (Yadav, 2014). Moreover, a risk-taker student knows that learning does not ensure success all the time; like in real life, it may include failure as well (Young, 1991). It is identified that the classroom atmosphere creates a basis for language learners (Al-Obaydi, 2020; Oxford, 1992) by emphasizing the uniqueness of every student and giving sufficient value and respect to their ideas (Young, 1991).

In order to develop the risk-taking ability of learners, the fears of language learning should be kept to a minimum level (Oxford, 1992). In addition, as long as negative emotions, like being insulted or accused, are blocked in class settings, language learning can be enriched through the increased risk-taking ability of learners (Zafar & Meenakshi, 2012). It is detected that criticism has a negative impact on the risk-taking capability of language learners (Oxford, 1992). Therefore, Al-Obaydi (2020) clarifies that risk-taking is an open area to be developed through the problem-solving ability of learners. Likewise, Young (1991) expresses that learners' problem-solving and decision-making abilities are influenced by risk-taking, which is a condition needed for those two abilities (Young, 1991). Although the optimal level of risk-taking is beneficial for learning, a lower or higher level of it may result in a lack of success (Zafar & Meenakshi, 2012). As Burgucu et al. (2010) assert, risk-taking may evoke the feeling of anxiety, which may have facilitating or debilitating results on success. As a result, Young (1991) advocates that learners can be backed up during their language-learning journey with a sufficient rate of support.

Risk-taking studies in L2 learning have put forth the significance of classroom atmospheres to support learners. To exemplify, Burgucu et al. (2010) conducted a study in order to reflect the link between learners' risk-taking ability and their achievement in L2. The results emphasized that the class atmosphere increases risk-taking ability. Thus, the study

highlighted that teachers should pay attention to their class atmospheres. Similarly, Al-Obaydi (2020)'s study exploring the effects of teacher roles and physical settings and learners' risk-taking and self-actualization abilities revealed the importance of classroom atmosphere, interaction of students with their teachers, and the rapport between students and learners on the risk-taking ability of learners.

Not only the class atmosphere but also the importance of class activities has been clarified through studies. For instance, Rhéaume et al. (2021) conducted a study to investigate linguistic risk-taking and the ways of practicing a second language through teacher reflections gathered from 296 students. The results indicated that learners' risk-taking ability can be improved when the activities are designed according to the needs and demands of the learners. In this way, linguistic risk-taking puts learners in a condition where they cannot predict the results of taking a risk, which can be eliminated.

As an extension to class activities, digital games have been declared as a contributing factor to learners' risk-taking abilities (Cheng et al., 2014; Gee, 2005; Shatz, 2015). In Gee (2005)'s study in which the properties of good games were discussed, it was mentioned that good games present a warm environment for learners, and students learn that failure is also a component of enjoyment; therefore, owing to the games, they learn that taking a risk does not lead to harmful consequences. In accordance with it, Cheng et al. (2014) clarified the use of video games for science learning in the study, and promising results were reached regarding games' contributions to the problem-solving and risk-taking ability of learners. Lastly, Shatz (2015)'s study indicated the importance of class activities by emphasizing the use of games. The study was conducted to investigate the relationship between risk-taking and other factors in the second language learning process with 526 participants. It clarified that the risk-taking desire of learners is associated with their willingness to learn a second language. Moreover, it was found that having a higher level of risk-taking results in improved language performance, a high level of self-confidence, and a low level of anxiety. The results also shed light on games' contribution to learners' risk-taking ability. In a nutshell, the study indicated that using games or gamification encourage learners to take risks is quite beneficial due to the games' environments.

Based on the studies mentioned earlier related to WTC and affective factors in the L2 learning process, digital games may facilitate learners' English language learning process by means of promoting their WTC, increasing their self-confidence, motivation, and risk-taking

ability, and decreasing their anxiety levels. Therefore, the study aims to measure the effects of digital games on learners' WTC and affective factors in the Turkish EFL context.



## CHAPTER III

### METHODOLOGY

The chapter presents the methodological descriptions utilized in the study, which aims to investigate the effects of the digital game (Minecraft Education Edition) on learners' WTC in L2, affective factors (L2 speaking anxiety, motivation, self-confidence, and risk-taking), and learners' English language use. In addition, it aims to explore learners' opinions and beliefs about digital games. The research questions shown below are intended to be answered throughout the study.

1. 1. Do digital games have any impact on Turkish EFL learners' overall WTC in L2?
2. Do digital games have any impact on Turkish EFL learners' WTC in L2 in face-to-face and digital environments?
3. Do digital games have any impact on affective factors (L2 speaking anxiety, motivation, self-confidence, and risk-taking)?
4. What are the perceptions of the learners about digital games in terms of WTC in L2 and affective factors?
5. Do digital games have any impact on the English language use of Turkish EFL learners?
  - a. Is there a significant increase in the quantity of language that Turkish EFL learners produced in the experimental group at the beginning and the end of the study?
  - b. What is the quality of the English language that Turkish EFL learners produced in the experimental group at the beginning and the end of the study?

The chapter initiates with the research design, participants, and setting of the study; it goes on with the data collection process and tools, implementation process, data analysis process, and the validity of the study, and lastly, it ends with the researcher roles by providing elaborative specifications for each section.

#### **3.1. Research Design**

Through research designs, the quest for reality is surpassed. Quantitative research design intends to reach a single reality; however, qualitative research design aims to arrive at multiple realities (Fraenkel et al., 2012). When it comes to the educational field, quantitative and qualitative research designs are preferred to reach the results (Creswell, 2012). While

quantitative research design tries to generalize the results gathered via measurable data (Cresswell, 2012), qualitative research design does not pursue the generalization aim (Fraenkel et al., 2012). When both quantitative and qualitative methods are used in the same study (Tashakkori & Teddlie, 1998), it is called a mixed-methods research design. Mixed-methods research design combines two methods (quantitative and qualitative) by either blending approaches or favoring a purer one (Johnson & Turner, 2003). The primary perspective of employing a mixed-methods research design is to support the findings of the study by eliminating the weaker sides (Johnson & Turner, 2003) since mixed-methods research design enables expressing relations among the variables in-depth way (Fraenkel et al., 2012) by strengthening with an improved perspective (Creswell, 2012) and way of knowing (Saldaña, 2011).

To conduct the present study, an explanatory sequential mixed-methods design was favored to investigate the effect of digital games on Turkish EFL learners' L2 WTC, affective factors (L2 speaking anxiety, motivation, self-confidence, and risk-taking), and learners' English language use to be able to obtain comprehensive results thanks to the supremacy of the elected research design (Creswell, 2012). The explanatory sequential design, the most preferred one in educational research (Creswell, 2012), entails conducting quantitative and qualitative methods successively to advance the results gathered from quantitative data using qualitative methods (Fraenkel et al., 2012). Thus, in the explanatory sequential mixed-methods design, the steps are taken as "first collecting quantitative data and then collecting qualitative data to help explain or elaborate on the quantitative results" (Creswell, 2012, p. 542) according to what the research design necessitates. In this sense, the quantitative data are prioritized and followed by qualitative data. A general picture of the research problem is reached through quantitative data, and then through qualitative data, a general picture can be extended (Creswell, 2012).

To implement the quantitative part of the study, a quasi-experimental research design consisting of a pre/post-test design was employed at first. Then, first semi-structured interviews were held with participants from the experimental group to be able to learn their perspectives and ideas about playing the digital game and its effects on their WTC and affective factors (Fraenkel et al., 2012), which were followed by follow-up semi-structured interviews to elucidate the quantitative data results more profound based on individual findings of the participants in the experimental group. Both semi-structured interviews were conducted as one-to-one interviews with the participants in the experimental group. They took place in a quiet and safe environment at school and did not last more than 35 minutes. The interviews

were held in the native language (Turkish) of the learners to get richer data by enabling them to feel more assured and stress-free in expressing themselves. The researcher recorded the interviews to be transcribed during the data analysis process (Creswell & Inquiry, 1998). The required approval was incorporated into consent forms (for both participants and their parents) to record their voices. Lastly, based on the participants' English language use during gameplays, the analysis was done regarding the language's quantitative and qualitative aspects. To do that, the participants' first and last weeks of English language use as written and oral data in the experimental group were gathered. After transcribing the oral data, both verbal and oral data were compared in terms of number and complexity.

### **3.2. Setting and Participants**

The study was applied at an Anatolian High School located in Gaziantep, Turkey, in the 2021-2022 academic year after getting ethical approval from Dokuz Eylul University Ethical Committee in December 2021 and from the Ministry of National Education (MoNE) in February 2022. The school was the setting place where the study was conducted since the researcher has worked there. The school has facilitated educational opportunities for nine years as an Anatolian high school. Thus, based on the regulations of MoNE, the classrooms at Anatolian high schools consist of approximately 40 students. During a school day, from 08.40 am to 03.35 pm, students take eight courses a day; five of them are held in the morning, and three of them are held in the afternoon after a 45-minute lunch break. During the COVID-19 outbreak, in the 2019-2020 and the 2020-2021 academic years, based on the course of COVID-19, public schools employed online distance education at first, then the education was regulated as a hybrid system combining both face-to-face and distance education types. MoNE arranged the 2021-2022 academic year's educational plan as face-to-face education. Based on the plan, it was announced that public schools held only face-to-face education. As a result, the 2021-2022 academic year was completed by having face-to-face education.

In public schools, all coursebooks, including English coursebooks, are sent by the MoNE. For the 2021- 2022 academic year, a book package consisting of one coursebook and workbook set for students and one teacher's book was sent. The name of the book set was: "Count Me In", admitted as coursebooks by the Board of Education and MoNE in 2019, and they were published by "Koza Publisher" in 2021.

36 high school students who were in 10<sup>th</sup> grade took part in the study. Their ages ranged from 16 to 17. Like all learners in Turkey, they had a nationwide exam for entering high schools at the end of the 2019-2020 academic year. In line with their exam scores, they

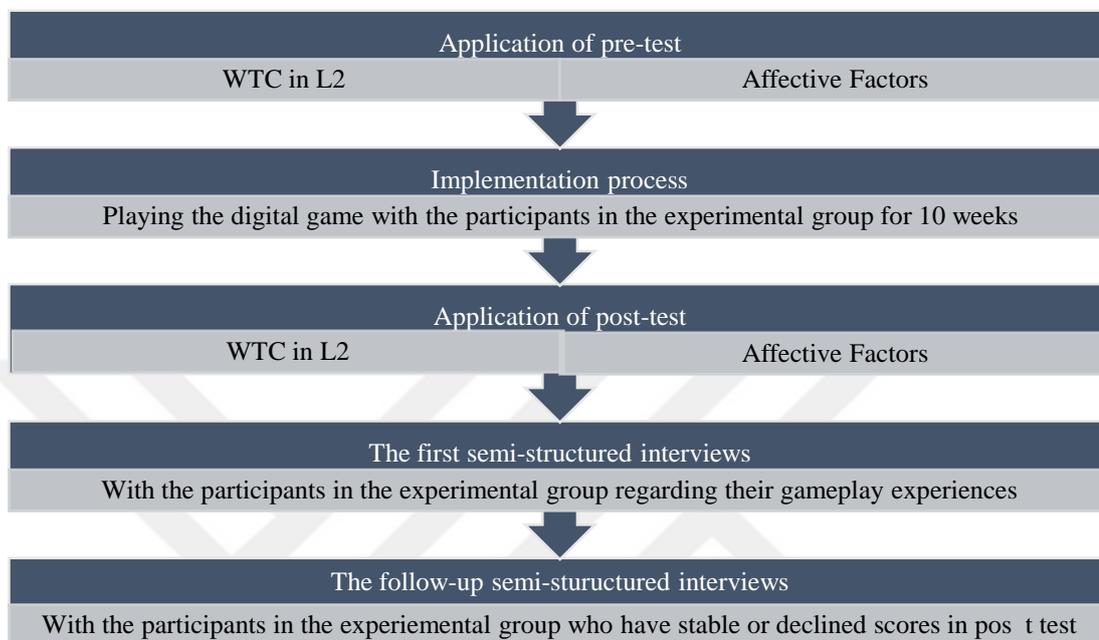
were entitled to get educated at the state high school where the study was applied for. In the present study, the 10<sup>th</sup>- grade students were preferred since it was presumed that they had got used to getting an education at high school, unlike 9<sup>th</sup>-grade students.

Furthermore, taking part in the study before branching into 11<sup>th</sup> grade would be more appropriate. Lastly, 12<sup>th</sup>-grade students were engrossed in studying for the university entrance exam. Thus, 10<sup>th</sup>-grade students were the most proper option.

The 36 participants comprised learners in two intact classes; therefore, they were assigned as experimental and control groups. In the quantitative part of the study, 36 participants consisted of learners in two intact classes. In the qualitative part of the study, the first semi-structured follow-up interviews were held with 18 participants in the experimental group. Moreover, the semi-structured interviews were conducted with the participants in the experimental group based on any stability or decline in their post-test scores.

### **3.3. Data Collection Process and Tools**

The present study, utilizing an explanatory sequential mixed-methods design, began with applying pretests before the implementation phase, followed by a 10-week-long implementation process, and application of post-tests after the implementation phase. Then, the first and follow-up semi-structured interviews were conducted. The first semi-structured interviews were held after conducting the post-test. Based on the post-test analyses, follow-up semi-structured interviews were held to get reasons for the participants' stable and declined mean scores. To collect quantitative data, WTC in L2 and affective factors questionnaires were integrated and utilized by being applied both as pre & post-tests. Both questionnaires (WTC in L2 and affective factors) were translated into Turkish before application, and they were applied to students at the school where the study took place. The whole process is diagrammatized in Figure 7 below.

**Figure 7***Data Collection Process Diagram*

The first semi-structured interviews were held with the participants in the experimental group to get more profound information regarding the participants' opinions about gameplay experiences, WTC in L2, and affective factors. Furthermore, after completing the post-test analyses, the follow-up interviews were held with the participants in the experimental group who had either decline or stability in their post-test mean scores. The focus of the follow-up semi-structured interviews was obtaining the reasons behind the participants' scores.

Apart from questionnaires and the first and follow-up semi-structured interviews, the participants' English language usage was evaluated in terms of quantity and quality through a pre-test and post-test analyses via the data gathered from the first and the last weeks of the implementation process. To measure both the quantity and quality of English usage of the participants, both written and recorded oral data were utilized. The data comprised the participants' written chats and oral speeches during gameplay sessions. To collect data, written chat scripts and voice records gathered on English usage of the participants in the first week were admitted as a pre-test in terms of the quantity of English use. Likewise, the last week's written chat scripts and voice records were admitted as a post-test regarding the quantity of English language use during the implementation process. For assessing the quality of English use of the participants, the written and oral chats were analyzed based on frequently used set

expressions, tense markers, simple and sophisticated word choices, and sentence structures in terms of full, complete, or ungrammatical ones.

### 3.3.1. WTC in L2 Questionnaire

The first quantitative data collection tool is the WTC in L2 questionnaire, addressing the level of L2 WTC of the participants. The questionnaire was adapted by the researcher from different studies on WTC and digital games. WTC in L2 questionnaire has two parts: WTC in L2 in face-to-face and WTC in L2 in digital environments. The questionnaire consists of 18 items in total (*Appendix 4*)

The WTC in L2 in face-to-face environments consists of WTC in L2 in-class setting ( $\alpha=.92$ ) and WTC in L2 outside classroom ( $\alpha=.83$ ). In terms of the items that the subtitles have, WTC in L2 in-class setting has five items, e.g., “*When you are given an opportunity to talk freely in an English class*”, and WTC in L2 outside classroom has three items e.g., “*When you find your friend standing in front of you in a line*”.

The other part, WTC in L2 in digital environments, comprises WTC in L2 in computer game setting ( $\alpha=.70$ ) and WTC in L2 in digital settings ( $\alpha=.89$ ). WTC in L2 in computer game setting includes five items, e.g., “*Talk to other game players about a quest assignment*”, and similarly, WTC in L2 in digital settings has five items, e.g., “*When you have an opportunity to talk with non-native speakers of English (e.g., German and Chinese) on social media*”. as well.

The items of the WTC questionnaires measuring WTC in L2 in-class setting and WTC in L2 in digital settings through a five-point Likert scale in which (1) point means “definitely not willing” and (5) points mean “definitely willing” was adapted from Lee and Lu (2021)’s study. The other items of the questionnaire measuring WTC in L2 outside the classroom through a five-point Likert scale in which (1) point means “definitely not willing” and (5) points mean “definitely willing” were adopted from Lee and Lee (2020). The rest of the items of the questionnaire measuring WTC in L2 in a computer game setting through a five-point Likert system in which (1) point means “very unwilling” and (5) points mean “very willing” was adapted from Reinders and Wattana (2014).

### 3.3.2. Affective Factors Questionnaire

The second quantitative data collection tool is the affective factors questionnaire, which intends to determine the level of affective variables of the participants. This

questionnaire consists of four parts: L2 speaking anxiety ( $\alpha = .89$ ), motivation ( $\alpha = .81$ ), self-confidence ( $\alpha = .92$ ), and risk-taking ( $\alpha = .68$ ). Totally, it is made up of 23 items (*Appendix 5*)

The questionnaire, including all parts, was adopted from Lee and Lee (2020). It includes a five-point Likert scale in which (1) point means “strongly disagree” and (5) points mean “strongly agree”.

As mentioned by Lee and Lee (2020), in the affective factors part of the questionnaire, L2 speaking anxiety intends to assess the participants’ emotions while speaking in L2, such as concern or tension. Motivation aims to measure the density of motivation in L2 of the participants and their inclination and thoughts regarding L2 learning. Self-confidence aims to determine the participants’ anticipated self-confidence based on learning L2. Risk-taking aims to assess learners’ capabilities of utilizing unaccustomed words in L2.

L2 speaking anxiety has six items, e.g., “*I feel nervous when I speak in English in front of other students*”. Motivation part includes six items, e.g., “*When it comes to studying English, I put much effort into it*”. Self-confidence consists of 8 items, e.g., “*I am confident I can understand most of what my teacher says in English class*” and risk-taking has three items, e.g., “*I would like to wait until I know exactly how to use an English word before using it*”.

### **3.3.3 Semi-Structured Interviews**

In the present study, two semi-structured interviews, which were “designed to elicit specific answers from respondents” (Fraenkel et al., 2012, p. 451), were conducted to collect qualitative data. To generate the content of the two semi-structured interviews, sensitizing concepts, which are pre-determined matters in a study, assisting a researcher in understanding how those matters are demonstrated by the participants of the study (Patton, 1990), were used. Therefore, the first semi-structured interview was held with the participants in the experimental group after the application of the post-test. Then, after the post-test results were analyzed, the follow-up semi-structured interviews were conducted based on the scores of the participants in the experimental group. The interviews are presented below.

#### **3.3.3.1. The First Semi-Structured Interviews**

The questions in the first semi-structured interview consisting of fourteen primary and six probing questions, “which are sub-questions under each question that the researcher asks to elicit more information” (Cresswell, 2012, p.221) arranged by the researcher, were adopted (*Appendix 6*).

The content of the interview questions, which were formed to get a deeper insight through sensitizing concepts (Patton, 1990) regarding the gameplay experience, WTC in L2, and affective factors, was designed grounded on the quantitative results of the study. Within this context, the interview questions incorporating three groups as game play experience (questions 1-5), WTC in L2 (questions 6-10), and affective factors (questions 11-14) were prepared as experience, opinion, and feelings questions (Fraenkel et al., 2012) about playing the digital game to elicit the responses of the participants in the experimental group. To illustrate, as an experience question, *“How can you describe your digital gameplay experience?”*, as an opinion question, *“What did you think about playing digital games as a part of English lesson before attending this study?”* and as a feeling question *“What were the moments when you felt most willing to communicate during the gameplay?”* were asked. The interviews were held as one-to-one interviews; therefore, the researcher conducted individual interviews (Creswell, 2012) with the participants in the experimental group.

### **3.3.3.2. Follow-up Semi-Structured Interviews**

Follow-up interviews were conducted with the participants in the experimental group, appertaining to delineate the findings of quantitative data analysis. Thus, the participants in the experimental group who had stable or declined mean scores were determined and interviewed (*Appendix 7*). In this sense, the researcher asked specific opinions, e.g., *“What can be the reason for the decrease in your .... level?”* or *“How can you explain the steadiness in your .... level?”* questions to each participant to enlighten the results in the scope of individually examined mean scores. To exemplify, the researcher asked the participants’ intuitions regarding WTC in L2 and affective factors by asking about the possible reasons affecting their results. The interviews were conducted as one-to-one interviews, and they were recorded (Creswell, 2012) to be transcribed and analyzed.

### **3.4. Design, Development, Implementation Process**

The quasi-experimental research design was conducted first to implement the study in the explanatory sequential mixed-methods design scope. In quasi-experimental research designs, a random assignment is favored since it provides an assignment of “different groups in an experiment randomly” (Creswell, 2012, p. 296) by enabling “every individual who is participating in an experiment has an equal chance of being assigned to any of the experimental or control conditions” (Fraenkel et al., 2012, p. 267). In the present study, two intact classes were randomly assigned as experimental and control groups. In the experimental group of 40 students in total class size, 18 students agreed to attend the study voluntarily.

After conducting the pre-test consisting of WTC in L2 (in face-to-face environments consisting of inside and outside class and in a digital environment consisting of digital and gaming contexts) and affective factors (L2 speaking anxiety, motivation, self-confidence, and risk-taking) on both groups, the implementation process was held through playing the digital game, Minecraft: Education Edition (MEE), with the experimental group. After the implementation process, the post-test as WTC in L2 (in face-to-face environments consisting of inside and outside class and in a digital environment consisting of digital and gaming contexts) and affective factors (L2 speaking anxiety, motivation, self-confidence, and risk-taking) were applied to both groups and this total period of implementation lasted sixteen weeks. In total, two weeks of that process were given for applying for the pre and post-tests, which were applied at the beginning and end of the gameplay process. Although the gameplay sessions spanned twelve weeks, two weeks (11<sup>th</sup> – 15<sup>th</sup> April) and (2<sup>nd</sup> – 6<sup>th</sup> May) were settled as off-weeks by the Ministry of National Education due to Midterm and Ramadan breaks. Thus, the participants in the experimental group played the game for ten weeks. Afterward, the post-tests were applied. Before conducting two semi-structured interviews, the quantitative data analysis was completed to lead the interview questions based on quantitative data results. Lastly, two semi-structured interviews were held with the participants in the experimental group. The outline of the implementation process is illustrated below.

**Table 1**

*The Timetable of the Implementation Process*

The timetable of the implementation process		
WEEKS	THEMES	ACTIVITY STATUS
1	14 <sup>th</sup> -18 <sup>th</sup> February	Theme 6 Helpful Tips Application of pre-tests
2	21 <sup>st</sup> -25 <sup>th</sup> February	Theme 6 Helpful Tips <u>Playing MEE (in-class)</u> “What should people do to live in a better world?” - Describing energy sources <u>Playing MEE (out-class)</u> “Youth problems” - Brainstorming
3	28 <sup>th</sup> February- 4 <sup>th</sup> March	Theme 6 Helpful Tips <u>Playing MEE (in-class)</u> “What should people do to live in a better world?” - Things to do to save energy

			<u>Playing MEE (out-class)</u>
			“Youth problems”
			- Finding solutions
<b>4</b>	7 <sup>th</sup> - 11 <sup>th</sup> March	Theme 7 Food and Festivals	<u>Playing MEE (in-class)</u>
			“A festival with food and activities”.
			- A world festival, in general
			<u>Playing MEE (out-class)</u>
			“Turkish festivals”
			- Guessing the festivals
<b>5</b>	14 <sup>th</sup> – 18 <sup>th</sup> March	Theme 7 Food and Festivals	<u>Playing MEE (in-class)</u>
			“A festival with food and activities”.
			- Food of the festival
			<u>Playing MEE (out-class)</u>
			“Turkish festivals”
			- Reflecting on the festivals
<b>6</b>	21 <sup>st</sup> – 25 <sup>th</sup> March	Theme 7 Food and Festivals	<u>Playing MEE (in-class)</u>
			“A festival with food and activities”.
			- Activities of the festival
			<u>Playing MEE (out-class)</u>
			“Turkish festivals”
			- Reflecting on the festivals
<b>7</b>	28 <sup>th</sup> March – 1 <sup>st</sup> April	Theme 8 Digital Era	<u>Playing MEE (in-class)</u>
			“Technologic world”
			- Creating a technological world
			<u>Playing MEE (out-class)</u>
			“Social media & effects”

			- Describing social media accounts
<b>8</b>	4 <sup>th</sup> – 8 <sup>th</sup> April	Theme 8 Digital Era	<u>Playing MEE (in-class)</u> “Technologic world”  - Advantages & Disadvantages
			<u>Playing MEE (out-class)</u> “Social media & effects”  - Positive aspects of social media
<b>9</b>	<i>11<sup>th</sup> – 15<sup>th</sup> April</i>	<i>Theme 8 Digital Era</i>	<i>Midterm break</i>
<b>10</b>	18 <sup>th</sup> – 22 <sup>nd</sup> April	Theme 8 Digital Era	<u>Playing MEE (in-class)</u> “Technologic world”  - Advantages & Disadvantages
			<u>Playing MEE (out-class)</u> “Social media & effects”  - Negative aspects of social media
<b>11</b>	25 <sup>th</sup> – 29 <sup>th</sup> April	Theme 8 Digital Era	<u>Playing MEE (in-class)</u> “Technologic world”  - New habits of humans
			<u>Playing MEE (out-class)</u> “Social media & effects”  - What would happen without social media?
<b>12</b>	<i>2<sup>nd</sup> – 6<sup>th</sup> May</i>	<i>Theme 9 Modern Heroes and Heroines</i>	<i>Ramadan Holiday</i>
<b>13</b>	9 <sup>th</sup> – 13 <sup>th</sup> May	Theme 9 Modern Heroes and Heroines	<u>Playing MEE (in-class)</u> “What would you do...?”  - Support for disabled people
			<u>Playing MEE (out-class)</u> “What if you were a hero?”

			- The desired changes in the world
<b>14</b>	16 <sup>th</sup> -20 <sup>th</sup> May	Theme 9 Modern Heroes and Heroines	Application of post-tests
<b>15</b>	23 <sup>rd</sup> -27 <sup>th</sup> May	Theme 9 Modern Heroes and Heroines	Analyzing quantitative data
<b>16</b>	30 <sup>th</sup> May- 4 <sup>th</sup> June	Theme 10 Shopping	Implementation of interviews

During the implementation period, the control group kept on to the language instruction routine arranged through classical activities in the light of units in the class; however, the experimental group stuck to the plan, including playing the digital game both outside and inside of the classroom as an addition to their class routines. The game enables verbal and non-verbal interaction during playtime, and it offers being manipulated by teachers. For the study, the researcher manipulated the gameplays grounded on the topics of the units. Within the implementation period based on gameplay sessions that lasted ten weeks, four units (themes 6, 7, 8, and 9) were covered according to the annual English lesson plan of the school; therefore, the gameplay sessions incorporated them. Gameplay activities were created based on the activities in the coursebook of learners. As expected in parallel with pen and paper activities in classes, participants in the experimental group were expected to use the functions of the language in a digital environment. The functions of the language are taken from the English annual plan (*Appendix 8*).

The gameplay sessions and pre/post-test applications were at most 40 min, a recommended time for scientific research by the MoNE. The researcher determined the gameplay days based on the school's academic program. The experimental group played the game as both in-class and out-class activities in charge of the researcher since the teacher had the authority to control access to the games. During gameplay sessions, the researcher gathered written and oral data by collecting chat scripts of the participants interacting with each other and recording the participants' conversations during the gameplay sessions.

For the gameplay held outside of the class, the participants in the experimental group played the digital game as a supplementary duty under the warrant of the researcher, who facilitated the process by utilizing written chats. Thus, for out-class sessions, the researcher created and hosted the game worlds. In this way, the researcher allocated the tasks during the game by using game instruction tools. The researcher intervened in the game and hindered the

obscure language by using the classroom mode or attending the gameplay sessions as a participant player. However, due to some overloading problems resulting from computer software, she mainly utilized the fundamental written chat part of the game; thus, she also participated in those sessions as a teacher-participant. Based on the topics, she benefitted from game mechanics to give instructions to the participants. To illustrate, she put non-player characters (NPC), signs, and boards in the game worlds to pave the way for the participants to shape the worlds. Examples of inserted NPC, sign, and board are shown below.

### Figure 8

*The Inserted NPC in the Gameworld in the Fourth Week of Gameplay*



### Figure 9

*The Inserted Sign in the Gameworld in the Tenth Week of Gameplay*



**Figure 10**

*The Inserted Board in the Gameworld in the Sixth Week of Gameplay*



The out-class sessions were completed at schools, excluding lesson hours to benefit from computers the researcher offered participants to use and to keep the researcher's warrant more evident during the game sessions. The group met in the library to play the game since the classrooms lacked plugs. Those sessions entailed gameplay as a whole group, with 18 participants, to complete the game tasks. The participants allocated duties by speaking and writing the game's chat part. Additionally, the researcher encouraged participants to use the written chat part by leading some questions and expecting answers based on their work.

The researcher arranged in-class gameplay activities in two groups of 9 participants. The two groups of 9 participants were formed based on gathering experienced and naïve students to facilitate the gameplay sessions through collaboration and cooperation among the participants according to Vygotsky's suggestions in accordance with sociocultural theory (Lantolf, 2000). Since the in-class game activities were completed in one hour of four English lessons for the researcher, the participants, and the researcher met in the library at school to play the game. During that time, the teacher assigned the rest of the class to carry out their routines. To play the game, the two experienced learners hosted the worlds in MEE in the first weeks of the study. As the weeks went by, other participants were able to host the worlds for the gameplay sessions. While the learners were building, the researcher observed them by visiting their worlds. The students built their worlds by working together based on the teacher's demands. The worlds that students worked on proceeded in time; in other words, they made progress by playing in the same worlds.

In order to measure English use of the participants in the experimental group, the first and last weeks of learners' language use during gameplay were gathered. To measure the quality and quantity of the participants' language use in the experimental group, the collected written chats and voice records during the first and the last weeks of out-class activities were transcribed at first. Then, the data were analyzed in accordance with vocabulary and structure usage as the quality of English use and the number of words used by the participants as the quantity of English use.

The first semi-structured interviews focusing on the learners' experiences with digital games and their perceptions and opinions about their WTC in L2 and affective factors were conducted with the participants in the experimental group to be able to get a deeper perspective. In a similar vein, follow-up semi-structured interviews were based on the participants' quantitative data results regarding their WTC in L2 and affective factors scores, which were conducted to dig into the topic more. Before beginning the interviews, the researcher informed participants about the topic and duration of them. The interview schedules were arranged by the researcher in order to avoid overlapping with the school's timetable. The interviews were held in a quiet place at school, not exceeding one lesson hour (40 mins), and during the interviews, the researcher took notes as well. During the interviews, both the researcher and the participants used their native language.

The flow of the gameplay sessions based on units and activities is shown below. The detailed lesson plans are presented in (*Appendix 9*)

#### **3.4.1. The Plan of Theme 6**

In the first week (14<sup>th</sup> -18<sup>th</sup> February), the researcher conducted the pre-tests on both experimental and control groups so as to determine the level of starting point of the participants.

In the second week of the implementation process (21<sup>st</sup> -25<sup>th</sup> February), the participants in the experimental group started to play the digital game. Within two weeks, they worked on the same worlds created in the first gameplay week. They worked in two large groups formed by the researcher. After a while, participants allocated their duties to complete the world in collaboration. In the first week of the gameplay, as an in-class activity, the participants worked in two groups of nine, and as groups, they engaged in their game worlds to answer the question: "What should people do to live in a better world?" After a short warm-up and brainstorming activities to draw learners' attention to the topic, they reflected on their ideas to describe energy sources. In the second week of the gameplay process (28<sup>th</sup> February- 4<sup>th</sup> March), they

expanded their ideas by focusing on what can be done to save energy. The activity was designed in parallel with the activities from the course book of the learners on pages 74, 75, 77, and 78.

The out-class gameplays of unit 6 were played as a whole group in the same world created and hosted by the researcher. The classroom mode of the game was activated so that students could get the instructions directed by the researcher during the gameplay sessions. In this way, the researcher could obviate obscure language use. While playing the game, the students reflected on their solutions to “youth problems”. The activity was designed according to the activities in the coursebook on pages 79 and 81. In the first week of the gameplay session (21<sup>st</sup> -25<sup>th</sup> February), the researcher asked the participants their problems and eliminated the answers. She wanted the participants to generate resolutions for the problems via a brainstorming activity. In the next week (28<sup>th</sup> February- 4<sup>th</sup> March), students were requested to get deep into their ideas about their problems and find solutions.

#### **3.4.2. The plan of Theme 7**

The gameplay sessions continued with unit 7, starting from the fourth week (7<sup>th</sup> – 11<sup>th</sup> March) and ending in the sixth week (21<sup>st</sup> – 25<sup>th</sup> March) of the implementation process of the study. The in-class gameplay sessions were covered in two groups. The students were asked to represent and introduce the world festivals, including unique food and activities. The activity named “A festival with food and activities” was designed as the result of the inspiration of the activities on pages 86, 87, 89, 90, 91, and 92 in the coursebook and the ones in the workbook on pages 54 and 57. Before the gameplay sessions, the researcher asked questions to draw learners’ attention to the topic. Students worked in two groups to host and play the game. During the gameplay, they formed small groups to complete the worlds in collaboration. In the fourth week (7<sup>th</sup> – 11<sup>th</sup> March) of the implementation process, the researcher wanted her participants to choose a world festival (except a Turkish one) and introduce it in broad strokes. In the following week (14<sup>th</sup> – 18<sup>th</sup> March), students were assigned to introduce the special food belonging to the festival that they had chosen in a detailed way. To do that, the students were expected to reflect their ideas in the game world by using elements in the game. In the last week of the unit (21<sup>st</sup> – 25<sup>th</sup> March), the students were asked to introduce the activities that could be held in the festival that they had reflected in the previous week. Herewith, students were engaged in the topic with the help of gameplaying.

As out-class activities, the researcher wanted the participants to guess the festivals belonging to Turkey. To play the game as an out-class activity, the researcher activated the classroom mode of the game, or she used chat parts of the game to be able to have warrants

during the game sessions. The researcher created and hosted a world in the first week of the unit (7<sup>th</sup> – 11<sup>th</sup> March). The name of the activity was “Turkish festivals”, and it was prepared based on the activities in the coursebook on pages 89, 90, and 91. Then, by asking questions, the researcher wanted the learners to guess the festivals of Turkey, and the students tried to reflect the festivals into the game world where they played. The researcher asked questions about Ramadan and Sacrifice Bairams, National Sovereignty and Children’s Day, and Republic Day regarding the activities to celebrate and their importance for the Turkish people and history. In the following weeks (14<sup>th</sup> – 18<sup>th</sup> March) and (21<sup>st</sup> – 25<sup>th</sup> March), the students kept building the world by constructing the items representing the festivals the researcher had described.

### **3.4.3. The plan of Theme 8**

In the seventh week (28<sup>th</sup> March – 1<sup>st</sup> April), the participants started unit 8 based on the annual English plan; thus, the activities were designed regarding the outcomes of the unit. There was a midterm break between the (11<sup>th</sup> – 15<sup>th</sup> April); therefore, the gameplay sessions were in a break. Before starting the gameplays of the week, the teacher asked questions related to the topic of the gameplay as a warm-up and revision. For unit 8, the researcher wanted the learners to build a world equipped with technology as an in-class activity played in two groups. Thus, two students from two groups created their worlds by putting technological items in them. The activity was designed through the activities in the coursebook of the learners on pages 96, 97, 98, 99, 103, 104, and 105. In this sense, they had a chance to build any construction to reflect their “technologic world”, which was also the name of the activity for unit 8. In the following weeks (4<sup>th</sup> – 8<sup>th</sup> April and 18<sup>th</sup> – 22<sup>nd</sup> April), the students went on in the same worlds by expanding the topic by incorporating the advantages and disadvantages of technology for humanity. To reflect their opinions, each group managed the topic from a different point of view while forming their own worlds. They had an opportunity to benefit from the game’s supporting characters, or they could use visual or written materials. In the last week of the unit (25<sup>th</sup> – 29<sup>th</sup> April), students focused on the new habits of humans, which were one of the consequences of technology. To illustrate their opinions, the gameplay groups shaped the world by adding new items, constructions, or characters into them. In the end, they formed their technological world with pros and cons.

The out-class activities for unit 8 consisted of “social media and its impacts”. The out-class activities were based on the exercises in the coursebook on pages 100 and 102 and the ones in the workbook on pages 62 and 63. The researcher created and hosted the world to give instructions and manipulate the game regarding using the English language among learners.

She asked questions to ensure their work's progress and to give feedback. In the first week of the unit (28<sup>th</sup> March – 1<sup>st</sup> April), the researcher invited the students into the world so that they could describe social media accounts by working together. To do that, students were free to create new constructions by getting help from items in the games. Towards the end of the gameplay sessions, they specified the social media and social media accounts. In the following week (4<sup>th</sup> – 8<sup>th</sup> April), students carried on their constructions in the same worlds by expanding the topic to the positive aspects of social media accounts on humans' lives. In the other week (18<sup>th</sup> – 22<sup>nd</sup> April), they reflected on the negative aspects of them. In the last week of the unit (25<sup>th</sup> – 29<sup>th</sup> April), they worked on a hypothetical question asking, "What would happen if there were no social media accounts?" to complete their worlds.

#### **3.4.4. The Plan of Theme 9**

In the twelfth, thirteenth, fourteenth, and fifteenth weeks (2<sup>nd</sup> – 6<sup>th</sup> May, 9<sup>th</sup> – 13<sup>th</sup> May, 16<sup>th</sup> -20<sup>th</sup> May, and 23<sup>rd</sup> -27<sup>th</sup> May) of the implementation process, unit 9 was covered based on the annual plan. However, the twelfth week was Ramadan break, and the thirteenth week was the last week of gameplay. In parallel with the unit, the experimental group created activities based on the topic through digital game playing in the thirteenth week.

As for in-class activities, the researcher wanted her students to create a world in which they imagined themselves to be heroes or heroines. Since it was an in-class activity, the students worked in two large groups in two different worlds that two learners created. Before gameplay sessions, the researcher and the participants had small talks related to the topic to get ready by sharing their plans for construction. The activities were mainly created according to the exercises on pages 66 and 67 in the workbook and the ones on page 110 in the coursebook. In the last week of gameplaying (9<sup>th</sup> – 13<sup>th</sup> of May), the participants echoed their ideas in their worlds according to the topic: "What would you do for disabled people if you were a hero?" and "In what ways would you support disabled people if you were a hero?". The researcher asked some leading questions about the possible solutions for the challenges that disabled people encounter by remarking on the concept of the issue.

For out-class activities, the activities were designed grounded on the exercises in the coursebook on pages 111 and 112 and in the workbook on pages 68 and 69. The students were expected to narrow down the hypothetical topic of being a hero in the last week of gameplaying (9<sup>th</sup> – 13<sup>th</sup> May). To do that, they worked on illustrating their opinions about an unreal situation, including: "Would you want to change anything if you were a hero? If yes, what would the changes be?" The researcher wanted her students to think of an imaginary situation to create solutions. Ultimately, the students were expected to understand the topic profoundly.

### 3.5. Data Analysis

In the present study, the data analysis process included both quantitative and qualitative data analyses sections since the data collection process was completed in two phases: quantitative and qualitative data collection. The explanation is given below to articulate the general steps taken in the data analysis part.

#### 3.5.1. Quantitative Data Analysis

In the present study, WTC in L2 and affective factor questionnaires were applied as pre and post-tests to the participants in the control and experimental groups to collect quantitative data. For the quantitative data results to “make the assumption that samples are obtained from populations of equal variations” (Pallant, 2020, p.172), the normality of the data was patterned through the normality test, which shows the distribution of the data (Fraenkel et al., 2012) to regulate which type of test (parametric or non-parametric test) was carried out. The normality test is presented below.

**Table 2**

*Normality Test for Pre-test and Post-test Scores*

	<b>M</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
WTC in L2 pre-test	3.7809	.10777	-.200	-.422
WTC in L2 post-test	3.7565	.10851	-.111	-.895
L2 Speaking Anxiety pre-rest	3.3102	.18818	-.104	-.807
L2 Speaking Anxiety post-rest	3.2454	.19147	-.112	-1.001
Motivation pre-test	3.8565	.16104	-1.164	1.224
Motivation post-test	3.9306	.14107	-.811	.912
Self-confidence pre-test	3.5506	.14079	-.675	1.515
Self-confidence post-test	3.5833	.16168	-.364	-.175
Risk-taking pre-test	3.6574	.10829	-.425	-.820
Risk-taking post-test	3.7500	.13437	-1.221	2.784

Table 2 displays the test of normality for pre and post-test scores of the variables of the study. So as to assess the normality, Skewness and Kurtosis scores were analyzed for each variable and its pre and post-test scores. As Tabachnick and Fidell (2013) advocate,  $\pm 2$  values within Skewness and Kurtosis are acceptable to decide whether the data are normally distributed. As seen in Table 2, almost all variables were within  $\pm 2$  values except risk-taking post-test (Kurtosis= 2.784). However, when the data were examined, there were no extreme values, such as beyond the upper limit, which violated the normality of the data. Thus, the data were admitted as normally distributed in the current study.

Based on the test of normality results, the parametric tests were conducted to measure the quantitative data. Therefore, descriptive statistics, paired-samples T-test, and one-way between-groups ANOVA were used to compare pre and post-test results within and inter-groups (Fraenkel et al., 2012; Pallant, 2020) that were done through a statistical program called Statistical Package for Social Science Versions 18 and 22; SPSS 18 and SPSS 22. Parametric tests such as ANOVA enabling “various kinds of assumptions about the nature of the population” (Fraenkel et al., 2012, p.242) were conducted grounded on checking the mean scores between groups. Another assumption, Homogeneity of variance, was performed through parametric tests through the Levene Test, which performs “for equality of variances as a part of T-test and analysis of variances analyses” (Pallant, 2020, p.172). Thus, the questionnaires consisting of WTC in L2, and affective factors were conducted before and after the implementation, including gameplays with the participants in the experimental group.

For more precise information, the analyses of a related research question are revealed individually. For the first research question (shown below), one-way between-groups ANOVA was conducted to identify the WTC in L2’s differentiates between groups. The results are integrated into the results part.

*1. Do digital games have any impact on Turkish EFL learners’ overall WTC in L2?*

For the second research question (shown below), a paired-samples T-test was employed so as to determine the impact of the digital game before and after the gameplay sessions on both WTC in digital and face-to-face environments. The results are displayed in the results part.

*2. Do digital games have any impact on Turkish EFL learners’ WTC in L2 in face-to-face and digital environments?*

For the third research question (shown below), one-way between-groups ANOVA was conducted to determine the level of affective factors between groups.

*3. Do digital games have any impact on affective factors (L2 speaking anxiety, motivation, self-confidence, and risk-taking)?*

For the fifth research question (shown below), a paired-sample T-test was adopted to identify the difference between the use of the vocabulary of participants in the experimental group. For the first part (a) of the research question, the data were gathered from participants’ use of the oral and written English usage from first and the last weeks of the implementation process. In order to answer the second part (b) of the fifth research question, the oral and

written English language used by the participants in the experimental group was transcribed and evaluated based on the first and the last weeks of the implementation phase.

*5. Do digital games have any impact on the English language use of Turkish EFL learners?*

*a. Is there a significant increase in the quantity of language that Turkish EFL learners produced in the experimental group at the beginning and at the end of the study?*

*b. What is the quality of the English language that Turkish EFL learners produced in the experimental group at the beginning and at the end of the study?*

The final version of the quantitative data analysis part is pointed out in the next chapter.

### **3.5.2. Qualitative Data Analysis**

The fourth research question covered collecting qualitative data through interviews. In the current study, qualitative data were collected since it was intended to enlighten the quantitative data results. Therefore, for qualitative data results, the first and follow-up semi-structured interviews were conducted with the participants in the experimental group. The first semi-structured interviews consisting of 14 items (*Appendix 6*) were held with the participants in the experimental group to get a profound insight to enlighten the quantitative data results. The follow-up semi-structured interviews (*Appendix 7*) were conducted with the participants in the experimental group regarding elucidating quantitative data results to identify the reasons for the decline or stability in their post-test mean scores. The two semi-structured interviews were performed as one-to-one interviews with the participants in the experimental group. During the interviews, the researcher took notes and recorded the voices of the participants. Participants' real names were not used during data analysis to keep their anonymity.

The qualitative data analyses were done through Braun and Clarke (2006)'s thematic analysis by transcribing recorded data to engage common themes and expressions. So as to analyze the data gathered through the fourth research question (shown below), a thematic analysis was done based on the recorded and transcribed interviews by focusing on mutual themes and expressions in the data to identify the topic through the commonalities (Braun & Clarke, 2012).

*4. What are the perceptions of the learners about digital games in terms of WTC in L2 and affective factors?*

Thematic analysis requires specifying ideas that appear repeatedly in a data set (Riger & Sigurvinsdottir, 2016). Themes give distinguishing reactions to the research questions (Braun & Clarke, 2006). The themes were reached through “identifying, organizing, and offering insight into patterns of meaning” (Braun & Clarke, 2012, p. 57). In the present study, the researcher followed the guidance on how to make a thematic analysis offered by Braun and Clarke (2006). In this perspective, the researcher followed Braun and Clarke (2006)’s six steps: familiarizing herself with her data, generating initial codes, searching for themes, reviewing themes, defining, and naming themes, and producing the report.

In the first phase, for the first semi-structured interviews, the researcher analyzed the participants’ interview papers to prepare them for analysis. At this stage, she looked over the papers by putting them into order. Then, as a second step, she imitated determining possible codes, which are “tags or labels for assigning meaning to chunks of data” (Fraenkel et al., 2012, p. 436) in the data set with an aim to draw a general frame. While forming the codes, the researcher reviewed the text meticulously to advance a perspective. Thirdly, she engaged in turning the codes into prospective themes based on the familiarities in a broad viewpoint. During that phase, the researcher reexamined the candidate themes emerging from the data to ensure no missing points. In the fourth step, she worked on the themes that she thought might have the potential to be eliminated or accepted at the end of the thorough work. In this phase, the researcher took her time to decide on themes grounded on the purpose of the study. In the fifth phase, she gave names to the themes which were decided on providing rich and illuminating information. Before spawning the final form of the analysis, peer debriefing between the researcher and an independent coder was done so as to come to a common understanding. After that, as a last step, the researcher formed the final data analysis report by including the themes and examples from the data set.

The researcher followed the same guidance proposed by Braun and Clarke (2012) for the follow-up semi-structured interviews as well. In order to form the themes of follow-up interviews, she initiated the process by transcribing her interview records to make progress as a first step. She listened to the interviews many times to transcribe the data by activating the slow mode to avoid missing details. While forming the prospective themes emerging from a data set, the researcher reviewed the transcribed data and coded it by making comparisons to form the codes. The final report of the qualitative data analysis part is illustrated in the next chapter.

### 3.6. Validity and Reliability of the Research

The study aims to investigate the effect of the digital game on learners' WTC in L2, affective factors, and English usage through an explanatory sequential mixed-methods research design. Validity is an outstanding phenomenon in experimental research designs that the researcher should consider. One of the two threats to validity is internal threats caused by subject characteristics, mortality, location, instrumentation, testing, history, maturation, attitudes of subjects, regression, and implementation, which may result in a lack of measurement of the intended variables (Fraenkel et al., 2012). Another threat to validity is external threats, which may cause illusive interpretations based on data (Creswell, 2012).

In the study, to control the threats, the researcher took precautions like providing standardized conditions, gaining sufficient information about the subjects, and deciding on the most appropriate design for the study (Fraenkel et al., 2012). The control steps are mentioned for each threat in the following paragraphs of this part.

Against the history threat, one of the internal threats, the researcher had control of the two groups (experimental and control) since she was the teacher of the participants. In this way, she could manage the process by taking the same steps in lessons except for the implementation part done with the experimental group. Likewise, the researcher arranged the implementation phase for the experimental group and formed a plan incorporated with traditional methods for the control group against the attitudes of the subjects' threat. Meanwhile, the researcher aimed to intercept the likelihood of misleading thoughts of the participants. As for maturation, subject characteristics, and regression, the participants in both randomly assigned groups consisted of 10<sup>th</sup>-grade students since it was accepted that they had equal proficiency levels and similar educational backgrounds. Against mortality, it might be seen as an advantage for the participants that the study was conducted in the 2021-2022 academic year, in which the schools had face-to-face education after a pandemic. It was because the students were eager to follow the school days after having two years of online education. Additionally, participants were free to drop out of the study whenever they wanted, which might make them free to choose their own ways.

Regarding the implementation threats, the researcher tried to lessen the participants' expectations in the experimental group by not mentioning the probable outcomes of the implementation, not to create a competitive atmosphere between the groups. Moreover, to avoid offending the participants in the control group, the researcher took advantage of being a teacher of the participants since she planned the activities for both groups by considering the

participants' needs and preferences. Likewise, the location of the study was stable from the beginning to the end of the study. Thus, it led to a resembling environment for the participants in both groups. To control the instrumentation threats, the researcher utilized the same questionnaires (WTC in L2 and affective factors) as pre and post-tests. In order to hinder the testing threat, the post-tests were applied after ten weeks when the pre-tests were conducted. In this manner, the likelihood of familiarity with the measurement items was lessened.

To control external threats related to the study's aim, research design, and sample size, the results were not generalized to include the previous and prospective study's results. Furthermore, in terms of generalizing the study's results gathered in a state school with 10<sup>th</sup>-grade participants, it was considered not to expand the results to other research settings and populations.

For the validity and reliability of the qualitative data collection and analysis part of the study, the researcher gave importance to specific issues such as the documentation process, thick description, negative cases, triangulation (Fraenkel et al., 2012), and applicability of the results (Noble & Smith, 2015). To illustrate, rich data sources were put to be used in the study since the mixed-methods research design incorporates quantitative and qualitative data. After gathering quantitative data results from pre and post-tests, the qualitative part of the study was conducted to enlighten and deepen the results. The two interviews aimed to catch a deeper perspective on the effects of the digital game on learners' WTC in L2 and affective factors; therefore, the questions were formed in parallel with this aim. During the interviews, the researcher recorded the voices. A thick description of the study's context, setting, and participants was placed. The researcher's notes taken during the interviews and the transcribed data were used to make inferences and reach a conclusion based on the documented data, thanks to comparisons among the participants' answers for the same responses. Negative responses were not excluded from the data.

Furthermore, the results of the data were applicable to other studies. Another vital issue, peer debriefing, which enables the researcher to revise and evaluate the transcribed data with another researcher to decide on the last version of the themes regarding categories created as an initial step (Janesick, 2007) was taken into consideration while determining themes during the qualitative data analysis process. Hence, the researcher agreed on themes by cooperating with her supervisor as a required step for peer debriefing.

To conclude, the reliability and validity threats of the present explanatory sequential mixed-methods design study were intended to be annihilated thanks to the measures taken.

Since it was aimed to increase the validity and reliability of the study, the researcher gave importance to related issues.

### **3.7. The Role of the Researcher**

The present study utilized an explanatory sequential mixed-methods design combining qualitative and quantitative research designs. Therefore, the researcher had to take both quantitative and qualitative researcher roles. Moreover, the setting of the study, a state high school, was the place of the researcher where she worked as a teacher of English. The researcher had English classes with 10<sup>th</sup> and 12<sup>th</sup>-grade learners in the 2021-2022 academic year when the study was conducted. Therefore, as the participants' teacher of English, she expanded the scope of the researcher's role as a teacher-researcher.

The researcher minded the power and the sensitivity of the rapport between the researcher and the participants in the current study conducted by a teacher-researcher. In the qualitative part of the study, the rapport had to be kept at an optimum level to conduct the interviews, thanks to the researcher and participants' confidence and cooperation (Fraenkel et al., 2012). Thus, the researcher tried to draw a precise line to keep the rapport in balance. Furthermore, for the qualitative part, she adopted an emic perspective, which is the full participant, whereas, for the quantitative part, she tried to adopt an etic perspective, which has the outer lenses for the study (Markee, 2013). The purpose of the researcher was to be aware of the bias and purify the study from researcher bias in the data collection and analysis process to reach the results.

## CHAPTER IV

### RESULTS

The current study, conducted as an explanatory sequential mixed-methods design, aims to investigate the effects of the digital game on learners' WTC in L2, affective factors, and English use through quantitative and qualitative data sources. Two questionnaires, including WTC in L2 and affective factors, were used to collect quantitative data, and two semi-structured interviews were held with the participants in the experimental group to gather qualitative data. WTC in L2 questionnaire consists of WTC in L2 in face-to-face environments, which means WTC in L2 in class and out of class and WTC in L2 in digital environments. Affective factors comprise L2 speaking anxiety, motivation, self-confidence, and risk-taking.

#### **4.1. RQ1. Do digital games have any impact on Turkish EFL learners' overall WTC in L2?**

To answer RQ1, descriptive analysis and a one-way between groups ANOVA test were conducted. The descriptive analysis illustrates a general overview by providing the mean scores of the experimental and control groups. In this respect, Table 3 shows the descriptive statistics for RQ1.

**Table 3**

*Pre-test and Post-test Descriptive Statistics of the Experimental and the Control Groups for WTC in L2*

		N	Mean	SD	SE
Pre-test of WTC in L2	Experimental	18	3.7654	.69482	.16377
	Control	18	3.7963	.61452	.14484
	Total	36	3.7809	.64665	.10777
Post-test of WTC in L2	Experimental	18	3.9946	.64279	.15151
	Control	18	3.5185	.58267	.13734
	Total	36	3.7565	.65104	.10851

Table 3 indicates the groups' mean scores as pre and post-tests for WTC in L2. Based on Table 3, the pre-test results of the control group ( $M = 3.79$ ,  $SD = 0.61$ ) and the experimental

group ( $M = 3.76$ ,  $SD = 0.69$ ) had slightly similar scores. However, when the two groups' post-test results were inspected, the experimental group's post-test score ( $M = 3.99$ ,  $SD = 0.64$ ) was higher than the control group's ( $M = 3.51$ ,  $SD = 0.58$ ).

The descriptive analysis of WTC in L2 revealed that participants in the two groups got quite close scores on pre-tests of WTC in L2. However, the mean scores of the post-test displayed that the experimental group got higher scores in the post-test for WTC in L2.

To reach further data analysis in terms of WTC in L2 to see whether there was a statistical difference between the experimental and control groups' pre and post-test results in WTC in L2, a one-way between groups ANOVA test was conducted with an aim to elucidate the findings. Therefore, Table 4 articulates the one-way between groups ANOVA results of the RQ1 below.

**Table 4**

*ANOVA Results for the Pre-test & Post-test Scores of the Control and the Experimental Groups for WTC in L2*

		SS	df	MS	F	p
Pre-test of WTC in L2	Between Groups	.009	1	.009	.020	.889
	Within Groups	14.627	34	.430		
	Total	14.635	35			
Post-test of WTC in L2	Between Groups	2.039	1	2.039	5.419	.026
	Within Groups	12.796	34	.376		
	Total	14.835	35			

As seen in Table 4, one-way between groups ANOVA was performed to compare the pre and post-test results of the groups in terms of WTC in L2. Thus, the results revealed no significant difference in means scores of WTC in L2 of pre-test results of the experimental and the control groups [ $F(1, 34) = 0.020$ ,  $p = 0.889$ ]. However, the results revealed a statistically significant difference in means scores of WTC in L2 of post-test results of the experimental and the control groups [ $F(1, 34) = 5.419$ ,  $p = 0.026$ ].

**Table 5**

*Homogeneity of Variance through Levene's Statistics for the Pre-test & Post-test Scores of the Control and the Experimental Groups for WTC in L2*

	<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>P</b>
Pre-test of WTC in L2	.054	1	34	.818
Post-test of WTC in L2	.219	1	34	.642

As seen in Table 5, homogeneity of variance was performed as a part of the ANOVA test. In this perspective, Levene's test revealed that the variances for WTC in L2 were equal. In other words, for both pre [ $F(1, 34) = 0.054$   $p = 0.818$ ] and post-test scores [ $F(1, 34) = 0.219$   $p = 0.642$ ] of WTC in L2, the null hypothesis of equal population variances was not rejected.

#### **4.2. RQ2. Do digital games have any impact on Turkish EFL learners' WTC in L2 in face-to-face and digital environments?**

To answer RQ2, descriptive statistics and paired-samples T-tests were conducted to compare the mean scores of the experimental group in terms of WTC in L2 face-to-face and digital environments.

**Table 6**

*Pre & Post-Test Descriptive Statistics of the Experimental Group for WTC in L2 in Face-to-face and Digital Environments*

		<b>M</b>	<b>N</b>	<b>SD</b>	<b>SEM</b>
Pair 1	Pre-test of L2 WTC in face-to-face environment	3.4306	18	.82273	.19392
	Post-test of L2 WTC in face-to-face environment	3.7222	18	.78889	.18594
Pair 2	Pre-test of L2 WTC in digital environment	4.0333	18	.67563	.15925
	Post-test of L2 WTC in digital environment	4.2111	18	.58701	.13836

Table 6 articulates the mean scores of the experimental groups in L2 WTC in face-to-face and digital environments. As shown in Table 6, the post-test mean scores of L2 WTC in face-to-face environments ( $M = 3.72$ ,  $SD = 0.78$ ) were slightly higher than the mean score of the pre-test scores of L2 WTC in face-to-face environments ( $M = 3.43$ ,  $SD = 0.82$ ). Regarding the mean scores of L2 WTC in digital environments, the pre-test mean scores ( $M = 4.03$ ,  $SD = 0.67$ ) were lower than the post-test mean scores ( $M = 4.21$ ,  $SD = 0.58$ ).

The paired-samples T-test results for L2 WTC in face-to-face and digital environments are illustrated in Table 7.

**Table 7**

*The Comparison of L2 WTC in Face-to-face and Digital Environments of the Experimental Group*

	<b>M</b>	<b>SD</b>	<b>SEM</b>	<b>t</b>	<b>df</b>	<b>P</b>
Pre-test of L2 WTC in face-to-face environment	-.29167	.48317	.11388	-2.561	17	.020
Post-test of L2 WTC in face-to-face environment						
Pre-test of L2 WTC in digital environment	-.17778	.28400	.06694	-2.656	17	.017
Post-test of L2 WTC in digital environment						

Table 7 illustrates the paired-samples t-test results of the L2 WTC in face-to-face and digital environments. The data indicated that there was a statistically significant difference between learners' pre- ( $M = 3.43$ ,  $SD = 0.82$ ) and post-test results ( $M = 3.72$ ,  $SD = 0.78$ ) of WTC in L2 in face-to-face environments ( $t(17) = -2.561$ ,  $p = 0.020$ ). In addition, as Table 7 articulated, there was a statistically significant difference between learners' pre- ( $M = 4.03$ ,  $SD = 0.67$ ) and post-test results ( $M = 4.21$ ,  $SD = 0.58$ ) of WTC in digital environments ( $t(17) = -2.656$ ,  $p = 0.017$ ).

### 4.3. RQ3. Do digital games have any impact on affective factors (L2 speaking anxiety, motivation, self-confidence, and risk-taking)?

For RQ3, descriptive statistics and one-way between groups ANOVA were performed for each affective factor discretely. The findings of affective factors are presented in the corresponding title.

#### 4.3.1. L2 Speaking Anxiety

The descriptive statistics of L2 speaking anxiety are reported in Table 8; one-way between groups ANOVA results for L2 speaking anxiety are indicated in Table 9.

**Table 8**

*Pre-test and Post-test Descriptive Statistics of the Experimental and the Control Groups for L2 Speaking Anxiety*

		<b>N</b>	<b>M</b>	<b>SD</b>	<b>SE</b>
Pre-test of L2 Speaking Anxiety	Experimental	18	3.1852	1.25751	.29640
	Control	18	3.4352	1.00512	.23691
	Total	36	3,3102	1.12909	.18818
Post-test of L2 Speaking Anxiety	Experimental	18	2.8426	1.19294	.28118
	Control	18	3.6481	.97500	.22981
	Total	36	3.2454	1.14883	.19147

Table 8 articulates that the pre-test results of the experimental group ( $M = 3.18$ ,  $SD = 1.25$ ) were higher than the post-test results ( $M = 2.84$ ,  $SD = 1.19$ ) for L2 speaking anxiety. However, the control group's pre-test results ( $M = 3.43$ ,  $SD = 1.00$ ) were lower than the post-test result ( $M = 3.64$ ,  $SD = 0.97$ ) for L2 speaking anxiety.

**Table 9**

*ANOVA Results for the Pre-test & Post-test Scores of the Control and the Experimental Groups for L2 Speaking Anxiety*

		<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p</b>
Pre-test of L2 Speaking Anxiety	Between Groups	.563	1	.563	.434	.514
	Within Groups	44.057	34	1.296		
	Total	44.620	35			
Post-test of L2 Speaking Anxiety	Between Groups	5.840	1	5.840	4.921	.033
	Within Groups	40.353	34	1.187		
	Total	46.194	35			

Table 9 indicates that there was no statistically significant difference between the control and the experimental groups regarding the pre-test results for L2 speaking anxiety levels [F (1,34) = 0.434, p = 0.514]. On the other hand, there was a statistically significant difference between the control and the experimental groups regarding the post-test results for L2 speaking anxiety levels [F (1,34) = 4.921, p = 0.033].

**Table 10**

*Homogeneity of Variance through Levene Test's Results for the Pre-test & Post-test Scores of the Control and the Experimental Groups for L2 Speaking Anxiety*

	<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>P</b>
Pre-test of L2 Speaking Anxiety	.522	1	34	.475
Post-test of L2 Speaking Anxiety	1.114	1	34	.299

Table 10 illustrates the homogeneity of variance as Levene's test scores. The results of Levene's statistics revealed that the variances for L2 speaking anxiety were equal, which means the null hypothesis of equal population variances was not rejected regarding pre [F (1, 34) = 0.522, p = 0.475] and post-test scores [F (1, 34) = 1.114, p = 0.299].

### 4.3.2. Motivation

The descriptive statistics of motivation mean scores of the experimental and the control groups in terms of pre and post-test results are illustrated in Table 11 and Table 12 successively.

**Table 11**

*Pre-test and post-test Descriptive Statistics of the Experimental and the Control Groups for Motivation*

		N	M	SD	SE
Pre-test of Motivation	Experimental	18	3.8519	.94435	.22259
	Control	18	3.8611	1.01500	.23924
	Total	36	3.8565	.96622	.16104
Post-test of Motivation	Experimental	18	4.1759	.84303	.19870
	Control	18	3.6852	.79806	.18810
	Total	36	3.9306	.84644	.14107

Table 11 indicates that the experimental group's pre-test results for motivation ( $M = 3.85$ ,  $SD = 0.94$ ) were lower than the post-test results ( $M = 4.17$ ,  $SD = 0.84$ ). On the other hand, the control group's motivation level had an opposite relation between pre and post-test results when compared to the experimental group's results. The pre-test results of the control group ( $M = 3.86$ ,  $SD = 1,01$ ) were higher than the post-test results ( $M = 3.68$ ,  $SD = 0.79$ ).

**Table 12**

*ANOVA Results for the Pre-test & Post-test Scores of the Control and the Experimental Groups for Motivation*

		SS	df	MS	F	p
Pre-test of Motivation	Between Groups	.001	1	.001	.001	.978
	Within Groups	32.674	34	.961		
	Total	32.675	35			
Post-test of Motivation	Between Groups	2.167	1	2.167	3.217	.082
	Within Groups	22.909	34	.674		
	Total	25.076	35			

Table 12 reports that there was no significant difference between the control and the experimental group's means in pre-test scores of motivation [ $F(1, 34) = 0.001$ ,  $p = 0.978$ ]. In

addition, when the post-test scores of both groups for motivation were examined, the results revealed no significant difference in the experimental and the control group's mean scores [ $F(1, 34) = 3.217, p = 0.082$ ].

**Table 13**

*Homogeneity of Variance through Levene Test's results for the Pre-test and post-test Scores of the Control and the Experimental Groups for Motivation*

	Levene Statistic	df1	df2	P
Pre-test of Motivation	.220	1	34	.642
Post-test of Motivation	.003	1	34	.956

Table 13 articulates the homogeneity of variance run through Levene's test. The results revealed that the variances for motivation were equal. As seen, for pre [ $F(1, 34) = 0.220, p = 0.642$ ] and post-test scores [ $F(1, 34) = 0.003, p = 0.956$ ] of motivation, the null hypothesis of equal population variances was not rejected.

#### 4.3.3. Self-Confidence

The descriptive statistics and one-way between groups ANOVA results for self-confidence are reported in Table 14 and Table 15, respectively.

**Table 14**

*Pre-test and Post-test Descriptive Statistics of the Experimental and the Control Groups for Self-Confidence*

		N	M	SD	SE
Pre-test of Self- Confidence	Experimental	18	3.7123	.67818	.15985
	Control	18	3.3889	.97665	.23020
	Total	36	3.5506	.84474	.14079
Post-test of Self- Confidence	Experimental	18	3.7847	.88887	.20951
	Control	18	3.3819	1.03031	.24285
	Total	36	3.5833	.97009	.16168

Table 14 indicates that the experimental group's mean scores for self-confidence were lower in the pre-test ( $M = 3.71, SD = 0.67$ ) than the group's mean scores in the post-test for

self-confidence ( $M = 3.78$ ,  $SD = 0.88$ ). However, the control group's pre ( $M = 3.38$ ,  $SD = 0.97$ ) and post-test ( $M = 3.38$ ,  $SD = 1.03$ ) results for self-confidence did not differ.

**Table 15**

*ANOVA Results for the Pre-test & Post-test Scores of the Control and the Experimental Groups for Self-Confidence*

		SS	df	MS	F	p
Pre-test of Self-confidence	Between Groups	.941	1	.941	1.332	.257
	Within Groups	24.034	34	.707		
	Total	24.975	35			
Post-test of Self-confidence	Between Groups	1.460	1	1.460	1.577	.218
	Within Groups	31.477	34	.926		
	Total	32.938	35			

Table 15 indicates that there was no statistically significant difference between the control and the experimental groups in terms of the mean scores of the pre-tests of self-confidence levels [ $F(1,34) = 0.941$ ,  $p = 0.257$ ]. Likewise, there was no statistically significant difference between the control and the experimental groups in terms of the mean scores of the post-tests of self-confidence levels [ $F(1,34) = 1.460$ ,  $p = 0.218$ ].

**Table 16**

*Homogeneity of Variance through Levene Test's Results for the Pre-test & Post-test Scores of the Control and the Experimental Groups for Self-Confidence*

	Levene Statistic	df1	df2	P
Pre-test of Self-confidence	1.494	1	34	.230
Post-test of Self-confidence	.074	1	34	.788

As seen in Table 16, homogeneity of variance was conducted as Levene's test revealed that the variances for self-confidence were equal. As seen, for pre [ $F(1, 34) = 1.494$ ,  $p = 0.230$ ] and post-test scores [ $F(1, 34) = 0.074$ ,  $p = 0.788$ ] for self-confidence, the null hypothesis of equal population variances was not rejected.

#### 4.3.4. Risk-taking

The descriptive statistics of risk-taking are illustrated in Table 17, and one-way between groups ANOVA results for risk-taking are depicted in Table 18.

**Table 17**

*Pre-test and Post-test Descriptive Statistics of the Experimental and the Control Groups for Risk-taking*

		<b>N</b>	<b>M</b>	<b>SD</b>	<b>SE</b>
Pre-test of Risk-taking	Experimental	18	3.6852	.61007	.14379
	Control	18	3.6296	.70376	.16588
	Total	36	3.6574	.64972	.10829
Post-test of Risk-taking	Experimental	18	3.8519	.99161	.23373
	Control	18	3.6481	.57704	.13601
	Total	36	3.7500	.80623	.13437

Table 17 signifies that the pre-test results ( $M = 3.68$ ,  $SD = 0.61$ ) of the experimental group for risk-taking were lower than the group's post-test ( $M = 3.85$ ,  $SD = 0.99$ ) results. Based on Table 17, the control group's post-test ( $M = 3.64$ ,  $SD = 0.57$ ) results were slightly higher than the group's pre-test ( $M = 3.62$ ,  $SD = 0.70$ ) results for risk-taking.

**Table 18**

*ANOVA Results for the Pre-test & Post-test Scores of the Control and the Experimental Groups for Risk-taking*

		<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>p.</b>
Pre-test of Risk-taking	Between Groups	.028	1	.028	.064	.802
	Within Groups	14.747	34	.434		
	Total	14.775	35			
Post-test of Risk-taking	Between Groups	.373	1	.373	.567	.456
	Within Groups	22.377	34	.658		
	Total	22.750	35			

Table 18 reports that there was no statistically significant difference between the control and the experimental groups in terms of the mean scores of the pre-tests of risk-taking levels [ $F(1,34) = 0.028$ ,  $p = 0.802$ ]. Likewise, there was no statistically significant difference

between the control and the experimental groups in terms of the post-test mean scores mean scores of risk-taking [ $F(1,34) = 0.373, p = 0.456$ ].

**Table 19**

*Homogeneity of Variance through Levene Test's Results for the Pre-test & Post-test Scores of the Control and the Experimental Groups for Risk-taking*

	Levene Statistic	df1	df2	P
Pre-test of Risk-taking	.078	1	34	.782
Post-test of Risk-taking	2.623	1	34	.115

Table 19 illustrates Levene's test scores to articulate homogeneity of variance. Therefore, the results revealed that the variances for risk-taking were equal, for pre [ $F(1, 34) = 0.078, p = 0.782$ ] and post-test scores [ $F(1, 34) = 2.623, p = 0.115$ ]. Thus, the null hypothesis of equal population variances was not rejected.

#### **4.4. RQ4. What are the perceptions of the learners about digital games in terms of WTC in L2 and affective factors?**

For RQ4, thematic analysis, suggested by Braun and Clarke (2012), was followed with reference to categories involving gameplay experience, WTC in L2, and affective factors to enlighten and support the quantitative data results through enabling an exploratory point of view of the quantitative findings. The overarching themes are articulated with respect to the categories below.

##### **4.4.1. Gameplay experience**

The data gathered through the first five interview questions illustrated that the participants in the experimental group were mainly satisfied with the gameplay sessions. Three sub-themes emerged regarding the participants' responses to their gameplay experiences. The first theme was determined by forming a consensus as: "*Delightfulness of gameplay*". The second theme was decided as "*Instructiveness of gameplay*", and the third theme was determined as "*Social and individual aspects of gameplay*", which are mentioned below.

Theme 1:

Delightfulness of gameplays

Theme 1 specifies the participants' expressions regarding their opinions about gameplay sessions. In this context, most participants designated gameplay activities through constructive descriptions.

**Table 20**

*Gameplay Experiences of the Participants in the Experimental Group: Theme 1*

<b>Theme 1</b>	<b>Codes</b>	<b>f</b>
Delightfulness of gameplays	Deductive activity	7
	Emotion trigger activity	7
	Fun activity	7
	Prejudice destructor activity	3

Table 20 illustrates the codes emerging from the data set with frequencies regarding the gameplay experiences of the participants. To specify gameplays, the participants indicated that digital gaming assisted them in learning while having fun. For instance, participant 11 stated: "Gameplays were deductive". Likewise, participant 14 echoed: "I have learned new things while having fun". Nearly the same expressions were used by participant 4: "Together with my friends, we both have learned and had fun". Participant 15 expressed: "Participating in this project was both deductive and blissful". In a similar vein, participant 3 indicated: "Playing a digital game, if you have a facilitating guide, is a funny and easy way of learning English". Participant 17 expressed: "I had so much fun in the game when my English improved in a while". Lastly, participant 9 touched on the topic:

"I felt happy when I had background information regarding the topic, but sometimes I had struggles while turning the topic into structures. Honestly, for the first time, English was more than just a lesson and turned into entertainment".

The data indicated how the participants felt when playing the digital game in lessons as well. The data set signified that the participants had primarily affirmative emotions. To illustrate, participant 15, meaning her feelings, indicated: "During gameplays, I was both excited, eager, happy and thoughtful, but it was positive, of course. It was a pleasure to be involved in such a project". In a similar vein, participant 8 echoed: "I was excited from time to time, sometimes stressful, but generally happy during gameplays". Participant 14 and 5 expressed their excitement as a triggering factor to keep them alert. In this perspective,

participant 14 articulated: “I can only describe my feelings as excitement, but as we speak, little excitement disappeared”. Participant 5 indicated: “It can be said I was excited, but generally, I was happy. Especially, constructing was delighted”. The excitement was described as eagerness by participant 12, who indicated: “For the first time, I was excited to speak in English during gameplays”. Moreover, participant 9 described her feelings by saying: “As we built structures, the game swirled us in”. Participant 11 enriched the topic through “It drew us into life and English into our lives”.

As seen in Table 20, the participants’ responses revealed that they chiefly concurred that playing the digital game as a part of English classes was a delightful and joyful activity for them. Furthermore, they were satisfied with being away from the traditional classroom atmosphere and continuing their learning. Therefore, they described gameplays as cheerful activities. To illustrate, participant 11 stated: “It was an amazing activity”. Likewise, participant 12 illustrated: “It was a fun activity”. Participant 13 echoed “Gameplays were much fun”. Participant 7 summarized his thoughts by stating: “It was nice and funny. Playing games was extremely delightful, especially as a part of the lesson”. Finally, participant 16 expressed: “This game makes English more delightful”.

The data covered the participants’ initial thoughts about integrating digital games into their language routines as well. In this context, only two participants had a favorable view regarding the games’ source of entertainment. In this manner, participant 1 articulated: “Before that study, playing a digital game in English lessons would be a fun activity”, she expanded on her feelings that “gameplays were blissful”. Likewise, participant 2 implied: “Before taking part in this study, I had a good perspective on developing my English through playing a digital game in English lessons”. He deepened her saying: “I think speaking in English is more important than learning English in a class routine”.

However, some participants expressed that they did not imagine playing digital games as a part of a lesson before the project. By implying his initial and concluding thoughts participant 6 expressed: “I thought playing a digital game in English lessons would be boring and ordinary activity. However, I was free from prejudices, and gameplays went with a swing”. Likewise, participant 3 articulated: “Before gameplays, I did not find using digital in English lessons appropriate, yet it was not a right-thinking as it was a wonderful activity”. Lastly, participant 17 echoed: “Disapproving of playing a digital game in English lessons was totally a false point of view”.

Only one participant thought that gameplay sessions were getting boring for her. To explain her positive and negative feelings, participant 13 stated: “At the beginning of gameplay, it was so funny since we had been playing the game in lessons for the first time. However, it was getting boring as time passed since we repeated associated topics”.

Theme 2:

*Instructiveness of gameplays*

Formed as Theme 2, “*instructiveness of gameplays*”, indicates the participants’ expressions about the advantageous aspect of gameplays. In this sense, the participants mostly agreed that gameplays assisted them in boosting their language skills.

**Table 21**

*Gameplay Experiences of the Participants in the Experimental Group: Theme 2*

<b>Theme 2</b>	<b>Codes</b>	<b>f</b>
Instructiveness of gameplays	Boost in vocabulary	9
	Progress in English	7
	Boost in speaking skills	5
	Reframing English	2
	Boost in pronunciation	2

Table 21 depicts the data from the participants’ replies, incorporating their identifications regarding gameplays. As seen in Table 21, the participants’ responses indicated that most participants called gameplay sessions instructive activities since they implied that those sessions supported improved language skills such as expanded vocabulary and progressed English.

The data in Table 21 reflects the developed areas of the participants’ English. In that instance, the participants’ vocabulary expanded through gameplays based on their responses. To illustrate, participant 1 echoed: “Thanks to gameplay sessions, my vocabulary has expanded”. Participant 9 made an explanation for their vocabulary expansion by including: “During the game, we built structures with respect to our unit topics, and our vocabulary developed because our topics were related to the lesson”. Likewise, participant 2 stated: “I have learned more words regarding the topic”. In addition, he indicated the sample words that he learned as “*probably, think, disabled, and habit*”. In a similar vein, participant 4 gave a

specific example of the new words he learned by mentioning: “I have learned the words that I did not know before. For instance, “I have learned the word *ship*”. Participant 10 explained: “In the games, we touched on topics from daily life, and I found it effective for my English”. Moreover, she gave the list of the new words as “*stair, disabled, deaf, blind, and sign*”. According to participant 17: “Gameplays were very effective in English since we learn and remember the unknown words or the words we forgot”. Participant 14 echoed: “English words appear when we play normal games anyway. I both learned and developed them. I think it will help in my normal life as well”. She wrote sample words as well by determining: “*sign and potion*”. Participant 6 explained the word he learned as: “I have learned the word *topic* in this game”. Finally, participant 18 stated: “I improved my vocabulary” by adding, “The item names were in English in the game, we talked in English among our friends, and our teacher asked some questions in English”.

Regarding the participants’ responses related to the instructiveness of digital gameplaying, they elaborated that playing the digital game was an enlightening activity to expand their English language skills. To illustrate, participant 1 echoed: “Gameplaying enabled us to improve our language”. Similarly, participant 7 illustrated: “I tried to improve my English since there were writing and speaking in gameplays”. Participant 13 indicated: “Before this study, I found playing a digital in English lessons absurd, yet after gameplays, I felt I improved my English”. In addition, she compared her English level at the beginning and end of the gameplay process by echoing: “Towards the final weeks, there was a big difference between my English level at the beginning and now”. Participant 8 addressed: “I was expecting to improve my English before playing the game. After gameplays, I think I have improved my English more than expected”. Likewise, participant 14 echoed: “I think I have improved my language somehow”. Participant 12 stated: “It was a good opportunity to improve my English”. Lastly, participant 10 summarized her gameplay experience as follows:

“While I thought I would only learn a few words before playing the game, I realized it was not the real deal during the game sessions. It was really an extremely useful activity in vocabulary, self-confidence, sentence building, and expression. Furthermore, I found gameplay successful because we tried to communicate and speak in English while playing games with my friends as much as possible. I really think it is not easy, but we cannot learn until we try. I think we have made satisfactory progress as well”.

Based on the responses of the learners, another advantageous aspect of the instructiveness of the gameplays was fluent speaking. The participants mostly expressed a

noticeable difference in their speaking skills after gameplay sessions. To exemplify, participant 16 echoed:

“During gameplay sessions, I mostly fluently used my English, and I tried to use it fluently for wit. Besides, after attending the gameplays, I realized many important points for my speaking abilities to speak better”.

Participant 7 indicated: “I fluently used English using proper words”. In a similar vein, participant 2 clarified his thoughts: “I have developed my speaking performance gradually”. By implying her initial expectations and current situation, participant 15 indicated: “Before gameplays, I thought it would be efficient for my English, and playing the game had a very positive impact on my speaking; I realized I could speak easily”. She gave details about when she used English by saying: “I used my English while having written chats with my teacher in the chat part during the gameplay while giving details about our project and when the teacher asked to spell a word”. Finally, participant 12 stated: “Although I cannot talk in English very well, I tried to speak in English”.

The participants’ responses to playing the digital game made the participants gain a new perspective towards English since participant 1 stated: “Gameplays enabled me to reframe towards English”. Similarly, participant 11 expressed: “Before participating in this study, I found playing a digital game in English lessons a bit off; however, I think completely opposite now since English is a part of life”.

The responses of participants indicated that gameplays subsidized their pronunciation abilities as well. For instance, participant 6 implied: “Gameplays were good activities for improving pronunciation”. Regarding her pronunciation abilities, participant 10 indicated: “I tried to use English as far as I could, and I tried to speak in English with a proper pronunciation”.

Theme 3:

#### *Social and individual aspects of gameplay*

Formed as theme 3, “*Social and individual aspects of gameplay*”, specifies the participants’ thoughts regarding their English class routines. In this context, the participants mostly expressed that gameplays opened a new window in their language-learning process.

**Table 22***Gameplay Experiences of the Participants in the Experimental Group: Theme 3*

<b>Theme 3</b>	<b>Codes</b>	<b>f</b>
Social and individual aspects of gameplay	Cooperation	4
	Socialization	2
	Imagination	2
	Creativity	1
	Innovation in class routine	1

Table 22 displays the codes emerging from the data set based on the participants' responses regarding digital gameplaying on their social and individual developments. Thus, the data indicated that working in groups gave learners typical responsibilities while playing the game, resulting in cooperation. For instance, participant 5 expressed his feelings: "While playing the game, we shared good things among our friends". By implying her feelings regarding cooperation, participant 1 elaborated: "Although I felt stressed while speaking in English, it was good to do something with my friends". Participant 11 expressed: "I learned sharing again due to playing his game. I was afraid of not being able to share my ideas before gameplay sessions". Finally, participant 17 illustrated: "We both improved our English and got together with my friends".

Moreover, the data signified that the participants presumed they were social during gameplay sessions. To exemplify, participant 10 articulated: "While playing the game, I felt free and social since we communicated with our friends". Similarly, participant 6 indicated: "Gameplays affected our sociability".

Gameplays were assumed to be a triggering factor for learners' imagination and creativity as well. For instance, participant 14 echoed: "I am happy to design and reflect my imagination". In a similar vein, participant 11 illustrated: "While playing the game, I learned how to expand my imagination". Lastly, participant 10 mentioned: "While playing the game, my creativity has developed, and I tried to reflect it".

The data indicated that playing the digital game broke new ground for English classes as well. To illustrate, participant 3 defined gameplay as: "A new activity which we repeated in specific days one after the other made us rest and a weight off our minds".

#### 4.4.2. Willingness to Communicate in L2

The second part of the first semi-structured interview was aimed at collecting data regarding participants' insights about digital gaming and its effects. Thus, as the second main category, the participants' responses regarding digital gaming were elucidated based on the impacts on their WTC in L2. Incompatible with the answers, the themes were formed through consensus as: *WTC English out & in class, the more words, the higher level of WTC, the highest level of WTC during gameplays, and unwillingness to communicate during gameplays.*

Theme 4:

##### *WTC in English out & in class*

Theme 4, consisting of the participants' expressions, illustrates the effects of gameplays on their WTC in L2 in both out and in-class atmospheres.

**Table 23**

*WTC of the Participants in the Experimental Group: Theme 4*

<b>Theme 4</b>	<b>Codes</b>	<b>f</b>
WTC in English out & in class	Increased willingness to speak in English	8
	Speaking with friends	4
	Willingness to learn English	3
	Speaking everywhere	1
	Speaking with siblings	1
	Speaking with foreigners	1

Table 23 represents the codes in accordance with the responses of the participants regarding WTC. In this manner, most of the responses pointed out that the gameplays positively affected the participants' WTC in L2 out-class and in-class atmospheres. As Table 23 articulates, the participants' willingness to speak increased. To illustrate, participant 4 said: "Normally, I did not like speaking in English; however, after gameplays, I developed an English-speaking willingness". Participant 15 echoed: "After gameplays, I realized that my WTC in English increased, and I made more effort to communicate in English, which positively affected me". In parallel with it, participant 16 expressed: "Gameplays really

affected my WTC. I am the one who likes speaking, and those gameplays make me more enthusiastic about speaking in English”. Some participants expressed their increased WTC levels by giving reasons. According to participant 5, for instance, the rise in his WTC was due to a development in his writing and speaking abilities since he mentioned: “Gameplays affected my WTC because I can write the word that I hear directly, and I can speak better thanks to gameplays”. In a similar vein, participant 14 expressed: “I have already attended the gameplays to communicate in English, but now I can speak better since I have learned many things thanks to gameplays”. Participant 2 expressed: “Gameplays encouraged me to have a higher level of WTC, and after gameplays, my opinion has not changed”. Furthermore, participant 18 echoed: “Of course, my WTC has changed; at least my chatting desire in English has appeared”. Lastly, participant 10 expressed similar reasons for her WTC:

“Of course, gameplays increased my WTC since they enabled me to speak better. They assisted me in speaking with foreigners. I have a foreign friend, and talking with her makes me happy, and I feel one step ahead”.

The data indicated that the participants’ willingness to communicate with their friends strengthened as well. To illustrate, participant 9 echoed: “Although the difficulty of speaking English during the game made us sweat sometimes, it got better after the game and turned into fun among ourselves”. She deepened her opinion by saying, “While I was a person who was afraid to communicate, communicating with my friends increased my desire to communicate”. Similarly, participant 2 echoed: “Gameplays positively affected my WTC. For example, I made a few foreign friends via a social platform called *Discord*”. Moreover, participant 18 articulated: “Of course, gameplays affected my WTC. Before gameplays, I did not want English in my life, but now I have the desire to communicate with my friends in English”. Finally, participant 11 indicated as follows:

“Gameplays had an affirmative impact on WTC in L2 since even if I do not know all the details of any grammatical rules or words, I want to express myself and speak in English immediately. I was not ashamed when chatting with my English friends at school and home. After gameplays, my WTC has changed since I express myself regarding my current knowledge as far as I can instead of limiting myself to speaking in English due to lack of knowledge, which was what I did before”.

While only one participant expressed her WTC level through a slight change, one expressed that her WTC level did not differ after gameplay sessions. To illustrate, participant 17 thought she improved her WTC a little since she mentioned her point of view: “At the

beginning, I was terrified of speaking; however, my WTC has slightly increased then. However, only participant 13 thought her WTC had not changed after gameplays since she articulated: “Actually, gameplays did not affect my WTC much”.

Based on the participants’ responses, their willingness to learn English improved. To illustrate, participant 3 articulated: “Gameplays improved my English since, after those sessions, I wanted to learn English more since gameplays improved my English learning desire”. Similarly, participant 12 expressed: “After gameplays, my interest in English lessons has increased”. According to participant 15, she developed positive thinking toward English lessons since she said: “Both my WTC and my interest and affection to English were increased a lot. I feel I developed myself in that point”.

As the responses depicted, regarding increased WTC level, one participant illustrated that his willingness to speak in English was triggered to speak everywhere. Thus, to participant 3 indicated: “After gameplays, I had the desire to speak in English everywhere at any time”.

According to the responses of the participants, their willingness to talk with their siblings increased. In this context, participant 4 expressed: “Gameplays enabled me to speak in English more than normal. To illustrate, I tried to speak in English with my sister at home”.

Moreover, speaking with foreigners was prompted as the data depicted. Thus, participant 8: “During gameplays, I was eager while communicating, and after gameplays, I feel eager to communicate”. In a similar vein, she indicated that she formed a positive point of view on using English by saying: “I think I will comfortably communicate with foreigners.

Theme 5:

*The more words, the higher level of WTC*

Theme 5 articulates the participants’ identifications regarding the impact of gameplays on their WTC in L2 levels through vocabulary assistance.

**Table 24**

*WTC of the Participants in the Experimental Group: Theme 5*

Theme 5	Codes	f
	Using new words	3
The more words, the higher level of WTC	Transmitting unknown words	1
	Word translation	1

Table 24 illustrates the rise in WTC levels of the participants due to boosting their vocabulary through gameplay sessions. The data clarified that some participants agreed on the effect of expanded vocabulary on their WTC in L2.

Some participants indicated that their WTC levels increased since they learned new words and used them actively. To illustrate, Participant 10 expressed herself: “Gameplays assisted me to speak without hesitation. Besides, these activities like playing games are appropriate for students to explore their levels, expand their vocabulary, and improve sentence-making abilities”. Participant 7 echoed: “Gameplays increased my WTC in English since when I learned new words, I tried to use them in order not to forget and to utilize them. Besides, As I learned new words, my desire to speak increased”. Likewise, participant 12 articulated: “Normally, I do not have a good English level; however, when I started to learn new words, my WTC in English was getting higher”.

One of the participants expressed that gameplays triggered WTC by means of transmission of unknown words. Participant 17 identified her augmentation in her WTC in L2 by giving reasons such as: “Of course, gameplays positively affected WTC since while playing the game, I improved WTC in L2 since we, as friends, conveyed the unknown words to each other and it improved our vocabulary”.

Finally, according to one participant's expression, word translation in everyday life was encouraged. Therefore, participant 1 said: “I wanted to learn more English words, and I worked on translating the words I came across in my daily life by myself”.

Theme 6:

*The highest level of WTC during gameplays*

Theme 6 articulates the highest level of WTC in L2 of the participants during gameplays. Based on the participants' expressions, three categories representing stages emerged: “*During construction*”, “*while presenting the construction*”, and “*while answering the questions related to construction*”.

**Table 25***WTC of the Participants in the Experimental Group: Theme 6*

<b>Theme 6</b>	<b>Codes</b>	<b>f</b>
The highest level of WTC during gameplays	During collaboration	6
	Presenting	9
	Answering	3
	Always a high level of WTC	2

In Table 25, the participants' highest level of WTC is articulated regarding three stages that they passed through: during construction, presenting their construction, and answering the questions related to construction. Additionally, as the responses of the participants showed, some participants thought they had a high level of WTC regardless of stages in gameplays.

As a first stage, the participants thought they had the highest level of WTC while collaborating to construct. For instance, participant 4 indicated: "I had the highest level of WTC when I talked with my friends while constructing". Similarly, participant 11 stated: "I was eager to speak when we determined the day's topic and when I was collaborating with my friends". Participant 18 elaborated: "I was eager to speak while leading a question to my friends while collaborating". Participant 16 indicated: "While we were constructing with my friends, I like communicating that way". Participant 3 depicted, "Being one who has known the game before, I felt happy when I said the English equivalent of the item when they do not know it". Lastly, participant 17 indicated: "I wanted to communicate with my friends when I got the sentences during construction".

For the second stage, the participants' answers indicated they felt they had the highest WTC level when they mostly told their constructions. To illustrate, participant 1 expressed: "If I found my construction good, I felt the motive to mention it". Likewise, participant 6 echoed: "I had the highest level of WTC while I was mentioning how I constructed and listening to my friends' presentations after I finished my construction". Participant 9 expressed: "I suppose I was more eager to speak about the constructions that I thought of and turned it out a construction. Sometimes, making comments on my friends' buildings". Participant 11 stated: "I had the highest WTC when I was expressing my building to my teacher". Participant 18 expressed: "I was eager to speak when I mentioned my work to my

teacher after finishing my construction”. Participant 14 voiced: “While I was telling the structures that I built by myself, I had the highest level of WTC since I want to tell so much”. Participant 13 articulated: “After finishing my construction, introducing my construction was the moment that I liked most”. Participant 15 expressed: “I had the highest level of WTC while I was telling my building to my teacher”. Finally, participant 7 articulated: “I had the highest level of WTC when I was building and presenting my building”.

Regarding the third stage, answering questions related to construction, participant 2 expressed: “I felt most eager to speak in English when I was asked to answer a question related to my work”. Likewise, participant 5 indicated: “I was so eager when I was talking with my teacher since I was thinking as if I would say the correct or wrong word, and so, I was so willing to communicate”. Finally, participant 10 articulated: “I was eager to speak when I could comfortably express myself”.

For having high level of WTC in all three stages, participants 6 and 15 designated their WTC through similar expressions as: “I always had a high level of WTC”. Participant 6 gave a reason for his high level of WTC by saying: “Since every second of the activity was delightful”.

Theme 7:

#### *Unwillingness to communicate during gameplays*

Theme 7 indicates the participants’ unwillingness to communicate in English during gameplays in accordance with the reasons that they mentioned. In this sense, two phases were formed: “unknown words” and “unfamiliar topic” regarding the participants’ responses.

**Table 26**

*WTC of the Participants in the Experimental Group: Theme 7*

<b>Theme 7</b>	<b>Codes</b>	<b>f</b>
Unwillingness to communicate during gameplays	Unfamiliar words	6
	Unknown topics	2

Table 26 visualizes the participants’ unwillingness to communicate by means of the lowest level of WTC they had during gameplay sessions with reasons for it. The data designate that participants were not eager to communicate in English occasionally. The first occasion was formed through a consensus: *Unfamiliar words*, and the second was: *Unknown topics*

The first occasion, unfamiliar words, described that when learners did not know or could not remember the words related to the topic, they had lost their WTC. As participant 2 echoed: “I lost my WTC when I could not find the word that I needed to speak since I could not speak”. Similarly, participant 3 articulated: “It was difficult for me to express myself through words and sentences that I did not know in English”. Participant 7 elaborated: “If I had an unknown word, I told myself: Never mind, let’s not tell”. In a similar vein, participant 14 expressed: “Unfortunately, my WTC lessened when there were unknown words”. Participant 10 clarified the topic by adding her awareness regarding her experience: “When I have struggled to express myself and my construction, I feel reluctant to speak. Learning a new language is not trouble-free; it really challenges”. Lastly, participant 17 echoed: “I did not want to communicate when there was a sentence or word either I did not know or understand”.

The second occasion, unknown topics, indicated that when learners were unfamiliar with the topic, they felt they were not eager to speak. To exemplify, participant 1 expressed: “I became reluctant when I did not have an idea related to the subject”. Moreover, participant 4 indicated: “I feel I had the lowest level of WTC when my teacher led me to a question that I did not know the answer”.

#### **4.4.3. Affective Factors**

The third main category of the first semi-structured interview was related to the participants’ digital gameplaying and its effects on their affective factors. Thus, the third part of the semi-structured interviews was prepared to get the participants’ insights about affective factors: L2 speaking anxiety, motivation, self-confidence, risk-taking together with their gameplay experiences. In this sense, the affective factors are described individually below.

##### **4.4.3.1. L2 Speaking Anxiety**

The third part of the first semi-structured interviews was prepared to get the participants’ insights about affective factors and gameplays. Therefore, the theme regarding it is presented below:

Theme 8:

*Descending L2 speaking anxiety*

Theme 8 articulates the participants' L2 speaking anxiety levels as a result of digital gameplaying.

**Table 27**

*Descending L2 Speaking Anxiety*

Theme 8 articulates the impact of gameplays on the participants' L2 speaking anxiety levels. The responses of the participants covered the factors that decrease their L2 speaking anxiety levels.

<b>Theme 8</b>	<b>Codes</b>	<b>f</b>
Descending L2 Speaking Anxiety	Fear of mistake	9
	Learning new words	1
	Awareness in English	1

In Table 27, the L2 Speaking anxiety of the participants is presented. The data revealed that the participants' L2 speaking anxiety levels sharply decreased through gameplays. Some participants explained their status by associating L2 speaking anxiety with other affective factors and WTC in L2. As they indicated, their fear of making mistakes lessened through gameplays. To illustrate, participant 3 expressed: "After gameplays, my self-confidence level has increased, which triggered my WTC positively; thus, I have been willing to talk always, which lessened my L2 speaking anxiety". Similarly, participant 15 echoed: "I have overcome all my anxiety, tension, and stress. I can speak better now". Participant 12 touched on the topic: "Before gameplays, I was shy in case I did something wrong, but due to gameplays, I started to talk anyway". Participant 11 summarized her situation: "Before gameplays, I felt anxious about being disgraced while reading a text loudly or answering a question. However, reading and answering a question makes me happy. I feel I have developed myself". Likewise, participant 13 made a self-evaluation: "Before gameplays, I could not express my opinions, but I can now". Participant 5 expressed: "Now I can speak in English without being afraid". According to participant 16: "Before gameplays, I paid more attention to grammatical rules since if I missed a point, I thought I could never speak. I was not comfortable. However, I only think once or twice now". Moreover, participant 9 explained her L2 speaking level during gameplays by saying: "Gameplays sometimes have increased my L2 speaking anxiety and

sometimes vice versa. When I sometimes say, I mean the time that I did not know the words and topic”. Finally, in participant 18’s perspective, the moment that increased their L2 speaking anxiety was: “When my teacher asked a question, I was afraid of making a mistake or misunderstanding the question”.

One of the participants thought that when he boosted their vocabulary, it lowered his L2 speaking anxiety level. To illustrate, participant 7 expressed: “As I learned new words, my L2 speaking anxiety has decreased”.

Meanwhile, another participant indicated that his and his friends’ interest in English might be the reason for the low level of L2 speaking anxiety due to increased awareness. For instance, participant 6 indicated: “I think my and my friends’ L2 speaking anxiety have disappeared since some of my friends gained an awareness in English”.

#### 4.4.3.2. Motivation

The second affective factor is presented as motivation; therefore, the theme related to motivation is articulated below.

Theme 9:

*A motive to produce English*

Theme 9 depicts the participants’ expressions, including the source of motivation they started after gameplay sessions.

**Table 28**

*A Motive to Produce English*

Theme 9	Codes	f
A motive to produce English	High level of motivation to speak	6
	Feeling like the best speaker	2
	Friends’ talking	2

Table 28 illustrates the participants’ responses regarding the gameplay sessions and motivation. Incompatible with the participants’ replies, participants’ high level of motivation triggered their speaking. To illustrate, participant 10 echoed: “When I realized that I could speak, my motivation level increased as well”. Similarly, participant 13 mentioned: “Gameplays increased my motivation since now I can speak more comfortably, and my

vocabulary has expanded”. In a similar vein, participant 4 identified his source of motivation as: “I want to speak in English more now”. Participant 5 touched on the topic: “Now I can speak in English easily, my motivation increased”. Participant 11 expressed: “Gameplays increased my motivation since I could pronounce words correctly, and while speaking, I could use the appropriate words while writing”. Finally, participant 14 expressed: “I learned the more I could talk, the more my motivation”.

The data indicated that the participants’ desires to use English changed since, according to their responses, some participants concluded that they could use English regardless of their levels. They felt as if they were really good at English. To exemplify, participant 2 expressed: “Gameplays positively affected my English speaking and learning motivation since while I am talking in English, I feel like I am the best English speaker”. Likewise, participant 3 touched on the topic by expressing: “Gameplays make me think if I tried more, I would feel as if I was the best English speaker”.

Two participants expressed their motives as their friends’ English speaking. For instance, participant 17 articulated: “At the beginning, I had hard times, but everybody was talking in English, and it affected me positively”. In parallel with this expression, participant 1 clarified: “Gameplays affected my motivation positively. While my friends were talking in English, I felt inadequate; thus, I tried to focus on that issue”.

#### **4.4.3.3. Self-confidence**

The third part of the semi-structured interviews was prepared to get the participants’ insights about affective variables and gameplays. Therefore, the theme regarding self-confidence is publicized below.

Theme 10:

##### *Developing linguistic self-confidence*

Theme 10 identifies the participants’ linguistic self-confidence after gameplay sessions incorporating their manners towards the English language. In this context, the participants’ expressions consisted of the effect of gameplay sessions on their self-confidence levels.

**Table 29***Developing Linguistic Self-confidence*

<b>Theme 10</b>	<b>Codes</b>	<b>f</b>
Developing linguistic self-confidence	Getting rid of negative emotions	8
	Getting adapted	4

In Table 29, the participants' replies about self-confidence are visualized. The responses to the participants illustrated that gameplays assisted them in increasing their self-confidence levels in general.

Some of the responses consist of reasons for having increased self-confidence as a result of eliminated negative emotions. To illustrate, participant 14 articulated: "At the beginning, I was timid, but gameplays affected my self-confidence in a positive way. Since it increased, I am not timid anymore". Participant 16 shared his feelings based on his experience: "Gameplays had a massive impact on my self-confidence since I have learned to be relaxed while talking". In parallel with that explanation, participant 13 made an approximate expression: "Gameplays affected my self-confidence since I can speak more comfortably now, but I could not at first". In a similar way, participant 12 echoed: "Gameplays positively affected my self-confidence since now I do not feel shy even if I say something inappropriate, I do not try to correct myself". Participant 15 expressed: "I always had self-confidence, but I was afraid of making mistakes while speaking or writing, but in this process, I realized that my self-confidence increased even more and had an extremely positive effect on me". Participant 1 mentioned her belief: "My self-confidence level has increased, yet I am still timid. I think my self-confidence will improve better when I put an emphasis on English". Participant 14 indicated: "I learned how to cope with my stress and anxiety".

Lastly, according to participant 11, gameplays made an impressive impact on her since she articulated:

"Now, instead of listening, I want to tell myself and make people listen. For example, making a presentation in English was something that made me nervous, but now I can do it every day because I have things to tell and present".

The data indicated the participants' comparisons about their previous and current self-confidence levels as an explanation for their adaptation. To illustrate, participant 4 summarized his ideas: "I do not avoid talking in English anymore". Likewise, participant 17 expressed: "At

the beginning, my self-confidence was low since I thought that I would not answer questions like my friends, but after a while, I got used to the situation, and my self-confidence increased”. Meanwhile, participant 9 gave a close expression: “I think my self-confidence in English has increased. I am trying to say something, even if it is wrong”. Lastly, participant 2 indicated: “Gameplays affected me positively because, before that process, I used to think that no one would understand me”.

#### 4.4.3.4. Risk-taking

The third part of the semi-structured interviews was prepared to get the participants’ insights about affective factors and gameplays. Therefore, the theme is illustrated below.

Theme 11:

#### *Risk-taking in English*

Theme 11 indicates the participants’ risk-taking abilities while talking in English after gameplays incorporating the effects of gameplays on their risk-taking abilities.

**Table 30**

#### *Risk-taking in English*

<b>Theme 11</b>	<b>Codes</b>	<b>f</b>
Risk-taking in English	Getting rid of negative feelings	6
	Speaking by inferencing	2
	Speaking with mispronunciation	1
	Participating English class	1

Table 30 displays the codes for risk-taking emerging from the data set based on the participants’ responses.

Some participants mentioned that overcoming their negative feelings encouraged them to speak in English, which means taking risks for them, and it resulted in a high level of risk-taking. For instance, participant 6 expressed his current level: “Gameplays affected my risk-taking ability since now I can talk easily”. Likewise, participant 9 made a comparison of her speaking and writing abilities before and after gameplays by indicating: “Before gameplays, I only felt comfortable while writing, but now I feel more relaxed and calmer while speaking as well”. Participant 15 commented, “Gameplays affected my risk-taking capacity by reminding me that I do not have to avoid speaking in English and making any mistakes”.

Most participants thought that speaking was the most significant risk in English. However, according to participant 11, speaking and writing were risk factors. To illustrate, participant 11 mentioned:

“I have already mentioned my speaking desire. Our freedom to use the chat area in the game was to be able to use that area as we wished. I also found my limit and developed myself by using it actively. It was the best risk I took”.

Likewise, participants 1 and 17 mentioned their concerns about productive skills in English before gameplays and their current thinking. To exemplify, participant 1 articulated: “Of course, I had concerns about that topic, but after a while, I got used to talking and writing in English”. Participant 17 echoed: “I was petrified at first, but then I got used to taking a risk, and I will get used to it more in time”.

As the data depicted, word knowledge played a role in participants’ risk-taking ability since participant 7 expressed: “After gameplays, I can take a risk even if I do not know the exact meaning of the word; interpreting the meaning of the word is enough for me now”. Similarly, participant 4 indicated: “I do not avoid making a sentence that I am going to say even if there is an unknown word”.

The data regarding risk-taking demonstrated that the participants thought they took the biggest risk when they talked in English. To illustrate, participant 10 echoed: “Gameplays affected my risk-taking ability since I tried to speak by using the word without knowing the exact pronunciation”.

One participant indicated that participating in lessons was the most considerable risk for him. Thus, participant 2 indicated: “I am taking risks by raising my hand in English lessons to speak”.

#### **4.5. Follow-up Semi-structured Interviews: Perception of Students with Declining / Stable scores**

To reach greater specifications, follow-up semi-structured interviews were conducted with the participants who had either a decline or stability in their post-test scores based on the questionnaire compromising of WTC in L2 and affective factors. Therefore, follow-up interviews were grounded on the participants’ beliefs and justifications, incorporating the steadiness and decrease in their scores. In this vein, the participants with any decline/stability in their WTC in L2 and affective factors scores were asked to justify their results. After

transcribing the interviews, the researcher analyzed the data considering Braun and Clarke (2012)'s guidance by creating codes and reaching themes. Two researchers formed a consensus on codes and themes.

Based on the follow-up interviews' analyses, most of the participants specified that they were satisfied with the gameplays and those sessions were fruitful for them to improve their WTC in L2 with their English skills and affective factors. Furthermore, most participants explained the decline (except L2 speaking anxiety levels) in their post-test scores due to immediate feedback via questionnaires since most of them clarified they increased their WTC in L2 and affective factors (except L2 speaking anxiety). As formed by a consensus, the themes were determined as: "*experience-based fluctuations*" and "*individual barriers*".

Theme 1:

*Experience-based fluctuations*

Theme 1 articulates the reasons the participants gave for describing the decline in their motivation, self-confidence, risk-taking, and WTC in L2 levels, together with the increase in their L2 speaking anxiety levels. To clarify their answers, most of the participants mentioned their experiences, including describing their feelings during gameplay sessions, which impacted their post-test scores.

**Table 31**

*Follow-up Interviews: Theme 1*

<b>Theme 1</b>	<b>Codes</b>	<b>f</b>
Experience-based fluctuations	Focusing on the gameplay	2
	Fear of mixing words	1
	Fear of the inappropriate word	1
	Repetition of topics	1
	Anxiety towards questions	1
	Shyness in speaking	1

As Table 31 states, the participants in the experimental group articulated their feelings while playing the digital game by stating reasons for the decrease in both their affective factors and WTC in L2 levels.

Two participants indicated that they were engrossed in playing the game rather than talking or writing in English; therefore, they asserted it as a justification for their WTC in L2 in digital environment scores. Regarding his stable score, participant 2 expressed: "While

playing a game, we are doing something in the game, for example. While doing something, I focus on what I am doing. That's why I cannot talk much. For example, writing... it is the same because I can only do the work I focus on". Likewise, participant 6 echoed: "I think it might be because we're focused on the game, a little bit more focused. I think it's probable because we are focused; that is, not everyone is talking to each other when we are building".

Regarding mixing up the words, participant 7 elaborated on his L2 speaking anxiety score: "It increased because, for example, I know how to read some words. As you remember, you told me the word "button", but I understood it something different, you know, I do not know how to say the word in English, but I can realize it when it is written".

In terms of using inappropriate words in a sentence, participant 3 indicated a decrease in his self-confidence level: "Making wrong sentences or having trouble in saying unfamiliar words, I think this lowered my self-confidence a bit".

Participant 9 expressed the stable scores in her WTC in L2 in the digital environment and motivation levels in accordance with the repetition of topics by stating: "We continued the same topic for 1-2 weeks. I expressed my opinion in the first week, I built my structure, and the next week, I pulled back when I could not think of anything".

In terms of her anxiety towards a question, participant 17 specified her stable L2 speaking anxiety score: "My English is not very good. Besides, I do not like English much. While we were playing the game, you came up with a question and asked, and there were sentences that I did not know. There were things that I did not understand. I was very worried about how I would answer, and so on".

To enlighten his risk-taking and WTC in L2 face-to-face environment scores, participant 5 articulated his shyness as: "Before we played Minecraft, we could not talk much, but when we played Minecraft because I talked more, the embarrassment increased".

Theme 2:

### *Individual Barriers*

Theme 2 expresses the participants' attitudes toward playing Minecraft during implementation. The participants expressed their personal concerns regarding their anxiety while speaking and fears while choosing proper words, which led to a decline in their WTC in L2 and risk-taking levels.

**Table 32***Follow-up Interviews: Theme 2*

<b>Theme 2</b>	<b>Codes</b>	<b>f</b>
Individual Barriers	Hesitation in speech	1
	Anxiety in speech	1
	Fear of being misunderstood	1
	Fear of making a sentence	1

As seen in Table 32, the participants' worries during gameplays are articulated. In this context, participant 1 expressed the decrease in her risk-taking levels by stating: "There is such a thing as expressing myself incorrectly in a crowd. I hesitated and held back in case I could not speak in a proper way".

Participant 4 specified the decline in his WTC in L2 in face-to-face environments by stating: "I feel anxious; actually, I am afraid to talk". Likewise, participant 8 indicated the stabilization in her WTC in L2 in face-to-face environment levels: "I am afraid I will not be able to speak English because my English is bad, so I say the wrong thing to the other person in case he/she is offended". Lastly, regarding the stable scores in his WTC in L2 in face-to-face environments level, participant 17 stated: "My English is still not good. In addition, I fear making a wrong sentence; thus, I do not want to speak".

#### **4.6. RQ5. Do digital games have any impact on the English language use of Turkish EFL learners?**

- a. Is there a significant increase in the quantity of language that Turkish EFL learners produced in the experimental group at the beginning and the end of the study?**

To answer the first part of RQ5, descriptive statistics and paired-samples T-test were conducted to compare the mean scores of the experimental group's English language use in terms of quantity. The participants' written chat scripts and voice recordings of the first and the last week of gameplays were employed to reach the results. The voice records were transcribed together with interlocutors to make the data set. Then, each word in English produced by the interlocutors was counted and enlisted for both the first and last weeks of the gameplays, which had two sections as in-class and out-class activities. Likewise, the interlocutors' words in English were counted based on written and oral data. After the number of English words of interlocutors was determined, descriptive statistics and paired-samples T-tests were conducted.

**Table 33**

*English Use of the Participants in the Experimental Group in the First and the Last Weeks of the Gameplay*

		<b>M</b>	<b>N</b>	<b>SD</b>	<b>SEM</b>
Pair 1	The first week of the oral chat script	47.44	18	61.432	14.480
	The last week of the oral chat script	60.83	18	86.822	20.464
Pair 2	The first week of the written chat script	1.22	18	3.623	.854
	The last week of the written chat script	11.33	18	28.029	6.607

Table 33 indicates the mean scores of written and oral English language use of the participants in the experimental group in terms of quantity. According to the table, the mean score of oral language in the first week ( $M = 47.44$ ,  $SD = 61.432$ ) was lower than the last week's mean score ( $M = 60.83$ ,  $SD = 86.822$ ). Similarly, the first week's mean score of written language use of the participants was lower ( $M = 1.22$ ,  $SD = 3.623$ ) than the last week's mean score ( $M = 11.33$ ,  $SD = 28.029$ ).

**Table 34**

*The Comparison of Written and Oral English Use of the Participants in the Experimental Group Based on the First and the Last Weeks of Gameplay*

		<b>M</b>	<b>SD</b>	<b>SEM</b>	<b>t</b>	<b>df</b>	<b>p</b>
Pair 1	The first week of the oral chat script	-13.389	73.346	17.288	-.774	17	.449
	The last week of the oral chat script						
Pair 2	The first week of the written chat script	-10.111	26.782	6.313	-1.602	17	.128
	The last week of the written chat script						

Table 34 articulates the paired-samples T-test results of the participants' written and oral use of English in the first and the last week of gameplay. As Table 34 indicates, there was no statistical difference between the mean scores of the first ( $M = 47.44$ ,  $SD = 61.432$ ) and the last week's ( $M = 60.83$ ,  $SD = 86.822$ ) oral language use of the participants ( $t(17) = -0.774$ ,  $p = 0.449$ ). Likewise, the table reports no significant difference between the mean scores of the participants' written English use in the first ( $M = 1.22$ ,  $SD = 3.623$ ) and the last week ( $M = 11.33$ ,  $SD = 28.029$ ) of the gameplay ( $t(17) = -1.602$ ,  $p = 0.128$ ).

**b. What is the quality of the English language that Turkish EFL learners produced in the experimental group at the beginning and at the end of the study?**

To answer the second part of RQ5, the participants' written chat scripts and voice records during gameplay were transcribed and analyzed in terms of quality. Therefore, participants' word choices, tense markers, phrases, and sentences were examined in both oral and written scripts. Based on the first and last week of written and verbal data sources, the frequency table is shown below.

**Table 35**

*The Participants' Written and Oral Use of English in the First and the Last Weeks of Gameplay*

	The first week		The last week	
	Written	Oral	Written	Oral
<b>Word choices</b>				
Simple words	1	5	1	1
Sophisticated words	1	12	4	41
<b>Sentence</b>				
Full sentence	2	59	18	124
Uncompleted sentence	-	67	-	22
Ungrammatical sentence	1	36	4	9
<b>Tense marker</b>	-	3	1	31
<b>Set phrases</b>	3	309	2	100

Table 35 articulates the frequencies of produced utterances by participants according to written and oral data sources. When the voice records were examined, the use of the Turkish language was clearly seen in the first week compared to the last week of the implementation. Although the participants attempted to speak in English, their speech mainly ended in Turkish. Therefore, in the first week, the researcher was the one who spoke more; however, the scenario changed in the last week.

In last week's written chats, the participants' responses were more frequent, and they used the written conversation without waiting for the researcher's leadership to produce longer sentences than the first week. As seen in Table 35, while the number of sentence-based utterances was increasing, phrase and chunk-based ones, in other words, set phrases, were decreasing in the last week. Likewise, the participants' word choices and tense aspect usages in the sentences developed in the last week of the implementation process.

When the first-week scripts were analyzed in a detailed way, the word choices of the participants indicated they formed their speeches by selecting simple words such as "weather energy, solar energy, and sun panels" than specific, in other saying, sophisticated words like "dream, alone, warship and fire". For instance, the participants used the simple words "sun energy and sun panels" instead of saying "solar energy" or "solar panels". Moreover, they produced "weather energy" by implying wind energy. The dialogue below, between the researcher and participant 10, represents simple word usage.

[00:30:00 Participant 10]: This is *sun* renewable *energy*.

[00:30:02 Teacher]: I saw panels.

[00:30:0 Participant 10]: Yes, *sun panels*.

On the other hand, the dialogue between the researcher and participant 2 is given as an example to illustrate the use of a more sophisticated word: "warship".

[00:22:07 Teacher]: So, what are you going to do?

[00:22:07 Participant 2]: *Warship*

The whole sentences were attempted to be articulated, although the participants initiated their sentences in English; either they mixed them with Turkish, or they could not correctly end them due to grammatical mistakes. Thus, according to the data, the number of uncompleted sentences was higher than the number of complete sentences. To illustrate, a dialogue between participants 15 and 16 demonstrated that their verdicts could not follow the grammatical rules even if they were produced in English.

[00:21:25 Participant 15]: Where are you? You helping.

[00:21:28 Participant 16]: I be I'm ever not. I'm not. I can't. I can't.

Similarly, in the following dialogue, the participants needed help to complete their sentences using English since they made translanguaging by switching to Turkish.

[00:19:44 Participant 2]: Close

[00:19:48 Participant 16]: Not. Yes, yes, yes...

[00:19:52 Participant 16]: is one.. hatta... no, no, stop, stop.

[00:19:57 Participant 9]: Sunucu problem

[00:20:00 Teacher]: Is there a problem there?

[00:20:04 Participant 9]: No, sunucu problem

In a similar vein, in the following dialogue among participants 3, 4, and 16, the sentences could only be finished by turning to English.

[00:17:19 Participant 4]: Baki is...

[00:17:21 Participant 16]: What the.. what do you ? Speak English

[00:17:25 Participant 3]: She wants.. ne o.. dur

In terms of using tense aspects such as the second version of the verb in past tenses and adding -ing at the end of the verbs regarding continuous tense based on the markers, the participants preferred simple past tense markers. To illustrate, the dialogue between the teacher and participant 16 indicates the use of a past tense marker.

[00:37:01 Teacher]: Unfortunately, the time is up.

[00:37:16 Participant 16]: I finished!

Learners used set phrases consisting of one or two exact words and used them many times instead of making complete sentences. The participants preferred producing one or two-word answers such as “OK, yeah, look at, stop, I finish, find me, follow, nice and very good”. Furthermore, they warned each other by saying “speak English” many times. Besides, they tried to ask the other participants’ game nicknames by asking, “Who is using ....? more than once. Lastly, they switched languages from English to Turkish by demanding translanguaging to feel more fluent during speech. To illustrate, a dialogue among participants 2, 9, and 16 signified the use of set phrases. Especially in the first week, participants mostly preferred set phrases. A sample dialogue between participants 2 and 16 is presented below.

[00:19:44 Participant 2]: Close

[00:19:48 Participant 16]: Not. Yes yes yes

[00:19:52 Participant 16]: is one.. hatta no no stop stop

[00:19:57 Participant 9]: Sunucu problem

[00:20:00 Teacher]: Is there a problem there?

[00:20:04 Participant 9]: No, sunucu problem

When last week’s chat scripts were analyzed in terms of the participants’ word choices, the number of sophisticated words such as “traffic jam, security, experience, purpose,

supernatural, technological world, technological change, liter rubbish, mistake, and bottle cycle” was higher both in written and oral chats. In contrast, the simple words were less unlike the first week. The dialogue between participant 6 and the teacher is an example of using sophisticated words, “quit and air pollution”, by participant 6.

[00:03:15 Participant 6]: Teacher,

[00:03:15 Participant 6]: I want to try *quit air pollution*

[00:03:21 Teacher]: Good! So you want to change, eliminate air pollution

On the other hand, a dialogue between the teacher and participant 16 indicates using the simple word “house book” by participant 16.

[00:20:05 Teacher]: What is the meaning of this book for disabled people?

[00:20:10 participant 16]: is for... eye... *house book*

The last week’s data indicated that the participants could produce longer sentences in English compared to the first week. Moreover, they could follow grammatical rules better than in the first week. Therefore, the number of whole sentences was higher in the last week. The data revealed that participants 6, 10, and 11 produced longer sentences in English than other participants in the last week. To illustrate, the dialogue between participant 11 and the teacher indicates the use of full sentences by participant 11.

[00:02:18 Teacher]: Would you do if you were a hero?

[00:02:24 Participant 11]: He’s fighting over world... for world.

[00:02:32 Participant 11]: He tried to save the people.

In a similar vein, the dialogue between participant 6 and 11 is given as an example of the use of complete sentences below.

[00:36:00 Participant 6]: I am hero

[00:36:05 Participant 11]: You have just said you are a hero

Lastly, the dialogue between participants 6 and 10 indicates using a long full sentence.

[00:28:34 Teacher]: Railroad, or just a main road highway or railway?

[00:28:40 Participant 6]: Rail

[00:28:36 Participant 10]: It’s not that.

[00:28:42 Participant 10]: We tried to make

[00:28:43 Participant 10]: A railroad, but we cannot do car

Although the sentences in the last week were longer and more complete in English, some sentences could not be completed in English, or they could not follow the grammatical rules. The dialogue between participants 10 and 16 indicates using uncompleted sentences.

[00:31:14 Participant 16]: No. Don't. You should

[00:31:20 Participant 10]: Once you big people

[00:31:19 Participant 10]: Thank you, thank you

Likewise, the dialogue between participant 11 and the teacher is an example of using ungrammatical sentences by participant 11.

[00:03:51 Teacher]: What would you change if you were a hero?

[00:03:55 Participant 11]: Hero.. mm.. is save the world.

The last week's data revealed that the participants produced tense markers more effectively than in the first week since, apart from past tense markers, the data included present tense, future tense, continuous tense, and perfect tense markers. In the following dialogue between participant 11 and the teacher, the use of the present perfect tense marker can be seen.

[00:19:41 Participant 11]: We have done and working for another one

[00:19:42 Teacher]: Yeah, I know.

The use of a present tense marker within a precise grammatical rule is given as an example through a dialogue between participants 7 and 10.

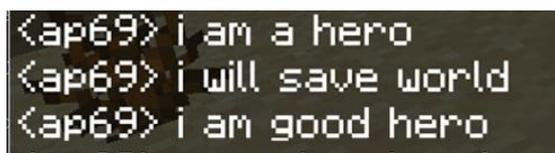
[00:15:30 Participant 7]: Skandar, which helps me

[00:15:31 Participant 10]: Cheating. No one deserves

Lastly, a future tense marker is used, shown in Figure 11 below in the written chat data.

### Figure 11

#### *The Use of Future Tense Markers in Written Chat*



```

<ap69> i am a hero
<ap69> i will save world
<ap69> i am good hero

```

In last week's data, the use of set phrases consisting of one- or two-word repetitive chunks was seen less than in the first week's data. Instead, the participants tried to express themselves by producing whole sentences. The typical set phrases of last week's data were

“come on, yeah, yes, no, code, join code, one minute, good, I like it, speak English and look at”. In the following dialogue, the use of set phrases is illustrated.

[00:15:07 Participant 7]: One minute! Look!

00:15:12 Participants 16 and 7]: Yes

[00:15:08 Participant 7]: The god will make



## CHAPTER V

### DISCUSSION, CONCLUSION, AND IMPLICATIONS

This section presents the discussion part of the study corresponding to the results regarding related research questions. The conclusion is articulated to end the study, and pedagogical implications are declared for educators for further studies. The study was conducted as an explanatory sequential mixed-methods study that aimed to measure the effects of the digital game on Turkish EFL learners' WTC in L2 and affective factors (L2 speaking anxiety, motivation, self-confidence, and risk-taking ability). Moreover, the study intended to examine the effects of digital gameplaying on learners' L2 usage in terms of evaluating English language use based on quantity and quality. The qualitative part of the study was employed to explore the participants' perceptions in the experimental group to deepen the quantitative results of the study, which were gathered first.

#### 5.1. Summary and Discussion of the Results

The study measuring the effects of playing a digital game on learners' WTC in L2 levels, affective factors, and quality and quantity of English use was conducted in a state high school in Gaziantep, Turkey, between the 2021-2022 academic years. The participants of the study consisted of 36 students whose ages ranged from 16 to 17 in two contact 10th-grade classes. The participants in two intact classes were assigned as experimental and control groups, with 18 students in each group. To conduct the study, a ten-week-long implementation process was designed based on digital gameplaying twice a week with the experimental group as an integration into English instruction. In contrast, the control group carried on traditional instruction during that process. The questionnaires comprising WTC in L2 as digital and face-to-face environments and affective factors were applied as a pre-test before the implementation and a post-test after the implementation process to measure the impacts of gameplaying. The voice records of the participants in the experimental group were analyzed together with written chats used during gameplay sessions to scrutinize the English language use of the participants in terms of quality and quantity. For the qualitative part of the study, the semi-structured interviews held with the experimental group were analyzed. To analyze quantitative data, SPSS 18 and 22 were used for descriptive statistics, paired-samples T-test, and one-way between-groups ANOVA. To analyze qualitative data, a thematic analysis was done.

The findings of the study illustrated that the participants' overall WTC in L2 levels increased after gameplay sessions. Additionally, as the results demonstrated, the WTC in L2

levels of the participants were raised both in digital and face-to-face atmospheres due to gameplays. In terms of affective factors, the results indicated that the participants' L2 speaking anxiety levels declined after gameplay; however, motivation, self-confidence, and risk-taking levels did not differ. The results reflected that while the English language use of the participants did not change in quantity, in terms of quality, the use of sentences and choice of words developed through digital gameplaying. The comprehensive summary of the study is given in the following parts, along with a discussion of the results of a related research question.

### **5.1.1. WTC in L2**

In the study, the first and second research questions aimed to measure the participants' WTC in L2 levels. The first and second research questions were analyzed in the scope of quantitative research analyses. Moreover, the fourth research question was addressed to enlighten the study's quantitative findings through a qualitative perspective covering the thoughts of the participants in the experimental group regarding WTC in L2.

The overall WTC in L2 levels of the participants were measured before and after the implementation process through the WTC in L2 questionnaire applied as pre and post-test. The ANOVA results of the post-test scores of the experimental and control groups indicated a significant difference [ $F(1, 34) = 5.419, p = 0.026$ ] since the mean score of the experimental group ( $M = 3.99, SD = 0.64$ ) was higher than the control group's ( $M = 3.51, SD = 0.58$ ).

The study's findings highlighted that playing the digital game as an integration to English classes positively impacted participants' WTC in L2 levels. Within the scope of increasing WTC in L2 levels of the participants through digital game playing, the findings of the current study are compatible with recent studies (Reinders & Wattana, 2012, 2014) carried out in the Thai context investigating the effects of gaming on the WTC levels of the participants. In the study conducted by Reinders and Wattana (2012), a digital game was played by fourth-grade undergraduate learners at a university in Thailand for 16 weeks in the scope of regulated tasks. The study's results revealed that the participants' WTC levels increased due to gameplaying. In a similar vein, a study investigating the digital gameplay experiences of five Thai students at a university covering 15 week-long gameplays revealed that playing digital games triggered the participants' WTC levels.

Similarly, in terms of employing digital games and digital atmospheres as a part of instruction, the findings of the present study correlate with other latest studies (Henry & Thorsen, 2019; Horowitz, 2019; Kartal & Balçıkanlı, 2018; Yeh et al., 2017) conducted in

varied contexts to examine digital gaming and WTC levels of the participants. To exemplify, Henry and Thorsen (2019) conducted a study in a Swiss context with 7<sup>th</sup>-grade immersion participants through digital game playing in groups. The results indicated that the participants' WTC levels were fostered through a feeling of success and pleasure aroused from the game environment. A mixed-methods study conducted in a Turkish context by Kartal and Balçıklanlı (2018) with 65 first-year university students through completing virtual tasks specified virtual atmosphere had the potential to develop WTC levels of the participants. Likewise, the study by Yeh et al. (2017) with 39 undergraduate participants to examine digital game-based learning (DGBL) through activities based on game-based learning indicated that DGBL had beneficial impacts on the participants' WTC levels.

Based on the findings of the current study, playing a digital game was determined as a prompter for increased WTC in L2 levels of the learners. Regarding the use of digital games, the study's findings support Horowitz (2019)'s study, which was conducted in Puerto Rico with 76 students. The results implied that the WTC levels of the participants were affected by time spent on video games. In the light of the findings of the present study, it can be assumed that spending more time on gaming would result in a higher level of WTC in L2.

Within the scope of the second research question, the WTC in L2 level of the participants in the experimental group was analyzed to compare whether there was a difference in WTC in L2 in face-to-face and digital environments. The paired-samples T-test results of WTC in L2 in face-to-face environments ( $t(17) = -2.561, p = 0.020$ ) stated that there was a significant difference between the participants' mean scores of the pretest ( $M = 3.43, SD = 0.82$ ) and post-test ( $M = 3.72, SD = 0.78$ ) results. Additionally, the paired-samples T-test results of the WTC in L2 in digital environments ( $t(17) = -2.656, p = 0.017$ ) indicated a significant difference between the participants' pretest ( $M = 4.03, SD = 0.67$ ) and post-test ( $M = 4.21, SD = 0.58$ ) mean scores. The study's findings demonstrated that WTC in L2 levels of the participants in the experimental group increased both in digital and face-to-face environments.

The findings of the study yielded an increase in the participants' WTC in L2 levels in face-to-face and digital environments through digital gaming. Based on the results, the present study's findings are not in line with Lee et al. (2019)'s study carried out to seek the effects of digital games and WTC in L2 levels of the participants. Lee et al. (2019) conducted a study to investigate WTC in L2 levels of Korean and Taiwanese learners through an explanatory mixed-methods research design. The results stated that Korean and Taiwanese

participants' WTC in L2 levels got the lowest scores in the in-class environment. Therefore, the present study's results do not align with Lee (2019)'s study.

The study's findings reinforce Wattana (2013)'s study despite some variances. In Wattana (2013)'s study, six sessions of gaming were completed with 30 fourth-grade Thai participants in two intact classes. To complement the study, participants attended six sessions consisting of face-to-face and gameplay sessions based on units regulated as text-based and voice chat-based. The results gathered through interviews and the questionnaire specified that gameplay positively affected the participants' WTC levels. Although the affected WTC of learners in general, the participants' eagerness to participate in communication increased in the game atmosphere compared to the classroom one. Thus, the findings of the present study partly support Wattana (2013)'s study, as in the current study, both digital and face-to-face WTC in L2 were triggered.

In the current study, the advantage of digital games on the participants' WTC in L2 levels was found. Since digital games are part of digital contexts by providing learners with engagement and interaction opportunities, the results of the study highlight Lee (2019)'s study, which was carried out with 98 Korean learners at a university. In Lee (2019)'s study, digital contexts were determined as the trigger of WTC in L2 of the participants.

The qualitative findings of the study regarding the overall WTC in L2 levels of the participants were consistent with the quantitative findings, as expected. Thus, based on the responses of the participants, the WTC in L2 level was prompted through playing the digital game within the scope of their English language instruction. However, the findings of the current study are not compatible with Gonzalez (2017)'s study, which aimed to examine the participants' perceptions of digital games and WTC in L2 through an exploratory study with 43 second-year students. Gonzalez (2017)'s study revealed that after gameplays, the WTC in L2 levels of the participants did not differ due to the participants' fear of evaluation by their teacher.

The study's qualitative findings regarding the WTC in L2 of the participants in the experimental group indicated the participants' satisfaction with playing the digital game and their increased WTC in L2 levels. Based on the responses of the participants, the digital gaming inspired them to learn new words and make sentences by using them while speaking in English. When the qualitative findings are examined through a social perspective, it may be assumed that they reinforce what Lantolf (2000) identified about the mediation of learning. Based on the findings, the digital game was accepted as a mediation tool, which

assisted the participants in interpreting the language learning process by contributing to strengthening learning. Furthermore, the qualitative findings of the study reinforced collaboration, cooperation, and socialization among learners. Therefore, the study reinforces Subrahmanyam and Renukarya (2015) specifications about digital games' effects on learners' collaboration and socialization as well. Furthermore, the results demonstrated that the learners were exposed to cooperative learning (Scott & Palincsar, 2013) via collaborating with their friends, which resulted in discovering their capabilities (Aljaafreh & Lantolf, 1994).

The qualitative findings of the study revealed the importance of digital games in increasing learners' eagerness to take part in communication in English in different contexts with varied interlocutors and their enhanced new word usage in interactions. When the qualitative findings of the study are examined through social lenses, they are in line with studies (Bektaş-Çetinkaya, 2005; Bergil, 2005; Cao & Philp, 2006; MacIntyre et al., 2001) that illustrated the role of social support in WTC in L2 levels of the learners in diverse contexts. In Bektaş-Çetinkaya (2005)'s study determining the connection between WTC and affective factors with 356 Turkish EFL university learners, it was indicated that learners felt competent when they were in contact with their friends. Additionally, learners specified that their anxiety levels were dependent on interlocutors. Lastly, the participants of the study illustrated that authentic materials such as game playing or chats with foreign people encouraged them to use English willingly. In a similar vein, Bergil (2006) examined the effects of individual factors on Turkish learners' WTC levels through a study conducted with 73 foreign language preparatory level students at a university. The findings demonstrated that learners' feelings, such as shyness and reluctance, were linked to the activities held in lessons since they felt more eager to communicate in English in group activities. Likewise, Cao and Philp (2006)'s study investigated the features of WTC in L2 with ten students in New Zealand through class atmosphere observations and self-reports revealed that the interaction between learner couples and classroom environment assisted learners' WTC in L2 levels. Lastly, MacIntyre et al. (2001)'s study measured language support and orientation impacts on WTC in L2 with 79 French immersion learners in Canada. The study results revealed that language support given by the participants' friends was a triggering factor of WTC in L2 outside the class.

Both the quantitative and qualitative findings of the study revealed that playing the digital game increased learners' overall WTC in L2 levels since the parallel supportive results were obtained. The findings of the study may be explained with MacIntyre et al. (1998)'s clarification. As MacIntyre et al. (1998) stated, communication apprehension was the predictor of WTC in L2 levels of the learners in Turkey. Likewise, Öz et al. (2015)'s study indicated

the role of communication apprehension on learners' WTC in L2 levels as well. In that manner, the present study demonstrated that integrating digital gameplaying in English classes brought higher levels of WTC in L2 levels of learners. Furthermore, as interview results yielded, learners seemed to have fewer communication breakdowns and hesitations in English, resulting in a heightened eagerness to initiate communication in English.

Furthermore, both quantitative and qualitative findings came to conclusions that support each other in increasing WTC in L2 levels of the participants not only in digital environments but also in face-to-face environments through playing the digital game. Therefore, the findings demonstrated the potential of class instruction regulation by including digital games on learners' enhanced WTC in L2 levels in both digital and face-to-face environments. Unlike what Başöz and Erten (2018) found in their study that WTC in L2 level was higher in in-class environment than in out-class environment, the current study's findings specified that playing digital games had a countervailing role on WTC in L2 levels of the participants. Furthermore, the present study reinforces Fatima et al. (2020)'s study in which the importance of class atmosphere was highlighted as a factor affecting WTC in L2 since the present study's findings illustrated an enriched class atmosphere through digital game playing and its affirmative outcomes on WTC in L2 levels of the learners.

### **5.1.2. Affective Factors**

In the current study, the third research question measured affective variables, which consisted of L2 speaking anxiety, motivation, self-confidence, and risk-taking. The analysis was done through quantitative analysis. Furthermore, the fourth research question was directed to clarify the study's quantitative findings through a qualitative perspective covering the thoughts of the participants in the experimental group regarding L2 speaking anxiety, motivation, self-confidence, and risk-taking.

#### **5.1.2.1. L2 Speaking Anxiety**

The ANOVA results of L2 speaking anxiety levels of the participants revealed that in terms of post-test mean scores of the control ( $M = 3.64$ ,  $SD = 0.97$ ) and the experimental group ( $M = 2.84$ ,  $SD = 1.19$ ), there was a significant change [ $F(1,34) = 4.921$ ,  $p = 0.033$ ].

The findings indicated that after gameplay, the L2 speaking anxiety levels of the participants decreased significantly. Regarding L2 speaking anxiety, the study's findings align with Reinders and Wattana (2014)'s study. In that study, the effects of digital games on learners' anxiety and self-confidence levels were examined. The results stated that participants' anxiety levels decreased after playing digital games while their self-confidence

increased. Although the study supports decreased anxiety, increased self-confidence contradicts the results of the current study.

When digital game playing is considered in English lessons, the study's findings are supportive of Horowitz (2019)'s study. The study revealed that the time of digital games was negatively correlated with the anxiety level of the learners. When the current study's quantitative findings are taken into consideration, it may be assumed that the increased time spent playing digital games might result in lower anxiety levels in learners.

Lastly, as Çubukçu (2008) stated, teachers' presence in classes might cause L2 speaking anxiety among learners. When the present study is considered, it may be thought that the use of digital games provides a balance in the teacher's presence in class, which might be the reason for the lessened L2 speaking anxiety of the participants.

The qualitative findings of the study reinforced the study's quantitative findings, as expected. Based on the learners' interview results, their L2 speaking anxiety levels decreased by increasing their awareness of English to talk more, learning innovative words, and lessening their fears of making mistakes while producing the target language.

Regarding the participants' responses, their increased word knowledge and awareness and decreased fears were presumed as the reasons for their lessened L2 speaking anxiety levels. Those reasons may be explained by MacIntyre and Gardner (1989)'s and Lee (2014)'s expressions regarding the sources of L2 speaking anxiety of language learners. MacIntyre and Gardner (1989) and Lee (2014) stated that L2 speaking anxiety of learners resulted from their ambiguity about transmitting their knowledge. The current study's qualitative findings revealed eliminating knowledge transmission ambiguity through reasons for lessening L2 speaking anxiety mentioned above.

The integration of digital games into English classes may be examined in the scope of enriching class activities since the findings indicated the value of class activities in classes. Therefore, the current study's findings are in line with Young (1990)'s study, which was carried out with 244 university learners to examine anxiety in language classes. Young (1990) specified that the activities in language classes might play a crucial role in determining the anxiety levels of the learners, which is fortified by the current study through digital gameplaying.

The findings specified learners' perceptions regarding their L2 anxiety sources before the gameplays. Regarding factors of L2 speaking anxiety, the findings support the results of

the studies (Aydın, 2014; Balemir, 2009; Tercan & Dikilitaş, 2015) conducted to examine the sources of L2 speaking anxiety of learners in the Turkish context. In the studies (Aydın, 2014; Balemir, 2009; Tercan & Dikilitaş, 2015), it was found that learners' concerns about being misunderstood while asking and answering questions, feeling having inadequate vocabulary knowledge and capability to express themselves were the reasons for having L2 speaking anxiety among Turkish learners. Similarly, the findings of the current study indicated that L2 speaking anxiety may be decreased by lessening those factors.

When quantitative and qualitative findings are considered together, it is clearly seen that they indicated a complementary result about playing digital games on decreasing L2 speaking anxiety levels of learners. The learners' decreased L2 speaking anxiety can be explained through increased WTC of the learners since, as Pyun et al. (2014) and Woodrow (2006) specified, L2 speaking anxiety was a predictor for the oral performances of learners. Based on the findings of the current study, learners developed their WTC and word knowledge; thus, those parameters may be interpreted as a predictor for their decreased L2 speaking anxiety. Likewise, the present study correlates with Reinders and Wattana (2014)'s study, which demonstrated that when learners increased their WTC levels, their L2 speaking anxiety levels decreased.

#### **5.1.2.2. Motivation**

The findings of the study revealed that in terms of post-test mean scores of the control ( $M = 3.68$ ,  $SD = 0.79$ ) and experimental group ( $M = 4.17$ ,  $SD = 0.84$ ) for motivation, there was no significant difference [ $F(1, 34) = 3.217$ ,  $p = 0.082$ ] based on the ANOVA results.

The quantitative results of the study demonstrated that the participants' motivation levels did not change significantly after digital gameplay. When digital games are evaluated within the scope of digital contexts, the study's findings do not reinforce previous studies (Mahayanti et al., 2020; Rasti-Behbahani, 2021; Shahriarpour, 2014; Woo, 2014) conducted to scrutinize the impacts of digital games on learners' motivation levels in varied contexts. To illustrate, Mahayanti et al. (2020) carried out their study with 144 young learners of English. The results of their study specified the impacts of digital games on learners' motivation and metacognition abilities. Likewise, Shahriarpour (2014)'s and Rasti-Behbahani (2021)'s studies related to technology integration into vocabulary learning through playing digital games found that the motivation levels of the learners were triggered via playing digital games, which is not supported by the present study. Lastly, Woo (2014)'s study revealed that digital

gameplaying positively affected the participants' motivation levels, unlike what the present study found.

In terms of using digital tools integrated into classes, the present study's findings can be compared to other studies (Hava, 2021; Ilter, 2009; Tosuncuoglu, 2012), which aimed to investigate the use of digital tools in language classes since the present study does not align with them. For instance, through an experimental study, Hava (2021) investigated the influences of digital storytelling on the motivation levels of participants consisting of 80 pre-service teachers at a university. During the implementation process, the participants created a digital story using video-maker programs. The findings of Hava (2021)'s study by pre, and post-tests revealed that using digital storytelling was a prompter for their motivation levels. When the present study's findings are taken into consideration, Hava (2021)'s study's findings are not supported. Ilter (2019) and Tosuncuoğlu (2012), for instance, examined the technology integration into language classes, and the results stated that technology was a triggering factor for learners' motivation levels. Ilter (2019)'s study was conducted with 350 university students to measure the effects of technology integration on learners' motivation levels. In terms of the integration of technology, the study pointed out promising results to enrich language classes and increase the motivation levels of learners. In terms of increasing the motivation levels of the participants through technology integration, the results of the present study do not support Ilter (2019)'s study. Similarly, in Tosuncuoğlu (2012)'s study, the use of computers was found as a prompter for learners to increase engagement and motivation, which is not reinforced by the present study.

In Li (2021)'s study, the use of GBL in vocabulary teaching was examined, and the results indicated that the learners' motivation and self-confidence levels were enhanced through the integration of GBL. Despite what Li (2021)'s study indicated; the current study's findings do not correlate with Li (2021)'s study regarding increasing the participants' motivation levels through GBL.

The study's qualitative findings revealed that although the quantitative results for the motivation levels of the participants did not differ significantly after digital gaming, the participants' perceptions regarding their motivation levels after gameplay had promising aspects. The interview responses demonstrated that the participants' motivation was impacted by gaming since the participants stated that they had an intuition about being the best speaker because of their increased motivation. Moreover, their friends' talking in English inspired them to speak in English as well. In the study, the qualitative data were gathered after

the quantitative one. Thus, it would be thought that the participants' perceptions about digital gameplay had an effect on their responses in interviews, which might result in reaching affirmative results in qualitative findings. Therefore, the qualitative findings of the study may be examined in the light of Carrió-Pastor and Mestre (2014)'s findings, which stated that learners' motivation levels were affected by their ideas regarding classroom activities.

Moreover, regarding technology integration into class activities, the study's qualitative findings indicated that the participants had motivated themselves to speak by playing the digital game. Therefore, the qualitative findings highlight previous studies (Akay, 2017; Bektaş-Çetinkaya & Oruç, 2011) regarding motivating learners through technological equipment. Akay (2017)'s study, which was carried out with 259 high school students to search for demotivating factors, revealed that learners preferred more enjoyable and technological tools in classroom environments to spend more time on speaking activities, which motivated the participants. Likewise, Bektaş-Çetinkaya and Oruç (2011)'s study indicated that technological equipment had a triggering impact on learners' motivation levels.

When quantitative and qualitative findings of the study are considered together, qualitative findings did not elaborate on quantitative ones as unexpected. The findings of the study indicated that although the motivation levels of the participants did not differ significantly, there was an increase according to quantitative results, which was supported by qualitative findings since they demonstrated promising outcomes. The discrepancy between quantitative and qualitative findings may be explained in the light of Deci and Ryan (2008)'s self-determination theory, which states that contexts have an impact on shaping motivation, especially the intrinsic motivation of humans. When it comes to the language learning process, it may be thought that as contexts affect motivation, classroom atmospheres have the potential to affect the motivation types and levels of learners. In the present study, the density of learners' motivation was measured along with the perspective for acquiring L2 acquisition (Lee & Lee, 2020). The previous studies in the Turkish context (Bektaş-Çetinkaya, 2012; Bektaş-Çetinkaya & Oruç, 2010) demonstrated that Turkish learners' most significant motivation source was finding a well-paying job. Therefore, it would be assumed that learners' varied motivation types might lead to discrepancies between quantitative and qualitative data. It might be possible that the motivation types of learners did not improve the level of motivation in quantitative data in general; however, it led to favorable results in qualitative data since the participants did not evaluate themselves from a result-oriented point of view. Moreover, the data collection order might create a difference between quantitative and

qualitative data since during interviews the participants of the study reflected their own experiences, which allowed them to think about the gameplay scenes again.

### 5.1.2.3. Self-Confidence

The ANOVA results regarding self-confidence levels of the participants indicated that the post-test scores of the control ( $M = 3.38$ ,  $SD = 1.03$ ) and experimental group ( $M = 3.78$ ,  $SD = 0.88$ ) did not indicate a significant change [ $F(1,34) = 1.460$ ,  $p = 0.218$ ].

The study's results illustrated that the participants' self-confidence levels did not change significantly after gameplay sessions. Therefore, the results do not fortify the findings of studies (Jabbari & Eslami, 2019; Nino & Evans, 2015; Soyooof, 2018) measuring the influences of digital games on the self-confidence levels of learners. Jabbari and Eslami (2019)'s study indicated the benefits of MMOG games by providing learners with an interactive atmosphere to increase their self-confidence since they had an opportunity to be exposed to different communication types. In a similar vein, Nino and Evans (2015)'s study emphasized the use of digital games to reinforce self-confidence. Soyooof (2018)'s study examined the impacts of video games on Iranian EFL learners' self-confidence levels. The study revealed that video games were fruitful factors in increasing self-confidence among learners.

Unlike the quantitative findings, the study's qualitative findings yielded the participants' positive thoughts regarding their increased self-confidence levels thanks to the digital gameplay as it enabled elimination of their negative emotions, which triggered them to speak in English. Regarding the participants' gameplay experiences, the qualitative findings of the study indicated that the participants' self-confidence levels increased after gameplay. This aligns with previous studies (Akyol, 2013; Al-Hebaish, 2012; Loan, 2019; Park & Lee, 2005; Pyun et al., 2014) which presented the effect of self-confidence on learners' speaking abilities. Loan (2019)'s study, which was carried out with 165 university students, indicated that self-confidence relied on the class environment, and a low level of self-confidence might result in less participation in speaking sessions. Similarly, the present study aligns with the findings of Al-Hebaish (2012)'s study that demonstrated self-confidence was a determining factor in learners' oral performance. Likewise, Akyol (2003)'s study's results are supported since they indicated that low self-confidence might result in limited communication. Finally, in Park and Lee (2005) and Pyun et al. (2014)'s studies, the importance of an essential level of self-confidence in learners' enriched oral performances was highlighted.

According to Edwards and Roger (2015)'s specifications, there was a cyclical relation between WTC and the self-confidence level of learners. Therefore, when the findings of the study are considered, it would be assumed that it was expected that the participants' self-confidence levels would increase after digital gameplaying regarding the relation between WTC and self-confidence. Based on the current study's findings, although the self-confidence levels of the participants increased after gameplay, there was no significant change based on quantitative data. Furthermore, as qualitative findings revealed, the participants' self-confidence levels increased. Thus, the study's qualitative findings partly elaborated quantitative results unexpectedly. This may be clarified by the participants' experience-based fluctuations, as they expressed in the follow-up semi-structured interviews. According to some participants who had declined or stable mean scores in quantitative data, they felt shy while speaking in English, and they had fears of making mistakes while speaking. Therefore, they refrained from speaking. Furthermore, the variation between the two findings may be explained by the two types of data collection methods since it can be supposed that the participants of the study could not reflect their true ideas in the questionnaire; however, they did express themselves satisfactorily in interviews. Furthermore, the small sample size of the study (N= 36) might be the reason for no significant change in quantitative data results.

#### **5.1.2.4. Risk-taking**

The risk-taking ANOVA results revealed that in terms of the post-test mean scores of the control (M =3.64, SD = 0.57) and the experimental groups (M = 3.85, SD = 0.99), there was no statistically significant change [ $F(1,34) = 0.373, p = 0.456$ ].

The present study's quantitative results indicated that the participants' risk-taking abilities did not differ significantly after gameplay. When the quantitative findings are examined in accordance with digital gameplaying, it is seen that the study's results do not reinforce the findings of prior studies (Cheng et al., 2014; Gee, 2005; Shatz, 2015) since those studies specified the positive influences of digital games on reinforcing the risk-taking abilities of learners. Cheng et al. (2014) asserted affirmative results regarding video games in science learning for strengthening learners' risk-taking and problem-solving abilities. Gee (2005) defined the specialties of good games in the study and specified that good games were prominent factors in reinforcing the risk-taking abilities of learners by implying failure was a part of the game. Congruently, Shatz (2015)'s study conducted with 526 participants emphasized the use of games due to their warm environment in which learners could improve their risk-taking abilities.

The qualitative part of the study covering the participants' perceptions indicated promising results about playing the digital game and its impact on increasing the participants' risk-taking abilities. Based on the qualitative findings of the study, the responses of the participants demonstrated that their participation in class activities increased, and their speaking ability was affected positively. In terms of the integration of digital games into English classes, the qualitative findings support Rhéaume et al. (2021)'s study, which revealed that learners' risk-taking capabilities might be enhanced through class activities designed based on learners' demands and needs. Furthermore, the study's findings align with the studies (Al-Obaydi, 2020; Burgucu et al., 2010) that illustrated the importance of class atmospheres for participants' risk-taking levels to act according to their beliefs. The qualitative results of the study revealed similar findings regarding the increase in participants' risk-taking abilities after digital gameplaying.

The participants' perceptions regarding gameplay sessions are in line with Cervantes (2013)'s assertion. Cervantes (2013) specified that learners' participation in activities depended on their risk-taking capabilities. Based on the participants' responses in the interview, the participants took part in class activities like participating in English lessons more often than before.

As Shatz (2015)'s study demonstrated, when the learners' anxiety levels were low, it was expected that their risk-taking ability would be higher. When the findings of the study are evaluated based on Shatz (2015)'s expression, it can be said that based on their decreased L2 speaking anxiety levels, their risk-taking levels would be higher. However, only qualitative data pointed to an increase in the participants' risk-taking levels. The discrepancy between the quantitative and qualitative data analysis may be explained by the participants' individual barriers or experience-based fluctuations, as indicated in the follow-up semi-structured interviews. According to some participants who had either stable or declined scores in the quantitative data, the biggest risk-taking was speaking in English. Therefore, some participants expressed that they avoided speaking because of hesitation or anxiety while speaking. Furthermore, this may be reasoned due to the data collection order of the study since the participants might think over the gameplay sessions during the interviews conducted after the post-test. Additionally, the small sample size (N= 36) and slight mean score differences between the experimental and control groups may have resulted in no significant change in quantitative data.

### 5.1.3. The Use of English

In the study, the fifth research question was addressed to examine the use of the English language by the participants in the experimental group in terms of quantity and quality before and after gameplay sessions.

The findings regarding the use of English by the participants admitted as a quantity aspect of the English language use, indicated that mean scores of the oral ( $M = 47.44$ ,  $SD = 61.432$ ) and written ( $M = 1.22$ ,  $SD = 3.623$ ) data based on the number of words in the first week of the implementation process were lower than the mean scores of oral ( $M = 60.83$ ,  $SD = 86.822$ ) and written ( $M = 11.33$ ,  $SD = 28.029$ ) data in the last week of the implementation. Conversely, the use of whole and long sentences, sophisticated words, and tense markers improved, while the use of set phrases lessened after the implementation process, which was admitted as a quality aspect of English use. To sum up, the findings revealed that although the quantity of English use of participants did not change in terms of oral language use ( $t(17) = -0.774$ ,  $p = 0.449$ ) and written language use ( $t(17) = -1.602$ ,  $p = 0.128$ ) significantly; the content of their use of English was enforced after gameplay.

The number of words used by the participants in the first and the last week may be explained by set phrases that worked as chunks for learners to assist them in speaking in English. As the findings revealed, compared to the first week, the participants used fewer set phrases and lengthier sentences in the last week, which may explain the increased quality of their use of English. To illustrate, while the participants were saying “stop, find me or very good” as set phrases in the first week, they started to make whole sentences like “I want to try quit air pollution” and “He tried to save the people”. It may be thought that the participants wanted to use set phrases to feel as if they were talking in English in the first week. Then, in parallel with their increased WTC in L2 and decreased L2 speaking anxiety levels, the English use of the participants improved in terms of using longer and complete sentences instead of set phrases. Thus, it may explain why the number of words the participants used did not change, but the quality of their English use improved.

The study's findings regarding the quantity of English used by participants do not support the study conducted by Reinders and Wattana (2012), which examined playing a digital game with 16 fourth-grade students in Thailand. In that study, a digital game was played by the participants through collaborative tasks. The results indicated that the quantity of L2 interaction among the participants was reinforced through playing a digital game. The study's results illustrated that L2 interaction among the participants did not meet the expectations

regarding accuracy and complexity, which is not supported by the present study since, in this study, the use of English by the participants was enriched with full sentences and sophisticated words through playing the digital game. Furthermore, Wattana (2013)'s study measured the effects of digital gameplaying on learners' WTC in L2 and English use with 30 fourth-grade learners. The results of Wattana (2013)'s study revealed that gameplay affected the quantity and quality of English interaction among the participants. Thus, the current study's results support the findings in reinforcing the quality of English use.

## **5.2. Pedagogical Implications**

The present study examined the effects of digital games on learners' WTC in L2 as in and out-class settings and in face-to-face and digital environments, affective factors (L2 speaking anxiety, motivation, risk-taking, and self-confidence), and English use concerning quantity and quality through an explanatory sequential mixed-methods research design. The results of the study showed that playing a digital game had favorable outcomes in assisting learners in increasing their WTC in L2 levels, moreover, decreasing their L2 speaking anxiety levels. Although the quantitative results of the study did not indicate a significant change in learners' motivation, self-confidence, and risk-taking abilities, qualitative findings designated promising findings to encourage learners. Within the scope of English usage, playing the digital game fortified learners' use of sentences by adding tense markers and sophisticated words rather than phrases. Thus, to support learners in using English as more complex and prosperous, playing a digital game can be presumed as a meditation tool to be integrated into English classes.

In the scope of the findings, the pedagogical propositions regarding educators in the Turkish EFL context are presented below.

First, the present study's results demonstrated that digital games are assumed to be fertile digital contexts where learners of English practice their writing and speaking abilities, increase WTC along with their communication abilities, and decrease L2 speaking anxiety. Thus, in the light of the study's findings, it may be thought that English language classes should be enriched with fun and engaging activities to grab learners' attention readily in accordance with the 21st century's prerequisites. To do that, syllabus designers may design the activities in a system incorporating rules and goals (Lindley, 2003). To meet that expectation, games may be taken into consideration since they are identified as goal-directed and principled concepts that provide players with pleasure and a learning atmosphere (Arnseth, 2006; Prensky, 2001b; Reinhardt & Thorne, 2020; Salen & Zimmerman, 2004; Sykes et al.,

2010) when they are adopted in the light of game-based learning principle (GBL). When games are integrated into classes under the title of GBL, syllabus and material designers and educators should consider the needs and characteristics of learners to get the maximum benefit from the games (Admiraal et al., 2011). The use of games should be opted according to the necessities of the era; therefore, syllabus and material designers and educators may give importance to employing technology-based games in the scope of digital game-based learning (DGBL) since digital games offer real-life simulation by preserving rule-governed systems as instructional tools (Chang et al., 2018; Coffey, 2009; De Freitas, 2006). Before implementing digital games into class flows, EFL teachers and school principals should be aware of the games' implementation process, which includes four dimensions: context, learner characteristics, internal representation as the use of a game plan, and process of learning (De Freitas & Oliver, 2006). Hence, educators should examine the use and benefits of digital games.

Secondly, based on the findings of the study, the use of digital games in English language classes should be disseminated by educational institutions in Turkey since most digital games reinforce creativity and collaboration among learners apart from providing them with the use of written chats as well (Schifter et al., 2013; Uusi-Mäkelä, 2015). Furthermore, digital games can be adopted by a wide age range of learners since young and adult players play them (Gee, 2005; Lane & Yi, 2017; Smolčec et al., 2014). For that reason, merging digital games with the English language teaching syllabus can be considered by EFL teachers in Turkey to motivate learners to increase their English usage in the classroom environment; encouraging them to speak eagerly whilst reducing speaking anxiety and assisting them in augmenting their language learning process. Additionally, Turkish EFL educators should supervise, offering a warm atmosphere for learners to support them; therefore, digital game playing may play a vital role not only for educators but also for learners to lessen teachers' authority in classes by making learners more comfortable by encouraging them to take part in lessons eagerly.

Thirdly, integrating digital games into English language classes may be reconsidered as expanding the English language curriculum. Therefore, the implementation plan of the study may be considered as a model plan to be integrated into an existing English language curriculum or syllabus plan. Then, a more specified plan for using digital games may be represented by assisting Turkish EFL educators in knowing their ways. Furthermore, educators with comprehensive knowledge of digital games and their principles may be donated. In this way, they may offer variations of digital games and their versions for learners, enabling them with desired support.

Finally, digital games and their implementation into English language classes might be incorporated into teacher education programs in the faculty of education's curriculum as well. In this way, it may enhance prospective teachers' teaching skills by preparing them for their teaching careers by providing them with the knowledge and application of digital learning tools. Besides, the plan of the faculty of education might be yielded for the digital era and generation's needs since, as Prensky (2001a) asserts, the new generation is born in technology, and they can dominate technological devices and innovative scenarios.

### **5.3. Limitations of the Study**

The study was conducted in a state high school with thirty-six participants in 10th grade at an Anatolian high school in which the levels of learners were not higher than B1 levels for 10th grade. Thus, the setting of the study might affect the participants' eagerness to participate in a scientific study that lasted nearly one term.

The study integrated a digital game into English classes, which required using computers in and out of lessons. Taking into consideration the lack of technological equipment in the school where the study took place, the study had constraints in terms of enabling learners with computers in a stable room. Additionally, the lack of personal equipment of the participants restricted play time in the study. To solve the problem, the researcher demanded laptops from the district directorate of national education, and she carried them to the school where the study took place throughout the implementation phase.

In a nutshell, the difficulties of the study can be identified as the small size of the sample, levels of learners, and lack of personal technological equipment.

### **5.4. Conclusion and Suggestions for Further Research**

In conclusion, the explanatory sequential mixed-methods study's object was to measure the impacts of a digital game on Turkish EFL learners' WTC in L2 in face-to-face and digital environments, affective factors consisting of L2 speaking anxiety, motivation, self-confidence, risk-taking, and English use. The findings of the current study revealed that playing the digital game as integration into English instruction, both in and out-class activities, gave favorable results to increase WTC in L2 levels of the learners in both face-to-face and digital settings. Furthermore, the findings revealed a significant decrease in learners' L2 speaking anxiety levels. In terms of the rest of the affective factors (motivation, self-confidence, and risk-taking), there was no statistically significant change. Regarding the learners' English language use, the study's findings indicated that rather than quantity, the

quality of English use producing whole sentences, choosing sophisticated words, and adding tense markers improved through digital gameplaying.

Therefore, the study revealed the use of digital games in English lessons increased learners' WTC in L2 levels by providing them with a digital atmosphere in which they have an opportunity to use English to communicate. Furthermore, the current study elaborated on using digital games in English classes to lessen the L2 speaking anxiety levels of the participants through gameplays. Lastly, the study demonstrated the importance of integrating digital games into English language classes to support learners' English use regarding the use of whole sentences, tense markers, and sophisticated words. Overall, the study highlighted the importance of the integration of digital games into English language classes.

The perceptions of the learners illustrated that playing digital games encouraged learners to initiate communication in the English language by making the class atmosphere warm and enjoyable by eliminating learners' negative thoughts thanks to the game environment. Thus, the current study implied that learners increased their desire to communicate in English in and out of classes. Additionally, the study emphasized the assistance of playing digital games in English lessons by making learners more enthusiastic and eager to participate in English classes. Lastly, regarding the learners' experiences, the study identified that playing digital games motivated learners in English lessons and enabled them to realize their potential capability of speaking in English. Hence, they felt more self-confident in initiating a conversation in English.

In addition to the contributions of the digital game playing into the learners' WTC in L2 and affective factors, the participants' perceptions involved expanded vocabulary with novel words and improved English. Thus, according to the learners' responses, the study indicated that playing the digital game in English classes was seen as a new way of learning English, described as a deductive activity by the participants. Besides, in regard to the age range of the participants of the current study, which was between 16 and 17, the study indicated the practicability of digital games on teenagers as well, unlike previous studies (e.g., Dodgson, 2015; Marklund & Taylor, 2016), which were mainly based on young learners. To sum up, the current study contributed to the field by expanding the advances of utilizing digital games in classes by merging digital games with English classes. The study pointed to the prominence of digital games for English language learners to enhance their English language capabilities and performances.

Moreover, the results of the study indicated not only the role of the digital game on learners' increased WTC in L2, lessened L2 speaking anxiety, and improved English language use but also teachers' role in applying instructional methods as well. Based on the results of the study, the participants declared their satisfaction with playing the digital game in English language classes as an add-on activity. During the implementation process, monitoring the gameplay sessions was the teacher's responsibility; thus, the teacher used the game mechanics to encourage learners to use the target language. Besides, she led questions while the participants were playing the game to grasp their work and progress whilst making them speak in the target language as much as possible. Therefore, the results of the study revealed the use of the new instructional method and its effects on learners' WTC in L2, affective factors, and English use by implying the role of the teacher as well.

Based on the study's results, a similar study may be conducted with a larger sample to get more apparent results. Moreover, the scope of the current study may be extended to other age groups of Turkish EFL learners to attain a broader picture of digital game integration into English classes. Furthermore, integrating digital games into English classes may be searched through different topics in English to determine its benefits for English teaching and learning. Additionally, a further study may be conducted to include more affective factors such as enjoyment, to measure the impacts of digital game playing more comprehensively. A similar study may be conducted by considering the use of the English language reinforced through gameplay to observe the learners' development week by week; therefore, the written and oral data may be collected and analyzed on a weekly basis. A related study may also be conducted within a more extended period to examine the novelty effect of the new instruction type, such as the synthesis of digital games into English classes with resembling variables. Finally, a pure qualitative study combining WTC in L2, affective factors, and digital gaming may be conducted so as to fill the gap in the literature.

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## APPENDICES

### APPENDIX 1. Curriculum Vitae

#### STUDENT'S CURRICULUM VITAE

Personal Information			
Name-Surname	Halnur OCAKTAN ÇELİKTÜRK		
Email Address/ Web Page			
Languages	English		
Specialization	Affective variables in ELT		
Education			
	University	Department	Year
Bachelor's Degree	Hacettepe University	English Language Teaching	2015
Master's Degree	Gaziantep University	English Language Teaching	2019
M.A. Thesis Title	A Study on Sympathetic Tendency of EFL Learners through Competition Games		
M.A. Thesis Supervisor	Prof. Dr. Fatma Filiz TILFARLIOĞLU		
Academic Studies			
ARTICLES			
<p>1. Başar, S., Çeliktürk, H., &amp; Çomoğlu, İ. (2020). English language teachers' insights into continuous professional development: A cross-case exploration. <i>The Literacy Trek</i>, 6(2), 55-80.</p> <p>*2. Çeliktürk, H., &amp; Bektaş-Çetinkaya, Y. (2023). The impact of a digital game on EFL students' willingness to communicate in English. <i>Eurasian Journal of Language Teaching and Linguistic Studies</i>, 3(1), 317–333.</p> <p>3. Çeliktürk, H., &amp; Tilfarlioglu, F. Y. (2020). A study on sympathetic tendency of EFL (English as a foreign language) learners through competition games. <i>i-Manager's Journal on English Language Teaching</i>, 10(3), 35.</p>			
PROCEEDINGS			

<p>*1. Çeliktürk, H., &amp; Bektaş Çetinkaya, Y., (2022). The impact of digital game playing on language learners' self-confidence and L2 speaking anxiety. In <i>Proceedings of UBEST 2022</i> (pp.66-72).</p> <p>2. Tilfarlioglu, F. Y., &amp; Çeliktürk, H. (2018). Innovative perspectives in foreign language teaching. In E. G. Işıksaçan &amp; E. Mankan (Eds.), <i>Proceedings of ZEUGMA 2018</i> (pp: 283-292). Iksad. <a href="https://www.zeugmakongresi.org/_files/ugd/614b1f_523fe51fe2a6441683d0c9bc28af12b9.pdf">https://www.zeugmakongresi.org/_files/ugd/614b1f_523fe51fe2a6441683d0c9bc28af12b9.pdf</a></p> <p>3. Tilfarlioglu, F. Y., &amp; Çeliktürk, H. (2018, April 6-8). <i>The effect of various competition games on increasing sympathetic tendency of EFL learners in Turkey</i> [Conference presentation abstract]. II. International Al Farabi Social Sciences Congress, Gaziantep, Turkey. <a href="https://www.farabicongress.org/_files/ugd/614b1f_d32a7090dd6144518f011398c433a84f.pdf">https://www.farabicongress.org/_files/ugd/614b1f_d32a7090dd6144518f011398c433a84f.pdf</a></p> <p>4. Tilfarlioglu, F. Y., &amp; Çeliktürk, H. (2018, April 6-8). <i>The new era: Innovation and change in ELT methodology</i> [Conference presentation abstract]. II. International Al Farabi Social Sciences Congress, Gaziantep, Turkey. <a href="https://www.farabicongress.org/_files/ugd/614b1f_d32a7090dd6144518f011398c433a84f.pdf">https://www.farabicongress.org/_files/ugd/614b1f_d32a7090dd6144518f011398c433a84f.pdf</a></p> <p>5. Tilfarlioglu, F. Y., Lekealmaz, N., &amp; Çeliktürk, H. (2017, May 18-19-20). <i>Questioning self-control, self-perception, motivation, gender and self-efficacy in relation to academic achievement in ELT?</i> [Conference presentation abstract]. 2nd International Symposium on Social Sciences, Alanya, Antalya, Turkey. <a href="https://kayit.asoscongress.com/files/asos_sempozyum_ozet_kitapcigi_2017.pdf">https://kayit.asoscongress.com/files/asos_sempozyum_ozet_kitapcigi_2017.pdf</a></p>
<b>Membership to Scientific Societies</b>
None
<b>Awards</b>
None

**APPENDIX 2. Permission for Research**  
**PERMISSION OF THE ETHICS COMMITTEE FOR APPLICATION**



T.C.  
 DOKUZ EYLÜL ÜNİVERSİTESİ REKTÖRLÜĞÜ  
 HUKUK MÜŞAVİRLİĞİ

Sayı : E-87347630-659-196678  
 Konu : Araştırma İzni- Halenur ÇELİKTÜRK

ACELE  
 15.02.2022

EĞİTİM BİLİMLERİ ENSTİTÜSÜ MÜDÜRLÜĞÜNE

İlgi : a) 20.12.2021 tarih ve E-67493393-302.08.01-162367 sayılı yazınız.  
 b) Gaziantep Valiliği İl Millî Eğitim Müdürlüğü'nün 10.02.2022 tarih ve E-34659092-605.01-43212411 sayılı yazısı.

İlgi (a)'da kayıtlı yazınız ile bildirilen Enstitünüz Yabancı Diller Eğitimi Anabilim Dalı İngilizce Öğretmenliği Doktora Programı öğrencisi Halenur ÇELİKTÜRK'ün, "The Effects of Dijital Gaming on Turkish Efl Learners Wtc (Dijital Oyun Oynamanın Yabancı Dil Olarak İngilizce Öğrenen Türk Öğrencilerin İletişim Kurma İstekliliğine Etkisi" konulu tez çalışması kapsamında uygulama yapma talebine ilişkin Gaziantep Valiliği İl Millî Eğitim Müdürlüğünden alınan ilgi (b)'de kayıtlı yazı, işbu yazınız ekinde sunulmaktadır.

Bilgilerinizi ve gereğini rica ederim.

Prof.Dr. Nükhet HOTAR  
 Rektör

Ek: İlgi (b)'de kayıtlı yazı ve ekleri.

Bu belge, güvenli elektronik imza ile imzalanmıştır.  
 Doğrulama Kodu: 7CC28BA7-587D-4B26-92D7-E109B03195F7 Doğrulama Adresi: <https://turkiye.gov.tr/dokuz-eyul-universitesi-ebys>  
 Adres: Kültür Mahallesi, Cumhuriyet Bldv No:144, 35220 Konak/İzmir Bilgi için: Pelin ALTIN  
 KEP Adresi : dokuzeyuluniversitesi@ho01.kep.tr Menzur



**PERMISSION OF PROVINCIAL DIRECTORATE OF NATIONAL EDUCATION  
FOR APPLICATION**



T.C.  
GAZİANTEP VALİLİĞİ  
İl Millî Eğitim Müdürlüğü

Sayı : E-34659092-605.01-43212411  
Konu : Araştırma İzin Talebi  
( Halenur ÇELİKTÜRK)

10.02.2022

**DAĞITIM YERLERİNE**

Dokuz Eylül Üniversitesi Eğitim Bilimleri Enstitüsü Yabancı Diller Eğitimi Anabilim Dalı İngilizce Öğretmenliği Doktora Programı Öğrencisi Halenur ÇELİKTÜRK'ün " The Effects of Digital Gaming on Turkish EFL Learners? WTC ( Dijital Oyun Oynamanın Yabancı Dil Olarak İngilizce Öğrenen Türk Öğrencilerin İletişim Kurma İstekliliğine Etkisi)" konulu anket uygulama isteği kapsamında, İlimiz Şehitkamil ilçesinde bulunan İstanbul Gaziantepİler Anadolu Lisesinde öğrenim gören öğrencilere yönelik araştırma çalışma isteği, ilgi yazıda belirtilmektedir.

Bu kapsamda bahsi geçen anket uygulama isteğiyle ilgili Valilik Makamının 09.02.2022 tarihli ve 43106195 sayılı oluru yazımız ekinde gönderilmiş olup konunun ilçenizde bulunan ilgili Okul müdürlüklerine duyurulması ve veli onama formunun imzalı bir nüshasının okul müdürlüklerinde muhafaza edilmesi hususunda;

Bilgilerinizi ve gereğini rica ederim.

Yasin TEPE  
Vali a.  
İl Millî Eğitim Müdürü

EK:  
Yazı ve ekleri  
DAĞITIM:  
Şehitkamil İlçe MEM

BİLGİ:  
Dokuz Eylül Üniversitesi

Adres : Pınarlık Mah 58007 Sok Şehitkamil Gaziantep  
Bu belge güncel elektronik imza ile iletilemiştir.  
Belge Doğrulama Adresi : <https://www.turkiye.gov.tr/meh-ehys>  
Bilgi için: Müd Yrd. M. Ali HIRYAKIOĞLU Şef E. YILDIRIM VEHİCİ  
KAYYILDIZ  
E-Posta : [genel@ga.gov.tr](mailto:genel@ga.gov.tr) Uzun : Veli Hazırlama ve Kontrol İşletmeni  
E-Posta : [genel@ga.gov.tr](mailto:genel@ga.gov.tr) İnternet Adresi: [www.gaziantepmeh.gov.tr](http://www.gaziantepmeh.gov.tr) Faks :  
Kap Adresi : meh@ga.gov.tr  
Bu e-tilim işlemi elektronik imza ile iletilemiştir. İnternet adresi: <https://evrtilimorga.meh.gov.tr> adresinden 963d-cf19-3fe9-afa9-da7b koda ile teyit edilebilir.

## ETHICAL PERMISSION



T.C.  
DOKUZ EYLÜL ÜNİVERSİTESİ REKTÖRLÜĞÜ  
HUKUK MÜŞAVİRLİĞİ

Sayı : E-87347630-659-169505  
Konu : Halemur ÇELİKTÜRK

ACELE  
30.12.2021

EĞİTİM BİLİMLERİ ENSTİTÜSÜ MÜDÜRLÜĞÜNE

İlgi : 20.12.2021 tarihli ve E-67493393-302.08.01-162367 sayılı yazınız.

İlgide kayıtlı yazınıza istinaden Sosyal ve Beşeri Bilimler Araştırma ve Yayın Etik Kurulunun 28.12.2021 tarihli toplantısında alınan 19 sayılı karar ile Enstitünüz Yabancı Diller Eğitimi Anabilim Dalı İngilizce Öğretmenliği Doktora Programı öğrencisi Halemur ÇELİKTÜRK'ün "The Effects Of Dijital Gaming On Turkish EFL Learners WTC (Dijital Oyun Oynamaının Yabancı Dil Olarak İngilizce Öğrenen Türk Öğrencilerin İletişim Kurma İstekliliğine Etkisi)" başlıklı çalışması kapsamında yapacağı uygulamanın etik açıdan uygun olduğuna karar verilmiş olup, alınan karar Makamınızca onaylanmıştır.

Bilgilerinizi ve gereğini rica ederim.

Prof.Dr. Nükhet HOTAR  
Rektör

Bu belge, güvenli elektronik imza ile imzalanmıştır.  
Doğrulama Kodu: 8AE453B4-28E4-418F-B3BD-É1066555E825 Doğrulama Adresi: <https://tdk.gov.tr/dokuz-eyul-uni-versitesi-ebys>  
Adres: Kültür Bakanlığı, Cankaya/İstanbul No:144, 35220 Kocaeli/İstanbul

Bilgi için: Merve ÇÖRÜK  
Bilgisayar İşletmeni



HİZMETE ÖZEL

## PERMISSION FOR INSTRUMENTS

10.12.2021 06:06 Posta - Hale OCAKTAN ÇELİKTÜRK - Outlook

Re: SCALE PERMISSION

LEE, Ju Seong [ELE]

9.12.2021 Per 02:23

Kime: Hale OCAKTAN ÇELİKTÜRK

Dear Hale,

Thank you for sending the email. You may use any research tool as long as you cite that specific paper. best wishes

Best,  
Ju

From: Hale OCAKTAN ÇELİKTÜRK >  
Sent: Thursday, December 9, 2021 6:30 AM  
To: LEE, Ju Seong [ELE]  
Subject: SCALE PERMISSION

**CAUTION:** External email. Do not click links or open attachments unless you recognise the sender and know the content is safe.  
**警告:** 外来電報。如不認識寄件者，或不確定內容是否安全，切勿按下任何連結或開啟任何附件。

Hello Dear Lee,

I am Halenur ÇELİKTÜRK, a PhD student in ELT department at Dokuz Eylül University in Turkey. I have been working on my thesis which is related to WTC, and I am interested in your studies as well. I want to utilize your scales if it is OK for you. Therefore, I am writing to this email get a permission to be able to use your scales about;

- L2 WTC inside class (Cronbach alpha= .92)
- L2 WTC in digital setting (Cronbach alpha= .89)
- Affective variables scale consisting of four parts as motivation( $\alpha = .81$ ), self-confidence( $\alpha = .92$ ), risk taking( $\alpha = .68$ ), L2 speaking anxiety( $\alpha = .89$ )

Could you reply to this email in order to inform me please?

Best regards  
Halenur ÇELİKTÜRK

10.12.2021 06:06 Posta - Hale OCAKTAN ÇELİKTÜRK - Outlook

Re: SCALE PERMISSION

Hayo Reinders < >

9.12.2021 Per 11:48

Kime: Hale OCAKTAN ÇELİKTÜRK

Yes, go ahead. Thank you for asking and all the very best of luck for your studies!

Best  
Hayo

On Thu, Dec 9, 2021, 9:06 PM Hale OCAKTAN ÇELİKTÜRK < > wrote:  
Hello Dear Reinders,

I am Halenur ÇELİKTÜRK, a PhD student in ELT department at Dokuz Eylül University in Turkey. I have been working on my thesis which is related to WTC, and I am interested in your studies as well. I want to utilize your scales if it is OK for you. Therefore, I am writing to this email to get a permission to be able to use your scale about;

- WTC in gaming context (Cronbach alpha= .709)

Could you reply to this email in order to inform me please?

Best regards  
Halenur ÇELİKTÜRK

12.12.2021 13:51 Posta - Hale OCAKTAN ÇELİKTÜRK - Outlook

Re: SCALE PERMISSION

LEE, Ju Seong [ELE]

12.12.2021 Paz 10:02

Kime: Hale OCAKTAN ÇELİKTÜRK

Yes you can it. Thank you.

Ju

From: Hale OCAKTAN ÇELİKTÜRK  
Sent: Sunday, December 12, 2021 11:52:10 AM  
To: LEE, Ju Seong [ELE]  
Subject: Ynt: SCALE PERMISSION

Hello Dear Lee,

Thank you for your kind permission to use your scales in my study. Although you said that I could use any scales as long as I give citation, I need a written permission for one more scale that I forgot to add my previous e-mail.

Could I use your scale measuring;

- L2 WTC outside the classroom (Cronbach alpha= .83)?

Could you inform me, please?

Best regards  
Hale Çeliktürk

### APPENDIX 3. Consent Forms

#### CONSENT FORM FOR PARTICIPANTS

Sayın Katılımcımız

Katılacağınız bu çalışma, *The Effects of Digital Gaming on Turkish EFL (English as a foreign language) Learners' WTC (Dijital Oyun Oynamanın Yabancı Dil olarak İngilizce öğrenen Türk Öğrencilerin İletişim Kurma İstekliliğine Etkisi)*” adıyla, Halenur ÇELİKTÜRK tarafından 2021-202 eğitim-öğretim yılı 7 Şubat 2022- 27 Mayıs 2022 tarihleri arasında yapılacak bir araştırma uygulamasıdır.

Araştırmanın Hedefi Bu çalışma dijital oyun (Minecraft) oynamanın öğrencilerin İngilizce dilinde iletişim kurma istekliliğine ve İngilizce öğrenmelerinde etkili olan motivasyon, risk alma becerisi, İngilizce konuşma kaygısı ve özgüven gibi faktörlere etkisini araştırmayı amaçlamaktadır.

Araştırmanın Nedeni: Tez çalışması

Araştırmanın Yapılacağı Yer(ler): İstanbul Gaziantepçiler Anadolu Lisesi

Araştırma Uygulaması: Anket ve Görüşme (görüşmeler ses kaydı altına alınacaktır)

Araştırma T.C. Millî Eğitim Bakanlığı'nın ve okul/kurum yönetiminin izni ile gerçekleştirilmektedir. Araştırma uygulamasına katılım tamamıyla gönüllülük esasına dayalı olmaktadır. Çalışmada sizden kimlik belirleyici hiçbir bilgi istenmemektedir. Cevaplar tamamıyla gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir. Veriler sadece araştırmada kullanılacak ve üçüncü kişilerle paylaşılmayacaktır.

Uygulamalar, kişisel rahatsızlık verecek sorular ve durumlar içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden rahatsız hissederseniz cevaplama işini yarıda bırakabilirsiniz.

Katılımı onaylamadan önce sormak istediğiniz herhangi bir konu varsa sormaktan çekinmeyiniz. Çalışma bittikten sonra bizlere telefon veya e-posta ile ulaşarak soru sorabilir, sonuçlar hakkında bilgi isteyebilirsiniz. Saygılarımızla,

Araştırmacı : Halenur ÇELİKTÜRK

İletişim Bilgileri :

***Yukarıda bilgileri bulunan araştırmaya katılmayı kabul ediyorum.***

...../...../.....

İsim-Soyisim İmza:

## CONSENT FORM FOR PARENTS

Sayın Veli;

Çocuğunuzun katılacağı bu çalışma, “*The Effects of Digital Gaming on Turkish EFL (Englsh as a foreign language) Learners’ WTC (Dijital Oyun Oynamanın Yabancı Dil olarak İngilizce öğrenen Türk Öğrencilerin İletişim Kurma İstekliliğine Etkisi)*” adıyla 2021-202 eğitim-öğretim yılı 7 Şubat 2022- 27 Mayıs 2022 tarihleri arasında yapılacak bir araştırma uygulamasıdır.

**Araştırmanın Hedefi:** Bu çalışma dijital oyun (Minecraft) oynamanın öğrencilerin İngilizce dilinde iletişim kurma istekliliğine ve İngilizce öğrenmelerinde etkili olan motivasyon, risk alma becerisi, İngilizce konuşma kaygısı ve özgüven gibi faktörlere etkisini araştırmayı amaçlamaktadır.

**Araştırma Uygulaması:** Anket / Görüşme şeklindedir. Görüşmeler ses kaydı yoluyla kayıt altına alınacaktır. Tüm veriler yalnızca bu çalışma için kullanılacaktır.

Araştırma T.C. Millî Eğitim Bakanlığı’nın ve okul yönetiminin de izni ile gerçekleştirilmektedir. Araştırma uygulamasına katılım tamamıyla gönüllülük esasına dayalı olmaktadır. Çocuğunuz çalışmaya katılıp katılmamakta özgürdür. Araştırma çocuğunuz için herhangi bir istenmeyen etki ya da risk taşımamaktadır. Çocuğunuzun katılımı **tamamen sizin isteğinize bağlıdır**, reddedebilir ya da herhangi bir aşamasında ayrılabilirsiniz. Araştırmaya katılmamama veya araştırmadan ayrılma durumunda öğrencilerin akademik başarıları, okul ve öğretmenleriyle olan ilişkileri etkilemeyecektir.

Çalışmada öğrencilerden kimlik belirleyici hiçbir bilgi istenmemektedir. Cevaplar tamamıyla gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir.

Uygulamalar, genel olarak kişisel rahatsızlık verecek sorular ve durumlar içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden çocuğunuz kendisini rahatsız hissederse cevaplama işini yarıda bırakıp çıkmakta özgürdür. Bu durumda rahatsızlığın giderilmesi için gereken yardım sağlanacaktır. Çocuğunuz çalışmaya katıldıktan sonra istediği an vazgeçebilir. Böyle bir durumda veri toplama aracını uygulayan kişiye, çalışmayı tamamlamayacağını söylemesi yeterli olacaktır. Anket çalışmasına katılmamak ya da katıldıktan sonra vazgeçmek çocuğunuza hiçbir sorumluluk getirmeyecektir.

Onay vermeden önce sormak istediğiniz herhangi bir konu varsa sormaktan çekinmeyiniz. Çalışma bittikten sonra bizlere telefon veya e-posta ile ulaşarak soru sorabilir, sonuçlar hakkında bilgi isteyebilirsiniz. Saygılarımızla,

Araştırmacı : Halenur ÇELİKTÜRK

İletişim bilgileri: +90 532 444 11 11

**Velisi bulunduğum ..... sınıfı ..... numaralı öğrencisi**

.....

.....’in yukarıda açıklanan araştırmaya katılmasına, yapılacak görüşmelerin ses kaydı altına alınmasına izin veriyorum. (Lütfen formu imzaladıktan sonra çocuğunuzla okula geri gönderiniz\*).

.../.../.....

#### APPENDIX 4. Willingness to Communicate (WTC) in L2 Questionnaire

This questionnaire will be used in a study to measure willingness to communicate in the second language. Based on your responses, please put a (x) in the related boxes. The results of the questionnaire will not be shared by anybody and will not be used for other purposes.

Thank you for your participation.

##### A. WTC in L2 Outside the classroom ( $\alpha = .83$ )

	<b>Definitely not willing</b>	<b>Not willing</b>	<b>Neutral</b>	<b>Willing</b>	<b>Definitely willing</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1. When you find your friend standing in front of you in a line.					
2. When you find your acquaintance standing in front of you in a line.					
3. When you have a discussion with a small group of friends.					

##### B. WTC in L2 In-Class Settings ( $\alpha = .92$ )

	<b>Definitely not willing</b>	<b>Not willing</b>	<b>Neutral</b>	<b>Willing</b>	<b>Definitely willing</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1. When you are given an opportunity to talk freely in an English class.					
2. When you have an opportunity to talk in front of other students in an English class.					
3. When you have a group discussion in an English class.					
4. When you have an opportunity to make a					

presentation in front of a large group.					
5. When you have an opportunity to explain in English your own culture to your classmates.					

**C. WTC in L2 in Digital Settings ( $\alpha = .89$ )**

	<b>Definitely not willing</b>	<b>Not willing</b>	<b>Neutral</b>	<b>Willing</b>	<b>Definitely willing</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1. When you have an opportunity to talk with non-native speakers of English (e.g., German and Chinese) on social media.					
2. When you have an opportunity to talk with native speakers of English (e.g., American and British) on social media.					
3. When you have an opportunity to talk in English with other foreign fans in an online community (e.g., BTS, and Harry Potter).					
4. When you have an opportunity to talk in English with other game players.					
5. When you have an opportunity to explain your own culture online in English to other English speakers.					

**D. WTC in L2 in Computer Game Setting ( $\alpha = .70$ )**

	<b>Very unwilling</b>	<b>Somewhat unwilling</b>	<b>Neutral</b>	<b>Somewhat Willing</b>	<b>Very willing</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1. Talk to other game players about a quest assignment.					
2. Communicate ideas, feelings and opinions.					
3. Ask for clarification when you are confused about a task you must complete.					
4. Read quest description/instructions before you start completing.					
5. Listen to what other game players say in English					

## APPENDIX 5. Affective Factors Questionnaire

### AFFECTIVE FACTORS

This questionnaire will be used in a study to measure affective factors (L2 speaking anxiety, motivation, self-confidence, and risk-taking). Based on your responses, please put a (x) in the related boxes. The results of the questionnaire will not be shared by anybody and will not be used for other purposes.

#### A. L2 speaking anxiety ( $\alpha = .89$ )

	<b>Strongly disagree</b>	<b>disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1. I feel nervous when I speak in English in front of other students.					
2. I feel anxious if I am asked a question by my teacher.					
3. When speaking in English, I can get so nervous that I forget things that I know.					
4. I feel nervous when I am called upon to perform a task in English.					
5. Even if I am well prepared for English class, I feel anxious about it.					
6. I am afraid that the other students will laugh at me when I speak English.					

**B. Motivation ( $\alpha = .81$ )**

	<b>Strongly disagree</b>	<b>disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1. When it comes to studying English, I put much effort into it.					
2. I actively think about what I have learned in my English class.					
3. Considering how I study English, I can honestly say that I really try to learn English.					
4. If I had the opportunity to speak English outside of school, I would speak English as much as possible.					
5. I find learning English very enjoyable.					
6. English is an important subject to me in my college program.					

**C. Self-confidence ( $\alpha = .92$ )**

	<b>Strongly disagree</b>	<b>disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1. I am confident I can understand most of what my teacher says in English class.					
2. I am confident I can use English vocabulary and expressions that I learned to interact with my teacher or friends.					
3. I am confident I can ask and answer various questions in English.					

4. I am confident I can talk about myself in English using sentences.					
5. I am confident I can talk about what I did last weekend using English sentences.					
6. I am confident I can do well in oral presentation in English.					
7. I am confident I can order a meal in English at a restaurant.					
8. I am confident I can ask for and give directions for location in English.					

#### D. Risk-taking ( $\alpha = .68$ )

	<b>Strongly disagree</b>	<b>disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1. I would like to wait until I know exactly how to use an English word before using it.					
2. I am willing to take a chance and attempt expressing myself even if I make mistakes.					
3. I prefer to say what I want in English without worrying about the small details of grammar.					

## APPENDIX 6. The First Semi-Structured Interview Questions

### THE FIRST SEMI-STRUCTURED INTERVIEW QUESTIONS

In opening words, the researcher will say:

The first semi-structured interview questionnaire is used to get deeper information about the topic. The responses that you gave to the questions will not be shared with someone, and they only will be used for this study. Thank you for your participation.

#### *Gameplay Experience:*

1. How can you describe your digital gameplay experience?
2. What did you think about playing digital games as a part of English lessons before attending this study?
3. How did you use English while playing the game?
4. What do you think about the effects of playing digital games on your English use?
5. How can you describe your feelings while playing the game?

#### *WTC in L2:*

6. Has playing the game had any effect on your willingness to communicate? Can you share your opinions?
7. What were the moments when you felt most willing to communicate during the gameplay?
8. What were the moments when you felt least willing to communicate during the gameplay?
9. In what ways did gameplay sessions affect your willingness to communicate? Did your opinions change after gameplay?
10. If you were an expert, what would you suggest to students to increase their willingness to communicate in English?

#### *Affective factors:*

11. In what ways did gameplay sessions have an impact on your motivation to learn and use English?
12. In what ways did gameplay sessions have an impact on your self-confidence in using English?
13. In what ways did gameplay sessions have an impact on your risk-taking in English?
14. In what ways did gameplay sessions have an impact on your speaking anxiety?

During the interview, the researcher may make use of probing questions to collect saturated data. The possible probing questions are:

- What is the reason for / to ...?
- Can you give more information about ...?
- Did you have any challenges during the .... process?
- How did you overcome ....?
- Do you still have the same idea about ...?
- Did your opinions about .... change after gameplay?



## **APPENDIX 7. Follow-up Semi-Structured Interview Questions**

### **FOLLOW-UP SEMI-STRUCTURED INTERVIEW QUESTIONS**

In opening words, the researcher will say:

This follow-up semi-structured interview questionnaire is used to get deeper information about the topic. The responses that you gave to the questions will not be shared with someone, and they will only be used for this study. Thank you for your participation.

1. How can you explain the steadiness in your .... level?
2. How can you explain the decline in your .... level?
3. What can be the reason for the decrease in your .... level?
4. What can be the reason for the steadiness in your .... level?

During the interview, the researcher may make use of probing questions to collect saturated data. The possible probing questions are:

- What is the reason for / to ...?
- Can you give more information about ...?
- Did you have any challenges during the .... process?
- How did you overcome ....?
- Do you still have the same idea about ...?

## APPENDIX 8. The Functions of Language based on Units

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### Functions of language based on themes

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**1. Giving and receiving advice**

**2. Talking about rules and regulations**

**3. Talking about consequences**

You can remove a stain with baking soda.

If you have a toothache, you should see a dentist.

### Theme 6

Excuse me, can you tell me where I can buy ...?

In my opinion, you should visit the patients and your relatives.

Can you buy some...?

If you are good at solving problems, you could be an executive.

You must study hard for the exam if you want to get a higher grade.

You should visit the company website and learn more about the firm before making a final decision.

Could you please give me a hand?

If we don't use the energy sources wisely, the Earth will ...

If you want a clean and healthy world, you should....

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**1. Talking about national and international festivals**

**2. Describing actions and processes**

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I'm interested in... I wonder how...

Chocolate Festival is held in Amsterdam every October.  
Antalya International Film Festival is organized in Turkey every October.

### Theme 7

Every street, building and house is decorated with red during the celebrations of Chinese New Year.

Two religious festivals (Ramadan /Eid al Fitr and Sacrifice Feast/Eid-al-Adha) are celebrated in Turkey every year.

Family members visit each other to improve relationships.

First, the peppers are sliced into small pieces.

Later on the eggs are broken into a bowl.

The stove is turned on/ The oven is heated....

The pan is heated and ... the table is set.

If you want to design your own digital story, first you should...

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**1. Stating personal opinions in everyday conversations**

**2. Stating preferences**

**3. Stating causes and effects**

### Theme 8

**4. Giving an extended description and detailed information about people/places/events**

I prefer tablets over notebooks to read online because...

I believe social media will be more important in the future, so everyone should have basic computer skills.

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My cousin Gary, who is only 14 years old, can design his own tablet applications.

1991 is the year when WWW became available for everyone.

I think, I believe because, so, therefore

I prefer...

I'd rather...

She is my digital friend who has the coolest avatar.

I watched a documentary which was about technology and the use of social media.

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**1. Talking about imaginary situations**

**2. Expressing wishes**

**3. Guessing meaning from the context**

**23 Nisan Ulusal Egemenlik ve Çocuk Bayramı**

**ATATÜRK İLKELERİ**

**Halkçılık**

**Theme 9**

If I were a hero, my superpowers would be...

If I were a hero, I would help other people.

If I had superpowers, I would...

If I were invisible, I would...

If I were rich, I'd buy ...

If I were you, I'd tell the truth.

I wish I could fly.

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“My hero is... because...”

Aziz Sancar is our national modern hero because...

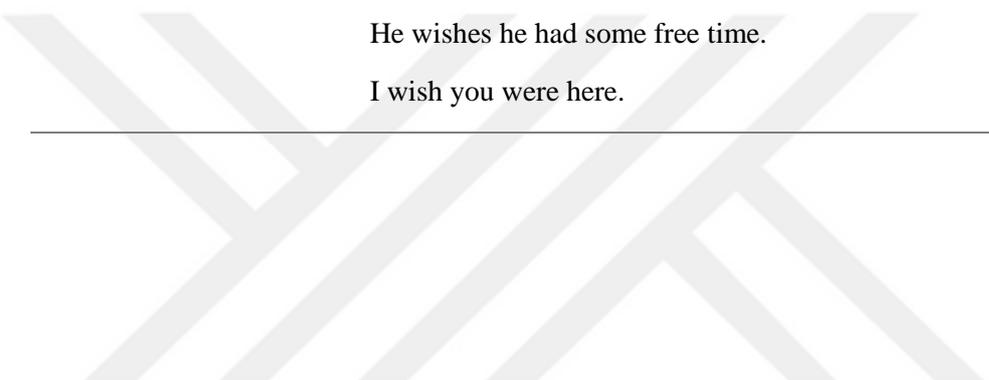
I think Canan Dağdeviren is a modern heroine because...

Kenan Sofuoğlu is the most successful World Supersport rider of all time

He wishes he had some free time.

I wish you were here.

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## APPENDIX 9. Detailed Lesson Plans

<b>Lesson Plan 1 – In-class activity</b>	
<b>Date</b>	23.02.2022
<b>Theme</b>	Theme 6: Helpful Tips
<b>Name of topic</b>	What should people do to live in a better world? / Describing energy sources
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking and creative skills to reflect on their ideas</li> <li>- To develop cause-and-effect relationships through increasing awareness of the topic</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify energy sources</li> <li>- talk about energy sources' effects on humans' lives</li> <li>- work collaboratively with peers to describe energy sources</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to energy sources and their influences</li> <li>- make inferences about energy sources</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (students book pp. 74-75)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
	<b>Warm-up:</b>

**Procedure**

After meeting in the library and setting up technical equipment, the teacher greets the students and asks how they are.

Then, the teacher introduces the topic by making a connection with the previous lesson as a reminder. As a warm-up activity, she draws their attention to the topic to show the picture and asks the questions below:



1. What does the picture tell you?
2. How is it related to using energy sources?

After she elicits the answers, she gives examples regarding the effects of energy sources on human beings' lives. Then, she introduces the activity and its procedure. Then, she wants two students to create two worlds and host them to invite other students to play. Based on the topic of the day (describing energy sources), the teacher wants her students to reflect on their ideas about the worlds they work in by building new constructions to show energy sources.

**Building:**

Based on the arrangements of the teachers, students work in groups of nine to complete the worlds they are hosted. They reflect their energy source ideas by constructing. During that phase, the teacher visits each student to learn the progress of work. She leads questions such as: "What is it?" "How can you describe it?" and "What is the function of it?" to understand the students' worlds. While working cooperatively, students use English as much as possible.

**Wrap-up:**

As a closure activity, the teacher and the learners clarify the energy sources together by talking about the buildings of the learners, and she wants two students who host the worlds to save them to use for the next in-class lesson.

<b>Lesson plan 1 – Out-class activity</b>	
<b>Date</b>	23.02.2022
<b>Theme</b>	Theme 6: Helpful Tips
<b>Name of topic</b>	Youth problems / Brainstorming
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking and creative skills to reflect on their ideas</li> <li>- To increase awareness of learners regarding the topic</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify youth problems</li> <li>- talk about youth problems</li> <li>- work collaboratively with peers to determine youth problems</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to youth problems</li> <li>- make guesses about youth problems</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (students book p. 79)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b> As a warm-up activity, the teacher greets the students. Then, to familiarize learners with the topic, the teacher mentions youth and their age first. After that, she asks: "What can you suggest for today's youth?" to develop a view of the topic. She elicits the students' answers and leads the conversation to youth problems. To make an introduction to the topic, she asks about the possible youth problems of the learners. Based on the answers of the students, she reminds them of the anticipated responses below:</p>

parental pressure  
 peer pressure  
 tests and exam  
 fear  
 distraction  
 learning difficulties  
 unhealthy lifestyle

After talking about youth problems, the teacher creates and hosts a game world and invites students to play in it.

**Building:**

When the students are invited to the game world, the teacher uses the classroom mode of the gameplay to talk with the students about the topic to allocate their work. To work in the same world, the students play the game as a whole group (consisting of eighteen students), and they are encouraged to use written chat by their teacher.

The teacher uses a written chat part and asks: “How can you describe youth problems?” to the students to work on it. Then, she controls the students’ work through game mechanics (added signs or tables and chat part), and she asks questions regarding their construction by writing: “Which youth problem are you describing?” “How can you reflect your idea?” and “How is it going on?” In this way, she gets a chance to prompt learners to practice language. Moreover, during the gameplay, the students are expected to find an NPC, board, or sign in the game that leads them to form their constructions.

**Wrap-up:**

To finish the activity, the teacher and the students mention the problems of youth again. The students present their constructions reflecting their ideas. Then, the teacher saves the world to continue in the following week.

<b>Lesson Plan 2 – In-class activity</b>	
<b>Date</b>	02.03.2022
<b>Theme</b>	Theme 6: Helpful Tips
<b>Name of topic</b>	What should people do to live in a better world? / Things to do to save energy
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking and creative skills to reflect on their ideas</li> <li>- To develop cause-and-effect relationships through increasing awareness of the topic</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify the ways to save energy</li> <li>- talk about wasting energy sources' effects on humans' lives</li> <li>- work collaboratively with peers to describe saving energy sources</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to things to save energy sources</li> <li>- make inferences about regulations to use energy sources effectively</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students book pp. 77-78)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b> When the teacher comes into the library, she makes sure of the availability of technical equipment. Then, she greets learners and asks how they feel. Before a warm-up activity, she wants her students to describe energy sources first to remember the previous lesson. Then, she asks about the ways of using the energy sources efficiently. After eliciting learners' answers, she dives into the topic by asking: "How can we save energy sources?" to grab the students' attention.</p>

Then, she introduces the topic (Things to do to save energy) and arranges the groups of nine to work together. She asks the two students who hosted and saved the worlds in the previous week to invite their friends to the game worlds again.

**Building:**

The students in the two groups allocate their duties to work cooperatively to reflect their ideas about saving energy sources. The students are asked to finish their work this week in the same world hosted in the previous week. During construction, the teacher observes students and asks questions regarding their work. To do that, she leads questions like “How can we save energy with it?”, “How is it working?” and “What is the purpose of it?”. In addition, she asks students to describe their work to their friends when they complete it.

**Wrap-up:**

As a closure activity, the teacher wants her students to complete their work and share their ideas with their friends to reinforce the topic. The students and the teacher talk about the ways of using and saving energy wisely to finish the lesson.

<b>Lesson plan 2 – Out-class activity</b>	
<b>Date</b>	02.03.2022
<b>Theme</b>	Theme 6: Helpful Tips
<b>Name of topic</b>	Youth problems / Finding solutions
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking and creative skills to reflect on their ideas</li> <li>- To increase awareness of learners regarding the topic by improving cause-and-effect relationships</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- create solutions to youth problems</li> <li>- work collaboratively with peers to develop resolutions to youth problems</li> <li>- practice the vocabulary regarding the topic - ask and answer questions related to youth problems and their solutions</li> <li>- make guesses about remedies to youth problems</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book p. 81)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b></p> <p>The teacher and the students meet in the library, and the teacher greets them and asks how they are. Then, she reminds them of the previous lesson's topic by stating youth problems. After that, to catch the learners' attention, she asks: "How can you overcome youth problems?". After the students' responses, she asks more specific questions by pointing out the determined youth problem in the previous week, such as: "How can you solve ..... problem?" Based on the learners' ideas, the students make a discussion about the most proper way for solving the specific problem.</p>

	<p>To end the warm-up section, the teacher hosts the game world that she created in the previous week and invites the students to play the game.</p> <p><b>Building:</b> The students are asked to work in one large group and allocated their duties to complete the work that they started the week before. The teacher uses written chat parts and announces that they will reflect their solution ideas regarding youth problems. While they are working on their buildings, the teacher observes the progress of their work and asks written questions through the chat part of the game to make them describe their work.</p> <p>Furthermore, the teacher warns her students whether they find any NPCs, tables, or signs in the world. She asks them to inform the teacher when they find any of them. In this way, the students are expected to practice the language by comprehending the written requests of the game inserted by their teacher.</p> <p><b>Wrap-up:</b> To finish the activity, the students describe their completed work to their peers and the teacher. The teacher saves the world and thanks practical solutions created by the students.</p>
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<b>Lesson plan 3 – In-class activity</b>	
<b>Date</b>	09.03.2022
<b>Theme</b>	Theme 7: Food and Festivals
<b>Name of topic</b>	A festival with food and activities / A world festival in general
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking and creative skills to reflect on their ideas</li> <li>- To increase awareness of learners regarding the topic through world festival knowledge</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify a world festival in general</li> <li>- work collaboratively with peers to describe a world festival</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to a world festival and its traditional activities</li> <li>- make explanations about traditions regarding a world festival</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book, pp. 86-87, workbook, p.54)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b></p> <p>The group meets in the library, and the teacher comes and greets the students. Then she asks how they are. After that, she wants her students to describe the word festival by means of a question: "What is festival?" To get more specific answers, the teacher delves into the topic by asking: "What kind of activities are done at a festival?" To make learners familiar with the topic, she gives an example of a Turkish festival, the International Orange Blossom Festival, held in Adana. Then, the teacher asks learners' opinions about the activities and traditions at the festival.</p>

	<p>Then, the teacher introduces the topic (A world festival in general) and presents the groups of nine to work together. She asks the two students to host and invite their group friends to the game worlds.</p> <p><b>Building:</b> The students are asked to work in two groups to describe their world festival in the game world. The learners work cooperatively to reflect their ideas regarding a world festival that they decide to introduce.</p> <p>During the construction phase, the teacher visits the students and asks which world festival they choose and work on it. Furthermore, she asks: “What is the most important feature of the festival?” and “What kind of activities are held in the festival?” to get detailed information about the students’ work.</p> <p><b>Wrap-up:</b> The students are asked to describe their completed work to their peers and the teacher through the questions asked by the teacher. The teacher wants the two students to save the world for next week’s gameplay session.</p>
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<b>Lesson plan 3 – Out-class activity</b>	
<b>Date</b>	09.03.2022
<b>Theme</b>	Theme 7: Food and Festivals
<b>Name of topic</b>	Turkish festivals / Guessing the festivals
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking and creative skills to reflect on their ideas</li> <li>- To increase awareness of learners regarding the topic by improving cause-and-effect relationships</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify Turkish festivals</li> <li>- work collaboratively with peers to describe and present Turkish festivals</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to Turkish festivals and their features</li> <li>- make guesses about features belonging to Turkish festivals</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book pp. 89-90-91)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b> The teacher comes to the library and greets the students. After asking how they are, she initiates the lesson by asking a question: "How many Turkish festivals do you know?" Thanks to that question, learners feel familiar with the topic. Based on the learners' responses, she leads more questions such as: "Which Turkish festival is your favorite one?" and "Why?" to make learners give explanations regarding the festivals and use the target language as much as possible.</p>

	<p>Then, she introduces the topic (Guessing the festivals) by explaining the game that the group will play. By using the chat part of the game, the teacher is going to ask about the features of the Turkish festivals. The group makes guesses, and the students give answers individually. Then, they reflect on their construction ideas regarding the festivals in the game. To go on with the game, the teacher creates and hosts the game world, and she invites all the students to the game world.</p> <p><b>Building:</b> The teacher begins the game after making sure that everything is ready. By using the chat part of the game, she asks the questions below:</p> <ol style="list-style-type: none"><li>1. After fasting for one month, people celebrate the festival. What is the name of that festival?</li><li>2. It is a religious festival, and people eat meat. Which festival is it?</li><li>3. It is a national festival day. On that day, the children celebrate their day. There are flags and balloons over there. What is the name of the festival?</li><li>4. On that day, people celebrate Turkey's new regime and their freedom. They use torches and flags for decoration. What is the name of the festival?</li></ol> <p>Based on the learners' responses, the teacher asks them to build four Turkish festivals. The students are expected to work cooperatively to initiate construction. During that phase, the teacher asks questions regarding their progress, such as: "Which festival are you planning to construct?" and "What is the name of the festival?" Moreover, during the gameplay, the students are expected to find an NPC, board, or sign in the game that leads them to form their constructions.</p> <p><b>Wrap-up:</b> To end the activity, the students mention their construction by giving details about their plans. The teacher saves the game world to play for next week.</p>
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<b>Lesson plan 4 – In-class activity</b>	
<b>Date</b>	16.03.2022
<b>Theme</b>	Theme 7: Food and Festivals
<b>Name of topic</b>	A festival with food and activities / Food of the festival
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking and creative skills to reflect on their ideas</li> <li>- To increase awareness of learners regarding the topic through world festival knowledge</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify the food in a world festival</li> <li>- work collaboratively with peers to describe a world festival in terms of food</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to a world festival and its food culture</li> <li>- make explanations about food traditions regarding a world festival</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book, p. 92, workbook, p.57)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b> After meeting in the library, the teacher comes and greets the students. Then, she asks how they feel. As a warm-up activity, the teacher asks: "What is the specific food at a festival?" to grab learners' attention to the topic. Then, after the students' answers, the teacher asks about the food at a festival that the learners work on to introduce the topic. The students are expected to give examples regarding food at their festival.</p> <p>Then, the teacher introduces the topic (Food of the festival) and arranges for groups of nine to work together. She asks the two students who hosted and</p>

	<p>invited their friends in the previous week to host the game worlds again.</p> <p><b>Building:</b> The students work in two groups to expand their work regarding describing a world festival by adding food details to them. Thus, the students are encouraged to work collaboratively.</p> <p>During the construction phase, the teacher visits the students and asks for food that they are adding. In this way, the students describe the food in general by practicing the language.</p> <p><b>Wrap-up:</b> As a closure activity, the teacher asks her students to introduce their completed work. Then, she wants the two students to save the world for next week's gameplay session.</p>
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<b>Lesson plan 4 – Out-class activity</b>	
<b>Date</b>	16.03.2022
<b>Theme</b>	Theme 7: Food and Festivals
<b>Name of topic</b>	Turkish festivals / Reflecting on the festivals
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking and creative skills to reflect on their ideas</li> <li>- To increase awareness of learners regarding the topic by improving cause-and-effect relationships</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify Turkish festivals and their features</li> <li>- work collaboratively with peers to describe and present Turkish festivals</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to Turkish festivals and their features</li> <li>- give details regarding Turkish festivals</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book pp. 89-90-91)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
	<p><b>Warm-up:</b></p> <p>The group meets in the library, and the teacher greets the students. After asking how they are, she initiates the lesson by asking a question regarding the previous lesson's topic: "Do you remember the Turkish festivals that we talked about last week?" Students give their answers, and they mention the previous week's festivals.</p>

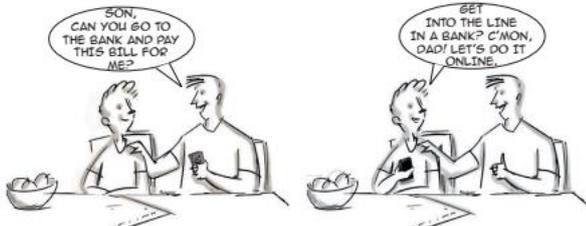
<p><b>Procedure</b></p>	<p>After that, the teacher introduces the topic (Reflecting on the festivals). She explains the procedure that the students work on the constructions that they started in the previous week. The teacher hosts the same game world and invites the students.</p> <p><b>Building:</b></p> <p>The students start the game by playing in one large group. They allocate their duties by themselves and canalize the constructions. The teacher uses the written chat part and asks questions to check the progress of the work of the students. She leads questions such as: “What is the meaning of .... item?” and “What are you planning to add?” The students give answers to their teacher and give information about their progress. Moreover, during the gameplay, the students are expected to find an NPC, board, or sign in the game that leads them to form their constructions.</p> <p><b>Wrap-up:</b></p> <p>As for closure, the teacher reminds the students of the time and finishes their word for the week. She explains that they are going to build in the same game world in the following week as well. Therefore, the teacher saves the game world to play for next week.</p>
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<b>Lesson plan 5 – In-class activity</b>	
<b>Date</b>	23.03.2022
<b>Theme</b>	Theme 7: Food and Festivals
<b>Name of topic</b>	A festival with food and activities / Activities of the festival
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking skills and reflect their ideas</li> <li>- To increase awareness of learners regarding the topic through world festival knowledge</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify the activities in a world festival</li> <li>- work collaboratively with peers to describe a world festival in terms of activities</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to a world festival and its activities</li> <li>- make explanations about activity traditions regarding a world festival</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book, p.89-90-91, workbook, p.57)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b> The group meets in the library, and the teacher comes and greets the students. Then, she asks how they are. As a warm-up activity, the teacher asks: "What kind of activities are done at a festival?" to approach the topic. Based on the learners' responses, the teacher leads more specific questions to learn the activities held at the festival that the students decide to describe.</p>

	<p>After that, the teacher introduces the topic (activities of the festival) and arranges for groups of nine to work together. She asks the two students who hosted and invited their friends in the previous week to host the game worlds again.</p> <p><b>Building:</b> The students work in two groups to expand their work regarding describing a world festival by adding activities and details to them. Thus, the students work collaboratively to complete their work.</p> <p>During the construction phase, the teacher visits the students and asks for activities that they are adding. In this way, the students describe the festival activities in general by practicing the language.</p> <p><b>Wrap-up:</b> As a wrap-up, the teacher asks her students to present their completed work. Then, she wants the two students to save the world to end the activity.</p>
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<b>Lesson plan 5 – Out-class activity</b>	
<b>Date</b>	23.03.2022
<b>Theme</b>	Theme 7: Food and Festivals
<b>Name of topic</b>	Turkish festivals / Reflecting on the festivals
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking skills and reflect their ideas</li> <li>- To increase awareness of learners regarding the topic by improving cause-and-effect relationships</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify Turkish festivals and their features</li> <li>- work collaboratively with peers to describe and present Turkish festivals</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to Turkish festivals and their features</li> <li>- give details regarding Turkish festivals</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book pp. 89-90-91)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
	<p><b>Warm-up:</b></p> <p>The group meets in the library, and the teacher greets the students. After asking how they are, she initiates the lesson by asking a question regarding the previous lesson's topic: "Do you remember the Turkish festivals that we talked about last week?" Students give their answers, and they mention the previous week's festivals.</p> <p>After that, the teacher introduces the topic (Reflecting on the festivals). She explains the procedure that the students work on the same</p>

<b>Procedure</b>	<p>constructions and finish them. The teacher hosts the same game world and invites the students.</p> <p><b>Building:</b> The students play the game by playing in one large group. They are supposed to finish their work; thus, they allocate their duties and work collaboratively. The teacher asks for details about their work by means of a written chat, such as: “How do you complete your work?” and “Have you finished?” to check the progress of the learners. Moreover, during the gameplay, the students are expected to find an NPC, board, or sign in the game that leads them to form their constructions.</p> <p><b>Wrap-up:</b> To end the activity, the teacher wants her students to present their construction to their peers. Other students are expected to make comments on the presented work. The teacher thanks every student’s effort and work. She finishes the activity and saves the game world.</p>
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<b>Lesson plan 6 – In-class activity</b>	
<b>Date</b>	28.03.2022
<b>Theme</b>	Theme 8: Digital Era
<b>Name of topic</b>	Technologic world / Creating a technological world
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking skills and reflect their ideas</li> <li>- To increase awareness of learners regarding the topic through a cause-and-effect relationship</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify a technological era</li> <li>- work collaboratively with peers to describe a technological world</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to technology</li> <li>- create ideas regarding the technological world</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book, p.96-97)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b></p> <p>The teacher and the students meet in the library, and the teacher greets the students before starting. Then, she asks how they feel. As a warm-up activity, to make the learners familiar with the activity, the teacher reminds the picture below:</p>  <p>The cartoon consists of two panels. In the first panel, a father is sitting at a table with a bowl of fruit, looking at a smartphone. He says, "SON, CAN YOU GO TO THE BANK AND PAY THIS BILL FOR ME?". In the second panel, the father is still at the table, looking at the smartphone. He says, "GET INTO THE LINE IN A BANK? C'MON, DAD! LET'S DO IT ONLINE." The son is standing next to him, looking at the phone.</p>

Then, she asks: “What kind of changes do we have thanks to technology?” to make the topic deeper. Based on the students’ answers, the students and the teacher talk about technological devices and their effects on human lives.

After that, the teacher introduces the topic (Creating a technological world) and asks the students to build a technologically equipped world. Then, she arranges for the groups of nine to work. She asks the two students to host the game world and invite their friends.

**Building:**

The students work in two groups to build a technological world. Thus, the students work collaboratively to reflect on their ideas.

During the construction phase, the teacher visits the students and asks for their work by asking: “What is ...?” “How can we use ... device?” and “How is it going on?” to learn the details and be aware of the progress of their work. In this way, the students are encouraged to practice the target language.

**Wrap-up:**

As a closure activity, the teacher asks her students to present their technological worlds and describe the technological equipment that they build. Then, she wants the two students to save the game worlds to continue for the next week.

<b>Lesson plan 6 – Out-class activity</b>	
<b>Date</b>	28.03.2022
<b>Theme</b>	Theme 8: Digital Era
<b>Name of topic</b>	Social media & effects / Describing social media accounts
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking skills and reflect their ideas</li> <li>- To increase awareness of learners regarding the topic by improving cause-and-effect relationships</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- explain what social media is</li> <li>- give details regarding social media</li> <li>- work collaboratively with peers to describe social media accounts</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to social media and social media accounts</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book pp. 100-102)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
	<p><b>Warm-up:</b> The teacher comes and greets the students, and she asks how they are. To initiate the lesson, she gives an example by saying: "Today, I have received a short video through my favorite social media account". Then, she asks her students to guess which social media account she is mentioning. In this way, the teacher grabs the learners' attention. To extend the topic, she asks the learners to describe what social media is.</p>

<p><b>Procedure</b></p>	<p>According to the responses of the learners, they describe social media and social media accounts.</p> <p>After that, the teacher introduces the topic (Describing social media accounts). She explains the procedure by which the students work in one large group to describe social media accounts. The teacher hosts game world and invites the students.</p> <p><b>Building:</b></p> <p>The students start to play the game by playing in one large group. They are expected to work in small groups and cooperate with their friends to share responsibilities. During the construction, the teacher asks for details about their work by means of a written chat, such as: “Which social media account are you working on?” “What is the logo of this social media account?” and “How is it going on?” Moreover, during the gameplay, the students are expected to find an NPC, board, or sign in the game that leads them to form their constructions.</p> <p><b>Wrap-up:</b></p> <p>To end the activity, the teacher wants her students to mention their construction to their peers by introducing social media accounts. The teacher finishes the activity and saves the game world for the following week.</p>
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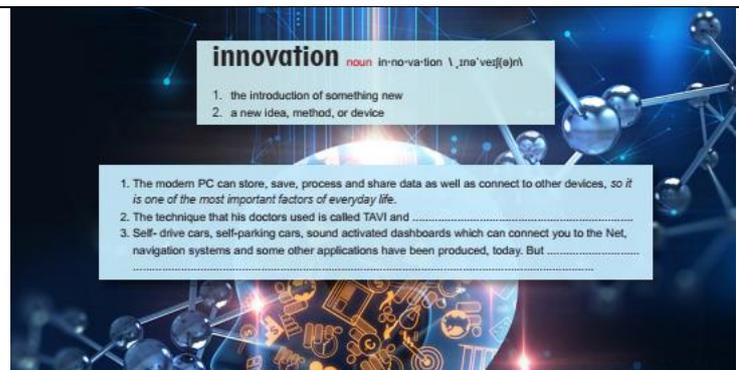
<b>Lesson plan 7 – In-class activity</b>	
<b>Date</b>	06.04.2022
<b>Theme</b>	Theme 8: Digital Era
<b>Name of topic</b>	Technologic world / Advantages & Disadvantages
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking skills and reflect their ideas</li> <li>- To increase awareness of learners regarding the topic through a cause-and-effect relationship</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify the advantages and disadvantages of technological devices</li> <li>- work collaboratively with peers to talk about the advantages and disadvantages of technological devices</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to technology</li> <li>- create ideas regarding the technological world and its effects on humans</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book, p.98-99-103)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b></p> <p>The group meets in the library, and the teacher greets the students and asks how they are. The teacher mentions the previous week's topic first to make the learners familiar with the activity. Then, she asks: "What are the benefits of technology?" to grab the students' attention to the topic. Based on the learners' answers, she deepens the topic by saying: "In what ways does technology make human life easier?" After that, she continues by asking: "What are the harms of technology?" and "In what ways does technology make human life more difficult?" According to the responses of the learners, the group talks about the advantages and disadvantages of technology.</p>

	<p>Then, the teacher introduces the topic (Advantages and disadvantages) and asks the students to expand their technologically equipped world by adding constructions to show the positive and negative sides of technology. Then, she arranges the groups of nine. She asks the two students who hosted the game world in the previous week to host the game world and invite their friends again.</p> <p><b>Building:</b> The students work in two groups to display the advantages and disadvantages of the technological world. Thus, the students work collaboratively to reflect on their ideas.</p> <p>While the students are constructing, the teacher visits them and asks for their work by asking: “What is ...?” “What is the benefit/harm of .....?” and “How is it going on?” to learn the details and be aware of the progress of their work. In this way, the students are prompted to practice the target language.</p> <p><b>Wrap-up:</b> To finish the activity, the teacher asks her students to present their technological worlds that show advantages and disadvantages. Then, she wants the two students to save the game worlds to continue.</p>
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<b>Lesson plan 7 – Out-class activity</b>	
<b>Date</b>	06.04.2022
<b>Theme</b>	Theme 8: Digital Era
<b>Name of topic</b>	Social media & effects / Positive aspects of social media
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking skills and reflect their ideas</li> <li>- To increase awareness of learners regarding the topic by improving cause-and-effect relationships</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- explain the positive aspects of social media</li> <li>- give details regarding the positive sides of social media</li> <li>- work collaboratively with peers to describe the positive sides of social media and social media accounts</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions regarding the positive aspects of social media and social media accounts</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Workbook p. 62)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
	<p><b>Warm-up:</b></p> <p>The teacher greets the students, and she asks how they feel. Then, she talks about the previous lesson's topic by stating social media and social media accounts. After that, to make learners familiarize with</p>

<p><b>Procedure</b></p>	<p>the topic, she asks: “What are the positive aspects of social media accounts on human lives?”. She wants the students to give examples and talk about the positive aspects of social media accounts.</p> <p>Then, the teacher introduces the topic (Positive aspects of social media). She explains the procedure by which the students work in one large group to enrich the game world by adding positive aspects of social media accounts to the game world. The teacher hosts game world and invites the students.</p> <p><b>Building:</b></p> <p>The students work in one large group. Therefore, they are expected to work in small groups and collaborate with their friends to allocate duties. During the construction, the teacher asks for details about their work by means of a written chat, such as: “Which positive aspect are you working on?” and “How is it going on?” Moreover, during the gameplay, the students are expected to find an NPC, board, or sign in the game that leads them to form their constructions.</p> <p><b>Wrap-up:</b></p> <p>To end the activity, the teacher wants her students to present their construction to their friends by introducing positive aspects of social media accounts. The teacher finishes the activity and saves the game world for the following week.</p>
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<b>Lesson plan 8 – In-class activity</b>	
<b>Date</b>	20.04.2022
<b>Theme</b>	Theme 8: Digital Era
<b>Name of topic</b>	Technologic world / Advantages & Disadvantages
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking skills and reflect their ideas</li> <li>- To increase awareness of learners regarding the topic through a cause-and-effect relationship</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify the advantages and disadvantages of technological devices</li> <li>- work collaboratively with peers to talk about the advantages and disadvantages of technological devices</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to technology</li> <li>- create ideas regarding the technological world and its effects on humans</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book, p.98-99-103)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b></p> <p>After meeting in the library, the teacher greets the students and asks how they feel. Then, to catch the learners' attention, she talks about the previous week's topic by stating the advantages and disadvantages of technology.</p> <p>Then, the teacher wants the students to think about the advantages and disadvantages of technology in terms of technological devices from the past to the present. She remarks on the word "<i>innovation</i>" to assist learners in using the language.</p>



Then, she asks: “What is the most beneficial technological innovation for humanity?” According to the responses of the learners, she asks: “What is the most useless innovation?” to lead the students to think from a distinct perspective.

After that, the teacher introduces the topic (Advantages and disadvantages) and asks the students to enrich their technological world by inserting buildings to show the advantageous and disadvantageous innovations of technology. Then, she makes groups of nine. She wants the two students who hosted the game world in the previous week to host the game world and invite their friends again.

**Building:**

The students work in two groups to reflect on their ideas regarding the advantages and disadvantages of technological innovations. Thus, the learners work in a collaborative way to display their ideas.

While the students are continuing their buildings, the teacher visits them and asks for their work by asking: “What is the name of this innovation?” “What are the advantages/disadvantages of .....?” and “How is it going on?” to learn more about their work. Therefore, the students are triggered to practice the target language.

**Wrap-up:**

To end the activity, the teacher asks her students to present their technological worlds that show the advantages and disadvantages of technological innovations. Then, she wants the two students to save the game worlds.

<b>Lesson plan 8 – Out-class activity</b>	
<b>Date</b>	20.04.2022
<b>Theme</b>	Theme 8: Digital Era
<b>Name of topic</b>	Social media & effects / Negative aspects of social media
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking skills and reflect on their ideas</li> <li>- To increase awareness of learners regarding the topic by improving cause-and-effect relationships</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- explain the negative aspects of social media</li> <li>- give details regarding the opposing sides of social media</li> <li>- work collaboratively with peers to describe the opposing sides of social media and social media accounts</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions regarding the negative aspects of social media and social media accounts</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Student's book p.102, Workbook p. 63)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
	<p><b>Warm-up:</b></p> <p>The teacher and the students meet, and then the teacher greets the students, and she asks how they are. She wants her students to talk about the positive aspects of social media in a brief way to remember the previous lesson's topic. She uses the term "<i>netiquette</i>" to draw the learners' attention. Then she asks whether the students know the meaning of it or not, as shown below:</p>

## Procedure

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Read the following statements related to using the Internet and social media and discuss to find out the problems.

1. A friend of mine tagged me in a picture without permission.
2. While I was reading comments on a forum page, I saw some offensive and foul language.



After that, she asks a question: “What are the negative sides of social media accounts?” She wants her students to think outside of the box and develop a critical thinking ability.

Then, the teacher introduces the topic (Negative aspects of social media). She describes the process by which the students play the game in one large group to enrich the game world by adding negative aspects of social media accounts to the game world. The teacher hosts game world and invites the students.

### Building:

Since the students work in one large group, they are supposed to work in small groups and cooperate with their friends to allocate tasks. During the construction, the teacher asks for details about their work through a written chat, such as: “Which negative aspect are you working on?” and “How is it going on?” Moreover, during the gameplay, the students are expected to find an NPC, board, or sign in the game that leads them to form their constructions.

### Wrap-up:

To finish the activity, the teacher wants her students to explain their construction to their friends by describing the negative aspects of social media accounts. The teacher finishes the activity and saves the game world for the following week.

<b>Lesson plan 9 – In-class activity</b>	
<b>Date</b>	27.04.2022
<b>Theme</b>	Theme 8: Digital Era
<b>Name of topic</b>	Technologic world / New habits of humans
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking and creative skills to reflect on their ideas</li> <li>- To increase awareness of learners regarding the topic through a cause-and-effect relationship</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify the new habits of humans resulting from technological innovations</li> <li>- work collaboratively with peers to mention the new lifestyle of humans</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to technology and the lifestyle of humans</li> <li>- create ideas regarding technological innovations and habits</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students' book, pp.104-105)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b></p> <p>The teacher greets the students and asks how they feel. Then, to familiarize the students, she talks about the previous week's topic by talking about innovations. Then, she wants the students to think about new habits and attitudes that they gain due to technological innovations. To do that, she reminds them of the technological devices and people's preferences in the picture below:</p>

**4 C**

Share your preferences in technological devices orally with your friends, as in the examples below. The list of devices may be of help.

E.g. I prefer small size mobile phones to the ones with large screens.  
I'd rather buy a laptop than a tablet PC. It is better for office work.

a desktop PC	a laptop
a wireless printer	corded printer
a smart phone	a tablet PC
memory card	USB devices
e- book reader	smart watches



After that, she leads a question: “What did you do before earphones?” to make learners think from a varied perspective. Then, she asks another question: “What habits did you start after mobile phones?” According to the learners’ responses, the group determines the new attitudes of humans.

Then, the teacher introduces the topic (New habits of humans) and asks the students to enrich their technological world by adding new habits of humans. She reminds them that they can benefit from game mechanics like characters, signs, or boards. Then, she makes two groups of nine. She wants the two students who hosted the game world in the previous week to host the game world and invite their friends again.

**Building:**

The students work in two groups to reflect on their ideas based on the technological habits of humans. Thus, the learners work in a collaborative way to display their thoughts.

During the construction phase, the teacher visits the learners and asks for their work by asking: “Which habit are you working on?” “Which technological innovation does lead to this habit?” and “How is it going on?” to get more information about their work. Thus, the students are encouraged to use the target language.

**Wrap-up:**

To end the activity, the teacher asks her students to introduce their technological worlds that show the advantages and disadvantages of technological innovations and the technological habits of humans. Then, she wants the two students to save the game worlds.

<b>Lesson plan 9 – Out-class activity</b>	
<b>Date</b>	27.04.2022
<b>Theme</b>	Theme 8: Digital Era
<b>Name of topic</b>	Social media & effects / What would happen without social media?
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking and creative skills to reflect on their ideas</li> <li>- To increase awareness of learners regarding the topic by improving cause-and-effect relationships</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- think about a hypothetical situation to develop ideas</li> <li>- give details regarding the world without social media</li> <li>- work collaboratively with peers to describe an imaginary world without social media</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions regarding the visionary world that they create</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Student's book pp. 96-97)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
	<p><b>Warm-up:</b></p> <p>The teacher and the students meet in the library, and the teacher greets the students first. Then, she asks how they feel. After that, to initiate the lesson, she talks about the previous week's topic in a brief way as a reminder. Then, she wants her students to think about the world without having any social media</p>

<p><b>Procedure</b></p>	<p>accounts. Thus, she leads a question: “What would you do if you did not have social media?” After a small talk with the students, she asks another question to help learners think of an imaginary situation better: “What kind of activities would you do if you do after school if you do not have a social media account?”</p> <p>Then, the teacher introduces the topic (What would happen without social media?). She describes the process by which the students play the game in one large group to work in the same game world by showing an imaginary world with no social media accounts. To do that, the teacher asks the students to use other parts of the game world to show the difference. Therefore, the teacher hosts the game world and invites the students.</p> <p><b>Building:</b></p> <p>The students work in one large group; therefore, they are supposed to work in small groups and collaborate with their friends to allocate responsibilities. During the construction, the teacher asks for deeper information about their work through a written chat, such as: “What are you building to show a world with no social media accounts?” “What are your plans?” Besides, she asks for the progress of the work by asking: “How is it going on?” The students are expected to give written answers. Moreover, during the gameplay, the students are expected to find an NPC, board, or sign in the game that leads them to form their constructions.</p> <p><b>Wrap-up:</b></p> <p>To finish the activity, the teacher wants her students to describe and present their constructions to their friends. Other students are expected to make comments or ask questions regarding the work. The teacher finishes the activity and saves the game world. She thanks every student for their effort and creativity.</p>
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<b>Lesson plan 10 – In-class activity</b>	
<b>Date</b>	11.05.2022
<b>Theme</b>	Theme 9: Modern Heroes and Heroines
<b>Name of topic</b>	“What would you do...?” /Support for disabled people
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners’ critical thinking and creative skills to reflect on their ideas</li> <li>- To increase awareness of learners regarding the topic through a cause-and-effect relationship</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- identify the challenges that disabled people may encounter</li> <li>- work collaboratively with peers to find ways to eliminate the troubles of disabled people</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions related to hypothetical situations</li> <li>- create ideas regarding acting like a hero to solve the problems</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Students’s book p:110, Workbook, pp.66-67)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
<b>Procedure</b>	<p><b>Warm-up:</b></p> <p>The teacher greets the students and asks how they are. To make learners ready for the topic, the teacher mentions famous heroes and heroines below:</p>



Aziz Sancar

... has won the Nobel Prize for Chemistry.



İdil Biret

... has performed with the world's major orchestras.  
... won France's Golden Diapason Award.



Dilhan Eryurt

... was the first Turkish astrophysicist at NASA.



Taha Akgül

... has won Olympic, World and European championships.



Usain Bolt

... is the holder of world records for 100 m & 200 m.  
... won 9 gold medals in 3 Olympic Games.



Oktay Sinanoğlu

... is known as Turkish Einstein.  
... developed a theory of the electronic structure of molecules.  
... won numerous scientific awards.

Then, she wants to learn the students feeling if they were a hero by asking: “How would you feel when you woke up as a hero/heroine one day?” According to the responses of the students, they talk about their emotions. After that, to approach the topic more, the teacher asks whether the students know the meaning of the word: “*disabled*”. After talking about that word, she asks: “What would you do for disabled people if you were a hero?” Moreover, to deepen the topic, she leads another question: “In what ways would you support disabled people if you were a hero?” After talking with the students, the teacher introduces the topic (Support for disabled people) and asks the students to work in a world as if they were heroes to solve the problems of disabled people. Then, she forms groups of nine. Two students are asked to create the world and invite their groups to work in it.

**Building:**

The students work in two groups to reflect on their ideas grounded on supporting disabled people acting like a hero. The learners are expected to work in a collaborative way to display their thoughts to complete their work.

During the construction phase, the teacher visits the learners and asks for their work by asking: “What kind of support are you planning for disabled people?” and “What are your powers as a hero/heroine?” In this way, the students are encouraged to practice the target language. To learn the progress of the students’ work, the teacher asks: “Have you completed your world?” and she says: “Let me know when you finish!” to take joint action.

**Wrap-up:**

As for the closure activity, the teacher asks her students to introduce their support for disabled people as being heroes/heroines by describing them. The students are expected to ask questions and make comments regarding the work. Lastly, the teacher thanks and asks the two students to save the game worlds.

<b>Lesson plan 10 – Out-class activity</b>	
<b>Date</b>	11.05.2022
<b>Theme</b>	Theme 9: Modern Heroes and Heroines
<b>Name of topic</b>	What if you were a hero? / The desired changes in the world
<b>Duration</b>	40 minutes
<b>Aims</b>	<ul style="list-style-type: none"> <li>- To comprehend the topic through warm-up and building activities</li> <li>- To improve learners' critical thinking and creative skills to reflect on their ideas</li> <li>- To increase awareness of learners regarding the topic by improving cause-and-effect relationships</li> </ul>
<b>Learning objectives</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>- think about a hypothetical situation to develop ideas</li> <li>- give details regarding the world without social media</li> <li>- work collaboratively with peers to create solutions to a hypothetical situation</li> <li>- practice the vocabulary regarding the topic</li> <li>- ask and answer questions regarding the visionary world that they create</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>- Students will be engaged in the theme to comprehend the topic efficiently</li> <li>- Students will be able to learn the vocabulary based on the topic</li> <li>- Students will be able to practice the language through activities</li> </ul>
<b>Materials</b>	Laptops, coursebooks (Student's book pp. 111-112, workbook: 68-69)
<b>Potential problems and solutions</b>	<ul style="list-style-type: none"> <li>- In case of insufficient numbers of laptops or plugs, the researcher will enable learners to utilize her materials.</li> <li>- In case of an internet loss, the researcher will supply her cellular internet.</li> <li>- If learners have unknown vocabulary regarding the topic, they will be allowed to use online dictionaries.</li> </ul>
	<p><b>Warm-up:</b></p> <p>The teacher and the students meet in the library, and the teacher greets the students and asks how they feel. After that, to initiate the lesson, she asks about the power or magics of the heroes by asking: "What kind of power do the heroes/heroines have?"</p>

<p><b>Procedure</b></p>	<p>According to the answers of the learners, she leads another question: “Would you want to use your power to change anything if you were a hero?”</p> <p>Then, the teacher introduces the topic (The desired changes in the world). She describes the activity in which the students reflect on their ideas about their desired changes in the world, acting like heroes/heroines. To complete the activity, the students play the game in one large group. Therefore, the teacher hosts the game world and invites the students.</p> <p><b>Building:</b> The students work in one large group; therefore, they are supposed to work in small groups and collaborate with their friends to share duties. Throughout the construction phase, the teacher asks for deeper information about their work through a written chat. Thus, she leads questions such as: “What changes are you planning to do?” “What kind of power are you planning to use as a hero/heroine?” and “What are your desired changes in the world?” To answer the questions, the students are encouraged to use written chats. Moreover, during the gameplay, the students are expected to find an NPC, board, or sign in the game that leads them to form their constructions.</p> <p><b>Wrap-up:</b> To finish the activity and end the gameplay sessions, the teacher thanks every student for their effort and creativity. Then, based on the last gameplay week’s topic, she wants her students to describe and present their constructions to their friends. During that phase, other students are expected to make comments or ask questions regarding the work.</p>
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