EXPLORING THE INTEGRATION OF INFORMAL LANGUAGE LEARNING EXPERIENCES IN COMMERCIAL-OFF-THE-SHELF GAMES INTO FORMAL LANGUAGE LEARNING SETTINGS

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ABSTRACT

EXPLORING THE INTEGRATION OF INFORMAL LANGUAGE LEARNING EXPERIENCES IN COMMERCIAL OFF-THE-SHELF GAMES INTO FORMAL LANGUAGE LEARNING SETTINGS

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The aim of this qualitative research study is to investigate how the informal language learning experiences gained through commercial off-the-shelf games can be effectively incorporated into foreign language curricula and formal language learning settings to bridge formal and informal language learning contexts, and what would be the related issues and challenges. The study also aimed to explore the perceptions of language teachers and students regarding the incorporation of COTS games into foreign language curricula. A total of 20 participants, 10 of whom are EFL students of a private university in English preparatory school, and 10 of whom are EFL teachers in seven foundational and three state universities English preparatory schools. The data of the study were collected through semi-structured interviews and a focus group interview with teachers and students, and stimulated recall interviews with students. All the data were audio-recorded, transcribed, and analyzed via MAXQDA 2022. Reflexive thematic analysis method based on Braun and Clarke (2021)’s principles was used for data analysis. The findings of the study indicated
that informal language learning experiences gained through COTS games has the potential to support the language learning in formal settings. Participants suggested several strategies for the integration. Overall, the participants indicated that integrating language learning experiences from COTS games into formal language learning contexts would offer them a significant amount of language input, particularly in terms of vocabulary and daily expressions, and it would be highly motivating for their language learning process.

**Keywords:** Commercial Off-The-Shelf Games, Informal Learning, Foreign Language Learning
ÖZ

EĞİTİM AMAÇLI GELİŞTİRİLMEMİŞ OYUNLARDAKİ INFORMEL DİL ÖĞRENME DENEYİMLERİNİN FORMEL DİL ÖĞRENME ORTAMLARINA ENTEGRASYONUNUN ARAŞTIRILMASI

KOÇAK, Ece
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Tez Yöneticisi: Doç. Dr. Nur AKKUŞ ÇAKIR

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Bu nitel araştırma çalışmasının amacı, eğitim amaçlı geliştirilmemiş oyunlar aracılığıyla kazanılan informel dil öğrenme deneyimlerinin yabancı dil müfredatlarına ve formel dil öğrenme ortamlarına, formel ve informel dil öğrenme bağlamlarını birleştirmek için nasıl etkili bir şekilde entegre edilebileceğini ve ilgili sorunlar ve zorlukların neler olabileceğini araştırmaktadır. Ayrıca, COTS oyunlarının yabancı dil müfredatına entegrasyonu konusunda dil öğretmenlerinin ve öğrencilerin algılarını keşfetmeyi amaçlamaktadır. Çalışmanın katılımcıları toplamda 20 kişiden oluşmaktadır; bunlardan 10’u özel bir üniversitenin İngilizce hazırlık okullu İngilizce öğrencileri ve 10’u yedi vakıf ve üç devlet üniversitesinin İngilizce hazırlık okullarında İngilizce öğretmenleridir. Çalışmanın verileri, öğretmenler ve öğrencilerle yapılan yarı yapılandırılmış görüşmeler ve bir odak grup görüşmesi ile öğrencilerle gerçekleştirilen uyarılmış hatırlatma görüşmeleri aracılığıyla toplanmıştır. Tüm veriler ses kayıda alınmış, transkript edilmiş ve MAXQDA 2022 aracılığıyla analiz edilmiştir. Veri analizi için Braun ve Clarke’in (2021) prensiplerine dayalı olarak yansıtıcı tematik analiz yöntemi kullanılmıştır.
Çalışmanın bulguları, COTS oyunları aracılığıyla kazanılan informel dil öğrenme deneyimlerinin, formel ortamlarda dil öğrenmeyi destekleme potansiyeline sahip olduğunu göstermiştir. Katılımcılar, entegrasyon için çeşitli stratejiler önermiştir. Genel olarak, katılımcılar, COTS oyunlarından dil öğrenme deneyimlerini resmi dil öğrenme bağlamlarına entegre etmenin, özellikle kelime ve günlük dile ait ifadeler açısından, önemli bir dil girdisi sağlayacağını ve dil öğrenme süreçlerinde oldukça motive edici olacağını belirtmişlerdir.

Anahtar Kelimeler: Eğitim Amaçlı Geliştirilmemiş Oyunlar, İnfomel Öğrenme, Yabancı Dil Öğrenme
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# TABLE OF CONTENTS

PLAGIARISM ........................................................................................................... iii
ABSTRACT ............................................................................................................... iv
ÖZ .............................................................................................................................. vi
ACKNOWLEDGMENTS ......................................................................................... viii
TABLE OF CONTENTS ......................................................................................... ix
LIST OF TABLES .................................................................................................... xiii
LIST OF FIGURES .................................................................................................. xiv
LIST OF ABBREVIATIONS .................................................................................... xv

CHAPTERS

1. INTRODUCTION ............................................................................................... 1
   1.1. Background of the Study ........................................................................... 1
   1.2. Purpose of the Study and Research Questions ......................................... 4
   1.3. Significance of the Study ........................................................................... 5
   1.3. Definition of Terms .................................................................................... 7

2. LITERATURE REVIEW ....................................................................................... 9
   2.1. Game-Enhanced Learning vs. Game-Based Learning .............................. 9
       2.1.1. Digital Game-Enhanced Language Learning ........................................ 10
       2.1.2. Digital Game-Based Language Learning ............................................ 11
       2.1.3. Digital Game-Enhanced Language Learning (DGELL) vs. Digital Game-
               Based Language Learning (DGBLL) .................................................... 14
       2.1.4. Affordances of COTS Gameplay in Language Learning .................... 16
   2.2. Informal Learning ...................................................................................... 22
       2.2.1. Formal vs. Informal Learning .............................................................. 22
       2.2.2. Bridging Informal Gaming Learning Experiences and Formal Education . 27
   2.3. Summary of the Literature Review ............................................................ 40

3. METHODOLOGY ............................................................................................... 42
   3.1. Design of the Study ................................................................................... 42
   3.2. Participants and Sampling Procedure ....................................................... 44
   3.3. Data Collection Instruments ..................................................................... 47
3.3.1. Semi-Structured Interviews ................................................................. 47
3.3.2. Focus Group Interview ........................................................................ 49
3.4. Data Collection Procedures .................................................................. 49
3.5. Data Analysis .......................................................................................... 50
3.6. Researcher’s Role .................................................................................... 52
3.7. Ethical Considerations ............................................................................ 53
3.8. Limitations of the Study ......................................................................... 54
4. RESULTS .................................................................................................... 56
4.1.1.1. Bridging Informal Language Learning from COTS to Formal Classroom ...................................................................................................................... 57
4.1.1.1.1. Using COTS as Extracurricular and Supplementary Activities ...... 58
4.1.1.1.2. Expanding Language Learning in Classroom Through Out-of-Class Game-Related Content ................................................................................................. 61
4.1.1.1.3. Integration of Game Narrative and Storyline .............................. 63
4.1.1.1.4. Language Learning from Informal COTS Game Play Experience as a Motivational Force for Formal Language Learning Classrooms ..................... 65
4.1.2. What Challenges Educators Might Face When Incorporating Informal Language Learning Experiences Gained Through COTS Into Foreign Language Curricula, And What May Be The Suggestions For Overcoming These Challenges? ............................................................................................................. 70
4.1.2.1. Challenges and Limitations .............................................................. 70
4.1.2.1.1. Language Learning Challenges in COTS ................................ 71
4.1.2.1.2. Challenges and Barriers of Integration ....................................... 74
4.1.2.1.3. Negative Impacts and Concerns ............................................... 77
4.2. How do Students and Teachers Perceive The Incorporation Of COTS Games Into Foreign Language Curricula? .............................................................. 81
4.2.1. What Are The Potential Practices For Instructors To Effectively Incorporate COTS Games Into Foreign Language Curricula? ..................................... 81
4.2.1.1. Potentials of Integrating COTS Game Play to Formal Learning .... 82
4.2.1.1. Language Learning Opportunities and Engagement in Gaming ........82
4.2.1.1.2. Enhanced Language Skills and Cognitive Development ...........90
4.2.1.1.3. Increased Motivation for Language Learning .....................91
4.2.1.2. Integration of COTS Games into Formal Language Learning Settings....94
4.2.1.2.1. Preparation for the Integration ...........................................95
4.2.1.2.2. Teacher Training and Support ...........................................97
4.2.1.2.3. Strategies for the Integration .............................................98
4.2.1.3. Game Selection and Adaptation .............................................101
4.2.2. What Challenges Educators Might Face When Incorporating COTS Games into Foreign Language Curricula, And What May Be The Suggestions For Overcoming These Challenges? ..............................................106
4.2.2.1. Challenges and Limitations of Integration .................................106
4.3. Summary of the Results ..............................................................109
5. DISCUSSION AND IMPLICATIONS .................................................112
5.1. Discussion of the Results .............................................................112
5.1.1. Bridging Informal Language Learning Experiences in COTS into Formal Language Learning ..........................................................112
5.1.2. Potential Challenges of Bridging Informal and Formal Language Learning... .................................................................118
5.1.3. Integration of COTS Games into Foreign Language Classrooms and Curricula ..............................................................120
5.1.4. Potential Challenges of COTS Game Integration ..............................127
5.2. Implications .................................................................................128
5.2.1. Implications for Practice ..........................................................129
5.2.2. Implications for Further Research .............................................131
REFERENCES ..................................................................................133
APPENDICES
A. INTERVIEW PROTOCOL ................................................................143
B. INTERVIEW QUESTIONS FOR STUDENTS ..................................144
C. INTERVIEW QUESTIONS FOR TEACHERS ..................................148
D. FOCUS GROUP INTERVIEW QUESTIONS .....................................151
E. INFORMED CONSENT FORM .......................................................153
F. A SCREENSHOT OF MAXQDA .....................................................154
G. CODEBOOKS OF TEACHER, STUDENT AND FOCUS GROUP INTERVIEWS ........................................................................155
LIST OF TABLES

Table 3.1. Demographic Profile of Student Participants................................. 45
Table 3.2. Demographic Profile of Teacher Participants................................. 46
LIST OF FIGURES

Figure 2.1 Formal, Informal, Incidental, and Intentional Gameful L2TL ..................28
Figure 2.2 TPACK Model .........................................................................................33
Figure 2.3 PCaRD Model .........................................................................................33
Figure 3.1 Overall Design of the Study ......................................................................43
Figure 3.2 Development Process of Interview Questions ...........................................48
Figure 4.1 Theme and Sub-Themes Related to First Research Sub-Question of the First Research Question ..........................................................58
Figure 4.2 Theme and Sub-themes Related to Second Research Sub-Question of the First Research Question ..........................................................71
Figure 4.3 The First Theme and Sub-themes Related to First Research Sub-Question of the Second Research Question .........................................................82
Figure 4.4 The Second Theme and Sub-themes Related to First Research Sub-Question of the Second Research Question .................................................94
# LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>COTS</td>
<td>Commercial Off-The-Shelf</td>
</tr>
<tr>
<td>CS-GO</td>
<td>Counter-Strike: Global Offensive</td>
</tr>
<tr>
<td>DGBLL</td>
<td>Digital Game-Based Language Learning</td>
</tr>
<tr>
<td>DGELL</td>
<td>Digital Game-Enhanced Language Learning</td>
</tr>
<tr>
<td>DoTA</td>
<td>Defense of The Ancient</td>
</tr>
<tr>
<td>EFL</td>
<td>English as a Foreign Language</td>
</tr>
<tr>
<td>ESL</td>
<td>English as a Second Language</td>
</tr>
<tr>
<td>FPS</td>
<td>First Person Shooter</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>L2</td>
<td>Second Language</td>
</tr>
<tr>
<td>LOL</td>
<td>League of Legends</td>
</tr>
<tr>
<td>MMORPG</td>
<td>Massively Multiplayer Online Role-Playing Game</td>
</tr>
<tr>
<td>NTeQ</td>
<td>iNtegrating Technology through inQuiry</td>
</tr>
<tr>
<td>PC</td>
<td>Personal Computer</td>
</tr>
<tr>
<td>PCaRD</td>
<td>Play Curricular activity Reflection Discussion</td>
</tr>
<tr>
<td>RPG</td>
<td>Role-Playing Game</td>
</tr>
<tr>
<td>TPACK</td>
<td>Technological Pedagogical Content Knowledge</td>
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CHAPTER 1

INTRODUCTION

This chapter presents a brief background of the study, purpose and research questions, the significance of the study, and finally definitions of the terms used through the study.

1.1. Background of the Study

In recent years, students from all ages have been spending a considerable amount of their time with social media and digital games and thus becoming more digitally literate. Today’s students are “native speakers” of the digital language of Internet, video games, mobile phones and other technological devices, or as Prensky (2001) calls them, they are born as “digital natives” while the rest of the people including some of their teachers are “digital immigrants” who were not born into the digital world but have been trying to adopt to it. Consequently, the way students learn has changed, underscoring a necessity to embed their enthusiasm for using technology in the learning process as well (Gunuç & Babacan, 2018; Prensky, 2001; Wang & Winstead, 2016). However, most educators today are not able to answer this need because of the gap between the teacher’s and the learner’s use of technology, and this problem leads to a discrepancy between the teaching methods of educators and the learning ways of the students (Prensky, 2001). Some language teachers have started to use various online tools and games to overcome this gap by enhancing student learning experience, yet the use of technology in foreign language learning is no longer solely an effort of enthusiastic teachers but is a concern for every educator of language teaching. Therefore, if educators really want to reach digital native students, they need to reconsider both their methodology and content to teach a population that speaks an entirely new language, and learning via digital games is one good way to reach digital natives in their “native language.” (Prensky, 2001).
Public interest in the digital gaming industry has grown globally in recent years. Living in the technological age with a wide range of tools including computers, mobile phones, tablets, and consoles enables people to have an easy access to games. Therefore, there are billions of players all around the world, and the number of these players continues to increase. Data from 2021 shows that the number of games in the world was estimated at 2.96 billion (Dimitrievski, 2023). In total, there were an estimated 3.24 billion gamers across the globe in 2021 (Clement, 2022). It’s estimated that the number of people who play games via PC, consoles, tablets, and smartphones will surpass 3.32 billion by 2024 (Dimitrievski, 2023). According to research, these players spent an average of about 8 hours a week playing (Reinhardt, 2018). Especially after the Covid-19 pandemic, digital games had replaced some social activities by making players feel happier and less isolated, and they were used as an escape and time passing tool for humans; as a result of this, the digital game industry has made significant progress (Dimitrievski, 2023; Fakazli, 2020). According to gaming statistics, the share of new gamers multiplied quickly, almost half of the world’s population had become more engaged in games, and six in 10 gamers played online multiplayer games more frequently during the pandemic (Dimitrievski, 2023; Gilbert, 2023).

Not surprisingly, digital gameplay is becoming more prevalent in educational settings as well. Digital games are getting increased attention as potential teaching tools as a result of the recent transition in educational philosophy from a teacher-centered to a more learner-centered approach to learning and a new emphasis on active and autonomous learning as well as situated learning (Garton & Copland, 2018). The advantages of digital gaming and the significant opportunities they offer for effective, meaningful learning across disciplines have been studied by educators for several years (Sykes, 2018). On the other hand, there are also some educators who are skeptical of these games because of the “daily activity” nature of these games as opposed to academic life. Some teachers have biases about games because they think that work, which is the opposite of play, can be the only means of learning and that play is a separate phenomenon, and games use vernacular varieties that do not match the academic language and curriculum they believe should be learned first. Also, there is a belief among non-gamers that games can do more harm than good because of their addictive and violent features. Not only teachers but also other
stakeholders such as administrators and parents, and even students since they have become accustomed to expecting education to be anything but gameful, may harbor these biases (Reinhardt, 2018).

However, most of these criticisms stem from a lack of understanding of the nature of the games, and the beliefs about games mentioned above are mainly just stereotypes. Research examining both game-enhanced language learning and game-based language learning have shown that digital games support learning in a variety of domains (Sykes, 2018). The difference between game-enhanced language learning and game-based language learning is that while both refer to adaptation or use of games for language learning and teaching, the former uses commercial off-the-shelf games or vernacular games that are created for solely entertainment, not educational or language learning purposes while the latter uses educational games or serious games that are designed for educational purposes (Reinhardt, 2018). Considering that today's students of all ages spend most of their time outside of school playing COTS games, education professionals must recognize this habit that is so popular among students. Studies that examined the affordances of COTS gameplay in language learning have shown that using these games for foreign language learning increases students’ motivation and interest because of the relaxing, fun and confidence boosting nature of them (Özgür & Caner, 2022; Richtoff & Persson, 2022; Sundqvist & Sylvén, 2014; Jana & Iveta, 2019), contributes to students’ vocabulary learning (Calvo-Ferrer & Belda-Medina, 2021; Çetin et al., 2012; Enayat & Haghighatpasand, 2019; Maior, 2016; Ranalli, 2008; Schlasberg, 2021; Sundqvist, 2019), are helpful in enhancing learners’ English language skills (Ağaoğlu & Şad, 2020; Chen & Yang, 2013; deHaan, 2005), and presents opportunities for interaction and communication in English (Can & Türkmen, 2017; Chotipaktanasook & Reinders, 2018; Dixon & Christison, 2021; Rama et al., 2012; Ryu, 2013; Yudintseva, 2015).

These research results that support the positive impact of COTS games on foreign language learning motivated some language educators to integrate these games into the classroom, often employing a task-centered method (Chen & Yang, 2013; Ranalli, 2008). Conversely, another group of researchers turn to digital games for their relevance to informal and out-of-school learning (Li et al., 2021). Given the prevalence of the English language in our daily lives, the potential for language
learning extends beyond formal educational settings to encompass various contexts and leisure activities. As a result, over the past few decades, research on out-of-school language learning has been significantly expanding (Kovalenko, 2023). Out-of-school language learning refers to voluntary activities undertaken by students outside the classroom with the aim of expanding their knowledge (Benson, 2011). It is important to distinguish these activities from afterschool, extracurricular, or extramural activities, which according to Benson (2011), are considered as “additional programs in school that are less formal than regular lessons and possibly organized by students themselves” (p. 9). Although research on informal and out-of-school language learning through digital games have been increasing, still little is known in terms of how to harness the potential of out-of-school COTS gameplay to facilitate language learning. In other words, the existing literature provides little insight into how this out-of-school COTS gameplay of students can be used to maximize their learning outcomes and overall learning experience (Li et al., 2021).

Therefore, the current study investigated how this informal COTS gameplay facilitates English language learning, and the ways for integrating students’ informal language learning experiences gained through out-of-school COTS gameplay into formal education to bridge formal and informal language learning contexts.

1.2. Purpose of the Study and Research Questions

The purpose of this study is to investigate the potential of out of school COTS gameplay to explore the ways in which informal COTS gameplay facilitates English language learning in the classroom. The present study also endavours to investigate the methods through which such gameplay may be integrated into formal education, as well as the mechanisms by which a bridge can be constructed between the formal and informal learning context of students. Ultimately, this research seeks to provide insight into how COTS games, and the informal language learning experiences gained through them, can be effectively incorporated into foreign language curricula and formal language learning settings, and what would be the related issues and challenges.

More specifically, the research questions are defined as follows:
1. How can informal language learning experiences gained through COTS games be effectively integrated into formal language learning to bridge formal and informal language learning contexts?
   a) What are the potential practices for instructors to effectively bridge the formal and informal language learning contexts using COTS games?
   b) What challenges educators might face when incorporating informal language learning experiences gained through COTS into foreign language curricula, and what may be the suggestions for overcoming these challenges?

2. How do students and teachers perceive the incorporation of COTS games into foreign language curricula?
   a) What are the potential practices for instructors to effectively incorporate COTS games into foreign language curricula?
   b) What challenges educators might face when incorporating COTS games into foreign language curricula, and what may be the suggestions for overcoming these challenges?

1.3. Significance of the Study

Many studies on the playing of commercial games in out-of-school contexts have shown that many of the features offered by games contribute significantly to students' English learning. Therefore, the effect of COTS games on foreign language learning is a popular topic in studies in the field of education today. However, despite the large number of studies on this subject, there is a lack of comprehensive and systematic explanation and research on students' language learning experiences through digital games in informal environments (Li et al., 2022; Özgür & Caner, 2022; Sundqvist, 2019) and it is stated that such a rapidly developing and voluminous field should be emphasized over and over again with different samples and perspectives (Can & Türkmen, 2007). In addition, the idea that what students learn outside of school can help shape what they learn in school raises the questions of how valuable learning experiences from informal settings can best be transferred to formal learning environments and how formal and informal learning can be effectively linked (Lai et al., 2013; Voogt et al. al., 2018).
The concept that learning is a lifelong process that extends beyond formal schooling and curriculum emphasizes the significance of informal learning and tailoring the curriculum to individual needs. In the last decade, the role of personal learning experiences, which take place in students’ out-of-school environments and in their daily lives, on informal learning processes has begun to be recognized. Although it is now accepted that a bridge should be built between these out-of-school experiences, which naturally have an impact on their formal learning as well, and formal learning experiences in school settings, how this bridge can be built, in other words, how formal and informal learning can be effectively connected, remains an important research issue (Voogt et al., 2018). As one of the environments of these out-of-school learning experiences, COTS gameplay can be a valuable source for language learning, so it is worth to approach COTS games from different perspectives and to discuss different aspects of gaming as a process in order to understand certain characteristics and mechanisms which can be useful for formal language learning settings (Kovalenko, 2023). As the literature shows, it is important to understand the COTS gameplay experiences of students in order to bridge their informal learning experiences with their formal learning. In this sense, this study is significant in that it offers insights into students’ out-of-school COTS and language learning experiences, which can offer considerable insights for language teaching.

In addition, the current study contributes to the literature by revealing both students’ and teachers’ perceptions on how students’ experience of commercial off-the-shelf games outside of school facilitates their English language learning and skills, and how this inevitable game-playing activity, where students spend most of their time, can be used in formal education by integrating their COTS gameplay experiences into formal language learning settings and foreign language curricula. Most of the available literature on COTS gameplay investigated only students’ perceptions, and the ones which included teachers’ perceptions as well mostly employed quantitative methods with surveys, which might not accurately represent teachers' in-depth perceptions. Considering the fact that teachers have a significant role in this integration process (Li et al., 2021; Maravic & Rakic-Bajic, 2018), in terms of receiving training, understanding the games, and guiding students and solving problems, understanding their perspectives is crucial since their role is often as important as the game itself in supporting students’ learning (Birmingham & Davies,
2001). Therefore, in order to integrate informal language learning experiences of students gained through COTS games into formal language learning settings and curricula, it is vital to explore teachers’ as well as students’ in-depth perceptions, which is another contribution of this study to the literature. In addition to all these, the study aims to provide implications for further research.

1.3. Definition of Terms

**Commercial Off-The-Shelf (COTS) Games:** Digital video games like *World of Warcraft*, *The Sims*, or FIFA that are developed for mass production with the sole purpose of entertainment without any specific language objectives (Yudintseva, 2015).

**Digital Game-Based Language Learning (DGBLL):** DGBLL refers to the use of a diverse array of digital games that are intentionally designed for language learning for the purpose of learning or teaching a second or foreign language (Cornillie et al., 2012; Reinhardt, 2018).

**Digital Game-Enhanced Language Learning (DGELL):** Game-enhanced language learning refers to the adaptation and use of games designed for solely entertainment purposes in foreign language teaching and learning. These games that were not specifically made for teaching and learning a foreign language are called commercial off-the-shelf (COTS) or vernacular games (Reinhardt, 2018).

**Gamer:** A gamer refers to “a person who plays digital games on a regular basis and finds playing games fun and engaging” (Özgür & Caner, 2022, p. 432).

**Formal Learning:** Formal learning refers to “learning that takes place in formal settings such as schools or tertiary institutions and is highly structured in its curriculum, learning activities and assessment” (Eshach, 2007, p. 415).

**Informal Learning:** Informal learning is frequently referred to as experiential learning since it is not controlled by a strict curriculum. In contrast to formal learning, this type of learning lacks goals and objectives and is more spontaneous (Ainsworth & Eaton, 2010).
**Incidental Learning:** Incidental learning refers to any learning that is unplanned or unintended (Kelly, 2012). It may occur unconsciously in many ways such as observation, repetition, or social interaction (Kerka, 2000).
CHAPTER 2

LITERATURE REVIEW

This study aims to investigate the potential of out-of-school gameplay for English language learning. Therefore, this chapter provides a review of the relevant literature that focuses on game-enhanced learning, specifically COTS gameplay for English language learning. This chapter also provides information about bridging informal gaming learning experiences into formal education and foreign language curricula.

2.1. Game-Enhanced Learning vs. Game-Based Learning

In recent years, students of all ages have been spending a considerable amount of their time with digital games. Especially after the Covid-19 pandemic, the popularity of digital video games among students has increased significantly. Nearly 2.6 billion people worldwide played games actively in 2020, meaning that one of three people is a “gamer” who engages with digital games as leisure time activities (Özgür & Caner, 2022). The attitude of today’s students toward their video games is “interested, competitive, cooperative, results-oriented, actively seeking information and solutions” (p. 1), and this attitude is the opposite of the attitude that most of them have toward school. On the surface, students only perform what the game requires while playing digital games, but on deeper levels, they acquire many skills such as creating strategies and collaborating with others (Prensky, 2003). Hence, many researchers and practitioners have been drawn into exploring the potential of digital gaming for learning (Özgür & Caner, 2022).

Game-based learning is a broad term defined as “any initiative that combines or mixes video games and education” (Tsai & Fan, 2013). Prensky (2003) describes digital game-based learning (DGBL) as “putting games and learning together” and describes DGBL research as able to “create new learning opportunities, using games
as a medium” (Hung et al., 2016; Prensky, 2003). A game may be created with the explicit purpose of providing entertainment with incidental content learning, or it may be created to focus on the content that has to be learnt and make the activity useful and meaningful. Educational or serious games, in contrast to entertainment games, place a greater emphasis on learning objectives through gaming activities that increase interest or perceived value (Foster, 2008). Although game-based learning and game-enhanced learning are often confused with each other, in fact, they are two separate approaches. According to the conceptualization made by Reinhardt and Sykes (2012), game-based learning means using educational games that are specifically designed for educational purposes and “focus on the direct representation of educational materials” (Ebrahimzadeh & Sepideh, 2017). These kinds of games that are designed for educational purposes are also called “serious games” or “simulation games” in the literature (Jääskä & Aaltonen, 2022). On the other hand, game-enhanced learning refers to using commercial off-the-shelf games, or vernacular games, which are designed for entertainment purposes only (Reinhardt, 2018).

2.1.1. Digital Game-Enhanced Language Learning

Game-enhanced language learning refers to the adaptation and use of vernacular games that were not specifically made for teaching and learning a second language (Reinhardt, 2018). Vernacular games, or commercial-off-the-shelf (COTS) games refer to digital video games like World of Worldcraft, The Sims, or FIFA that are developed for mass production with the sole purpose of entertainment without any specific language objectives (Yudintseva, 2015). The main goal of COTS games is “winning the match rather than learning a language” (Ebrahimzadeh & Sepideh, 2017). However, since many gamers from various countries with different first languages play these games and need to find a common ground for communication to fully experience the game together (Richtoff & Persson, 2022), and the primary language of these games is English, English plays an important role to understand the game and the quests in the game which are the most important things to win, and also to effectively communicate with other players (Ebrahimzadeh & Sepideh, 2017). Thus, while gamers are playing digital games outside the classroom in a foreign language, they are learning the language through gameplay (Chik, 2014). Also, the
narratives that are incorporated into these games by the game designers can be used as second language learning resources and players can learn from the spontaneous interactions that arise during gameplay as well as with gaming communities and their resources (Reinhardt, 2018). In addition to playing the games, good games also engage players in reading and writing about them on interest-driven websites. Gamers obtain literacy skills through reading and writing in these gaming communities such as fan fiction or video tutorials, which is likely to be useful for their future academic and professional development (Chik, 2014). For these reasons, COTS games are now seen as a language learning tool by many researchers and educators. Some well-known video games like World of Warcraft and The Sims have been recognized for their learning potential in the literature (Maior, 2016; Rama et al., 2012; Ranalli, 2008). The informal, incidental second language learning that takes place while playing these games can be used for formal language learning and teaching if we understand their potential and how learning occurs with them. In order to enhance and focus learner attention on the language use in, through, and around the game, game-enhanced pedagogy typically comprises pedagogical mediation, the invention, and implementation of some form of wraparound or supplemental pedagogical materials (Reinhardt, 2018).

2.1.2 Digital Game-Based Language Learning

The effect of digital games in assisting learning has been studied by researchers for a wide range of subjects including mathematics, engineering, science, and language learning (Su et al., 2021). As English is the main language used in interaction in many gaming environments, language learning appears to be the most promising among the other subjects (Özgür & Caner, 2022; Su et al., 2021). One of the most significant factors of foreign language learning is to be exposed to the target language and to communicate by using that language (Ağaoğlu & Şad, 2020). Since “gamer-students” are exposed to English while gaming and engaging in game-related activities in online informal settings, and it is almost impossible not to communicate with other players in English in these settings, digital games are quite useful in second language learning (Ağaoğlu & Şad, 2020; Özgür & Caner, 2022). Therefore, as a subset of digital game-based learning (DGBL), digital game-based language learning (DGBLL) has emerged. DGBLL refers to “the design and use of a diverse
array of digital games for the purpose of learning or teaching a second or foreign language” (Cornillie et al., 2012, p. 243).

In the literature, various aspects of DGBLL have been investigated. There are studies conducted with students from various age groups and language levels regarding the benefits of digital games in foreign language development. Most of these studies found a great number of affordances of digital games in developing English language skills and competences. While the majority of these studies are on the effect of games on motivation and vocabulary acquisition (Chang et al., 2010; Neville et al., 2009; Soyoof et al., 2021; Wu & Huang, 2017), there are also research that study the effects of games on foreign language development in general (Almusharraf, 2021; Ramey, 2017) or compare games and traditional methods (Gömleksiz, 2005; Katemba, 2022; Soyoof et al., 2021).

Several studies show that serious games can be effective for language learners’ motivation (Chang et al., 2010; Neville et al., 2009). Chang et al. (2010) conducted a study to examine various effective strategies by which instructors can integrate games into lessons and reinforce the positive impact of games on students’ motivation to learn. They used a web-based instructional game called “the Simulation of Production and Logistics Environment” (SIMPLE) and evaluated the perceptions and learning motivations of a group of learners. The results showed that the game helped instructors to create an effective learning environment for peer interaction, cooperation, and for course-directed learning interest and it raised students’ learning motivation (Chang et al., 2010). In another study, Neville et al. (2009) examined the effect of an interactive fiction (IF) game on teaching German vocabulary, reading, and cultural skills, and suggested that at a time when many foreign language departments are facing declining student participation, immersive DGBLL environments may be especially useful in demonstrating that learning an L2 can be both fun and challenging, current with the times and technology, and adaptable to student input with their contextual, persuasive, and student-centered instruction (Neville et al., 2009).

Research on DGBLL also suggests that serious games can be beneficial for learners’ vocabulary learning (Almusharraf, 2021; Gömleksiz, 2005; Katemba, 2022; Ramey,
constructed a mobile game-based English vocabulary practice system and examined students in three groups that involved different vocabulary review methods. Similar to previous studies mentioned above, the results indicated that students who used the mobile-game system exhibited higher learning interest, attention, and learning effectiveness, and also a sense of accomplishment and triumph, compared with other students (Wu & Huang, 2017). In another study in which the potential of games on both content and language acquisition was investigated, there was a statistically significant improvement in participants’ healthcare knowledge and incidental vocabulary acquisition in the experimental group in which the serious game Saving Lives was used in comparison to the control group who were taught using traditional methods (Soyoof et al., 2021). Gömleksiz (2005) also compared the effects of teaching with games and traditional methods and showed that there were statistically significant differences in favor of the experimental group in which teaching with games was applied compared to the control group in which the traditional method was applied. In another experimental study conducted to examine whether online games or educational videos are more beneficial for language learning than conventional teaching, the use of educational games resulted in higher achievement than the educational videos and conventional teaching (Katembga, 2022). Other studies using popular educational game platforms such as Kahoot! and Lingo Arcade also show that these kinds of games have a positive influence on students’ learning experiences, enthusiasm, and understanding subject matter, encourages inquisitiveness and contribution in identifying knowledge gaps, and their usage is an efficient way to deliver new vocabulary in the target language (Almusharraf, 2021; Ramey, 2017).

Considering these studies conducted with students from various countries, age groups, and language levels, it can be suggested that digital games create an active learning environment that improves students’ decision-making, motivation, higher-order thinking skills, and knowledge construction. They also address students with different learning styles, help the development of interpersonal relationships, encourage collaboration, and enhance cultural awareness of players (Meishar-Tal & Kesler, 2021). Also, most of the studies showed that game-based learning is better than traditional classroom instruction and students’ academic performances.
improved when games were involved in the learning process (Ağaoğlu & Şah, 2020; Almusharraf, 2021; Chang et al., 2009; Gömleksiz, 2005; Katemba, 2022; Neville et al., 2009; Ramey, 2017; Soyoof et al., 2021; Wu & Huang, 2017).

2.1.3. Digital Game-Enhanced Language Learning (DGELL) vs. Digital Game-Based Language Learning (DGBLL)

Several studies have shown that game-based learning has positive effects on students’ academic achievement, cognitive ability, and learning motivation (Yu & Tsuei, 2022). Although there are many similar studies indicating a great amount of affordances of these educational games, Reinhardt (2018) states that some educational games have the "chocolate-covered broccoli problem", representing the notion that “when learners bite through the ‘chocolate coating’ or gameful trappings of an educational game, they are repulsed by the ‘broccoli’, or the boring, ineffective educational content” (p.10). Unlike DGBLL that aims benefiting from digital games for learning or teaching a foreign language, game-enhanced language learning does not have a specific aim as learning a language. Rather, it refers to using commercial-off-the-shelf games in educational settings (Ebrahimzadeh & Sepideh, 2017). In other words, game-enhanced practices seek to understand the use of COTS games for incidental language learning (Yudintseva, 2015). Since playing COTS games is primarily a leisure activity and it has been freely chosen by the gamer, we can assume that the online gaming context is a pleasant one. In this respect, COTS gaming can be considered as a playful environment which can positively affect learning performance in contrast to playing educational games that can be sometimes boring (Peake & Reynolds, 2020).

However, there is also a common belief that games are not appropriate for schools, since “they are too strongly associated with everyday, as opposed to academic or workaday life” (Reinhardt, 2018, p. 24). Games entail play, which is the opposite of work, and one of the main goals of formal education is to prepare students for work, “we do coursework and homework, not courseplay and homeplay” (Reinhardt, 2018, p. 24). In addition to administrators, instructors, and parents, these biases can also be held by students, who may have become used through years of conditioning to expect school to be anything but fun and extracurricular activities to be anything than
educational. Teachers may have prejudices about games because they employ vernacular registers and kinds that conflict with academic language and curricula that they may feel should come first. It's crucial to explore attitudes toward gaming and the potential educational benefits of COTS games with students before implementing any game-based foreign language learning and teaching strategies. There is no one optimal methodology, game, or genre that is appropriate for every situation, whether it is educational or commercial, so “one of the first steps involves surveying learners and figuring out whether, why, and how they play digital games, and if so, which ones” (Reinhardt, 2018, p. 24).

De Grove et al. (2011) emphasize the interesting fact that while enjoyment is considered as the motivational basis for digital game-based learning, it is not the primary goal. They discuss that while the motivational nature of video games combined with educational content may make learning more effective, the implicit learning factor should also be considered. According to available literature on both DGELL and DGBLL, both COTS and educational games are beneficial for language learning, but De Grove et al. (2011) state that there is not enough research on the difference of game experience between COTS and educational games when both are used with an educational purpose, “the former possibly being more enjoyable yet cognitively more demanding and the latter being less enjoyable but offering explicit learning opportunities” (p. 130). For this reason, they conducted a study to compare play and learning experiences of two foreign language learning games and one non-educational commercial game in a foreign language. The results showed that the commercial game scored higher on several experience dimensions such as immersion and challenge and lower on negative affect. As for learning experiences, whilst the commercial game has been developed with no educational intentions in mind, it scores highest for passive learning and equally high for active learning as the educational game. Therefore, the study indicated that the commercial game evoked slightly better game experiences and a better passive learning experience compared to the educational game (De Grove et al., 2011). Boland (2021) explains in her dissertation that for today’s generation, leisure time means playing video games online in competitions with other teams or individuals. She states that “as university faculty well-aware, these students arrive in Freshman Composition undermotivated and quickly bored by the often-used traditional approaches” and “unmotivated
students interested only in ‘getting the grade’ rather than in improving skills” (Boland, 2021, p. 5). In their article, Ebrahimzadeh and Alavi (2017) emphasize that many language learners automatically assume educational games to be boring, so a suitable COTS game may be more motivational for students and also may be richer in problem-solving and social activities compared to educational games (Ebrahimzadeh & Sepideh, 2017). Considering that even if the educational games are used for language learning in the classroom, the learners will still play COTS games for fun outside of school, hence, it is important to study the question of how we, as language teachers, benefit from their COTS gameplay. Therefore, the focus of the present study is not educational games but COTS games and their effect on students’ English language learning, and how to benefit from them in the development of foreign language curriculum.

2.1.4. Affordances of COTS Gameplay in Language Learning

Players spend a great amount of time playing games in natural contexts and what they acquire from this experience is vital from an educational perspective (Musaoğlu-Aydın, 2020). Especially during the COVID-19 pandemic and the lockdown it brought, more people started to spend increasing amount of time in gaming (Li et al., 2022). Thanks to the entertainment, foreign language content, multi-player structure and international interaction opportunities of such a widespread tool, its contribution to language improvement is an important and popular topic in the field of foreign language education nowadays (Can & Türkmen, 2017). Considering that a great amount of learning is taking place outside the classroom as well in today’s world, the issue of out-of-school learning has become more relevant now than ever before (Li et al., 2022). Therefore, educators, especially curriculum designers, should take this into consideration as they are rich contexts for learning for both practical and theoretical reasons (Musaoğlu-Aydın, 2020).

To understand the potential of COTS games in language learning, it is important to review previous studies conducted on this topic. Several studies have shown that COTS games have significant potential and different aspects of them have been investigated in the literature. One of the most popular of these aspects is the effect of COTS games on motivation. In a study conducted by Sundqvist and Sylvén (2014), it
was seen that young English language learners are extensively involved in playing games outside the classroom, and the motivation for learning English and self-assessed English ability were higher among the frequent gamers. The results also showed that code-switching to one’s L1 was more commonly reported by non- and moderate gamers than frequent gamers (Sundqvist & Sylvén, 2014). In another study, Özgür and Caner (2022) tried to examine foreign language learners’ digital gaming habits and reveal possible motivational impacts of learner-directed informal digital gaming. The results suggested that informal gaming may positively shape learners' L2 selves, which in turn affects their motivation (Özgür & Caner, 2022). In their research review, Richtoff and Persson (2022) examined nine studies related to the effects of extracurricular video games on language learning motivation and based on the results of these nine studies, they concluded that playing video games at home can increase students’ motivation to learn English in school, gaming in the second language allows for many opportunities for learners to use their second language both in the game and through the online forums and communities, and the authenticity, fun and motivation the games provide contribute to learners’ both motivation and vocabulary learning.

Another aspect of COTS gameplay that has been studied a lot is its benefits on vocabulary learning (Calvo-Ferrer & Belda-Medina, 2021; Çetin et al., 2012; Enayat & Haghhighatpasand, 2019; Maior, 2016; Ranalli, 2008; Schlasberg, 2021; Sundqvist, 2019). Enayat and Haghhighatpasand (2019) investigated the contribution of a COTS game called The Secret of Monkey Island on the vocabulary recall of 30 EFL students. The results indicated that the students who played the game outperformed the learners who didn’t play the game in the vocabulary test. Also, the students identified gaming as “a helpful tool for language education in general, and vocabulary learning in particular” (Enayat & Haghhighatpasand, 2019, p.72). In another study, Ranalli (2008) used The SIMS, one of the most popular COTS games, to test its effect on the vocabulary learning of nine ESL learners. The findings indicated significant improvements in vocabulary knowledge in the target language among learners (Ranalli, 2008). Similarly, Çetin et al. (2012) used another popular game Farmville to examine the effects of the games in social networks on foreign language acquisition and the results showed that students can incidentally learn an important number of foreign language words from popular online games on social
networks (Çetin et al., 2012). In another study, Maior (2016) used a popular COTS game World of Warcraft on vocabulary acquisition, and it was seen that initial receptive knowledge of new vocabulary items from playing the game can occur incidentally in a short period of time like 2-4 hours, and acquisition is facilitated by word frequency exposure. Furthermore, visual representations seen in-game through the process of questing can also assist incidental vocabulary acquisition. Therefore, the author suggests that second language learners of English could be encouraged to play games of their own choosing, as successful in-game vocabulary acquisition might encourage and assist further development of their vocabulary and this acquisition is transferable from the virtual environment to real-life and as a result, it could be strengthened through practice (Maior, 2016). Sundqvist conducted another study to examine the relation between playing COTS games and L2 English vocabulary and the results showed that COTS gamers show more advanced productive vocabulary than non-gamers, and the examination of advanced vocabulary use in essays reveals that gamers performed very well (Sundqvist, 2019). With a similar purpose, Schlasberg (2021) conducted a study and suggested that COTS games correlate with vocabulary acquisition because of their repeated opportunities for practice, comprehensible output, and scaffolded interaction but not all COTS games result in vocabulary acquisition (Schlasberg, 2021). Calvo-Ferrer and Belda-Medina (2021) used a game called Among Us which has become popular recently to investigate the effect of it on incidental and intentional L2 vocabulary learning. The findings demonstrated that players who use new L2 terms in the game Among Us would retain more vocabulary than players who just encounter them, that vocabulary intentionally input assisted other users trigger incidental vocabulary learning, and that repetition had a beneficial impact on L2 vocabulary learning (Calvo-Ferrer & Belda-Medina, 2021).

Several studies have focused on the role of COTS games on students’ implicit learning of English language skills such as listening and reading (Ağaoğlu & Şad, 2020; Chen & Yang, 2013; deHaan, 2005). To investigate the effects and learners’ perceptions of COTS games on language learning, Chen and Yang (2013) conducted a study by using the English adventure game BONE. The results of the study indicated that games such as BONE are helpful in enhancing learners’ English listening, reading, and vocabulary skills and learning motivation (Chen & Yang,
Ağaoğlu and Şah (2020) conducted research to investigate the relationship between digital game addiction and English listening skills. The results indicated that as the daily time to play English digital games increased, the level of digital game addiction and English listening skills also increased. Based on these findings, Ağaoğlu and Şah (2020) suggest that “university students’ playing digital games in English is related to the development of English listening skills” (p.11). In his article, deHaan (2005) discusses the potential effectiveness of video games in foreign language acquisition. He states that some affordances of games like material authenticity, instrumental motivation, repetitive language, increased level of involvement by being in control, and extensive aural and textual information may be the factors that facilitate language acquisition. However, he also argues that video games may not guarantee the acquisition of the target language and may have a negative impact since they may overwhelm learners by leading them to play a video game and learn its language simultaneously. To investigate whether video games serve in the process of language learning in addition to entertaining, he conducted a study in which one Japanese-as-a-foreign-language (JFL) student was studied as he played a Japanese baseball video game for one month. As a result of the study, although the subject stated that his attention was divided between the game and the language, the results also indicated that the subject’s listening and reading comprehension improved with time and repetition, contextual clues, and having control over the game helped him to learn the language.

In his article, Ryu (2013) emphasizes a different aspect of language learning through COTS games which is often overlooked by researchers. He states that “after playing games, players often go online to establish and participate in the online community where they enrich their game experiences, discuss game-related issues, and create fan-fictions, screenshots, or scenarios” (p. 286), and these activities constitute an essential part of the gaming experience. However, he claims that there are only a few studies on this beyond-game culture. Therefore, he conducted a study to understand in more detail how non-native English-speaking game players participate in language learning through gameplay and beyond-game culture. As a result of the discourse analysis of interaction data and interview scripts, he suggested that game-play and beyond-game culture allow for learning new words and phrases, and interaction with native or fluent peers in the target language and therefore opportunities to practice
(Ryu, 2013). Rama et al. (2012) carried out a study to investigate the affordances of online gaming environments for second language learning and socialization by examining two college-age Spanish learners’ experiences participating in the Spanish language version of the game World of Warcraft. The findings indicated that the game environment allows for the formation of safe learning and language spaces, emphasizes communicative competence, and promotes goal-directed, collaborative action between expert and novice gamers and learners. In the article, they stated that this study reveals various affordances of games on language learning since it shows that “from the moment a game starts, players are immersed in a target language context where they have multiple options for engaging in authentic communication via speaking, reading, writing, and listening with a range of interlocutors, often in ways that allow risk-taking and reflection in the target language” (p. 335). The findings also suggested that these affordances might be enhanced by a more structured approach to introducing these kinds of games into formal language learning environments like classrooms (Rama et al., 2012).

As is seen in the studies mentioned above, presenting an opportunity for interaction and communication is another important aspect of game-enhanced learning. In their study, Chotipaktanasook and Reinders (2018) explored the integration of a COTS game called Ragnarok Online into a language course at a university. The participants’ language use in text and voice chats while playing the game was recorded and analyzed to determine the effects of the game. According to the results, learners who played the game showed “a significantly more considerable increase in L2 interaction that used a wider range of discourse functions compared with English interaction in the classroom” (p. 424). Participants also stated that they associate speaking English with “feeling anxious and incompetent” (p. 438) and gameplay reduces some of the barriers that learners perceive in traditional classroom communication, therefore increasing willingness to communicate. Dixon and Christison (2021) used another COTS game called Guild Wars 2 to investigate its benefits for second language acquisition. The results showed that the game was beneficial for second language acquisition in terms of interaction in the target language and participation in collaborative problem-solving tasks (Dixon & Christison, 2021). Can and Türkmen (2017) conducted a study on 100 higher education students whose native language is Turkish to determine the contributions
of COTS games to foreign language education. The results showed that these games play a role in the development of students' foreign languages by providing self-confidence and the opportunity to contact foreigners. Also, it was emphasized that these games constitute a significant part of the daily life of students not only as a means of entertainment but also as a learning function. The review by Yudintseva (2015), which is a synthesis of seventeen studies published over the last decade, suggests that “game-enhanced learning provides a set of effective strategies such as language repetitions, contextual clues, interaction with native speakers and peers, and imagery to practice and use second language vocabulary in the authentic context” (p. 101). Based on this review, it can be said that game-enhanced practices are generally helpful for second language vocabulary enhancement through interaction with native speakers.

To sum up, students spend a considerable amount of time playing games, and it is inevitable for educators to accept this habit of them. Many studies on COTS gameplay in out-of-school contexts have shown that students improve and acquire a great deal of the target language through gaming thanks to the many features that games present. These features can be briefly summarized as follows: Firstly, due to the fact that the main language of these games is English, the student is exposed to the target language while playing the game, and since he or she plays with players from other countries, the interaction takes place in English. This gives the student a great opportunity to practice in the target language. Secondly, since the student both listens and reads during the playing process and writes and speaks while talking with other players, the games offer the student the opportunity to develop both their receptive and productive skills and perhaps they make the most contribution to vocabulary acquisition according to literature. Thirdly, learning through playing COTS games eliminates the anxiety that learning a new language leads to, and helps to decrease speaking hesitation among learners. This factor also leads to increased motivation to learn the language among students which is another highly emphasized feature of gaming in the literature.

For all these reasons, the effect of COTS games on foreign language learning is a hot topic in the field right now. However, according to some researchers, although a lot of research has been done in this area, “there is a lack of a comprehensive and
systematic account of learners’ experiences of language learning through digital gaming in a novel and informal setting” (Li et al., 2022). Özgür and Caner (2022) also state that “the role of learner-directed informal digital gaming on learners’ foreign language learning motivation is under-investigated” (p. 431). In his article, Sundqvist (2019) suggests that “despite an increased number of studies on the relation between digital gameplay and language learning, empirical large-scale studies are scarce, as are studies that focus on gaming outside institutional settings, in the digital wilds” (p. 87). Dykes (2021) claims that commercial off-the-shelf video games have certainly been used for educational purposes in English language teaching, however, their application is still not as straightforward as a reader, movie, song, or board game (Dykes, 2021), therefore, more research needs to be done on how to apply them to language learning. Can and Türkmen (2017) also suggest that although there are studies on the contributions of such a rapidly developing and voluminous field, especially on the development of foreign languages, it can be said that it is useful to dwell on it over and over again with different samples and different perspectives (Can & Türkmen, 2017). The present study aims to contribute to the literature by investigating the potential out-of-school COTS gameplay for English language learning, whether, and if yes how, out-of-school COTS gameplay facilitates English language learning, and how out-of-school COTS gameplay can be integrated to the foreign language curricula.

2.2. Informal Learning

2.2.1. Formal vs. Informal Learning

Formal learning, also called school learning, refers to “learning that takes place in formal settings such as schools or tertiary institutions and is highly structured in its curriculum, learning activities and assessment” (Eshach, 2007, p. 415). This kind of learning is intentional, organized, and structured. Institutions typically arrange formal learning opportunities such as credit courses and programs through universities. Generally, this type of learning is guided by a curriculum or other type of formal program that often has learning objectives and expected outcomes (Ainsworth & Eaton, 2010). The final product of formal learning is usually a qualification (Lai et al., 2013). On the other hand, informal learning is not organized.
It is frequently referred to as experiential learning since it is not controlled by a strict curriculum. In contrast to formal learning, this type of learning lacks goals and objectives and is more spontaneous (Ainsworth & Eaton, 2010). In terms of the learner perspective, it is more self-directed rather than curriculum-based, and “if the learner has more control on the opportunities to learn, as well as having the freedom to choose what to learn, and how learning is evaluated, then learning is more informal” (Lai et al., 2013, p. 415). According to Laurillard (2009), there is no teacher, no defined curriculum topic or concept, and no external assessment. The informal learner selects their own ‘teacher’, who may be a peer, or may not be a person; they define their own ‘curriculum’ as what they are interested in learning about; and they choose whether to submit to ‘assessment’ by others (p.12).

Marsick and Volpe (1999) concluded the features of informal learning as follows:

- It is integrated with daily routines.
- It is triggered by an internal or external jolt.
- It is not highly conscious.
- It is haphazard and influenced by chance.
- It is an inductive process of reflection and action.
- It is linked to learning of others (p. 5).

While studying the effects of COTS games on foreign language learning, we need to understand another term called incidental learning. Incidental learning refers to any learning that is unplanned or unintended. It implies that the acquisition of knowledge is unconscious in nature, however, what makes it different from implicit learning is that in contrast to implicit learning, there is no expectation that such knowledge should remain largely inaccessible to conscious awareness (Kelly, 2012). It may occur in many ways such as observation, repetition, or social interaction (Kerka, 2000). The terms “incidental learning” and “informal learning” are sometimes used interchangeably (Le Clus, 2011). Marsick and Watkins (1990) defined informal and incidental learning by contrast with formal learning as follows:

Formal learning is typically institutionally sponsored, classroom-based, and highly structured. Informal learning, a category that includes incidental learning, may occur in institutions, but it is not typically classroom-based or
highly structured, and control of learning rests primarily in the hands of the learner. Incidental learning is defined as a byproduct of some other activity, such as task accomplishment, interpersonal interaction, sensing the organizational culture, trial-and-error experimentation, or even formal learning. Informal learning can be deliberately encouraged by an organization or it can take place despite an environment not highly conducive to learning. Incidental learning, on the other hand, almost always takes place although people are not always conscious of it. (p. 12)

In the past, intentional learning was considered superior to incidental learning with its planned and structured nature. However, the way today’s students learn has been changing everyday with technological changes in the modern world and increases in technology use among youth and adults (Eagle & Leiter, 1964; Greene et al., 2021). As Watkins and Marsick (2021) point out in their article, especially after the COVID-19 pandemic, incidental learning began to play a major role in our learning processes. As they state in their article, “we have to imagine and create new paradigms of how people might learn differently in a digital and artificial-intelligence-dominated landscape” (p. 95), so we need to benefit from incidental learning as well along with intentional learning.

While exposure to language is a critical factor in incidental first language acquisition, it likewise affects foreign language learning (Can & Türkmen, 2017). Since exposure to the target language is one of the most crucial factors in foreign language learning, incidental learning plays a big role while learning a second language (Hulstijn, 2013). In applied linguistics, the term “incidental learning” refers to “the acquisition of a word or expression without the conscious intention to commit the element to memory, such as ‘picking up’ an unknown word from listening to someone or from reading a text” (Hulstijn, 2013, p. 1). In addition to the explicit instruction given in the classroom, out-of-school activities carried out in the target language such as reading a book, watching a movie, or listening to music in the target language contributes a lot to language development. With the advancement of technology, today’s learners are encouraged to take initiative in their foreign language learning outside of a formal classroom setting (Muharom et al., 2022). Accessibility to unlimited resources, time, and learning spaces allow for incidental
learning experiences (Sundqvist & Sylvén, 2016). Therefore, research on incidental language learning beyond the classroom has been increasing in the literature.

Due to the impossibility of teaching all the words in English, incidental vocabulary learning has become a popular issue in the field of foreign language learning (Duan, 2018). Therefore, the majority of the studies on incidental language learning focus on incidental vocabulary acquisition in the target language. Rodgers and Webb (2020) carried out a study to investigate the effects of viewing multiple episodes of a single television program on incidental vocabulary learning, and also to examine the relationship between the range and frequency of occurrence of words in the episodes and vocabulary learning. For this purpose, 187 Japanese university students in the experimental group viewed ten episodes of an American drama while 73 students in the control group did not view the episodes but completed an English-language course with the same amount of contact time but based around a textbook designed for EFL university students. The results showed that viewing TV contributed to significant gains in vocabulary knowledge and there was a positive relationship between frequency of occurrence and vocabulary learning (Rodgers & Webb, 2020).

In another study, Shu et al. (1995) stated that there has been no evidence that shows whether or not students with different writing systems are able to learn incidentally from written context during normal reading. Therefore, they conducted a study to determine whether or not both American and Chinese students incidentally learn unfamiliar word meanings from written context. They also aimed to investigate incidental learning from context in more detail, the similarities and differences among students in different cultures using different writing systems. The findings indicated that both Chinese and American children were able to incidentally acquire word meanings from context during normal reading. The authors also stated that incidental learning from context may be universal in the written vocabulary development of learners (Shu et al., 1995). Asllani and Paçarizi (2021) conducted a study to investigate whether different multimedia annotation modalities such as using audios and images have different effects on enhancing incidental vocabulary learning. The results showed that using multimedia is more effective in enhancing foreign language incidental vocabulary learning compared to traditional non-multimedia classroom environment. Therefore, the study provided positive
pedagogical implications for the application of technology in developing foreign language incidental vocabulary learning (Asllani & Paçarizi, 2021).

Although the majority of the studies on incidental language learning focus on incidental vocabulary acquisition in the target language, there is also research that studies the effect of incidental learning on other language skills. De Wilde and Eyckmans (2017) investigated incidental language acquisition of thirty 11-year-old Flemish children who have not received any formal English instruction with the use of different media. According to the findings, a significant number of the participants could perform the tasks at the A2 level without having any formal instruction. The authors stated that this study confirms children learn English from the input they receive through different media, especially gaming and computer use (De Wilde & Eyckmans, 2017). Cole and Vanderplank (2016), compared a group of out-of-school learners and in-class learners and indicated that learning a second language outside the classroom through informal means would result in superior outcomes regarding advanced learners and fossilization was observed among in-class learners but not autonomous learners (Cole & Vanderplank, 2016). Muharom et al. (2022) studied English learners’ voluntary out-of-school digital device use and its effect on informal English language learning. The results indicated that the learners used digital devices such as social networking sites or online dictionaries for both intentional learning to strengthen coursework and incidental learning to expand access to the target language. The findings also offered productive information to educators on how to encourage English language learners to engage in informal digital learning and to achieve possible synchronicity between teacher-designed digital activities and students’ actual learning practices (Muharom et al., 2022). Hapsari et al. (2018) conducted a study to investigate the effect of using an online game called Defense of the Ancient 2 (DoTA 2) on incidental English language learning. The results indicated that although it only focuses on the action of strategies to win the game rather than intended interaction to learn language, the game DoTA 2 supports incidental English language learning because it is easy to use and understand the language in the game platform; the content of the game directs players to use English while playing so they can improve their vocabulary and reading skills in English; the chat room and voice chat lead players to interact and communicate in English; the enjoyment of the motivation to win the game allows players to practice their English...
in team strategy discussions (Hapsari et al., 2018). Kukulska-Hulme et al. (2017) reviewed three research projects investigating how mobile technologies can support migrants in achieving language immersion through situated, informal and incidental language learning. The main findings of these three projects indicated that language teachers see their students’ increased informal use of mobile devices and are eager to take advantage of this enthusiasm to extend learning outside of classroom; mobile learning creates opportunities to enhance classroom-based learning; and it encourages migrants to consider various strategies and approaches to learning (Kukulska-Hulme et al., 2017).

2.2.2. Bridging Informal Gaming Learning Experiences and Formal Education

The fact that some of the games are vernacular, or commercial off-the-shelf and not intended to be educational, is significant since it suggests that the game designers had no pedagogical intentions, leaving the player in a highly autonomous position. Nothing in these games describes how to use them for foreign language learning since they are actually made for fluent, experienced speakers. The main, intended purpose of COTS games is to provide a setting for play and entertainment, and if they are commercial in nature, to generate revenue for its developers or sponsors. The majority of COTS games, particularly those that demand language use to play, can be utilized in formal or informal foreign language learning situations, and learning can occur intentionally or incidentally as a result (Reinhardt, 2018). As it is explained above, in formal contexts, goals are not determined by the student but rather by instruction and assessment which are typically classroom-based, whereas informal contexts are “usually outside of a classroom and goals may be set intentionally by the learner, or learning may occur incidentally in unplanned ways” (Reinhardt, 2018, p. 31). Concordantly, while incidental learning can happen implicitly through exposure without the learner necessarily realizing it, intentional learning is generally associated with explicit learning resources (Figure 2.1). A student might not treat an informal, everyday activity with the same level of seriousness, or learnfulness, as they might a formal learning activity. This could assist or hinder learning and have an unnoticed impact on how well students learn. In other words, a player is more likely to acquire or practice their foreign language
while playing a vernacular game if they approach it with an open mind and the awareness that they might do so accidentally or consciously (Reinhardt, 2018).

![Diagram showing formal, informal, incidental, and intentional gameful L2TL]

**Figure 2.1** Formal, Informal, Incidental, and Intentional Gameful L2TL. Reprinted From “Gameful Second And Foreign Language Teaching and Learning: Theory, Research, And Practice” by Reinhardt (2018), Springer.

Since learning experiences acquired in informal contexts are valuable experiences, it raises the question of how best these experiences can be transferred to formal learning settings (Lai et al., 2013). The idea that learning is a continuous process that transcends schooling and the school curriculum emphasizes the value of informal learning and curriculum personalization (Voogt et al., 2018). Although students learn differently in school and out-of-school settings, learning can take place across boundaries. This means that what students learn out of school can help shape what they learn in school, and conversely what is learned in school can motivate students to learn outside the school (Greenhow & Robelia, 2009). In recent years, educators have started to understand the value of students’ informal learning and the role that other actors (such as families and the larger community) play in supporting it. In order to support students in developing their identities and sense of agency, it is now seen to be important to tie their school experiences to their regular digital activities. However, how formal and informal learning can be effectively connected remains a key research issue (Voogt et al., 2018). It has been demonstrated in Greenhow and Robelia’s (2009) case studies that students’ academic work may serve as a catalyst for their informal learning. In their article, Furlong and Davies (2012) explain "informal learning practices" (p. 53) which are strategies that are not normally used in schools.
but students use in informal learning situations in addition to the forms of learning that they have already learned from formal settings. According to their research, students have access to a larger variety of learning resources, strategies, and skills when using information and communication technology (ICT) at home (Furlong & Davies, 2012). Sefton-Green (2004) claims that adopting the learning ecology approach requires a cultural shift in his review of out-of-school use of technology, and states that:

that in their leisure, at play and in the home with their friends, young people can find in ICTs powerful, challenging and different ways of learning. The emphasis is on sharing, working together, and using a wide range of cultural references and knowledge ... unless education policy makers can find ways to synthesis learning across formal and informal domains, our education system will become the loser in the long run. (p. 33)

There is a variance between how students perform technology-enhanced learning activities in formal and informal settings. In formal settings like schools, technology is utilized in a controlled, monitored, supervised, and mainly solitary manner to carry out academic tasks in public spaces. In informal settings like home, however, students use technologies socially and collaboratively in unorganized and non-supervised ways to engage in their personal interests in private spaces. Technology-enhanced practices allow for the blending of formal and informal learning by changing the current learning environments, which can enhance students’ learning abilities and experiences both inside and outside of the classroom. In a sense, technology-enhanced initiatives provide a bridge between formal and informal learning as well as include teachers and family members in smaller or larger online learning communities that engage in various forms of engagement (Avci & Adiguzel, 2017).

The language repertoire people encounter and utilize to communicate in their free time is no longer restricted by national or regional boundaries. In fact, students of school age engage in informal e-learning in English outside of the classroom. ICT (information and communications technology) might improve the second-language learning of English. Teachers must be aware of and comprehend the significance of informal e-learning opportunities and practices in order to ensure that it integrates with formal classroom English language learning and assessment (Holm et al., 2021).
A part of the ICT landscape that requires ESL for non-native speakers of English, “e-sport” which is described as “competitive gaming” has gained popularity in the last few years. In their article, Holm et al. (2021) explain that for e-sports, multiliteracies are essential and crucial skills. Novice players, like high school students, quickly grasp on this aspect by playing with others and learning about the game in a group setting. E-sport, both informal and formal, “has the potential to hone players’ ESL multiliteracies, yet in ways that diverge from those of the ESL classroom” (p. 241). Rambusch (2010) stated:

advanced players find individual skills, such as fast reflexes and excellent hand-eye coordination, quite overrated in comparison to other skills they need: the ability to communicate well as members of a team, to grasp the finest details of the game, and to adapt to the opposing team’s strategies and moves. As two players pointed out, “understanding of the game is more important than a good aim” and “a smart team wins over a team that aims better.” (p. 111)

This emphasizes the significance of communication and the multiliteracies necessary for success. Playing alongside, observing, and interacting with more experienced and successful players and teams helps novice players gain these literacies, and “this discussion and learning between players from different countries invariably happens in English and thus not only improves their e-sport skills but also develops their ESL literacies” (Holm et al., 2021, p. 241). With these in mind, Holms et al. (2021) conducted a study to investigate how informal e-learning of ESL through ICT-based English language literacies plays out when school students take an authentic examination, the Swedish National Test in English. The findings showed that “informal e-learning of ESL is an effective and useful tool for teachers to integrate into classroom teaching to improve the standard of English achieved in high school in the future” (p. 254).

There is a call for redefining the nature and function of the curriculum as well as ways to make it easier to implement in practice due to the emergence of the knowledge society and in particular, the advancements of information and communication technology (Erstad & Voogt, 2018). Many countries and states around the world are currently revising their curricula in response to technological breakthroughs and its consequences for living, learning, and working. The necessity to pay attention to the knowledge, skills, attitudes, and values—often
referred to as the twenty-first century competencies—is acknowledged during the curriculum redesign process because they are significant in a global and digitalized society. Technology is viewed as both a force for change and a tool for developing these 21st-century skills (Voogt et al., 2018). Also, deHaan (2019) claims that most publications discuss the technological affordances of games for learning, but not pedagogical guidance. Hence, language teachers should reflect on “their educational goals, what pedagogies will reach these goals, and how games, if at all, can support those practices and goals” (deHaan, 2019, p. 32). Considering these needs, in addition to exploring how informal COTS gameplay facilitates English language learning, the present study also aims to investigate how to use this gameplay in formal education, what kind of pedagogical perspectives can be developed and how COTS games can be applied to foreign language curriculum.

According to available literature, some instructional models and strategies have been designed to effectively integrate technology and games to the classroom (Charsky & Mims, 2008; Foster, 2012; Foster & Shah, 2012; Smaldino et al., 2008; Van Eck, 2009). One of these models is a procedural model called the ASSURE model which “is intended to assure effective instruction” (Smaldino et al., 2008, p. 52) for students by integrating the use of technology and media to lessons. According to Smaldino et al. (2008), “well-designed lessons begin with the arousal of students’ interest and then move on to present new material, involve students in practice with feedback, assess their understanding, and provide relevant follow-up activities” (p. 52). Therefore, the ASSURE model has six steps that incorporate critical aspects of instructional planning. These steps include analyzing learners; stating standards and objectives; selecting strategies, technology, media, and materials; utilizing technology, media, and materials; requiring learner participation; and evaluating and revising. The use of this model revealed that students benefit most from activities that incorporate technology and media, and also using technology fosters intrinsic motivation through the production of personalized work and the attentive reflection of learning (Smaldino et al., 2008). In his article, Van Eck (2009) presents another model called the NTeQ (iNtegrating Technology through inQuiry) model which is based on five philosophical principles and takes into account the restrictions and realities of the classroom, including local and national standards, objectives, access to technology, and time restraints. These five principles are stated as follows:
1. The teacher is technologically competent and assumes the roles of designer, manager, and facilitator.

2. The student actively engages in the learning process, assumes the role of researcher, and becomes technologically competent.

3. The computer is used as a tool, as it is in the workplace, to enhance learning through the use of real-world data to solve problems.

4. The lesson is student centered, problem based, and authentic, and technology is an integral component.

5. The environment incorporates multiple resource-rich activities (p. 6).

The NTeQ model puts learners in the central, provides scaffolding for generating students engagement, and since there are many examples of NTeQ lessons available, it provides good support for the practical application of the ideas and theories relevant to COTS integrated learning (Van Eck, 2009). In addition to these models, there are two well-known frameworks for integrating games to the curriculum which are TPACK and PCaRD (Foster, 2012; Foster & Shah, 2012). The TPACK, Technological Pedagogical Content Knowledge, framework (Figure 2.2) was designed to define teacher knowledge for integrating technology in classrooms. TPACK combines three main forms of knowledge: technological knowledge, pedagogical knowledge, and content knowledge for guiding teachers in integrating technology into their classrooms. In the context of games, TPACK was redesigned in such a way that a complete game design for learning and teaching should focus on content and pedagogy when games are used to teach and learn school content.

While TPACK supports content and pedagogical focus through game genres, PCaRD assists in the systematic implementation or integration process of games in classrooms (Foster, 2012). The Play, Curricular Activity, Reflection and Discussion (PCaRD) model (Figure 2.3) is a pedagogical framework in which teachers can use commercial or educational games to achieve learning goals in an engaging and novel way within the curriculum (Foster & Shah, 2012). Together, TPACK and PCaRD offer a method for scrutinizing the pedagogy and content of games, developing assessments to support their use in formal or informal settings, and integrating games for learning (Foster, 2012).
Studies investigating the effects of PCaRD demonstrates the advantages of the framework. Foster and Shah (2012) conducted a mixed-method study with 25 high school students in which three games with the PCaRD model were implemented in a year-long elective course to explore the effects of PCaRD on learning and motivation. The three games were selected because of their commercial popularity, pedagogical approaches, and compatibility with the content of the study. The
achievement test findings showed that PCaRD resulted in significant gain for mathematics, but no significant gain was seen in physics and motivation. However, according to interviews and observations, PCaRD was effective in supporting learning, motivation and identity formation (Foster & Shah, 2012). In their article, Charsky and Mims (2008) stated that “creating game-based learning environments or experiences using COTS games is becoming an increasingly tenable, valuable, and popular instructional strategy” (p. 38) for teaching a wide variety of students and content. Integrating COTS games is the most advantageous when the games are in line with the curriculum and provide intellectual challenges appropriate for students’ abilities. According to authors, integrating COTS games into lessons can be a powerful learning experience. For this purpose, the teachers first should learn and play the game that they are going to integrate to their lesson extensively. Also, they should get the necessary supports e.g. administrative, technological, or parental. They should plan and manage their time effectively and design instructional activities that connect the game to the content. In short, they should first transform the classroom to a game-based learning environment, and then design the class schedule and time to accommodate the new pedagogy, craft instructional activities, and evaluate learning (Charsky & Mims, 2008). 

The notion that learning is a continuous process that transcends formal education and the school curriculum emphasizes that the value of informal learning and customization of educational experience (Voogt et al., 2018). By recognizing, promoting, and examining the informal methods of learning through gaming in foreign language outside of formal educational settings, we can gain valuable insights into how to bridge informal and formal learning, facilitate effective autonomous learning practices, and create structured learning environments that incorporate gaming. Understanding how learners develop a disposition for learning through voluntary and self-directed experiences can enhance our understanding of how a similar disposition for gaming can positively impact learning in compulsory, formal learning settings (Reinhardt, 2018). The informal skills and practices cultivated through gaming can be applied in the classroom to assist with school tasks (Voogt et al., 2018). However, there is limited understanding of how to effectively utilize out-of-school gaming to enhance language learning, as the existing research providing limited guidance on bridging students’ out-of-school game-based and
formal language learning to maximize learning outcomes and improve the overall learning experience (Li et al., 2021).

COTS game players collectively and individually (co)construct knowledge and meaning by engaging with various in-game discourses, such as game narratives, emerging dialogues and accompanying discussions for interactions within and around the game. (Knight et al., 2020). These experiences can be utilized in formal language learning settings as well. According to Becker (2017), COTS games can be primarily used in one of the four ways in formal education:

1. For the content within the game—for its facts or the experience it provides.
2. For the story—as literature to use for literacy practice, creative writing inspiration or to study as a literary work.
3. As media—as an artifact within the context of media studies, popular culture, psychology, or some other discipline.
4. For the code and design of the game itself—as software to be studied, emulated, or implemented. (p.116)

Becker (2017) points out that when thinking of the utilization of COTS games in education, the content of the game is often considered: it can teach facts, enable players to explore certain phenomena, or present problems that require solving. Another way to use games is to view them as an environment for setting up demonstrations and conducting experiments. A recently emerging approach to incorporating COTS games in the classroom involves using them as literary works, which is gradually gaining popularity. It is important to note that games suitable for this approach typically possess a narrative element. These games do not necessarily need to have long, immersive stories, as short stories and novels are also used for this purpose in formal language teaching. Many COTS games have deep and complex narratives, allowing them to be experienced, explored, and studied for the same reasons that literature is studied. Learners can explore distinctive variations of the narrative, often shaped by the choices they make as players, in addition to their own interpretations of a literary piece. Although the practice of examining games as literary works is not yet widely adopted, there has been an increase in the number of games with rich and distinct narratives as the gaming industry evolves (Becker,
Games can also be used to encourage reading and comprehension, as demonstrated in a study conducted by Dubbles (2009). The study he conducted with struggling seventh and eight graders by establishing an after-school game club showed that the students faced similar challenges in the games as they did when reading other literature, but they exhibited a greater willingness to explore and acquire the necessary knowledge to progress in the game compared to their engagement with traditional texts. Since willingness to persevere is considered a crucial aspect in achieving mastery of one’s own learning (Zimmerman & Labuhn, 2012), this finding could be important.

In addition to Becker (2017), deHaan (2019) also offered some pedagogies, purposes and practices, such as using connected texts to understand games, discussing games, reading and writing about games, and conducting game projects (Table 2.1). In his article, he underlines that “in terms of educational potential, it’s not just a game as a product, but a game and its culture, and what one does over the course of a class or project with all of that, before and during and after playing games, that can matter” (p. 37). He also explains the role of teachers in maximizing the potential of games on learning by stating that what teachers can do with games can be broader and more important than what students can do on their own. Teachers can capitalize on students' enthusiasm for games to enhance their reflective, critical thinking, and analytical abilities, employing gameplay experiences to connect with real-world scenarios. They can create structured lessons, introduce inventive teaching methods, and maintain a balance between gameplay and comprehensive learning. By facilitating discussions, adjusting learning materials, and guiding students towards intellectual pursuits, teachers play a pivotal role in fostering meaningful development.
As Reinhardt (2018) offers, different frameworks can be utilized to design game-enhanced materials, supportive curriculum structures, and other forms of pedagogical mediation. These frameworks are highly compatible with each other and can be applied in various combinations. Recommended practices include:

- use gaming literacies as an overarching framework
- identify game discourses and language functions to conceptualize language use in and around games, aligning them with goal-oriented game dynamics and player behaviors
- include activities that promote narrativization of game experiences
- implement activities in a design cycle following principles of experiential learning or bridging activities. (p. 153)

To briefly explain these frameworks, the first one, literacies framework, acknowledges the diverse types of literacies associated with gameplay and emphasizes their development as learning objectives. Next, game discourses and functions framework explores the language used within and around games,
considering various linguistic elements and the functions they serve in both in-game tasks and wraparound task designs. Thirdly, narrativization framework recognizes the significance of narrative in certain games and the role of language and symbolic means in mediating these narratives, and emphasizes the utilization and extension of game narratives for foreign language learning purposes. The experiential learning framework provides guidelines for designing activities that cater to different learning styles and aim to balance various aspects of learning as a whole. Last but not least, bridging activities framework acknowledges the potential of learning through vernacular texts and practices like gaming, applying an experiential and literacies-informed approach to designing game-enhanced pedagogy. These frameworks offer insightful viewpoints for developing game-enhanced teaching and maximizing games' educational potential. By considering these frameworks, educators can develop effective strategies and curricular structures to enhance learning experiences through games (Reinhardt, 2018).

In addition, COTS games can also be used in formal language learning settings by transferring the increased motivation of students gained through immersive and authentic COTS environment to the classroom. In this regard, Richtoff and Persson (2022) examined nine studies to investigate the effects students’ leisure activities have on in-class language motivation. One of those studies by Chik (2014) showed that foreign language learning motivation can be driven by the desire to improve language proficiency for better gaming experiences or to access games available only in the foreign language. Gaming in the target language offers diverse opportunities for language use, including oral and written communication within games and through online platforms. Participants in Chik’s (2014) study demonstrated intentional language learning strategies while gaming, indicating their motivation to enhance their English proficiency. Although the study did not examine the direct impact of this motivation on the EFL classroom, the participants' intentional language learning for gaming suggests the potential for motivation transfer. However, it is important to note that the study did not specify whether this intentional learning took place in or outside of the school context. In another study by Sundqvist and Sylvén (2014), students were divided into groups of non-gamers, moderate gamers, and frequent gamers. The findings indicated that students of all groups showed a significant amount of language learning motivation. The authors
discussed the discrepancy that students experienced, who spend more time engaging with English outside of school than the hours dedicated to English classes. They emphasized the importance for teachers to bridge the English learned outside the classroom with the English taught in EFL lessons, creating as meaningful English learning experiences at school as students’ personal engagement at home. Henry and Cliffordson (2017) found that students' beliefs about the effectiveness of classroom teaching impact their motivation in class. If students believe they learn better at home, think language learning depends on natural talent, and perceive limited value in classroom instruction, their motivation tends to decline. Motivating these students can be challenging, however, teachers need to make the best of the time they have with the students in class by providing guidance to students on the most effective ways to acquire English and bridge the gap between English learned at home and English learned in the classroom (Richtoff & Persson, 2022). Some other authors also suggested some potential ways in which we can bridge informal gaming learning experiences and formal education. Ağaoğlu and Şad (2020) recommended incorporating in-class and out-of-class activities that utilize digital games to enrich course content and engage students. By comparing the technologies used in gaming platforms with those in education, foreign language education can be intensified and improved. Schlasberg (2021) found that EFL learners use vocabulary learning strategies while playing COTS games, providing an opportunity for teachers to develop and incorporate these informal strategies into formal vocabulary acquisition instruction. Rama et al. (2012) proposed that massively multiplayer online games (MMOGs) offer unique sociocultural contexts for language learning, emphasizing the need for instructors to introduce more structured approaches such as scheduling group play sessions and assigning players of varying language abilities.

It is widely acknowledged that students’ use of technology in informal settings differs from how they use it in formal school settings. This poses a challenge for teachers, as they need to develop pedagogical approaches that bridge the gap between in-school and out-of-school learning. It is essential for teachers to perceive learning as a continuum and recognize the value of both formal and informal learning experiences for students. It is important to address various challenges, such as instructional strategies, assessment methods, policy considerations, and technical support to effectively incorporate digital technologies into school learning and
integrate informal learning experiences (Khaddage et al., 2015; Lai, 2018). Another significant challenge that can be encountered is resistance to game-related activities, both among the students and the teachers. Some students may react negatively to gameful approaches such as showing rejection or experiencing demotivation (Sendra et al., 2021). This negative reaction can be attributed to feelings of frustration, fear of losing, a sense of obligation to play, or simply a lack of interest in the game itself (Squire, 2005). These kind of possible challenges that can be faced when incorporating COTS games into foreign language classrooms and curricula should be considered and addressed before the integration process.

2.3. Summary of the Literature Review

When the relevant literature is reviewed, it was seen that many researchers have delved into exploring the potential of digital gaming for learning (Özgür & Caner, 2022) from both DGBLL and DGELL perspectives. Previous research on gaming for language learning also revealed that although DGBLL and DGELL are often confused with each other, and used interchangeably, in fact, they are two separate approaches. Therefore, it is important to recognize the difference between these two approaches (Reinhardt & Sykes, 2012).

Literature on DGELL showed that COTS game play has many affordances in foreign language learning in that playing COTS games;

- increases students’ motivation and interest because of the relaxing, fun and confidence boosting nature of them (Özgür & Caner, 2022; Richtoff & Persson, 2022; Sundqvist & Sylvén, 2014; Jana & Iveta, 2019),
- contributes to students’ vocabulary learning (Calvo-Ferrer & Belda-Medina, 2021; Çetin et al., 2012; Enayat & Haghighatpasand, 2019; Maior, 2016; Ranalli, 2008; Schlasberg, 2021; Sundqvist, 2019),
- is helpful in enhancing learners’ English language skills (Ağaoğlu & Şad, 2020; Chen & Yang, 2013; deHaan, 2005),
- provides opportunities for interaction and communication in English (Can & Türkmen, 2017; Chotipaktanasook & Reinders, 2018; Dixon & Christison, 2021; Rama et al., 2012; Ryu, 2013; Yudintseva, 2015).
Studies relevant to using COTS games for foreign language learning are also concerned with the significance of students’ informal language learning experiences gained through COTS games. The fact that learning experiences acquired in informal contexts are valuable experiences prompts the question of how to effectively transfer these experiences to formal settings (Lai et al., 2013). The literature emphasizes that players of COTS games collaboratively and individually construct knowledge and meaning by engaging with various in-game discourses, such as game narratives, emerging dialogues, and accompanying discussions, within and around the game (Knight et al., 2020). Furthermore, the skills and practices developed through informal gaming can be applied in formal classroom environments to support academic tasks (Reinhardt, 2018; Voogt et al., 2018). According to literature, COTS gameplay experiences can be used in formal language education for the content within the game; stories of the games as literacy sources (Becker, 2017); game discourses and language functions to conceptualize language use in and around games; activities that promote narrativization of game experiences (Reinhardt, 2018) and by transferring the increased motivation of students gained through immersive COTS environment to the classroom (Richtoff and Persson, 2022).

In the light of these studies, the perceptions of EFL teachers and students regarding the affordances of COTS gameplay and strategies for integrating informal language learning experiences gained through this gameplay into formal language learning settings were investigated in the current study to provide insight into bridging formal and informal language learning of students.
CHAPTER 3

METHODOLOGY

This chapter presents the research design, participants and sampling procedure, data collection instruments and procedures, and data analysis procedure. Ethical considerations, researcher’s role, and limitations of the study are also discussed in this chapter. The chapter begins with an explanation of the research design and the rationale behind adopting qualitative method and case study research design in relation to the purpose of the study. Following that, the sampling procedure and participants are described along with the instruments used to gather data and the procedures followed to analyze the data. Lastly, researcher’s role, limitations of the study and ethical considerations are discussed.

3.1. Design of the Study

As they were defined in the previous chapters, the purposes and research questions of this study focus on how can informal language learning experiences gained through COTS games be effectively integrated into formal language learning to enhance students’ language acquisition and proficiency, how COTS games are used by English language learners in out-of-school context, how this out-of-school COTS gameplay of students facilitate English language learning, and the perceptions of teachers and students about integrating COTS gameplay into foreign language curriculum to facilitate English language learning. When these research questions are considered, rather than quantitative research method which has the purpose of studying “to what extent” and “how well” something is done, qualitative research method which puts more emphasis on describing in detail all of what goes on in a particular activity or situation (Fraenkel et al., 2012) was preferred for this study.
Among qualitative research approaches, case study research which refers to exploring a case or cases over time through detailed, in-depth data collection (Creswell, 2013) was preferred. A case can be an individual or situation that can easily be defined (e.g. a particular individual, classroom, organization or project), an event (e.g. campus celebration), an activity (e.g. learning to use a computer), or an ongoing process (e.g. student teaching) (Fraenkel et al., 2012). In this study, the case is the role of COTS gameplay activity of Prep school students on their language learning experiences. There are three types of case studies in terms of intent: intrinsic case study, instrumental case study, and collective (or multiple) case study (Creswell, 2013). The present study is an instrumental case study in which “the researcher is interested in understanding something more than just a particular case; the researcher is interested in studying the particular case only as a means to some larger goal” (Fraenkel et al., 2012, p. 435). In other words, the researcher focuses on an issue or concern and then chooses a case to represent that issue (Creswell, 2013). Hereby, a case study approach based on the qualitative method was considered as the most appropriate design for the current study.

Figure 3.1 Overall Design of the Study
3.2. Participants and Sampling Procedure

In this research study, two purposive sampling methods were used to choose available language students and instructors willing to participate in the study. For the student participants, the sample was determined by the criterion sampling method, which is one of the purposive sampling methods. In criterion sampling, units that meet the criteria determined for the sample are taken into the sample (Büyüköztürk et al., 2014). The researcher intentionally selected specific participants who were expected to have at least two years of COTS gameplay experience and they were supposed to be university preparatory school students. All the students that participated in the study were students at a private university English Preparatory School where the researcher works as an Instructor. For the teacher participants, snowball sampling method, which is again one of the purposive sampling methods, was used. In snowball sampling, the researcher starts with a small number of initial contacts, who meet the research criteria for the study and are invited to participate in it. Eligible participants are then asked to suggest similar contacts who meet the research criteria and could potentially be willing participants and the same procedure continues with the new participants. Hence, in this sampling method, researchers use their social networks to create the very first connections (Parker et al., 2019). The recommended participants provide the names of other potential participants who meet the research criteria and are subsequently included in the study. Through the process of asking these participants for recommendations, the snowball grows, enriching the sample size and information-rich cases (Shaheen & Pradhan, 2019). In this study, the researcher started with three of her colleagues from working at the same university preparatory school because she knew they were experienced teachers who also had COTS gameplay experience in their out-of-school lives and therefore are familiar with the general topic of the study. The researcher then asked these participants to nominate other potential participants who were experienced teachers and play COTS games in their personal lives. The data of the study were collected through individual interviews with students and teachers, and a focus group interview with teachers and students together. During the data collection process of the study, the universities in Turkey switched to online education due to earthquakes that struck the country in February. Therefore, both students and teachers were interviewed via Zoom meetings.
In total, the participants of the study are 10 EFL students studying at a private university English Preparatory School and 10 EFL teachers working at the preparatory schools of either private or state universities in Turkey. The English levels of the student participants ranged from beginner to advanced with one of them being on Beginner level, five on Pre-Intermediate level, one on Intermediate level and three on Advanced level. All the student participants stated that they play COTS games on a daily basis, outside of school. Five of the teacher participants stated that they play COTS games for about 4-5 hours almost everyday, three of them play everyday, one plays every 2-3 days, and one plays once a week. Regarding students’ COTS gameplay experiences, four students stated that they play COTS games out-of-school on a daily basis for more than five years and six of them stated that they do for more than ten years. Since male students are more interested in playing COTS games than female students, eight of ten students participated in the study was male and two of them were female students.

Table 3.1

<table>
<thead>
<tr>
<th>Participants</th>
<th>Gender</th>
<th>Proficiency level</th>
<th>Gaming experience</th>
<th>Gaming frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Male</td>
<td>Pre-intermediate</td>
<td>9-10 years</td>
<td>Everyday, for 11-12 hours</td>
</tr>
<tr>
<td>S2</td>
<td>Male</td>
<td>Intermediate</td>
<td>6-7 years</td>
<td>Everyday, for 1-2 hours</td>
</tr>
<tr>
<td>S3</td>
<td>Female</td>
<td>Intermediate</td>
<td>5-6 years</td>
<td>Everyday, for 3 hours</td>
</tr>
<tr>
<td>S4</td>
<td>Male</td>
<td>Advanced</td>
<td>6-7 years</td>
<td>Everyday, for 1-2 hours</td>
</tr>
<tr>
<td>S5</td>
<td>Male</td>
<td>Advanced</td>
<td>10-11 years</td>
<td>Everyday, for 2-3 hours</td>
</tr>
<tr>
<td>S6</td>
<td>Female</td>
<td>Beginner</td>
<td>7 years</td>
<td>Everyday, for 2-3 hours</td>
</tr>
<tr>
<td>S7</td>
<td>Male</td>
<td>Pre-intermediate</td>
<td>9 years</td>
<td>Everyday, for 6 hours</td>
</tr>
<tr>
<td>S8</td>
<td>Male</td>
<td>Advanced</td>
<td>12 years</td>
<td>Everyday, for 3-4 hours</td>
</tr>
<tr>
<td>S9</td>
<td>Male</td>
<td>Beginner</td>
<td>11 years</td>
<td>Everyday, for 1-2 hours</td>
</tr>
<tr>
<td>S10</td>
<td>Male</td>
<td>Pre-intermediate</td>
<td>10 years</td>
<td>Everyday, for 2-3 hours</td>
</tr>
</tbody>
</table>

When the teacher participants’ demographic information regarding their educational background was analysed, it was concluded that three teachers graduated from Hacettepe University, two teachers graduated from Gazi University, and two others graduated from Istanbul University. The remaining participants obtained their degrees from Ankara, Marmara, and Beykent universities. Among the participants, seven graduated from the EFL department, two from English Language and
Literature, and one from the American Culture and Literature department. Additionally, many of the teachers have pursued further education, obtaining Masters and PhD degrees from various universities such as METU, Hacettepe, Gazi, Istanbul, Beykent, Trakya, Namık Kemal, and Bulent Ecevit universities. Specifically, four participants hold Master's degrees in EFL, three in English Language and Literature, and one in Curriculum and Instruction. Moreover, two participants have earned PhD degrees in English Language and Literature, and Curriculum and Instruction departments. As for their teaching experiences, four teachers have a work experience of five to ten years, four teachers have more than ten years of experience, and two teachers have less than five years of experience. All of the teacher participants were male.

Table 3. 2

**Demographic Profile of Teacher Participants**

<table>
<thead>
<tr>
<th>Participants</th>
<th>Gender</th>
<th>Age</th>
<th>Education</th>
<th>Professional experience</th>
<th>Professional experience at Prep School</th>
<th>Gaming experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Male</td>
<td>31</td>
<td>MA in FLE</td>
<td>9 years</td>
<td>8 years</td>
<td>27 years</td>
</tr>
<tr>
<td>T2</td>
<td>Male</td>
<td>39</td>
<td>MA in Eng. Lit.</td>
<td>13 years</td>
<td>10 years</td>
<td>31 years</td>
</tr>
<tr>
<td>T3</td>
<td>Male</td>
<td>33</td>
<td>BA in FLE</td>
<td>10 years</td>
<td>10 years</td>
<td>25 years</td>
</tr>
<tr>
<td>T4</td>
<td>Male</td>
<td>26</td>
<td>MA in FLE</td>
<td>2 years</td>
<td>2 years</td>
<td>20 years</td>
</tr>
<tr>
<td>T5</td>
<td>Male</td>
<td>34</td>
<td>PhD in Eng. Lit.</td>
<td>13 years</td>
<td>9 years</td>
<td>28 years</td>
</tr>
<tr>
<td>T6</td>
<td>Male</td>
<td>31</td>
<td>BA in Eng. Lit.</td>
<td>7 years</td>
<td>3 years</td>
<td>26 years</td>
</tr>
<tr>
<td>T7</td>
<td>Male</td>
<td>42</td>
<td>PhD in CI</td>
<td>20 years</td>
<td>19 years</td>
<td>24 years</td>
</tr>
<tr>
<td>T8</td>
<td>Male</td>
<td>29</td>
<td>MA in Eng. Lit.</td>
<td>9 years</td>
<td>4 years</td>
<td>15 years</td>
</tr>
<tr>
<td>T9</td>
<td>Male</td>
<td>28</td>
<td>MA in FLE</td>
<td>4 years</td>
<td>4 years</td>
<td>21 years</td>
</tr>
<tr>
<td>T10</td>
<td>Male</td>
<td>42</td>
<td>MA in FLE</td>
<td>20 years</td>
<td>16 years</td>
<td>31 years</td>
</tr>
</tbody>
</table>

Regarding the focus group interview, three students and three teachers, who were also the participants of the semi-structured interviews carried out with the participants individually, volunteered to participate in the focus group interview as well. The purpose was to generate a richer and more diverse data by having multiple perspectives and experiences and enable participants to build on each other’s comments.
3.3. Data Collection Instruments

The data of the study were collected through individual interviews and a focus group interview with teachers and students.

3.3.1. Semi-Structured Interviews

In the research, semi-structured interview questions were used to ask students’ and teachers’ views on the role of out-of-school COTS gameplay in learning English and how to build a bridge between in-class and out-of-class English learning through these games. Interview questions were developed by the researcher depending on a comprehensive literature review. The interview questions were prepared in three parts according to the focus of the questions. The first part, *Game Play*, includes four questions for students and two questions for teachers asking the participants to explain their overall gaming experiences. The second part, *Game Play and Informal Language Learning*, has five questions for students and four for teachers about how playing COTS games relates to and improves English language learning. Finally, the third part, *Bridging Informal and Formal Learning*, includes four questions for students and seven for teachers focusing on how to benefit from COTS games in the classroom, how they can be integrated to foreign language curriculum, and how can informal language learning experiences gained through COTS games be effectively integrated into formal language learning. In total, interviews for both students and teachers consist of 13 questions. For the validity of the interview, expert opinion was taken from four faculty members, and the questions are rearranged in line with the feedback received. For example, question 10 for teachers, which was formulated as “What kind of pedagogical mediation might leverage the games’ affordances or balance out its shortcomings?” was transferred into “What kind of pedagogical approach do you think can increase the affordances of games or balance out their shortcomings? In other words, how can EFL teachers use educational methods to make the most of the benefits offered by games or address their limitations?” to make the question more understandable and clear for the teacher participants. Moreover some, sub-questions were turned into standalone questions considering that it would be better to ask them separately. For example, question 4 for students, which was “Do you make discussions (e.g. discussing what is happening in the
game, what the task is, what kind of equipment to use etc.) with other players while playing the game? If yes, are these players generally Turkish or foreigners? How often do you communicate in English while playing COTS games?” was a sub-question of question 3. However, it was turned into a separate question since it was taught that it might provide more detailed information as a separate question. Similarly, some questions that were considered to be related were merged with other questions. As a result, the number of questions, which was initially 15, decreased to 13 after the revision made based on the feedback.

**Figure 3.2 Development Process of Interview Questions**

Individual interviews with students were supported by the stimulated recall interview method to better understand informal language learning process during gameplay. Stimulated recall is a research method that invites participants to recall their simultaneous thoughts during an event using a video sequence or other form of visual recall, thus allowing the investigation of cognitive processes (Fox-Turnbull, 2009). In this study, videos and screenshots were used for visual reminder. Participants were asked to videotape and take screenshots of the game screens while playing the COTS games to be used during the interviews. A stimulated recall interview was conducted with each student separately as a follow-up interview after 1-1.5 weeks from the previous interview.

Semi-structured interviews were carried out with 10 students and 10 teachers. Semi-structured interviews lasted between 30 to 40 minutes with students and 45 to 60 minutes with teachers. Individual interview questions with both students and teachers can be found in Appendices B and C in Turkish and English.
3.3.2. Focus Group Interview

In addition to individual interviews with students and teachers, a focus group interview was also conducted. In a focus group interview, the interviewer presents a series of questions to a small group of participants (often four to eight). Focus group interviews are conducted to find out what people truly think about an issue in a setting where participants can hear others’ opinions and consider their own accordingly (Fraenkel et al., 2012). With the focus group interview, it was aimed to deepen the findings obtained in the individual interviews by offering participants a setting where they can make additional comments to what they had said in the individual interviews once they hear other participants’ opinions and responses.

Three teachers and three students volunteered to take part in the focus group interview. Focus group interview lasted 75 minutes. The focus group interview consisted of 7 questions taken from the individual student and teacher interviews. Focus group interview questions can be found in Appendix D in Turkish and English.

3.4. Data Collection Procedures

After taking expert opinions and making the necessary changes in the questions, the researcher first started the interviews with students and then carried out them with teachers. They were informed about the scope of the study and were invited to participate orally. All of the students and teachers that the researcher invited accepted to participate in the study voluntarily. The genders of the participants tried to be arranged equally, however, since females are not as interested as males in playing COTS games, only two female students and no female teachers participated in the study while the number of male students were eight and male teachers were ten.

The interviews first held with students individually. At the end of these interviews, the researcher asked students to videotape or take screenshots of their game screens, and to think about the interview questions while playing the COTS games for approximately one week. After 1-1.5 weeks, the researcher conducted a stimulated recall interview with each student separately as a follow-up interview and asked
about their gaming experiences while using the videotapes or screenshots that they took as a visual reminder. These stimulated recall interviews took approximately 10-15 minutes and students’ additional comments were added to the interview script. Then, the research started to conduct individual interviews with the teachers. After completing individual interviews with teachers as well, a focus group interview was conducted with three students and three teachers who were volunteered to be interviewed again as the final step of the data collection to deepen the findings gathered in the individual interviews. Seven questions from the individual student and teacher interviews were taken for the focus group interview. During the data collection process of the research, universities in Turkey switched to online classes because of the earthquakes that took place in February and affected the country for the rest of the year. For this reason, interviews were held through Zoom sessions with both students and teachers. Participants were offered to choose the interview language as Turkish or English. Since the participants felt more comfortable and expressed themselves better in their native language, all of them preferred to conduct the interviews in Turkish.

At the beginning of the interviews, the participants were fully informed by the researcher and their consent was obtained through consent forms, which included the research context and conditions. The consent forms can be found in Appendix E. At the same time, prior to conducting the interviews, the student participants were informed that they could only attend the study if they play COTS games for more than two years as an out-of-school activity in their daily lives. Similarly, the teacher participants were informed that they could only attend the study if they play COTS games in their personal lives or if they are aware of certain characteristics of them. With the consent of the participants, interviews were voice-recorded to be transcribed later. Each individual interview took approximately 30-45 minutes in average. The follow-up stimulated recall interviews with students took approximately 10-15 minutes and the focus group interview took 75 minutes.

3.5. Data Analysis

Reflexive thematic analysis method was used in the analysis of the data to provide in-depth understanding and explanation to participants’ perceptions and experiences.
In this context, the researcher reviewed the data several times, created the first codes and themes, and finally created the main themes and reported the process (Braun & Clarke, 2021).

Since it is arguably the most influential approach for offering a clear and usable framework for doing thematic analysis (Maguire & Dehalhunt, 2017), thematic analysis of the data was carried out using the six-step guide outlined by Braun and Clarke (2006):

Step 1: Become familiar with the data
Step 2: Generate initial codes
Step 3: Search for themes
Step 4: Review themes
Step 5: Define themes
Step 6: Write-up

First of all, the interviews were transcribed by the researcher and her familiarity with the data increased in this process. For the second step, initial codes were generated via MAXQDA (2022) software (see Appendix F for a screenshot) according to relevance to the research questions and these codes were discussed with the supervisor. Next, three codebooks, for teacher, student, and focus group interviews separately, that include codes, example quotations from the interviews and explanations (see Appendix G) was generated by the researcher. Then, the codes were compared, discussed, and modified. After that the codes collated into separate themes. These themes were then reviewed to see if they are coherent and distinct from each other. In this theme revision process, there were some questions that were considered (Maguire & Delahunt, 2017):

- Do the themes make sense?
- Does the data support the themes?
- Am I trying to fit too much into a theme?
- If themes overlap, are they really separate themes?
- Are there themes within themes (subthemes)?
- Are there other themes within the data? (p. 3358)
After the revision of themes taking into account these questions, the final refinement of the themes was done. The final step of the analysis was producing the report on the findings. Throughout the process of data analysis, the recommendations pointed out by Braun and Clarke (2021) held great importance. They propose that while the six phases of reflexive thematic analysis are presented in a sequential manner, the analysis process is not always strictly linear. As a result, there are instances where it becomes necessary to go back and forth between phases. In line with this, the researcher did not strictly follow a linear progression through the phases but instead adjusted her approach as needed by moving both backward and forward.

3.6. Researcher’s Role

Qualitative research has an interpretation element that permeates every stage of the research process. In qualitative research, the collected data is actually the interpretation of the events, people, or activities by the participants and the researcher. This interpretation is shaped by the participants’ and researcher’s own personal experiences, culture, history, and backgrounds (Creswell, 2013). Therefore, the researcher is the key instrument, and the role of her or him is vital in qualitative research (Creswell, 2013; Fraenkel et al., 2012).

As the researcher of this study, I am a graduate of Bogazici University Foreign Language Education Department and have been working as an English instructor for two years in a private university in Istanbul, Turkiye. Before starting to work there, in the first year following my graduation, I worked as an English teacher in a private secondary school. Apart from these, I also had worked as a part time teacher or a teacher trainee in several private and state schools in Istanbul, Turkiye in the last year of my undergraduate education. While working in these institutions, I always tried to integrate technology and especially games in my teaching to enhance student engagement and participation. In time, I realized that integrating games and game-like activities enhanced my instructional skills. In addition, I have seen in my experiences that the majority of the students in all grades spend a considerable amount of time in their daily life playing commercial games, and they state that they know most of the words or expressions I ask in the class from these games.
Therefore, the question of how I can benefit from these games in my teaching has become one of my interest areas as a language teacher.

In the first semester of my master’s degree in Curriculum and Instruction program at METU, I became more interested in technology-based and game-based learning and new instruction methods in the education field while taking the course Theories of Instruction, and how to develop a curriculum in line with the needs and interests of today’s students through the courses Fundamentals of Curriculum Development and Curriculum Evaluation. What I learned from these courses paved the way for me to conduct a study that can contribute to the field in developing curriculum and instruction methods that will meet today's needs.

Being a graduate of Foreign Language Education Department, a student of Curriculum and Instruction master program, and an English instructor all helped me to understand the phenomena of this study. All these experiences helped me in the data collection and analysis process as well. As the researcher of the study, I was the one who collected, coded, and analyzed the data, so I experienced all steps in the research process which made my role crucial in the research. To eliminate any bias from the study, I paid extra attention to ethical considerations throughout the data collection process and also while reporting and analyzing the data.

3.7. Ethical Considerations

Some ethical considerations were taken into consideration before and during the study. Firstly, the study was presented to The Human Subjects Ethics Committee of Middle East Technical University. All the interview questions were analysed by the committee and their permission was obtained (see Appendix I for METU Ethical Committee approval form). After METU Ethics Committee’s permission that states there is no violation of ethics in this study, the researcher wrote a petition to METU Department of Educational Sciences in order for them to apply for the approval of Istanbul Beykent University, where the research would be carried out, on behalf of the researcher. The petition included the purpose and procedure of the study, METU Ethics Committee permission, interview questions and the consent form. After obtaining the permission of Istanbul Beykent University as well (see Appendix J for Istanbul Beykent University approval form), participants’ confirmation for
participating in the interview was taken. The participants provided oral consent before starting the interview, and they were also provided with a consent form in which they stated that they participated in the study voluntarily (see Appendix E for the consent form). The consent form included detailed information about the study and their rights as volunteers. Through this form, the researcher informed participants that the data would be collected anonymously and deleted after the research, they were free to withdraw from the study at any time they like, and they could ask questions whenever they needed to. With regard to confidentiality, the participants’ identities were protected. In order not to make students feel under pressure, the researcher conducted the interviews with students who were in her classes in the previous semesters. Only one of the students were still in the researcher’s class, and for the same purpose, he was interviewed after the module ended. Therefore, the students were more comfortable and relaxed while answering the interview questions.

3.8. Limitations of the Study

Several limitations can be observed in this study. First of all, since this is a case study, and a combination of criterion sampling and snowball sampling is used, the data is collected only from a specific group of people. The number of participants is not large enough to generalize to the population.

In addition, the data is geographically limited because it was collected at one Turkish university in Istanbul. Also, all of the participant students are students of a private university in Istanbul, Turkey. Therefore, they may have a higher socioeconomic status than students from other higher education institutions in Türkiye. This might be another factor that endangers the generalization of the results.

Also, although the participants were highly helpful and explained their experiences and perspectives as detailed as possible, since they participated in the study completely voluntarily without any self-interest, they might not have spare enough time or might not be focused enough for the interview. In order for the interview to end quickly, they might not have explained some points that could have been significant for the study, or they might have answered the questions as they thought they were expected of them.
Moreover, it may raise the issue of researcher bias that the researcher conducted this study with the students and colleagues of the university where she works as an instructor. Furthermore, students might have felt compelled to participate in the study. In order to eliminate this limitation, although the researcher conducted all the interviews during the semester when the participant students were not in her class, the students might have felt under pressure due to the possibility of being in the researcher’s class again later, or for other reasons.

Another limitation of the study is that since all interviews were audio-recorded with the permission of the participants and then transcribed, some data loss or misinterpretation may have occurred during the transcription process.
CHAPTER 4

RESULTS

This chapter presents the results of the qualitative data analysis in relation to the research questions. The data collected was analyzed using a reflexive thematic analysis, which was explained in detail in the methodology chapter. Semi-structured interviews were conducted to address the following research questions:

1. How can informal language learning experiences gained through COTS games be effectively integrated into formal language learning to bridge formal and informal language learning contexts?
   a) What are the potential practices for instructors to effectively bridge the formal and informal language learning contexts using COTS games?
   b) What challenges educators might face when incorporating informal language learning experiences gained through COTS into foreign language curricula, and what may be the suggestions for overcoming these challenges?

2. How do students and teachers perceive the incorporation of COTS games into foreign language curricula?
   a) What are the potential practices for instructors to effectively incorporate COTS games into foreign language curricula?
   b) What challenges educators might face when incorporating COTS games into foreign language curricula, and what may be the suggestions for overcoming these challenges?

In line with these research questions, the results are presented under four main categories. The first part provides insight into bridging informal language learning experiences gained through COTS into formal language learning. The second part presents the potential challenges that educators might encounter when integrating informal language learning into formal settings and the potential strategies for
overcoming these challenges. The third part reveals the perceptions of students and teachers regarding the incorporation of COTS games into foreign language curricula. Finally, the last part shows the possible challenges associated with this integration of COTS games and the suggestions for overcoming these challenges. Findings for these categories are presented separately for the analysis of teacher interviews, student interviews and focus group interviews.


4.1.1. What Are The Potential Practices for Instructors to Effectively Bridge The Formal and Informal Language Learning Contexts Using COTS Games?

The first research question aimed to explore the insights to effectively incorporate informal language learning experiences from COTS games into formal language learning settings. The goal is to bridge the gap between formal and informal language learning contexts by leveraging the potential of COTS games for second language learning.

4.1.1.1. Bridging Informal Language Learning from COTS to Formal Classroom

For the first research question, in observing how informal language learning experiences gained through COTS games can be effectively integrated into formal language learning, one main theme was identified as a result of teacher, student, and focus group interviews: bridging informal language learning from COTS to formal classroom. This theme explores the potential of utilizing COTS games as a bridge between informal language learning activities and structured classroom instruction. As a result of the analysis, it was seen that the immersive and motivational aspects of COTS games can be used for enhancing students’ language skills, engagement and motivation within the formal classroom setting.

While conducting a reflexive thematic analysis on the teacher interviews, four sub-themes were created: using COTS as extracurricular and supplementary activities; expanding language learning in classroom through out-of-class game-related content;
integration of game narrative and storyline; and language learning from informal COTS game play experience as a motivational force for formal language learning classrooms. While analyzing the interviews conducted with students, one sub-theme was created, which is expanding language learning in classroom through out-of-class game-related content. As for the focus group interview analysis, two sub-themes were created: integration of game narrative and storyline; and language learning from informal COTS game play experience as a motivational force for formal language learning classrooms.

Figure 4.1 Theme and Sub-Themes Related to First Research Sub-Question of the First Research Question

4.1.1.1. Using COTS as Extracurricular and Supplementary Activities

The first sub-theme of the analysis related to the first research question, using COTS as extracurricular and supplementary activities, emphasizes the integration of COTS games as extracurricular and supplementary activities to complement traditional classroom instruction and enhance language learning outcomes. This sub-theme was created from the teacher interview data only. It has three major codes: out-of-class activities like “game nights” or “game clubs”, playing the first parts of the game in class as an example and assigning the rest as homework, and use of games for extracurricular activities.

Firstly, most of the teacher participants stated that playing or using COTS games in the classroom can be difficult, and not all students are interested in playing these kinds of games, but they can be used as extracurricular or supplementary activities.
They suggested creating “game clubs” or “game night events” for interested students. On this issue, T9 stated:

As a first step, as I mentioned, I probably wouldn't try to implement this in every class I entered, but I would try to create something like a club. I would do something that requires only voluntary student participation. First and foremost, I would establish a club of this kind. (T9)

Similarly, T4 gave an example of this from his previous experiences and emphasizes that student participation is also higher in these kinds of events:

As a learning activity, I can say that when I was in the Erasmus Student Network, I was an activity manager there, and we would do things like inviting students to a game night together with other university students from different European countries. We would play games like Gartic, for example. We were also doing a speaking club, we were doing this too, more people were coming to play games together compared to speaking club. They really liked Gartic, and sometimes my students would ask me if we could play Gartic. In that game, they have to draw, so it could be a good thing for improving their English skills, especially at lower levels. They need to know English to understand what they're drawing, and they can choose themes as well. For example, we used to invite students like this on weekends. They would come and play these types of games. You can't have them done during class hours, but they would come on weekends, like we would do it in the evening, and they would come. (T4)

Secondly, some teacher participants suggested a strategy where teachers introduce selected portions of a game during class time as an example or demonstration and assign the rest as homework. T1 asserted that in this way, it is possible to prevent students from feeling suffocated by performing their out-of-school work through game play and help them use their free time effectively:

First of all, if possible, if we are going to do this on a device that children can carry, such as a phone or a laptop, and if they have these devices, I'm thinking of doing the first one in the classroom as an example, and then I plan to do it outside the classroom. Because children already interact with English enough in the classroom, and when they go home, on weekdays or weekends, their mothers, fathers, or responsible individuals constantly pressure them to study. I would like them to be able to study by playing games in the evenings or on weekends, or during their free time. Because we also need to encourage students to make good use of their free time. Otherwise, it's just a burden for them to come to school, study, leave school, study, go to piano lessons, go here, go there. It's truly a pity and a shame for the children. (T1)
T10 accentuated that because of the time-consuming nature of COTS games, it is not appropriate to spend class time with game play, and that the deadline should be kept long when game play is given as homework:

Maybe at critical points, well, of course, I need to play the game myself beforehand. Then, for example, let's say after the first 15 minutes, I know that there is a turning point in the game, for instance. We can play together in the classroom until the 15-minute mark, and then come to a certain point at home. Then, let's say there is another turning point in the third hour, we can play it briefly in the classroom again and maybe repeat it that way. But as I mentioned, I don't think it's very favorable to have games like this taking place during class time. Rather, it would be better to give students more extended time at home. For example, I don't think it would be very positive to say, 'Play a 2-hour game today or tomorrow before coming to class.' Because children have their own social lives, and they have the right to arrange it as they wish. Therefore, giving them a period of 3-5 days, for example, and saying, 'Play for 1-2 hours,' could be a better approach. (T10)

Similar to these two, the last code is related to using games for extracurricular activities. Teachers may incorporate COTS games into after-school programs, language clubs, or other supplementary activities that complement the formal language learning curriculum. Utilizing COTS games as extracurricular and supplementary activities foster a sense of continuity and relevance, enabling students to transfer and apply their language skills from gaming to more structured language learning activities, therefore creating a bridge between informal language learning experiences and the formal classroom setting.

I think we probably need an hour or a specific time outside of the regular class hours to incorporate games as part of the lessons. We can consider it as an extracurricular activity. In such a case, the person leading or managing the club could be the teacher who delivers the lesson or a teacher who is interested in the subject. (T8)

T4 offered using game-related extracurricular activities for formative assessment instead of currently used ones like portfolio assignments:

For example, instead of having portfolio assignments solely in written form, we can give tasks related to playing games together, such as what they did in the game, what actions they took, and consider it as an extracurricular activity, providing extra points for their participation. To ensure continuity, we can divide the portfolios on a weekly basis, incorporating them as a form of ongoing development. Because it's not very effective to simply give assignments in class and then assess them in midterms and finals. (T4)
4.1.1.1.2. Expanding Language Learning in Classroom Through Out-of-Class Game-Related Content

The next category focuses on utilizing the engaging and immersive nature of COTS games to enhance language learning in classroom settings. This sub-theme was created from both the teacher and student interview data. The data revealed that teachers can create a dynamic and engaging learning environment that stimulates students’ interest and encourages language learning by incorporating elements from games into language lessons. This category suggests that by linking abstract language concepts to real-world scenarios within games, students can expand their language learning experiences beyond the classroom setting. It has two common codes from teacher and student interviews: using example sentences from games, and presentation of examples from games via multimedia resources (e.g. YouTube videos). One more code was identified from the teacher interviews: linking abstract concepts to their practical applications in real-world scenarios, and also from the student interviews: vocabulary learned from the game used in writing assignments.

Some of the teacher participants expressed that they already use COTS games in their teaching by giving examples of vocabulary, phrases or sentence structures from COTS games to draw students’ attention and create an authentic and engaging learning environment. T6 exemplified this by saying:

... for example, in games like Counter-Strike, there's a warning message saying 'the bomb has been planted' during bomb installation. I use this as an example to teach students about the passive voice. The students actually already know it, so I say to them, 'I'm showing you something you already know'. (T6)

T6 also stated that to further enhance the learning experience, he presents examples from games via multimedia resources like YouTube to provide visual and auditory stimuli and learning naturally:

We can't open and demonstrate COTS games in class, but I can show excerpts from the games as videos because they can upload certain parts of the game to YouTube. They actually upload almost everything from the game. So, when teaching a specific word or demonstrating a movement, instead of using body language, I open it for them to see it visually and learn more naturally. (T6)
The last code of this category, linking abstract concepts to their practical applications in real-world scenarios, is related to how COTS game play offers an advantage for language acquisition provided by direct, experiential connections between words and actions. T3 highlights the difficulty of connecting concepts to real-life situations during language instruction and how COTS games can facilitate this process:

... there is something we struggle with when teaching, which is connecting concepts to their real-life counterparts. Instead of the student just sitting and repeating action words, in a game, you say 'crawl' and press 'Z', and the character starts crawling. You say 'jump' and when you press it, the character jumps. There's a direct correlation. The student cannot forget these words, it's impossible... Because humans learn through repetition, games do it so well. You use the words because it's multiplayer, you want to say to the friend next to you, 'the guy went prone,' if he or she is English, you'll say 'he crouched' or let's say 'he laid down.' Therefore, directly associating words with visuals and actions is an incredible tool. (T3)

When it comes to the analysis of student interviews, similar to the teacher participants, some student participants also expressed that COTS games can be used in the classroom by giving examples of sentences, words or phrases from them. S5 gave an example of one of his teachers who is experienced in COTS game play and makes use of students’ existing knowledge from gaming experience in teaching vocabulary:

In my opinion, for teachers to use it, I think the teacher needs to play that game in order to be able to use it; otherwise, it would be difficult to use. For example, I can give an example from one of our preparatory school teachers. There was a word called "cripple," which means disabled. Our teacher asked someone in our class, for instance, "Which game did you play?" That person mentioned the name of the game, and the teacher said something like, "In that game, there is a character called 'cripple' who walks slowly." So, by playing the game themselves, teachers can directly provide examples and teach using the game. (S5)

It was also suggested by some students that examples of games can be presented via multimedia resources to facilitate language learning and create engaging learning experiences for students. While analyzing the teacher interviews, it was seen that teachers tend to use YouTube more for the presentation of examples from games.
Students, however, prefer Twitch, which is a streaming platform that mostly has gamer users, more for this presentation. S1 suggested watching the live streams of foreign Twitch streamers as a means to present examples from games in the classroom since it also offers a conversational aspect rather than focusing on the gameplay itself:

For example, watching the streams of a foreign Twitch streamer in the classroom etc, this could also be possible because that streamer is more focused on the chat aspect rather than the game itself, so they speak a lot of English. I believe there are many things that can be learned from this, especially from story-driven games and Twitch streams. (S1)

Lastly, almost all students mentioned the impact of COTS games on vocabulary expansion, and some of them also expressed that some words learned from games can be applicable and used in writing assignments at school. S5 stated that he used vocabulary learned directly from games in his paragraph writing in class, and suggested that gaming-related vocabulary can be used in writing lessons and assignments at school:

Some words can definitely be used. I'm thinking right now about the words I used in the paragraph, I can't recall them very well, but we definitely use certain words, for sure. For example, I remember using words in my paragraphs that I directly learned from the game. I believe we can definitely use the words we learn from games in writing classes. I have used them in school, for sure. (S5)

4.1.1.3. Integration of Game Narrative and Storyline

The third category, integrating game narrative and storyline, explores the ways in which game narratives and storylines are integrated into classroom activities and assignments. It has three codes from the teacher interviews: integration of game narrative into reading and writing assignments, utilization of game’s storyline for developing productive skills, and classroom activities such as essay/report writing, classroom discussions, presentations, role-playing, storytelling, and group quests. Additionally, from the analysis of the focus group interview, two codes were
identified: narrative of the game can be used in reading assignments, and integrating some parts of the game, not the whole.

Most of the teacher interviewees suggested that narratives and storylines of COTS games can be used for integration. The first code, integration of game narratives into reading and writing assignments, underscores the incorporation of game narratives into traditional academic tasks. T4 offers some example games whose narratives can be used for reading and writing assignments:

Using COTS games can be beneficial as authentic material. For example, Skyrim can be great in this regard. It has its own stories, and you collect stories within Skyrim. Or there's The Witcher, where you follow a story and your choices influence the game's storyline. In fact, if you have downloaded The Witcher 1-2-3 to your computer and you have the files from the first game, the choices you made in the first game transfer to the second game and change the story. So, by addressing these narrative differences, it can actually be turned into a reading activity, and it can even be transformed into process writing. (T4)

As for the second code, some teacher participants suggested the utilization of games' storylines for developing productive language skills, namely speaking and writing, can be effective as students engage with the game's storyline, characters, and themes.

Classroom activities can focus on productive skills. For example, once a month, students can give a presentation related to a story they created. So, in this case, attention can be given to English language teaching through literature, and prompts can be provided to them based on the storyline of the story, such as "What would you do if you didn't do that?" or "...if you didn't do this?" This can be given as a speaking or writing exercise where students provide the rest of the story, based on the prompt provided. I think it could be a sample of productive skills that they can engage in. I thought using it in the classroom that way would be more effective. (T5)

Almost all of the teacher participants offered various classroom activities that make use of games narratives and storylines including essay or report writing, classroom discussions, presentations, role-playing, storytelling, and group quests. T10 exemplified the classroom activities that can be done by integrating games' narratives and storylines:

So, I would try to create a discussion environment, encourage drawing conclusions and discussing influences. Maybe we would do quizzes. Perhaps we could take a text excerpt from the game's story and do a fill in the blanks exercise, or maybe a practice related to tenses. Additionally, I might assign
roleplays, where students would embody characters from a game and perform a roleplay based on a past or future section of the game... It could be a reading exercise as well. For example, many games have a lot of stories, so we could provide a critical story piece or a future story piece as a text and do a reading exercise, or we could present that story again and discuss what elements in the game are based on or derived from that story. When you think about it, there are many options available. (T10)

While conducting the analysis of the focus group interview, it was seen that the results specifically suggest incorporating narratives of role-playing games into reading assignments in formal language learning classrooms, as it presents language in a meaningful context and increases student engagement and participation.

Well, there's also another thing to consider. Right now, we've been thinking about fully integrating the game into the lesson, integrating it into education as a whole. But we can also take the game in fragments. It's actually challenging, but there are also simpler aspects to it. For example, let's say there are many reading activities and texts in an English textbook. If I take a story of any champion from the League of Legends universe and include it in the book, when I come across that activity, as a League of Legends player, I can say, "Hey, this is from the game I play, I know this story," and it can increase my excitement and participation in the lesson. So, we can even do something as simple as that. (S2)

4.1.1.1.4. Language Learning from Informal COTS Game Play Experience as a Motivational Force for Formal Language Learning Classrooms

The last category of the first theme related to first research question, language learning from informal COTS game play experience as a motivational force for formal language learning classrooms, highlights the motivational impact of informal COTS game play experiences on language learning in formal settings. The analysis of the teacher interviews revealed that the motivational factors that COTS game play offers can contribute to sustained engagement and enthusiasm in formal language learning environments. Factors such as the necessity to understand and complete quests in games, competition with peers, reinforcement through practical language application, and the overall embracing of the English language beyond the classroom can serve as powerful motivational forces for language learning. The teacher participants commonly shared the view that COTS game play requires communication and interaction with other players. Some participants believe that this necessity leads players to learn English while playing with students with different native languages, therefore contributes to the language development a lot. Based on
this finding, the first code of this category is identified as “learners seek to enhance their language skills to interact effectively with peers in COTS games”. On this issue, T2 stated that:

Games have an impact on communities and player groups as well. In some games, communication is at a higher level, and it truly contributes to language skills. For example, in a World of Warcraft community, if a student is involved in a community outside of Turkey, they really need to know the language. It's not just about giving simple commands like "come here, shoot, run, crouch, stand up," but they actually need to engage in meaningful conversations, communicate, and that social interaction continues outside of the game as well. My childhood friends, both of them have been playing World of Warcraft since it was first released. They have friends from all over the world, and most of them either traveled abroad to visit their friends or their friends came here to visit them. It can create a very interesting social environment, where people can build networks. (T2)

In addition to requiring communication and interaction with other players, game language itself (e.g. in-game messages, warnings or quests) also leads players to learn English and increases their motivation to learn according to some teacher participants. In order to understand and complete quests in games, players need to know the language. Therefore, the motivation to advance in the game brings motivation to learn English with it. T8 commented on this issue:

… there are role-playing games that we categorize as RPGs. For example, there is a game called Divinity: Original Sin. There are also role-playing games like the upcoming Baldur's Gate III, which is older. These kinds of role-playing games definitely provide benefits because there is a significant amount of dialogue within the game. Players need to have a command of English in order to fulfill these quests within the game. (T8)

Thirdly, the immersive and authentic context of COTS games was identified as another factor that increases student engagement and motivation. One teacher participant pointed out that this immersive and authentic context not only increases students’ intrinsic motivation but also sustains their engagement by ensuring that they remain active in the learning process:

The most beneficial aspect, in my opinion, is that you can keep the child, the student, engaged in the process of language learning. In a formal language setting, the student can be kept involved to a certain extent in that process. After a while, their motivation, concentration, focus, and attention may start to wane. But while playing games, you have the opportunity to keep the child constantly engaged in the learning process. Because fun takes the forefront
for them. In a way, you're tricking the child; while they are having fun, you're also accomplishing your own objectives. (T7)

Another factor that has a significant impact on motivation is competition. According to teacher participants’ observations, students like competing with each other and the excitement it brings regardless of their age. Therefore, the competitive nature of COTS games can increase ambition and willingness to learn English. T6’s comments were as follows:

If used for reinforcement purposes, it can be very effective because students tend to enjoy a little competition and excitement. Even if students have reached the age of 18, there are still many students in classrooms, even at the university level, who engage in playful banter like "Oh, I surpassed you, I crushed you." This can be something that increases the desire to learn due to the competitive spirit, as seen in games like Kahoot. Additionally, since there is no formal class structure, I believe that the effectiveness is higher. This is my personal opinion. Without the constraints of a formal class, I think the use of such games can be more efficient both for clearing the mind and for reinforcing what has been learned. (T6)

T7 highlighted the same issue and also compared educational and COTS games in terms of the competitive aspect, stating that in COTS games the competition feature is more emphasized:

Children also enjoy competing with each other while playing. They want to, for example, reach a certain level and move on to the next level. In educational games, this process is usually short, and the competitive aspect is not emphasized as much. (T7)

Moreover, COTS game play also provides reinforcement to language education in formal learning settings by illustrating the practical application of the language. In other words, COTS games offer opportunities for students to apply the language skills they are learning in the classroom within a real-world context. This practical application reinforces their language learning process and increases their motivation to continue developing their skills.

For example, let's say I have a task to deliver. You receive it from a woman and you are supposed to deliver it to a man. When you finish the task, you will give the report to him. So, let's say the woman you received it from says something like 'go to him.' Here, for instance, the student will at least think 'what is the pronoun here' or 'why doesn’t he take the task’ etc., and will eventually find out he or she should hand it over to ‘him’ instead of ‘her.’ It becomes a reinforcement in such mundane, everyday situations at least. The
student sees that the pronoun sometimes becomes 'him,' and sometimes 'her' in different situations. (T3)

Lastly, the final code of this category from the teacher interviews, game play leads to embracing the English language beyond the classroom, created from some teacher participants’ emphasis on the fact that most Turkish students consider English as a school subject rather than a foreign language, and the role of COTS games in changing this approach to it. COTS games foster a broader interest and engagement with the English language outside the formal classroom setting; however, this interest and engagement can be used in the formal language learning classrooms as a motivational force. T2 stated, “they need to move beyond considering English as just a subject and take it to another dimension in their lives. I think games provide a great opportunity for that.” T3 also expressed:

So imagine people not only improving their English, but also elevating themselves as a whole in terms of character. This will impose responsibilities on individuals and demonstrate how wonderful English is. As you already know, our biggest deficiency is motivation when it comes to teaching English. (T3)

Based on the focus group interview conducted with teachers and students, it was observed that COTS game play in out-of-school context provides many opportunities for expanding students’ knowledge and motivation to learn, which can be used in formal settings as well, for ongoing learning and improvement. The codes for this sub-theme highlight these opportunities, some of which are increasing participation of students by offering equal positions in using the language, encouraging students to embrace English language beyond the classroom, providing spoken production through making speaking English an obligation, stimulating informal language learning through competition and game narratives, and providing ongoing self-assessment. T2 explained how students have an equal position in using the language while playing games and how it increases participation:

Students have a bias, and I think we need to break that, apart from the game. You know how they think things like making a mistake in class and fearing the teacher's reprimand or being laughed at by classmates. First of all, we do not get angry, I mean we try not to, we try to correct your mistakes. But that fear of the teacher always exists in students, unfortunately. I think the main problem is the fear of being laughed at by friends. Your friends cannot make fun of you, guys. Because you are all in the same position. Okay, I know
you’ll say “but teacher, they got 90 in the previous exam, and I got 50”, it is possible but you are all in the same place, nobody has the right to judge others there. But in games, as you said, this doesn't exist. Everyone is in the same position, they get upset not because you spoke incorrectly, but because you played poorly, that's the problem there. So, if I played poorly, it's fine, maybe I wasn't in my best day, it happens, but in terms of language, it doesn't matter if I had a bad day or couldn't speak, it isn’t a problem in the game.

(T2)

During the focus group interview, teachers and students also discussed how COTS games encourage students to embrace the English language beyond the classroom, and the fact that students need to feel obligated or under pressure to speak English, and games provide that obligation, hence the spoken production:

T2: I'm curious about something, how much do children really embrace English outside of school? Yes, we have English as a subject, we take exams, pass them, and so on, but where does English fit into their lives outside of that?

S3: Well, you use it in some way or another. People often mix in English words while speaking because they commonly use Turkish-English. And in games, for example, you have to learn, otherwise you'll get criticized if you speak incorrectly.

T2: So, you're conditioned in a way, right?

S3: Yes, exactly.

T1: So when we say you should study and learn the lesson, you don't listen to us, but you listen to some random guy.

S3: Well, you need to be pushed into a corner. When you're cornered, you speak beautifully. When I'm cornered in a game, I can even speak French.

T2: True, exams don't really push you that much.

S1: It's kind of like a slight obligation.

On this topic, T1 also added that game environment offers a meaningful purpose for speaking English:

Absolutely, there's also the issue of speaking English in the classroom, encouraging students to speak English. Everyone knows Turkish, so why should I speak English? Why do I need English for communication? Students often struggle to see the purpose of English in communication. However, in games, as you rightly mentioned, they learn the purpose of English, the purpose of language learning. It becomes a means of communication, whether it's related to in-game text, a character giving me commands, or playing with
an online friend. Through games, they learn that English is a tool for communication, not just a subject to study. They learn this consciously or unconsciously. (T1)

Another factor that COTS games offer that improves language skills and motivation to learn is that students have the opportunity for instant result for their behaviour, instant feedback to assess themselves continuously in game play, more often than in formal learning settings:

I'll add something to this as well. Do you know what causes the difference in efforts to speak English between the game and the classroom? In the classroom, the result of having better English comes after 8 weeks, a month, or a semester in an exam. But in the game, achieving better English happens within half an hour. Because if they can't understand the task, they can't do it. If they can't understand what their friend is saying when they say "run to defense," they can't do it. So if their English is not as good in the classroom, if they can't keep up or understand, they experience the result much faster. That's why it encourages better English or their English improves, their language skills enhance. In the classroom, if a child can't do something, they'll see the result of whether they could do it or not when they take a quiz after a month or two. (T1)

4.1.2. What Challenges Educators Might Face When Incorporating Informal Language Learning Experiences Gained Through COTS Into Foreign Language Curricula, And What May Be The Suggestions For Overcoming These Challenges?

This research sub-question aims to shed light on the possible challenges that educators may face in their efforts to integrate informal language learning experiences gained through COTS game play into foreign language curricula and the potential strategies to address these challenges. Based on the findings of teacher, student, and focus group interviews, one main theme was identified: challenges and limitations, which has three sub-themes: language learning challenges in COTS, challenges and barriers for integration, and negative impacts and concerns.

4.1.2.1. Challenges and Limitations

The interview analyses showed that there are several common concerns among teachers and students that can create challenges for the effective integration of informal language learning experiences into foreign language curricula. These challenges will be presented with three categories under the main theme of
challenges and limitations: language learning challenges in COTS, challenges and barriers for integration, and negative impacts and concerns, each representing a distinct aspect of the difficulties that educators might face.

![Figure 4.2 Theme and Sub-themes Related to Second Research Sub-Question of the First Research Question](image)

**4.1.2.1.1. Language Learning Challenges in COTS**

According to findings from teacher interviews, several challenges were identified for the first category, language learning challenges in COTS. This category remarks teachers’ concerns for accurate and effective language learning of students and the difficulty they might cause for the integration of informal language learning experiences into foreign language curricula. One of these concerns is regarding the rarity of language input in some COTS games. T7 stated: “there could be a lack of language input (in COTS). Because you take educational games, you design and develop them according to your educational purposes. You can include whichever input you want, but in COTS games, that's not as abundant.” Therefore, while COTS games offer immersive environments for language learning, the actual exposure to target language content may be limited. Another concern is that while COTS games offer many opportunities for language learning and improvement, especially through the chat feature in them, this feature can also cause false learning of the language. T6 shared his personal experience with his students regarding this issue:

In online games, there can be a problem like this, as I mentioned earlier, people use chat or voice communication to interact with each other, and not everyone there knows proper English. Not everyone speaks English correctly. There could be instances of learning incorrectly, for example, a student says to me, "I heard it like this from someone, during the game”. I tell them they heard it wrong, that it’s not true. So, I think there could be such a side effect. (T6)
Lastly, most of the educators underlined that there is an incompatibility between the game language COTS offer and the standard language taught in formal settings. COTS games often contain daily use of the language, slang or informal expressions, or region-specific language variations or accents, which are not taught and can be improper to use in formal language classrooms. This discrepancy may lead to confusion or false learning for language learners. However, the teacher participants also stated that they do not consider this issue as a significant disadvantage for language learning:

The fact that students learn more vernacular expressions such as "gonna," "ain't," and so on, and they think they can use them in formal language or that they need to use them, actually hinders their progress a bit. But is it a significant problem? No, not in my opinion. (T5)

In terms of the language learning challenges in COTS, the students stated mainly two concerns, regarding speaking and grammar skills. The first one is that while COTS games offer many opportunities for speaking practice by requiring communication with other players in English, hence improve the spoken production of learners, this production is limited to game content and does not have a significant impact on improving speaking skills according to some students. “In games, you only chat within the game and talk about the game itself,” S1 stated. S4 pointed out that the English used in-game and outside of the game is roughly in equal proportions:

The English we learn is connected to the game to some extent, although not entirely. Because, as I mentioned, we definitely speak English outside of the game, but while playing the game, we discuss game-related matters. In the communication within the game, we use about 50% game terms such as 'chill,' 'pick,' 'side,' 'rotate,' and so on. (S4)

The other concern that students emphasized regarding the language learning challenges in COTS was that COTS games do not offer any opportunities for, and therefore have no impact on, grammar improvement. Almost all students underlined that since there is an informal environment in COTS games, players see and prefer the daily and informal use of the language. S7 stated, “It's far from grammar (the game language). Definitely because, well, daily language is being spoken.” Therefore, if the informal language learning experiences of COTS will be incorporated into foreign language curricula, this incorporation should be done for language skills other than grammar as S2 suggested, “If you're going to use it for
language skills other than grammar, then use it, because it doesn't provide any contribution to grammar”, and he explained this issue in more detail:

You don't pay much attention to grammar while playing, writing because it's an informal environment. For example, let's say we use 'doesn't' with 'he/she/it,' but if we use 'don't' there, it doesn't cause any problem, and nobody comes up to me asking why I used 'don't.' It's like that, you know, we feel more relaxed because it's not formal. (S2)

During the analysis of the focus group interview, it was seen that the main concern of teachers and students is regarding the native language use of the students, in our case, Turkish, while playing. There can be several reasons for students to prefer playing in Turkish rather than English. In this case, the contribution of COTS games to foreign language learning and language skills development would be insufficient. According to teacher and student participants, since COTS games are not designed for educational purposes, but instead solely for entertainment purposes, the main aim of players is to advance in game play. Therefore, the players need to understand the game quests quickly and completely to achieve them. Since this could be easier with using the native language, and most of the COTS games offer Turkish language options nowadays, Turkish players tend to prefer choosing Turkish as the game language. In addition to choosing Turkish as the game language, translating unknown English words to Turkish by using translation programs or websites is so easy these days that students do not need to try understanding the quests in English by themselves.

T2: So do you prefer playing them in Turkish or in English? Is there such an alternative, does the game offer a Turkish option?

S1: It offers it to me, apart from that when I'm going to play the story, I play it in English, but when, let's say, a quest or something comes up, I do it in Turkish. Because sometimes I really can't understand what they want. Because they use a very complex English, to be honest. When I can't understand, I translate it into Turkish and say, "Okay, this is what they want, I need this or I have to go there, I need to talk to this person," I say that then. Because sometimes it's really not understandable.

In addition to the use of native language more than the target language, similar to the analysis of student interviews, spoken production of students in games being limited to game content was one of the codes that emerged from the analysis of the focus group interview as well.
If I were to comment on it for myself, it doesn't have an impact. I mean, it's not much, to be honest. I can't say it's nonexistent, but I can't say that playing COTS games has contributed significantly to my English skills. For example, let's say I play a game like League of Legends on a foreign server, I can't say that it has added a lot of English to me. I also play on foreign servers, but as I mentioned, since we only communicate within the context of the game and talk about game-related matters, it doesn't really benefit your English. For instance, let's say I learn the English word for "totem" while playing, where am I going to use it in real life? Something like that. (S1)

4.1.2.1.2. Challenges and Barriers of Integration

The second category, challenges and barriers of integration, delves into specific challenges and barriers that might hinder the effective incorporation of informal language learning experiences in COTS into foreign language curricula. The analysis of teacher interviews revealed that teachers have concerns about issues of awareness regarding the potential benefits of COTS for language learning, generation gap among teachers and students, curriculum and lesson planning, misconceptions and stereotypes on COTS game play, and institutional support. Firstly, teachers asserted in the interviews that to benefit from students’ informal language learning experiences in formal language teaching environments, the teachers need to be interested in the potential of these experiences and be willing to try this incorporation.

... so everyone needs to understand this, but if someone doesn't want to bother with it, you can't force them to do it. This applies to students as well as teachers. They need to believe in it a little, they need to have some interaction with it. Because, for example, even I, after 20 years, might encounter something that I can't understand and naturally resist. But as you said, for example, you're telling me, I'm telling you, if we go to other teachers, there must be at least 10 students in each of their classes who play games. In the past, for example, it was a bit different, it was more related to gender roles, like, for example, boys used to be the majority, but today it's not like that anymore. You can find a certain balance, a certain standard. You can come up with something like the total number of boys and girls in the class who play games, for example. It's no longer dependent on a specific profile. We can't just say that only boys play and only boys will improve their English. But in this regard, there is a lack of awareness. I hope you're trying to raise it, it makes a lot of sense. (T9)

The majority of the teachers pointed out that this lack of awareness results from the generation gap among teachers and the misconceptions and stereotypes about COTS games that older teachers seem to believe. Representative comments involved:
The negative attitude is likely due to a generational gap. In other words, teachers or educators from a generation closer in age to the current age group believe that games have a positive impact on language learning in this regard. I have received similar feedback from other teachers in my surroundings. However, when we look at teachers from other generations, there is a negative approach. (T8)

Lastly, the most stated issues for this category among teachers were the lack of a ready-made curriculum and the time and effort required for curriculum and lesson planning that include the integration of informal learning experiences of students that they gain through COTS game play, as T7 stated: “here comes the catch, creating those lesson plans. Creating a curriculum for digital game-based or digital game-enhanced language learning is the biggest challenge. It requires an incredible amount of time and effort.” Also, the need for understanding and support from other teachers and higher-level administrators for this integration would be one of the biggest challenges according to teachers.

Well, to implement that, for example, I can integrate it, but I'm not the only teacher in a preparatory program. If we are going to provide this to teachers as a curriculum, they need to receive professional training beforehand. We could allocate the first semester to this and try it out in the second semester, or during the summer, have discussions with teachers and develop a one-year plan that can be reviewed during the break. We can also consider the effects and advantages of this approach during department meetings. (T4)

When it comes to the analysis of student interviews, it was seen that the biggest concern was regarding the inequality this integration may create among students due to the need for expensive equipment and infrastructure to play COTS games. COTS games frequently rely on the latest technologies, which might require investments in computers or other equipment in addition to dependable internet connections. For students with tight budgets, the cost of purchasing and maintaining these equipment might be a considerable barrier. Therefore, as presented in the findings of the first research question, if teachers give game play or game-related assignments to students, or perform game-related classroom activities, there can be inequality among students in class.

Well, a good computer is definitely required. Especially for certain games, you definitely need a good computer in terms of hardware. Some games like League of Legends, Counter-Strike, and so on, require headphones. They require special equipment. In my opinion, a mouse is definitely necessary, a
good mouse for example, a keyboard is necessary, and headphones are necessary so that you can hear the sound of the players. The better ones of these can be costly, of course. (S5)

As for the focus group analysis, teachers and students discussed similar concerns like accessibility and socio-economic factors, lack of awareness, misconceptions and stereotypes, and institutional support. T3 underlined the socio-economic factors that can affect students’ access to games: “What will you do if someone says, ‘Hocam, my computer can't handle it, I can't play this game’? Will I tell them to go and buy a good system for 30,000 liras?” Also, T1 and T2 discussed the lack of awareness among people on the benefits of playing COTS games, the common misconceptions and stereotypes towards games, and the resistance to the idea of playing games as a valuable activity:

T1: Lastly, I want to say to my students, play games a lot. Playing games not only improves your English, but also develops your hand-eye coordination, helps you relieve stress, and promotes socialization. And friends, because humans are social beings, playing games is a necessity for us. Just like we eat food and drink water, playing games, engaging in competition, can be running with your friend until a point or playing strategy games on the computer, or even playing football - it can be anything. Playing games is a human need. Play games, and you can show us to those who say, "You've grown up, until what age will you play games?" as an example.

T2: Yes, in fact, tell them this: those who make comments like that are most likely the fathers, grandfathers, uncles who sit in coffeehouses playing cards all day. That's also a game. ..., when you play a well-crafted game, you're essentially experiencing a good movie, reading a good book, and listening to good music all at once. You get to consume all the arts, visual and auditory arts, simultaneously. That's why it's also a great practice. Playing games is a very fulfilling activity, and that's what I want to say.

Lastly, T3 emphasized the need for understanding and support from higher-level administrators for the integration, and the necessity to achieve this with top-down decision-making and authority:

Now, for example, we discussed this during the integration part as well. If we think that it should be done with an order or with authorization from the top, for example, in our case, we will present such a selection to our foreign languages manager, and he will say, "Well, hocam, the second conditions of this will be too heavy for the students' level." Now, the feasibility of this is very difficult. Just imagine that the Minister of National Education will have
complete control over these games, saying, "This selection is feasible, this one is not." But all the heads of the institutions involved in this should be aware of it. However, I can't imagine that the teachers in our administration are here and expressing their opinions instead of the teachers here because this generation is already very distant from this concept. Integration really needs to come from the top, especially in such societies. It will spread to the base anyway, for example, why does it spread? Well, whether these students are happy or not, we are obliged to make them buy books, for example. If it comes from the top, I mean, if a program is decided, and if you say that our school's curriculum is also this, then there is no need for integration, because you will have to enforce it anyway. (T3)

4.1.2.1.3. Negative Impacts and Concerns

The last category of this theme, negative impacts and concerns, indicates the potential negative effects that may arise from using informal language learning experiences in COTS games for foreign language learning. The analysis of teacher interviews revealed that teachers are most concerned about the potential negative effects of COTS games on players such as the addictive nature of games, isolation from the real world, and negative effects on physical and mental health. They are also concerned about the risk of disengagement for students who are not interested in playing COTS games if this integration happens. T1 claimed game play definitely causes addiction, and explained the reasons for that:

It definitely creates addiction. Yes, it does, it truly does, there was even a psychological study that explained it. It triggers the release of the happiness hormone in the brain, I think it's called serotonin, and games simulate that, they stimulate its production much more, it said. Especially in recent times, we can see this much more in games. There's this thing called loot boxes in games nowadays. When you complete a small task, a box opens, rewards come out of the box, lights flash, and so on. It is said to be harmful, in fact, Belgium banned it two years ago because it was encouraging children to gamble, and the European Union also conducted a study on it, and it was found to be really harmful to children. It creates addiction. That's true. (T1)

However, there are also some teachers who believe that gaming is a hobby and being addicted to it is not different from being addicted to another hobby:

I can somewhat agree with the idea that it creates addiction. But on the other hand, we also know that this is a hobby, and people always want to engage in their hobbies. For example, I also play basketball. If you let me, I could play basketball all day long. So, maybe it's a personal issue related to my personality, I don't know. But I believe that especially after a certain age, it shouldn't be overly emphasized and restricted. (T10)
T7 also noted that the addiction problem may be a serious issue for young learners, but it is not for university students who are over the age of 18:

But if we're talking about the target group being university students, then we have a bit more freedom. Because in the research conducted on addiction, the biggest concerns are for students in primary education, around the ages of 12 and 14, where addiction becomes a serious problem. But when it comes to university students, there isn't such a concern or hesitation. (T7)

On this issue, some teachers also emphasized that the main concern regarding this addictive nature is that students can isolate themselves from the real world while playing. Because of the engaging and immersive features of COTS games, students can forget their real-life responsibilities and problems while playing. This can lead to a detachment from real-world activities and impact their academic or social lives negatively.

But what really concerns me is students completely isolating themselves from the real world and spending all their time in the world of games. Unfortunately, once they enter that realm, they don't want to leave easily. It can affect their social lives outside, for example. (T8)

In addition to social and psychological effects, too much gaming can also cause some physical problems such as eyesight problems, back pain, headaches, and sleep deprivation according to teachers.

Also, the child's eyesight can be affected, that much is certain. It can have physical harm, for instance, the student may neglect to engage in necessary physical activities, resulting in back pain, headaches, lack of sleep at night, and inability to attend school. These are the potential damages. (T1)

Because of these negative impacts of COTS game play, teachers are concerned that allowing students to play these games not only in out-of-school contexts for only entertainment purposes, but also for their formal language learning can cause an increase in these negative implications. Lastly, while discussing bridging formal and informal activities through COTS game play, almost all teachers expressed their concern about the students who are not interested in playing COTS games, and emphasized the fact that teachers cannot force them to participate in game-related activities and assignments, as T9 stated: "...there are also students who don't enjoy it, who say, "I'm not into computer games." Now, it doesn't make sense to forcefully make these students play and say, "You have to do this to learn English."
The analysis of student interviews showed that students have the same concerns as teachers, which are the addictive nature of games, isolation from the real world, and the fact that not everyone likes playing games. S9 stated games are the only addiction he couldn’t get rid of:

These games actually create addiction. Honestly, I don't smoke or drink alcohol, and I haven't even seen drugs in my life. Furthermore, I haven't consumed a single gram of sugar for 9 months. Despite having freed myself from all addictions, I can't seem to break free from these games. (S9)

S6 declared that the reason why games are so addictive is that it creates ambition and motivation to progress in the game and rise to higher ranks in addition to maintaining the current level. The fear of losing progress becomes a driving force to keep playing and advancing, as S6 explained:

For example, one of the reasons I play games every day is to maintain my skill level. If I don't play today, my performance might decline. There are ranked and unranked games, where unranked games are for everyone to play, while ranked games track your progress. "Rank" is probably an English word, but I don't know its Turkish equivalent. Let's say my rank is "Iron 1." There are Iron 2, Iron 3, Platinum 1, Platinum 2, Platinum 3, Gold 1, Gold 2, Gold 3, and many more ranks. There are 3, 6, 9, 12, 18, 27 ranks in total, and I'm only at the first one. The reason I continue playing today is that if I skip playing tomorrow, I won't be able to climb higher than my current rank because I won't be accustomed to it, and my performance will decline. It's actually very addictive in this sense, it keeps people hooked. You always think, "I've come this far, why not continue?" Although I've reached the third rank, I won't stop until I reach 27th or 28th rank. Because I've managed to reach the third rank. In this sense, it's addictive... (S6)

Similar to teacher participants, student participants also stated that games cause isolation from the real-world. While this isolation can have positive effects on mental health by providing relaxation, it can also have negative implications since it can make one forget about their responsibilities and daily tasks.

Personally, I believe that playing games initially has positive effects on one's mental well-being. It provides a sense of relaxation and allows you to disconnect from the outside world to some extent. When engrossed in a game, you tend to forget about your daily life, responsibilities, work, and school, and focus solely on the game world. This temporary escape can have both positive and negative implications. For instance, if you have pending assignments and you choose to play games instead, it may result in incomplete tasks. However, there are times when you feel tired or bored and seek a distraction or a way to clear your mind, and games can serve that
purpose. In my opinion, gaming is a productive industry when used for the right purpose, but it ultimately depends on how it is utilized. (S7)

Since the interviews were conducted with gamer students, they all expressed that using their language learning experiences from COTS games in their formal language settings would be beneficial for their language learning. However, they also shared their opinions about other students who are not interested in playing COTS games. They stated that as much as this incorporation can be motivating for themselves, it can also be demotivating for non-players.

We can consider games as educational tools for subjects like mathematics, physics, science, and even physical education. However, not everyone enjoys or is interested in every subject. Certain games may appeal to specific individuals and help them improve in those areas. I don't believe that COTS games would necessarily capture the interest of female students. Similarly, not all boys are avid gamers, and not all games are of high quality. But for someone who enjoys gaming, it can be beneficial to learn English through gaming in a classroom setting. However, in order to use these games effectively, they must appeal to a wide range of students and require teachers who can engage them. Game selection is crucial and, in my opinion, the game should be simple and easy to play. Not everyone is naturally inclined to gaming, so the game should be accessible even to those who have never played before. When games are introduced, the element of competition comes into play, which can create a desire to win. If someone who is unfamiliar with gaming struggles to play and cannot achieve success, it may negatively impact their motivation, even if they have a good command of English. Therefore, game selection is of utmost importance. (S7)

As for the analysis of the focus group interview, a few different codes from the teacher and student interviews emerged. Risk of disengagement for non-interested students was a common code of the three interviews. Three other codes emerged from the analysis of focus group interview: distraction caused by the pressure of competition, students may focus on winning rather than learning, and using a game in which some students have a significant advantage can create a disparity among students. Firstly, S1 stressed that the competitive environment in COTS games may become a distraction for students:

As I mentioned, I think competition can disrupt a person's focus to some extent. It's like a mindset of "I have to win this" rather than focusing on learning something. But let's say you create something in the Minecraft world, and you have five students placed in different worlds with different puzzles, but they all eventually reach a reward. I think this approach would be more conducive to learning English. Because in the end, they all achieve
something, there is no competition or pressure. The child is compelled to learn English in that environment. They may also develop a curiosity about the reward and become more focused on learning English without the element of competition. That's how I see it. (S1)

The analysis indicated that if the informal language learning experiences will be incorporated into formal learning, this can be a significant problem since students will focus on progressing in the game rather than improving their language skills. Therefore, performing game-related activities or giving game-related assignments would not be effective since the students’ main focus will be on advancing in the game, which will be against the nature of formal learning settings in which the focus is always learning. The analysis also showed the danger of student disengagement among those who are not interested in playing COTS games. If a game is chosen for an assignment or project work where some students perform significantly better than others, it can cause a disparity among students. For non-interested or inexperienced students, this can result in demotivation as they may feel pressured or unable to keep up with their peers.

T2: And there's another factor to consider: skill. Even if a child enjoys a game and finds it interesting, if they can't perform well in it, they will become even more discouraged and lose interest. This is also an important aspect to consider.

S1: Exactly, finding a game that caters to the skills of all 30 students in the class is very difficult. Let me give you a clear example using League of Legends. Since I used to be a professional e-sport player myself, if you were to compare me to the other 30 students and introduce us to that game, it would be evident that I have a significant advantage. I have already mastered everything in that game, so there would be a substantial difference between me and the other students.

4.2. How do Students and Teachers Perceive The Incorporation Of COTS Games Into Foreign Language Curricula?

4.2.1. What Are The Potential Practices For Instructors To Effectively Incorporate COTS Games Into Foreign Language Curricula?

The next research question focuses on the perspectives of teachers and students regarding the integration of COTS games into foreign language curricula. By examining the perspectives of both teachers and students, this research question
seeks to explore the overall acceptability and utility of COTS games in foreign
language curricula and formal language classrooms. The findings of this research
question can provide insights for educators, curriculum designers, and other
decision-makers about the potential benefits and limitations of integrating COTS
games into foreign language curricula. In observing teachers’ and students’
perceptions of this integration, three main themes were identified as a result of the
analysis of teacher, student, and focus group interviews: potentials of integrating
COTS game play to formal learning, integration of COTS games into formal
language learning settings, and game selection and adaptation.

4.2.1.1. Potentials of Integrating COTS Game Play to Formal Learning

The first theme focuses on the potential benefits and opportunities associated with
integrating COTS games into formal language settings. The data highlights various
aspects that demonstrate the positive impacts of COTS games on language learning.
Based on these aspects, three sub-themes emerged for this theme: language learning
opportunities and engagement in gaming, enhanced language skills and cognitive
development, and increased motivation for language learning.

![Figure 4.3 The First Theme and Sub-themes Related to First Research Sub-Question of the Second Research Question](image)

4.2.1.1.1. Language Learning Opportunities and Engagement in Gaming

The interview analyses revealed that there are various language learning
opportunities in COTS game environments. According to findings from the teacher
interviews, COTS games offer several advantages for language learning, including
exposure to the daily use of the target language, encouraging communication and interaction in the target language, and providing enhanced immersion and sustained engagement compared to formal language learning settings due to their interactive and authentic nature. During the interviews, one of the most common statements from teachers regarding this issue was that students benefit from regular exposure to real language usage through COTS gameplay:

Because, you know, in our daily lives, we don't really have the opportunity to converse with strangers and be exposed to the language. But through movies and games, we somehow get exposed to it. So, in this regard, I believe that games have a very positive impact. (T10).

Also, in COTS gaming environments, learners are provided with situations or contexts where they can actively express themselves both orally and in written form, as T4 stated, “They are constantly engaged in spoken production. There is spoken interaction as well as written.” T8 also expressed, “Especially when they interact with players from foreign countries, they will naturally improve their language skills in order to communicate with them.” The mentioned interaction and communication opportunities also stem from the in-game messages or chat features that allow players to interact with others, cooperate, and engage in dialogue, thus contributing to language learning and development. “You have to engage in dialogue with people, whether it's for cooperation or other various reasons, through chat. This is where games have a major advantage” T3 stated. Moreover, COTS games provide a highly immersive and engaging learning experience thanks to their interactive and authentic nature, surpassing traditional formal learning environments:

In games, professional actors, voice actors, they work on it, and you can experience English in its best form, with all the emotions, as you can repeatedly watch a good scene, just like in a movie. And because it's interactive, the person you're interacting with is not someone like Ryan Gosling, but rather the character you're playing, and you get to say those lines. It has multiple positive effects, including inflection and intonation, and it has such a profound impact. (T3)

Among teachers, one of the most commonly mentioned advantages of COTS games, especially role-playing games, is that they eliminate the hesitation to speak in English that most students suffer from and foster English spoken production by
creating a sense of anonymity, allowing students to practice and develop their language skills with increased confidence:

Because there's something else, students, as you may have noticed, sometimes withdraw themselves a bit because they don't see the obligation to participate in the class. In a game, they can perhaps assume a different character, and there are students who are shy and timid in face-to-face classes, but behind a different avatar, they might feel more comfortable. That can be utilized. Because there, there's no such thing as being in the spotlight or being called by name and being asked to answer. (T2)

As these excerpts highlight, the students can assume different characters or avatars within the game environment which allows them to feel more comfortable, confident, and willing to engage in spoken language practice. Another great advantage of COTS game play in students’ learning is that they empower students to actively engage with the subject matter, make decisions, and take ownership of their learning, making students active participants in their learning process:

When students use a game, they become actively engaged in it. They are not just passive recipients, but also active participants who have the power to influence the game. They have choices and their actions have consequences. This increases their level of involvement and engagement. They are not merely receivers; they are actively involved in the process. That's why I wish we could see the use of games more frequently, as it enhances this level of involvement. (T4)

COTS games, particularly those that incorporate role-playing elements, have the potential to provide immersive and culturally authentic contexts, “you also learn about their cultures and such, you also learn about the cultures of different countries or communities from games as well” (T10), and allow learners to engage with the language in practical and meaningful ways:

Well, in authentic environments where the language is truly experienced, we cannot teach the language effectively, but when digital games come into play, culture also becomes part of the equation. Especially in the role-playing games I mentioned, you enter into any context in America, England, or elsewhere, and you embody a character within that scenario. You encounter many things such as how people approach you, how the small talk conversations unfold, or what you experience when you go to a restaurant. It is necessary to leverage these experiences to your advantage. Therefore, it is important to recognize the potential of using digital games in language education. In that regard, I believe there is a significant potential. (T7)
The reality COTS games offer leads to incidental learning of words, expressions, or phrases in the target language. Therefore, they offer a more natural, easy and sustained language acquisition. T6 gave an example from his own language learning experience, “the greatest feature of these games for me has been acquiring English naturally. I mean, of course, I learned things in class, but I can definitely say that I learned more from games than from lessons” (T6). T1 also highlighted the incidental learning through COTS game play:

Thanks to the reality offered by games, people are highly focused while playing, to the extent that they don't even realize they are learning or doing a task. Most people are not aware of what they learn while playing games. For example, my closest friend, an English teacher, learned English by playing games. Their English is excellent, and they completely learned it through gaming, without even realizing it. When they need to speak with a foreigner, they can construct more complex and beautiful sentences than me, without being aware of it. (T1)

Another important impact of COTS game play on foreign language learning is that they assist in meaning construction and comprehension in the target language, and enhance comprehension and learning capacity.

Here, students develop a sense of understanding, and I experienced it myself. When we break down the components of a sentence for students, they still lose the meaning when they put them together. Why? Because they haven't assigned meaning to them, they haven't grasped the correspondences of the things we taught them. So when you tell them to conjugate the verb ‘be’ for past tense, they say ‘does’ instead of ‘was’, because they haven't mentally matched those components with their meanings yet. Games are crucial in this regard. (T3)

Lastly, all teacher participants emphasized the role of COTS game play for vocabulary expansion. They all pointed out that the dynamic and immersive environment of COTS, where players interact with various characters, objects, and environments provides learners with opportunities to encounter and familiarize a wide range of vocabulary repeatedly throughout the gameplay. This repetition reinforces vocabulary learning of students in long-term memory.

Vocabulary, what I have seen as a student and now as a teacher, is the greatest advantage for a learner. Even if you don't know any grammar, when you see these words used in the same sentence and understand their meanings, you can easily infer what is happening, regardless of the topic, whether it's physics or philosophy. Therefore, having the highest vocabulary among all
the peers I know has always been the biggest advantage for students. Why? Because I have had plenty of opportunities to encounter a wide range of words in games. (T3)

The analysis of student interviews revealed similar findings for this category. Similar to teachers, students also mentioned the impact of COTS game play on speaking, vocabulary, active learning, and exposure to the daily use of the language. In addition to those, students also expressed its potential on providing reinforcement for English learned at school and incidental learning of grammar rules. Firstly, students stated that COTS games present different uses of the target language such as daily language and slang expressions, as well as different accents of English, which are not generally presented to learners in formal learning settings. Through game play, they can be exposed to authentic target language use, including colloquialisms and informal expressions in COTS environments. They also become more familiar with different accents of English thanks to game characters with diverse accents and backgrounds, “… you also hear Spanish English there, let's say you hear a Canadian and an Australian. You hear and see the difference in accents. It helps you progress in that way” S8 stated.

You are alone there, you have to speak. Things are being said to you, and sometimes even swear words are used, by the way, it's not something pleasant. When someone insults you, you get angry and you have to respond in English. You need to explain yourself, and by doing so, you truly gain that confidence. Also, for example, in school, we will never be taught English swear words, so you end up learning the everyday language through the game. (S8)

They also expand their vocabulary through game play by learning words in both formal and informal contexts:

Not all games are developed in Turkey, and I rarely play Turkish-made games. Since most games are internationally based, the in-game terms are in English. Because of that, these terms are in English, and the complementary phrases or expressions are also in English. So, even if it's not the best in terms of grammar, English is learned primarily based on vocabulary. Slang words can also be used. Personally, I may know around 300-400 words from games, but I've never really applied them to grammar rules. However, some people have progressed by incorporating grammar examples. So, vocabulary is especially crucial in this context. (S9)

According to students, COTS games also provide reinforcement for English learned at school, “it helps reinforce what we learn in preparatory classes” S1 expressed,
especially in terms of speaking because it provides opportunities for meeting foreign people and communicating with them in English as he also stated “I believe it is particularly beneficial for speaking skills because we can meet new people and communicate with them. Being able to communicate with foreigners is especially helpful in improving our speaking abilities.” Also, having an opportunity to make English speaking practices outside of a formal learning setting with a teacher and other students increases confidence and reduces hesitation to speak in English.

Moreover, it also boosts self-confidence. It actually occurred to me once that I gained a lot of self-confidence. I went for a job interview, well, it was more like a friend's father asking me to come and receive some training for a job, and later on, I could work as a teacher for preschool or elementary school children. He called me and asked about my English level, and I told him it was around A2-B1. He suggested we speak in English, and I agreed. In that moment, I confidently responded in English saying something like "yes we can" and so on. I gained that self-confidence through gaming, because you know, when you ask us to speak in class, we often struggle to do so. (S8)

Some students mentioned that during these communication and interactions, code-switching occurs a lot between the native and target language while playing the game, even when playing only with Turkish players:

Another thing is that when we talk about specific games and specific agents within those games, they have certain abilities. For example, there's an agent called "Viper" who creates walls, but we don't say "duvar" (wall) in Turkish, we say "wall" in English. I don't know why, but I say "wall." We say "kur" (set up) for "spike" instead of saying "bombayı kur" (set up the bomb). Even though all the players are Turkish and there are no foreign players in the game, we still use these English terms... For example, we say "spike" but use "kur," and that's quite interesting to me. We're not constructing the whole sentence in English, but we use certain words in English. There are many more words like this, but I can't recall them right now. It's similar to how people make fun of white-collar office workers when they speak a mixture of English and Turkish; gamers are a bit like that, too, in a way. (S6)

While the majority of students underlined that COTS game play has no impact on grammar improvement, one student claimed that COTS games allow for incidental learning of grammar rules as well:

Hocam, in the simplest terms, when I first started, the most basic thing, actually, was learning the difference between "are you" and "do you," or the absence of something like "I am go." Even these simple structures were difficult for me to convey quickly when trying to communicate with people. There were times when I would say "I am go" without realizing it. They
understood, so it wasn't a problem for them; they were probably used to it. But I learned not to do it reflexively. Gradually, as I stopped thinking about the initial mistakes I made, about where to place things, about whether to use "did" or "do," past tense or present tense, or whether to use "will," and how to do it, I learned to do them without thinking. I believe that not thinking about these things and simply doing them has improved me the most. (S6)

When it comes to the focus group analysis, within the sub-theme language learning opportunities and engagement in gaming, there are three sub-categories: opportunities for language engagement and proficiency development, opportunities for language acquisition and authentic learning, and opportunities for vocabulary expansion and semantics. The first one, opportunities for language engagement and proficiency development, presents various aspects that contribute to language learning and skill enhancement within the gaming context, some of which were also mentioned in the teacher and student parts like offering communication and speaking practices in English, exposure to the daily use of the language, vocabulary expansion, and incidental learning of the language. Firstly, the students emphasized that playing COTS games assists in improving vocabulary and speaking skills the most by necessitating communication and the use of game-related terms during gameplay:

Well, it's beneficial both in terms of vocabulary and speaking, but grammar doesn't really play a significant role. People can speak without much grammar knowledge. However, you engage in speaking activities, communicating verbally in games. For example, when you join a foreign server, whether it's English or another language, you need to speak in English. You talk about where you are and so on. (S3)

Additionally, they provide exposure to the target language and incidental learning of informal use of the language which is not taught at formal settings:

The reactions you receive in the game, the vocal responses, and by vocal responses, I don't necessarily mean a group of words with meaning. The sounds we make in Turkish and the sounds made in an English-speaking environment are different. For example, in Turkey, we say "hıhı" to mean "yes," but English speakers don't say it that way. How would you learn that? You can only learn the English "hıhı" while playing games. So, through games, students can learn everything outside of formal communication. But since it's not a conscious effort, students may not realize whether they are learning or not. It's an unconscious process. (T1)
The second sub-category, opportunities for language acquisition and authentic learning, draws attention to the opportunities that COTS games provide for authentic learning and enhancing learners’ understanding of the practical aspects and purpose of learning English:

T1: We were talking about L1 transfer. I was actually going to talk about that. It contributes a lot to the development of interlanguage. Because even if we read a text in English, we understand it in Turkish, our native language, so it benefits the development of interlanguage. At the same time, online games, even if we chat with just one word, teach us semantic aspects when we get angry, express satisfaction, or make jokes. So, even if we know the meaning of a word, does its appropriate usage fit or not? There were things like that, Gricean maxims, which are violated to create humor. So, we know the words, we know the grammar, but it teaches us these subskills in terms of communication. Even if we write just one word, or even if we don't write any words and just write "gg" ("good game") to a team we've defeated in the game, it still conveys meaning. It teaches us more about the things related to English communication rather than the language itself. That's why I think games should be considered authentic materials. Because we find it much more challenging to teach these aspects through reading and speaking in the classroom.

T2: Both in terms of content and motivation, right?

T1: Yes, exactly. Because think about it, in the classroom, who can I use derogatory terms or make jokes with? You can't use them, the teacher tells you not to make fun of your friend. Or at most, think about it, the motivation to use these expressions becomes difficult. But when you get angry with someone in English while playing a game, you easily understand how to express your anger with just one word. So, in English, if I say this word, I'm expressing my anger. Learning this becomes much more challenging in the classroom. Games give you an authentic opportunity. They teach you semantics, the science of meaning, they teach you semiotics, they teach you everything. We're not just playing games emptily, guys.

S1: That's true, I agree with my teacher. Yes, I hadn't thought about it from that perspective.

This excerpt from the focus group interview also demonstrates the third sub-category, opportunities for vocabulary expansion and semantics, which focuses on vocabulary development, teaching semantics and semiotics, and creating meaning in communication through COTS games.
4.2.1.1.2. Enhanced Language Skills and Cognitive Development

During the interview analyses, it was seen that COTS games provide not only many language learning opportunities, but also additional benefits beyond language development, especially cognitive development. According to teachers, COTS games assist in enhancing language skills through interaction and communication in multiplayer online games, and developing language and cognitive skills through gameplay. They also address all language skills at once, unlike educational games that focus on a single subject or skill. Lastly, some teachers claimed that they have a significant impact on character development.

Firstly, multiplayer COTS games enhance learners’ language skills since they necessitate effective communication and interaction with team members in real-time, therefore creating social environments:

You use words because it's multiplayer, let's say you want to say to your friend next to you 'the guy crouched,' in English, they would say 'he crouched' or let's say 'he laid down'... Therefore, especially in these multiplayer games, students have many opportunities that they cannot have in their own lives. They can interact with people from many countries. (T3)

In addition, not only multiplayer ones but also other kinds of COTS games address all language skills, namely reading, writing, listening and speaking, compared to educational games generally used in formal language learning settings that focus on a single skill or subject:

Kahoot feels more like a quiz related to that day’s topic, for that moment. We use it, but it's more about true or false, putting the correct option for the questions. But if we use a COTS game instead, I believe it would improve writing, listening, speaking, spoken interaction, production, all of them. (T4)

Almost all teachers stated that COTS games improve learners’ language skills by offering students various opportunities for this improvement. Moreover, the majority of teachers also emphasized that COTS games not only benefit language skills development, but also have a significant impact on cognitive skills and character development of students as T2 expressed, “Apart from language education, I believe that playing games has significant advantages for a person's character, personality, and skills. I defend this on every platform” (T2). T3 also commented on this issue:
Moreover, when you look at research seriously, you'll see that gaming contributes to the development of hand-eye coordination, increases people's perceptual capacity, and as people grow older, they encounter games that challenge them cognitively, even if not every time. How many hobbies can stimulate someone cognitively like a game does? (T3)

Most of the students also remarked that COTS games improve cognitive skills like problem solving, strategic thinking, decision making and critical thinking:

Apart from language learning, gaming also benefits strategic thinking. In every game, you create a strategy, make plans, like 'let's do this, go from here, and do it this way.' So, games actually develop these skills. Problem-solving skills, strategic thinking skills, and so on. It can even influence quick decision-making. It can enhance logical thinking because, for example, in games like League of Legends, you buy items. When you buy those items, you consider their usefulness and effectiveness. The items have different characteristics, and you think about them based on the opposing team. It can improve your thinking ability and analysis. After all, you analyze the opposing team and buy items accordingly, thus enhancing your analytical skills. (S2)

As for the focus group interview, it was also stated that COTS games have many benefits apart from language development such as improving hand-eye coordination, socialization, and stress-relief. It was also underlined especially by T1 that game play is a human need and COTS games answer this need:

Lastly, I want to say to my students, play games as much as possible. Playing games not only improves your English but also enhances hand-eye coordination, helps relieve stress, and promotes socialization. And friends, since humans are social beings, playing games is a necessity for us. Just like we eat food, drink water, playing games, engaging in competition, whether it's running with your friend until dusk or playing strategy games on the computer, or even playing football, can fulfill that need. Playing games is a human need. Play games and you can use us as an example when someone asks, "You've grown up, until what age will you play games?" (T1)

4.2.1.1.3. Increased Motivation for Language Learning

The last sub-theme focuses on the positive impact of COTS game play on learners’ motivation for language learning by providing increased desire, curiosity, and engagement for students. The analysis of teacher interviews indicated that most of the teachers believe COTS games increase imagination and curiosity of students, and also provide instant gratification, which leads to an increased desire to learn the target language. T3 explained this by giving an example from one of his friends:
My friend learned English like crazy (through gaming). I had already mentioned it for myself, it's because it provides the unknown, there's something in front of you and you need to learn specific words to understand it. No other medium can bridge that gap, you can't just show something nice to the student and then leave them on their own. It seems like they don't care about the exam that will be held in 4 weeks; they need something they can solve immediately that evening. That's where the biggest advantage of games comes in: instant gratification. It can truly ignite a person's passion for learning like never before, especially when combined with imagination. (T3)

Another important impact of COTS game play is that it makes students ready to learn. COTS games increase students' readiness to participate and actively engage with the language learning content with the objectives, missions and quests in it for students to solve. T3 explained this in detail:

The games that can lead to critical thinking and expand people's thoughts, when known and played, will automatically make the student ready to learn… Let's say you're playing a strategy game and there's an objective like "advance two ages in under 20 minutes" for your civilization. So you take that, it says "age," it says "improve," it says "under twenty minutes," even if you know all of them, you would still take it to the teacher and say, "Look, it says this, etc." Therefore, the student already comes ready to learn. What enables this is that the purpose of games is to sell, to reach more people, and making good games is what it's about. So when the right games are chosen, if there is any deficiency in the student's learning, the objective they want to complete is already facing them, and the student is already very prepared for it. So whatever it takes to fill that deficiency. (T3)

Another factor of COTS that increases motivation to learn is that the gaming process is actually very similar to the learning process according to some teachers. T4 explained, “Sometimes they read tasks, follow them, and actually they do similar things in games as we do in class, like pre-while-post activities, they also do it through the task structure in games.” So, the two processes are similar in that there are objectives and tasks to follow to reach an outcome in both of them.

As a result of these positive aspects of COTS that can make the language learning process easier, and more fun and exciting, the majority of the teachers expressed that COTS games had a significant impact even on their career choice, and their gaming habit is the main reason why they are English teachers now: "But more importantly, if I have become an English teacher today, it's all thanks to games, believe it or not" (T1), “I became an English teacher because of them” (T4), “It happened because of them. Otherwise, if I were a child who didn’t stay at home and spend time at the
computer, and perhaps played sports in the neighborhood, I wouldn't have become an English teacher, to be honest” (T10). T2 expressed this impact in more detail and stated that games had a huge role in increasing his interest:

I knew that I needed the language to play these games. So, the role of games in increasing my interest in the language was significant, around 90% or so. Later on, I started attending a language course, and I really liked one of the teachers there. Thanks to their influence, I got involved in this field, and as you can see now, I am working as an English teacher. It had a great impact on me, let me put it that way because I was curious about how I could progress to be able to play games. (T2)

Concerning this sub-theme, the findings from the student interviews indicated that most of the students believe that narratives of the games are the main factors that increase their attention and participation due to their engaging and attractive features:

I would be interested in the use of games in the classroom. If the story of a game with a narrative structure was used for a reading activity in class, it would catch my attention and have an impact. After that, I might even start playing the game in English, thinking, "I started in English, let me continue in English." So, if there was something that interested me, it would increase my engagement in the lesson, of course... In other words, when I see something I enjoy in my daily activities, and it also appears in school, it naturally captures my attention even more. (S10)

The students also stated that the ambitious and competitive environment, or the necessity to communicate well with other players who are from other countries creates a desire and ambition to learn English, hence increasing their motivation:

It creates a desire to learn. Because it's a different language, it's also related to the desire to communicate with different people. It feels different when you're able to talk with someone who doesn't speak the same language as you and you want to have conversations, or at least learn about where they live and their experiences. For that, you need to communicate with them. Actually, right from the start, the desire to communicate triggers your motivation to learn the language. In my opinion, yes, playing with different people increases your desire to learn a language. (S7)

Lastly, the focus group interview analysis revealed similar findings, that is, teachers and students agree that COTS game play reduces anxiety and increases confidence to speak in English, the anonymity provided by the internet leads to comfort in students, increases self-motivation and curiosity to learn the language, and narratives
of the games evoke emotional engagement and empathy. T1 gave an example from his personal experiences and explained this issue:

Let me start by giving direct examples from myself, my friends, and people I know. As they start speaking English through games, whether it's through writing or speaking, they overcome any anxiety or fear they may have. They start speaking comfortably in the classroom. I can say that from firsthand experience. Grammar and vocabulary are important, of course, but I believe this is the first and most significant impact. Students may feel hesitant and reluctant to speak in the classroom. Because in a real classroom setting, if they say something wrong, people might laugh or the teacher might question them. But in an online game, it's not like that. There are many people from different backgrounds, and nobody speaks perfect English. As they overcome this anxiety and fear in the game, they realize they can speak English. Then they come to the classroom and speak comfortably… That's what happened to me too, back in the day. When I started high school, I was hesitant. Then we started playing online games at that time. I had a low-end computer and we were playing Runescape, imagine that. Playing and talking with a friend, in a classroom of 9 people, only the two of us were speaking. Why? Because we were playing games in the evenings at the dorm. (T1)

4.2.1.2. Integration of COTS Games into Formal Language Learning Settings

The second main theme regarding the second research question provides insight into the perspectives, experiences, and attitudes of teachers and students regarding the effective integration of COTS games into language learning classrooms, along with the potential integration and implementation strategies offered by the teacher and student participants. Based on these, three sub-themes were identified: preparation for the integration, teacher training and support, and strategies for the integration.

Figure 4.4 The Second Theme and Sub-themes Related to First Research Sub-Question of the Second Research Question
4.2.1.2.1. Preparation for the Integration

According to findings from teacher interviews, almost all teachers suggested a preparation phase before the integration. This sub-theme emerged from teacher and focus group interviews, no data was found from student interviews regarding this phase, and it accentuates the essential steps and considerations that need to be taken during the preparation phase before integrating COTS games into foreign language curricula. Some teachers remarked that conducting a needs analysis before integration is crucial to identify the specific needs and interests of learners, and may help to select appropriate games according to learner profile:

As a first step, I would conduct a needs analysis to determine what my students need, and decide on what their needs are. It could be that my students don't have a need to play games or they have no interest in this regard. To avoid paddling against the current for no reason, I would first have a conversation with my students to understand if they have any curiosity about games. If they show interest in games, I would ask them what type of games they enjoy playing. Because there are various types of games, ranging from role-playing games to educational games and multiplayer games. I would seek input from my students to determine which game genre could be more beneficial in terms of their learning. (T7)

Also, a pilot study should be conducted to assess the effectiveness of the program and see the needed changes and adjustments before the implementation since it would not be effective to implement the program right away, as T9 states “there could be certain pilot programs, but it is not possible to directly implement something like ‘let's switch to this nationwide’”, and T8 also recommends “a demo study could be conducted with a group of students to explore the possibilities. Based on the results obtained, a long-term lesson plan or integration process could be considered.” T1 also pointed out that a structuralist pedagogical approach should be adopted for effective integration:

We need to be structural in our approach. If we simply tell the children that things are a certain way and that we need to do certain things, it won't work. Or if we approach them by asking questions and expecting answers, using an inductive method, it can confuse and complicate the students' minds. Here, we need to be structural. We should build upon the things that are already working and the activities the children are engaged in. For example, let's say we have a group of high school students, 30 of them, and 15 of them play games regularly, five play with their siblings, and some others play games on
their phones. In that case, I believe it would be more beneficial to approach the learning process based on what the children are already doing. (T1)

Additionally, most of the teacher participants emphasized the necessity of introducing the game to students before incorporating it into language learning activities to familiarize them with the game and prepare them for the lesson activities. The participants expressed that it would be difficult for students to learn the game and the language at the same time, so they need to learn the game first:

When using the game, instead of saying, "Come on, kids, let's play a game," we need to do a preliminary work, as we do in everything else. In short, we need to introduce the game. We need to explain how the game is played in a simple way. Or we need to give students the chance, the opportunity, before working on the target language item... Because, as I mentioned, since the student can't learn two things at the same time, they need to learn the game first and then move on to the other side. (T1)

During the focus group interview, the teachers discussed and agreed that a whole new approach is necessary and alternative approaches should be explored for this integration:

Now let's talk a bit more about the specific aspect of integration. It can be integrated, but for example, task-based approaches, learning objectives, and various theories have been around for 70 years. I think this should be seen as a new theory, where the entire curriculum is built upon it. Just like how in Finland, for example, classrooms cannot have more than 15 students, and they start the day with 2 and a half hours of physical education. There should be a similar approach for this integration. (T3)

This excerpt indicated some teacher participants suggested that the integration of COTS games into foreign language curricula should be done with a new theory that forms the foundation of the entire curriculum, in which specific rules and practices are implemented. Therefore, a new pedagogical framework is needed for the integration of COTS into the curriculum. In the quoted statement below, T1 discussed some alternative approaches for the integration, one of which is blurring the line between formal and informal learning. He believed that the integration would be more effective if it is done seamlessly:

For example, our teacher mentioned earlier that a game takes 100 hours. We try to give, or all schools try to give, project-based assignments that rely on performance and production skills. It is possible to do something like that. We allocate 20 hours of weekly classes, dedicating Fridays to this, and we will do
it throughout the year. When you come to the classroom, the main objective is not English, but rather to bond and use the language in a way that we can achieve. We can discreetly incorporate it into formal education, as if it were informal. We can still evaluate it by using ongoing assessment, assessing students' weekly performance, such as how many minutes they used voiceover or chat, what they talked about, how they talked, whether they completed the tasks or not. By using a checklist, we can determine how well they were able to accomplish the tasks. This way, we can see if they were unable to do certain tasks and why. If we extend this process a bit and make formal education feel more informal, I believe it will be more effective. (T1)

4.2.1.2.2. Teacher Training and Support

The second sub-theme focuses on the role of teachers in the integration of COTS games into foreign language curricula. This sub-theme emerged from teacher and focus group interviews, no data was found from student interviews regarding the role of teachers. In relation to the role of teachers in the integration process, it was stated that the teacher should have a facilitator role, providing guidance for students. Learners should be active participants, and the teachers should allow them to understand missions or solve quests on their own, assisting them in the process as T9 recommends, "to be honest, I wouldn't intervene too much in the procedure. I would simply provide instructions and expect the student to solve things on their own." T5 also mentioned the teachers' facilitator role: "I believe that the teacher should only act as a facilitator in this context, without getting too involved in the process. It should be more about monitoring and assisting."

A few teacher participants underlined that to be able to provide guidance for and monitor the students, teachers should be experienced and knowledgeable about COTS games. Therefore, teachers should be either experienced gamers or get vocational training about COTS games and incorporating them into formal language learning classrooms:

Of course, the teacher should ideally be a skilled gamer so that they can solve the problem before anyone else and guide others by saying things like 'look, should you focus here?' or 'should you pay attention to this?'. (T3)

Well, in order to implement this, it's not just me as the only teacher in the preparatory program. If we are going to provide this as part of the curriculum to other teachers, they would need to receive professional training beforehand. For example, we could dedicate the first semester to this approach and then try it out in the second semester, or during summer, we
could discuss this with the teachers and implement it for a full year, with discussions held in the interim period. Additionally, the effects and advantages of this approach can be considered during department meetings. (T4)

In addition to providing guidance and assisting students, another reason for teachers to be experienced is that if teachers play the games with students, it would increase students’ motivation and engagement and decrease their affective filters, T4 suggests:

Moreover, if we, as teachers, participate in the game with students from time to time, it will further increase their engagement. Instead of just giving them tasks and then not interacting with them, if we continue to be involved with them, the students will be more enthusiastic. Interacting with teachers not only inside the classroom but also outside, in such gaming activities, motivates students to participate more actively in lessons and work with more enthusiasm. It also reduces their affective filters. (T4)

In the focus group interviews, it was again stated that although it is difficult to advance in the game since COTS games require playing for a long time to do that, teachers should be experienced and knowledgeable in game play as T3 stated, “the teacher should have sufficient mastery of the game to oversee the students. In fact, the teacher should be a step ahead and be familiar with the standard playtime of a good RPG, which ranges from 100 to 150 hours.” In addition to that, teachers also discussed the need for teacher intervention and guidance to direct games towards language learning objectives in the focus group interview:

There's something to consider. The purpose of these games is primarily to entertain rather than teach English. So, when we bring them into the classroom, we need to provide extra guidance and channel them in that direction. (T2)

4.2.1.2.3. Strategies for the Integration

The last sub-theme of the second theme, strategies for the integration, highlights practical strategies for integrating COTS games into foreign language curricula and the classroom environment to enhance language learning experiences of students. The codes that are created from teacher interviews regarding this sub-theme include inclusion of scoring or assessment to ensure student participation, utilization of interactive or narrative-based games, and interdisciplinary use of COTS games across multiple subject areas.
Firstly, the teacher participants suggested including the use of scoring or assessment in this game integration to ensure student participation and engagement because as T4 stated, students do not participate in the activities if they are not going to get a score for it:

To maximize efficiency here, we need to give students some points for their engagement because students don't participate in activities where they can't earn points. For example, we are currently using a tool called Flipgrid. However, students are not graded on Flipgrid. I haven't seen my students engage with it even once since last semester because they don't earn any points from it, even though it is beneficial for their language skills. Therefore, it is necessary for them to receive a certain number of points for their involvement in order to motivate them. (T4)

Almost all teacher participants suggested the use of interactive games, especially role-playing games because of their authentic nature, for this integration. The analysis revealed that these kinds of games provide opportunities for students to interact with the game content, make choices, follow objectives and solve problems for a goal. Furthermore, role-playing games were suggested by the teacher participants to be used as authentic materials in class since they have a rich context and provide opportunities for exposure to target language and cultural contexts.

I believe there is some benefit in role-playing games where students have to assume a role themselves. I think these types of games can truly enhance their English skills because they involve storytelling and playfulness. It's not just limited to computer games. Playfulness can be found in theater and other forms of interactive activities where individuals can creatively immerse themselves in a learning environment. Playfulness has always been appealing to human beings. When you enjoy and find something attractive, it's always easier to learn something from it. (T9)

Lastly, during the interviews, teacher participants also mentioned that COTS games can be used across multiple subjects to promote interdisciplinary learning, expanding students' knowledge beyond language learning itself. The most common subjects that teachers exemplified for the integration of COTS games were history and geography, since there are various games that set in the past, in different time periods and locations, or that have a war theme. A few teachers also suggested the use of COTS for politics and urban planning majors, emphasizing the potential benefits of it.

In the institution I work, for example, I believe that playing games can be very beneficial. It is an example from my own situation, but our students are
officer candidates, and tactics will be crucial for them in the future. Knowing strategy, tactical skills, and such things are important, but I don't teach them. I only teach English, but these aspects will be a part of their lives, and there are many computer games that focus on these aspects. There are simulation games specifically designed to develop strategies and tactics. So, if these students were learning English in such an environment or already had English proficiency and were studying these subjects in a similar setting, in an interdisciplinary manner, I think it would be very beneficial. (T9)

When it comes to student participants, they mainly suggested the use of game narratives and storylines for the integration. Almost all of them pointed out that integrating the stories of role-playing games into foreign language curricula would provide a significant benefit for their language learning, especially in terms of motivation and engagement. They highly recommended the narratives of COTS games can be used especially in reading and writing assignments:

But for example, it could be integrating the stories of narrative games. Hocam, for instance, the world of LoL is an incredibly vast universe with everything, and it even has a TV series. There are also numerous cinematic short films. It's a game with a truly great storyline. You can somehow incorporate it into lessons, like discussing its story or elements. Let me give you an example from high school during a Literature class where we were talking about fairy tales. When the teacher asked us to write a fairy tale, I actually took something from a game and wrote a story, so I managed to bring it into the classroom in a way. Or, for instance, it would be great to include excerpts from game stories in reading materials. It would attract the interest of those who play games more, but I believe even people who are somewhat familiar with the storyline would be interested regardless of whether they play the game. It could increase participation in the lesson. Especially in A1 level readings, it could be used. (S2)

Also, a few students mentioned the use of game narratives for interdisciplinary teaching and learning:

For example, let's say History is taught in English at a university. One of the things that enhanced my knowledge of history is these games. The two games I mentioned earlier increased my interest in history and prompted me to do further research. These games could be played online in the classroom, where everyone selects a country and so on. Such an approach can be considered. By playing strategy games, for example, the English history lesson can be taught, and at the same time, students can improve their English skills. (S8)

In the focus group interviews, it was suggested by teachers and students that gameplay can be assigned as performative project assignments. In this regard, T1 emphasized that teachers should promote student agency and personalization in the
learning process by allowing flexible grouping and project selection. To exemplify, he stated:

I can give an example here. One of my professors at university, back in the 1980s in Istanbul, used to work as an instructor at a school, I guess it was Boğaziçi University Preparatory School. As a project assignment, they would have students create a year-long short film. They would allow the students to form groups and work on their films freely throughout the year, and then they would evaluate them collectively. If we apply the concept of long-term projects we mentioned earlier, it might be more appropriate to allow optional group formation rather than classroom-based assignments. For example, instead of saying, "We will play this game as a class," we could say, "Anyone interested in playing Minecraft, come here," or "Those who want to play FIFA, gather over there." This approach could make more sense. (T1)

4.2.1.3. Game Selection and Adaptation

The last theme regarding this research question emphasizes the importance of game selection. The analysis revealed that in the incorporation of COTS games into the foreign language curricula, the process of game selection and adaptation plays a crucial role for effective integration. Teacher participants highly emphasized that choosing an appropriate game for this integration is one of the most significant steps in the process. The most important factors to consider that are stated by the teachers are appropriateness and relevance to learner profile and lesson objectives, and also taking into account the student learner preferences.

Firstly, the teacher participants stressed the necessity to recognize the diversity among students in terms of their learning preferences, needs, and interests in the game selection process. Hence, taking into account students’ preferences and views was emphasized by the teachers. Concerning this, teacher participants’ comments included the following points:

As I mentioned, there are significant differences among game genres such as strategy games, simulation games, and competitive games. I believe I would adjust this based on the student profile. For example, if I were teaching English to architecture students, I could choose a game related to urban planning. The variety of options is immense. (T9)

To support this, T4 suggested conducting a survey with students to get their opinions in the game selection process:
As the first step, I would personally research COTS games that could be used in education even though they are not designed for educational purposes. Then, I would conduct a survey among the students, asking them about their preferences and interests. Based on the majority's choices or if there are other notable game genres, I would examine those along with the groups I initially formed. This way, I would create something suitable for the class. (T4)

Secondly, a few teachers also pointed out the importance of considering the language level of the students in the game selection process. T6’s statement was as follows: "First, I would assess the students' levels to determine how I can use which game according to their proficiency" (T6). T4 suggested determining the language levels of the games according to CEFR, and then comparing them with the class level and selecting games based on this comparison:

I would decide which game to use based entirely on the CEFR. I would consider which game's language is better and more understandable according to the CEFR language levels. For example, Skyrim has good English, but it also includes some Old English with words like 'thy' and 'thou.' I would use parts of it for a B2 or C1 level. However, Witcher is not as complex, so if I wanted to use it, I could use it with a lower level. In card games or games that focus on interactions, they can be used at lower levels. So, I would first set aside the Common European Framework and then assess the students' levels. (T4)

Also, while considering the learner profile, their age group and the appropriateness of games for the classroom use of that group is another important factor that should affect the game choice. Regarding this issue, T6 shared how important it is to take into account the age restrictions of COTS games:

Pedagogy, or teaching methodology, requires us to consider the age group we are dealing with and tailor our approach accordingly. If we are talking about preparatory students, they are already adults. You may be familiar with labels in games such as 'PG 18' or 'Rated R,' which indicate the appropriate age for playing. However, many people do not adhere to these labels, which is a separate issue. It is important to pay attention to this because we should not teach students vulgar language or inappropriate content in the classroom. Games often have warnings like 'rated M for mature,' indicating they are intended for adults. Even if the students are over 18, I believe it is not appropriate for them to learn such content in the class. These are the considerations that come to mind regarding this topic. (T6)

During the interviews, almost all teachers stressed the fact that not everyone plays games, and there can be some students in the class who would be reluctant to participate in game-related activities. Therefore, the teacher participants put an
emphasis on ensuring that the chosen game includes everyone in the classroom to foster a sense of inclusivity and participation:

We need to choose the game or platform we will use very carefully. It won't be suitable for everyone in the class, that's impossible. But it should be a game that can involve everyone in the class. For example, let's say we want to practice speaking skills using computer or console games. Role-playing games make a lot of sense for this purpose. However, there might be a student who doesn't want to participate. They may not enjoy talking much or dislike games. Instead of forcing them to participate by saying, 'Okay, you'll also be a character,' we can choose a game more along the lines of Dungeons & Dragons (D&D). In this game, if we assign them a role like a game master where they have control over everything and act as a supervisor, we can include them as well. (T1)

Another important factor in the game selection process is choosing games that align with the subject matter, lesson objectives, and specific skills to be targeted, as most of the teacher participants stated:

So, when deciding on a game, as I mentioned, I would consider whether it provides sufficient input in terms of the language focus I need. For example, what do I want to achieve in my lesson? If I want to teach a specific language structure, like relative clauses, I would need the game I'm going to use to have enough relevant input. Playing a game with no conversation or context wouldn't make much sense. Therefore, I would look into alternative games to see if they offer such inputs. Additionally, I would consider whether the game aligns with my teaching methods. (T7)

In terms of the game content, a few teachers suggested using games with enriched plots to contribute to engaging and immersive language learning of students. Representative comments included:

Firstly, as I mentioned, it is more reasonable to use games with richer plots, especially classic quest-based ones like Diablo from our time or games like The Sims that can provide a more real-life experience and at least create a usable domain. Apart from that, it's worth considering what has been capturing students' attention lately. For example, the recent God of War series, particularly the last two games, have focused heavily on Norse mythology, making them more attention-grabbing with an enriched plot. Regardless of the game's genre, as long as the plot is rich, it increases the likelihood of capturing students' attention and may even result in higher learning outcomes. That's what I think. (T5)

Student participants also emphasized the importance of an appropriate game selection for the integration of COTS into foreign language curricula and classrooms.
Similar to teachers, they put an emphasis on the fact that not everyone likes or is good at playing games. Hence, to ensure their participation as well, the students highlighted that the chosen game should address everyone in the class, and it should also be easy to play:

Certain games can attract and enhance the interest of specific individuals. I don't think COTS games generally appeal to girls' interests. Therefore, they may not have much impact on them. Not every boy plays games either. However, for someone who plays games, learning English through playing can indeed be a blessing. To use these games, you need to appeal to everyone, as I mentioned earlier, and capture their interest as a teacher. Game selection is crucial and should be accurate. In terms of the right game selection, I believe it should be a simple game. First and foremost, the game should be easy to play because not everyone is inclined to play games. Therefore, even someone who has never played games before should be able to easily participate and play the game. When games are involved, there is eventually a goal to achieve, which leads to a desire to win. In a classroom setting, everyone plays together, aiming to get the highest score. Now, if someone who doesn't know how to play games fails to perform well, despite having good English skills, they might fall behind and lower their motivation. (S7)

The analysis of the focus group interview showed similar findings to the teacher and student interviews regarding game selection. Teacher and student participants pointed out the need for careful consideration of game selection and adaptation, taking into account learning goals, simplicity of gameplay for students, and students’ interests and preferences for maximizing the benefits of COTS games in foreign language learning. Firstly, T1 emphasized the flexibility in selecting games based on learning goals. He explained that there are various types of COTS games that can be used for different learning objectives:

We have already discussed the types of games that can be used, such as RPG, FPS, sandbox games, and story-driven games like those from Telltale, such as Batman or The Walking Dead. One advantage is that you can also adapt the games based on your objectives. Just like certain activities are more suitable for certain skills, certain games can also be more appropriate for specific skills. (T3)

The issue that was commonly reported in teacher and student interviews, choosing an easy game to play, was also mentioned during the focus group interview. Teacher participants highlighted that students should not waste any time for learning how to play the game. Rather, they should focus on the task in the game. So, the selected game should be easy to play and understand as T1 explained in the excerpt below:
The game you choose should be so simple, so straightforward, that the student doesn't have to spend time learning the game or figuring it out. They should be able to focus on the tasks within the game. For example, in Minecraft, you can say, "I've hidden a reward somewhere, and to earn it, you need to go there and do this and that," and you can write the riddle there. Minecraft is very suitable for this because the game is simple, but if you try to do the same thing in a game like Might and Magic, it becomes like a mathematical problem. (T1)

In addition, considering students' interests and preferences while selecting the game was another factor that teachers and students discussed in the focus group interview. They emphasized that the game should appeal to the students and they should enjoy playing it. T1 claimed that this is the fundamental factor for effective integration of COTS into foreign language curricula and classrooms:

It should be a game that the student will play. Suitable for education or not, aligned with the curriculum or not, no. We see it in the classroom too, even if you're the best teacher in the world, even if it's the most wonderful day in the world, even if you have the best book and materials, if the student doesn't want it, isn't interested, it won't work. It should be something that the student themselves will play, enjoy, and want to do, that's the fundamental aspect. If the student hates football and I think I can teach them the whole English language in half an hour using FIFA, it won't make sense. They won't play because they'll just get frustrated. (T1)

Lastly, the necessity for curating and tailoring game experiences to match learning objectives was also discussed in the focus group interview. The teachers emphasized the importance of careful selection of COTS games into foreign language classrooms and curricula. They recommended curating a collection of games that are suitable for language learning purposes, and having a tailor-made approach for the integration, meaning that the learner profile and the learning objectives should be carefully considered for the integration. The following excerpt explains the perception of T3 regarding this issue:

The most effective integration, as I mentioned, absolutely requires careful consideration among all these options. For example, when you look at the complete catalog on platforms like Steam, with around 300,000 or 400,000 games, let me check it for a moment, currently, there are approximately 141,358 games. Among these, there are hentai games, puzzle games, sports games, and more. Who will decide which games to use? Even with a book, ideas are discussed and evaluated multiple times, looking at each unit, removing certain parts, because these are whole experiences that require
curation. So, there needs to be a tailor-made approach based on the level and specific needs. (T3)

4.2.2. What Challenges Educators Might Face When Incorporating COTS Games into Foreign Language Curricula, And What May Be The Suggestions For Overcoming These Challenges?

This research sub-question focuses on the potential challenges that educators may face when integrating COTS games into foreign language curricula, and the potential strategies to address these challenges. As a result of the teacher, student and focus group interviews, one main theme was identified: challenges and limitations of integration.

4.2.2.1. Challenges and Limitations of Integration

The analysis of teacher interviews revealed that most of the teacher participants believe that although they have many beneficial aspects for language learning, COTS games are difficult to adapt for classroom use, hence for foreign language curricula. T3’s commented that “Personally speaking, it's a very difficult thing. Therefore, it's not something I can try on my own” (T3). T6 also stated, “I don't think it's very suitable for classroom use, as I mentioned before, but excerpts can be shown. Using commercially focused or commercially driven games might be a bit challenging within the classroom setting” (T6). Teachers explained that the main reason that makes this integration difficult is that since COTS games are not designed for educational purposes, there is a need for a careful planning and preparation phase for this integration, as T2 mentioned: “In order to integrate education with popular culture games, a significant amount of effort is required” (T7). Because there is not a ready-made curriculum, the time and effort required for curriculum and lesson planning is a big challenge according to teacher participants. Concerning this, T7 stated, “but here comes the ‘but,’ creating those lesson plans. Creating a curriculum for digital game-based or digital game-enhanced language learning is the biggest problem. Because it requires an incredible amount of time and effort” and he also added: “The most challenging aspect for the teacher is not having a ready-made curriculum” (T7). Moreover, the findings indicated that in addition to designing a new curriculum and lesson plans, educators need to have a preparation phase in
which they get additional training and familiarize themselves with COTS game play in order to be able to provide guidance for students in class. This increased responsibility and workload for teachers, or educators in general, may cause resistance to integration and a tendency to stick to familiar curriculum and routine. Concerning this, teacher participants’ comments were as follows:

Breaking existing habits is difficult. We already have a method that we apply in the classroom, even if it is imperfect, there is some progress and routine. Disrupting this routine and taking risks is not something that everyone can do, of course. (T7)

Another limitation for the effective integration of COTS into foreign language classrooms is class size. The teacher participants underlined in the interviews that this integration necessitates ideal classrooms that are not too crowded:

So, ideally, it requires an ideal classroom environment for classroom use. It can be used in a classroom with around 10 to 12 students. However, in current situations with class sizes of 20 to 25 students, implementing COTS games for the entire class might be a bit challenging. (T4)

Lastly, all teacher participants remarked that COTS game play is an expensive activity, and integrating COTS games into formal settings is too difficult with the existing technological infrastructure, necessitating a significant investment. Concerning this issue, T1 stated, “Another major issue is the cost constraint. Games can be expensive, and the equipment or devices needed to play the games can also be costly. I believe this is the biggest obstacle to using games in the classroom” (T1). T6 also expressed, “The infrastructure itself needs to be improved. Currently, the computers in schools are not capable of running games, so there is already a limitation in that regard, unfortunately” (T6). Other comments involved:

It's something that requires a serious investment. For example, my personal computer, a gaming computer, is a significant investment. We're talking about prices around 40,000 to 50,000 liras, and that's just for the CPU. Am I supposed to bring that to the classroom? The feasibility is very challenging. However, there is a technology called GeForce Now, where you only need a good internet connection, and the game is played on a server while you stream it. In our school, there are times when the internet speed drops to 2 kilobits, or even 2 megabits, and 20 people are sharing such a limited internet connection. (T3)
This quote shows alternative solutions like streaming technologies can be tried to address technological and financial challenges that the teachers stressed. Also, to reduce economic disadvantages, some solution ideas were suggested by T4 such as creating and using common game accounts and selecting cheap or free online games to reduce cost. Moreover, he also offered that computer labs at schools should allow for COTS game play to provide access to games for all students.

In terms of disadvantages, for students who have computer or equipment limitations, universities' multipurpose halls or computer rooms can be utilized to mitigate these drawbacks and provide access to specific games. One of the major disadvantages is the lack of access to games because, as you mentioned, these COTS games are not educational. Even platforms like Kahoot have reduced their capacity from 20 to 10 participants and started charging fees. I don't think the preparation schools alone would be able to cover that. Therefore, when selecting these games, it might be feasible to use shared accounts. It is not legal to use cracked versions of these games, and we cannot openly endorse that. Hence, opting for cheaper games or free online games could be a good approach to minimize economic disadvantages and attract more student interest. (T6)

The interviews with student participants revealed that they also believe COTS games are not applicable to classroom in current conditions, and they offered that although it is not the best option, role-playing games might be more applicable in terms of technological requirements and needs:

Well, hocam, a good computer is definitely required. Especially for some games, a good computer is essential in terms of hardware. For certain games like League of Legends (LoL), Counter-Strike, and others, headphones are also necessary. Special equipment is required. In my opinion, a good mouse is definitely needed, a nice mouse, a keyboard, and headphones so that you can hear the players' voices. The high-quality ones of these can be costly, of course. However, for role-playing games, you don't necessarily need all of these. You simply need a good computer, and you can play them even with a mid-range computer. (S5)

Therefore, a few students suggested playing these games with friends outside of the classroom:

It wouldn't be reasonable or effective to use games solely for English language learning in preparation classes, unfortunately. Although they would be playing games, it wouldn't serve the purpose of language learning. But in extracurricular activities, for example, we play CS:GO in a 5v5 format. You can organize a simple example of a 5v5 game. In other games, you can even have 10v10 matches. If there is a classroom with 20 students, they can be
divided into teams of 10 and play the game. They would play the game entirely in English, using English as their means of communication. I think this could work in that way. (S8)

Lastly, the analysis of the focus group interview revealed similar findings in terms of difficulty in adapting COTS games for the classroom. During the interview, T3 provided a comprehensive explanation on the possible difficulties and challenges in integrating COTS into educational settings. In his statement, he emphasized that the integration of COTS games requires a full-time commitment and a dedicated effort since it would not be an effective integration if teachers make students play a game for a few lessons and go back to current methods in the remaining ones. He declared that for this integration to be effective, there should be a shift in educational approaches and a comprehensive curriculum should be designed around COTS games. Moreover, he also mentioned the financial challenges for the integration:

Imagine teaching a student Minecraft for two hours and then saying, "Okay, now let's work on this reading passage." Therefore, integration is possible, but very difficult. It requires a major educational movement that allows people to allocate time for it and improve their socioeconomic conditions. Currently, the cost of a good computer game is significant, considering everything. Integration shouldn't just be added on top of the existing curriculum; instead, a complete educational curriculum should be built around it to make it meaningful. (T3)

4.3. Summary of the Results

The results of the current study after the reflexive thematic analysis on the teacher, student and focus group interviews indicated that COTS game play in the target language has a significant role in the informal language learning experiences of learners. The data revealed that language teachers and students perceived the integration of these informal language learning experiences into formal language learning settings as a need; however, they had several concerns in terms of practising it. Findings from the interviews also revealed that language teachers and students are positive about integrating COTS games into foreign language curricula; however, the majority of the participants believe that this integration would be very difficult in the current conditions of formal language learning settings. In the interviews, teacher and student participants provided various alternative approaches for the integration of informal language learning experiences gained through COTS games into formal
language learning, and also for the incorporation of COTS games into foreign language curricula.

To start with, participants offered some strategies for bridging informal language learning from COTS to formal classroom. The most-stated strategies were using COTS as extracurricular and supplementary activities, expanding language learning in classroom through out-of-class game-related content, integration of game narrative and storyline, and using language learning from informal COTS gameplay experience as a motivational force for formal language learning classrooms.

Secondly, the teacher and student participants shared their concerns regarding bridging the informal language learning experiences with formal language settings. They explained language learning challenges in the COTS environment, such as rarity of language input and false learning of the language; challenges and barriers of integration, such as curriculum and lesson planning and the misconceptions on COTS game play; and negative impacts and concerns, such as addictive nature of COTS games and the risk of disengagement for students who are not interested in COTS game play.

Thirdly, the data revealed students’ and teachers’ perceptions regarding the incorporation of COTS games into foreign language curricula. The analysis indicated many potentials for integrating COTS game play into formal learning, such as language learning opportunities and engagement in gaming, enhanced language skills and cognitive development, and increased motivation for language learning. The interviews conducted with language students and teachers also offered data on how to integrate COTS games into formal language learning settings. The participants suggested a preparation phase for the integration, emphasized the importance of teacher training and support in the process, and offered many strategies for the integration of COTS into the classroom. In addition, both teacher and student participants highlighted the importance of game selection and adaptation in the integration, and explained how this selection and adaptation should be.

Lastly, the analysis revealed teachers’ and students’ concerns regarding the challenges that educators might face when incorporating COTS games into foreign language curricula. Teacher and student participants explained the potential
challenges and limitations of integration, such as financial and technological needs and the need for a comprehensive curriculum.
The purpose of the present study was to provide insight into how COTS games, and the informal language learning experiences gained through them, can be effectively incorporated into foreign language curricula and formal language learning settings, and what would be the related issues and challenges. In this chapter, major results of the study will be discussed with respect to the relevant literature and research questions, and implications for practice and for further studies will be presented.

5.1. Discussion of the Results

The results of this study will be discussed in accordance with the research questions of the study. Firstly, findings about bridging informal language learning experiences gained through COTS into formal language learning are discussed. Next, the findings of the potential challenges of this bridging that educators might encounter are discussed. Then, the perceptions of students and teachers regarding the incorporation of COTS games into foreign language curricula are touched upon. Lastly, the possible challenges of this incorporation are discussed.

5.1.1. Bridging Informal Language Learning Experiences in COTS into Formal Language Learning

Firstly, as a way to bridge formal and informal language learning, participants of this study recommended using COTS as extracurricular and supplementary activities by creating “game clubs” or “game night events” for interested students, and assigning students COTS game-related activities, homework and portfolio or project assignments. This result is in line with other studies that suggested using COTS in formal language education to encourage language learning skills by using COTS gameplay as an extracurricular activity under the guidance of a teacher (Li et al.,
(2021), establishing an after-school game club (Dubbles, 2009), using certain kinds of COTS games like single-player games in off-campus studies or language centers of schools (Dykes, 2021), and assigning game-related homework and game projects to students (deHaan, 2019). In Li et al. (2021)'s study in which students played an interactive COTS adventure game in an out-of-class setting, with the instructor present and scaffolds available online, there was an agreement among participants that the instructor's feedback and support were useful and necessary during the project. They expressed that engaging in gameplay outside of class with the guidance of the teacher enabled them to develop greater autonomy in their learning. Although the project was not exam-focused, participants believed that it could enhance their performance in regular classes. This suggests that extracurricular learning opportunities can promote language acquisition by fostering learners' ability to learn independently, which participants felt would benefit them not only in the project but also in their regular classes. Moreover, the majority of participants expressed a desire for more structured discussion sessions and explanations of language rules as part of the instructions, indicating their preference for regular and structured guidance. Concerning COTS game-related activities, Reinhardt (2018) also suggested designing activities that cater to different learning styles and aim to balance various aspects of learning as a whole in his experiential learning framework. In addition, in bridging activities framework, he highlighted the potential of learning through vernacular texts and practices like gaming (Reinhardt, 2018). Secondly, both teacher and student participants in this study pointed out that language learning in formal classrooms can be expanded by using the content within the game. They highlighted that by linking abstract concepts to their practical applications in real-world scenarios, COTS gameplay offers an advantage for language acquisition provided by direct, experiential connections between words and actions. Therefore, participants recommended that teachers should give examples of vocabulary, phrases or sentence structures from COTS games in their teaching, and demonstrate them via multimedia resources. This result is congruent with Becker (2017), Reinhardt (2018), and deHaan (2019)'s studies. Becker (2017) also suggested using COTS game content for setting up demonstrations and examples, as well as for teaching facts, enabling learners to explore certain phenomena, presenting problems that require solving, and the overall experience it provides. Similarly, in the game discourses and functions
framework that Reinhardt (2018) offered to design game-enhanced materials, he focused on the language used within and around games, considering various linguistic elements and the functions they serve in both in-game tasks and wraparound task designs. The present study pointed out that both teacher and student participants find presenting examples of games via multimedia resources by watching gameplay videos on Youtube and streams of foreign Twitch streamers in classroom effective in language learning. This result is in line with deHaan (2019)’s study in which he listed watching actual gameplay YouTube videos as one of his suggested teaching and learning activities through games. The participants of the present study underlined that students encounter a great deal of vocabulary while playing COTS games, and learning vocabulary through game play generally leads to a more permanent learning compared to formal classroom teaching. Therefore, they suggested that to bridge students’ informal vocabulary learning through COTS games and formal learning in language classrooms, vocabulary teaching in classroom can be supported by giving examples from games. In her study, Schlasberg (2021) highlighted a different but similar aspect for bridging informal vocabulary learning and formal learning in classrooms. In her study, it was found that EFL learners use vocabulary learning strategies while playing COTS games. Using such strategies promotes self-directed learning, aligning with the recent educational focus on active and autonomous learning. Schlasberg (2021) pointed out that teachers can build upon and further develop these informal learning strategies that learners use, incorporating them into formal learning contexts to facilitate effective vocabulary learning. This highlights the potential for using COTS gameplay experiences to enhance vocabulary instruction in formal language learning settings.

Another way to bridge formal and informal language learning was seen as integrating game narratives and storylines into classroom activities and assignments according to interview analyses. The participants highly suggested the integration of game narratives into reading and writing assignments, and also for the development of productive skills, namely writing and speaking, into traditional academic tasks, as students engage with games’ storyline, characters and themes, hence learn the language in a meaningful context and increase their engagement and participation. Literature points out the importance of game narratives and storylines as literacy sources for language learning (Becker, 2017; deHaan, 2019; Dubbles, 2009;
Reinhardt, 2018). Becker (2017) explained that many COTS games have deep and complex narratives, allowing them to be experienced, explored, and studied like any other kind of literature that are currently used in formal classrooms like novels, short stories, prose and poetry. In addition to their personal interpretations of a literary work, students can explore diverse variations of the narrative, frequently affected by the decisions they make as players (Becker, 2017). In his article, deHaan (2019) emphasized that the educational value of games extends beyond the game itself and includes its culture. Similarly, the participants of this study underlined that most of the COTS games have their own culture, forming their own universes. Each COTS game, especially from the role-playing genre, has its own unique world and story. Therefore, the participants of this study stated that introducing students to the game’s universe and integrating its narrative to the language lessons would be considerably effective for students’ engagement and participation. In that sense, deHaan (2019) offered using literacy approach to collaboratively analyze games and connected texts for game use in language teaching. Reinhardt (2018) also emphasized the utilization and extension of game narratives for foreign language learning purposes in his literacies and narrativization frameworks, and underlined that the diverse types of literacies in COTS gameplay should be acknowledged and developed as learning objectives. The narratives that are incorporated into these games by the game designers can be used as second language learning resources. However, this finding conflicts with Dubbles (2009)’s study. Although he also claimed that games can be used to encourage reading and comprehension, his study with struggling seventh and eight graders revealed that students faced similar challenges in the games as they did when reading traditional literature. Therefore, his study indicated that using game narratives instead of currently used literacy work may not be more effective for improving reading and comprehension skills. Nevertheless, his participants showed a greater willingness to participate in and interact with game narratives compared to the use of traditional texts. In that sense, it can be said that these two studies conflicts in terms of language improvement, but are congruent with each other in terms of increasing participation. Participants of this study also offered a wide range of classroom activities that make use of games’ narratives and storylines including essay or report writing, classroom discussions, presentations, role-playing, storytelling, and group quests. Teacher participants claimed that many activities that
we already use in the language classrooms can be adapted to COTS game-related activities. One of the most common suggestions of teacher participants was using games to initiate classroom discussions and essay writing. They stated that a discussion environment can be created based on the selected COTS game in which students are asked questions about their choices in the game, and how these choices affect the storyline of the game. For example, questions such as "What would you do if you didn't do that?" or "... if you did this?" can be used to provide students with a speaking or writing exercise, and they can fill in the remaining part themselves.

Suggested classroom activities were in parallel with the ones in Li et al. (2021)’s study and deHaan (2019)’s article. The study conducted by Li et al. (2021) in which students were encouraged to write summaries of the game showed that this writing activity had a positive effect on students’ writing skills. It was also seen that discussions about the game initiated by the instructor with questions like “What ending did you choose? Why? Can you think of an alternative ending to the game?” had a positive impact on students’ engagement, and social and cognitive aspects. In his article, deHaan (2019)’s recommended teaching and learning activities through COTS also included discussing, defining, comparing and contrasting ideas about the concept; writing an academic essay that connects concepts and experiences; and comparing and contrasting experiences and texts, and investigating the sociocultural context of games such as history and environment.

As indicated in many research studies and articles (Özgür & Caner, 2022; Richtoff & Persson, 2022; Sundqvist & Sylvén, 2014), one of the most obvious and significant impact of COTS games on language learning is increasing motivation to learn and participate. In this study, the analyses indicated that factors such as the need to comprehend and accomplish quests within games, the desire to compete with peers, the reinforcement gained through practical language usage, and the overall adoption of English beyond the classroom, can act as strong motivators for language learning in formal language classrooms as well. Similarly, in Özgür and Caner (2022)’s study, the findings indicated that the immersive nature of the games, requiring players to understand and interact in English in order to advance, can result in a shift from external motivation to internal motivation among students. This transition may occur through in-game interactions or role-playing activities. Therefore, they argued that the relationship between developing an ideal L2 self and gaming in English in an
informal context strengthens the language learning motivation of the learners. Also, Schlasberg (2021) revealed that COTS games facilitate language learning because they motivate students to understand the English input (i.e. words and phrases) to proceed in the game. Participants of the present study offered using this increased motivation of students that stem from their informal COTS game play experience as a motivational force for formal language learning classrooms. The literature includes studies that focus on transferring students’ increased motivation gained through COTS to the classrooms, as well (Chik, 2014; Richtoff & Persson, 2022; Sundqvist & Sylvén, 2014). For example, Richtoff and Persson (2022) examined nine studies to investigate the effects of students’ out-of-class activities have on in-class language learning motivation. One of those studies by Chik (2014) revealed that students have a desire to learn English in order to participate in online gaming more effectively, and they use intentional learning strategies for that while playing, which is a sign of motivation to improve their English proficiency. According to Richtoff and Persson (2022), the fact that students intentionally learned the language to participate in gaming suggests that language learning motivation can be transferred to the language classrooms. It is also important to note that the study did not specify whether this intentional learning took place in or outside of the school context. In another research conducted by Sundqvist and Sylvén (2014) in which students were categorized into three groups as non-gamers, moderate gamers, and frequent gamers, the results showed that all groups of students exhibited a noteworthy level of motivation to learn the language while playing COTS games. The authors highlighted the disparity observed among students who dedicated more time to using English outside of school compared to the hours spent in English classes. They emphasized the significance of educators in connecting the motivation to learn English outside the classroom with the motivation during formal classroom lessons. By creating meaningful English learning experiences in school, teachers can align students' personal motivation and engagement at home with their classroom learning. However, this finding conflicts with some of the previous research which concluded that a transfer of motivation is unlikely to occur. Henry and Cliffordson (2015) investigated the ways in which out-of-school English learning experiences affect student motivation in language classrooms. The findings revealed that students who believe language learning depends solely on innate talent and real-life experiences
tend to lack motivation in EFL classrooms. The authors suggested that the rich offer of authentic settings outside of school contributes to this demotivation in classroom among students who hold such beliefs. Additionally, they observed that the noticeable disparity between the settings of gaming and in-school activities influences students' perception of authenticity. As a result, students' motivation in the classroom is negatively impacted by the perceived lack of authenticity, leading to frustration with the rigid structure of language education (Henry & Cliffordson, 2015). Therefore, Richtoff and Persson (2022) commented that it is crucial for teachers to address students' beliefs regarding the effectiveness of classroom instruction and bridge the gap between language learning at home and within the classroom. Similar to Henry and Cliffordson (2015), Hoffman and Nodelson (2010) also claimed that the transfer of motivation might not have the desired effect. In their study, they investigated what factors motivate players and whether the motivation gained when gaming can be transferred to classroom contexts with 189 university students. As a result of the study, the authors highlighted key distinctions between the gaming environment and the classroom setting as factors that make the transfer of motivation improbable. Unlike the competitive, evaluative, and unforgiving nature of the classroom, gaming is designed for entertainment. The study revealed that players are motivated by factors such as a sense of control, immediate feedback, and social collaborations. The authors suggested researchers to delve deeper into how these characteristics can be incorporated into classroom settings to facilitate the transfer of motivation experienced during game play (Hoffman & Nadelson, 2010).

5.1.2. Potential Challenges of Bridging Informal and Formal Language Learning

The interview analyses of this study revealed some potential challenges that educators may face in their efforts to incorporate informal language learning experiences gained through COTS into foreign language classrooms and curricula. Firstly, some participants stated that there are some language learning challenges in COTS environment which can effect this incorporation such as rarity of language input in some COTS games, and possibility of false learning of the language. They emphasized that unlike educational games that can be developed according to educational purposes, COTS games cannot be modified, so if they offer limited
language content or lead to false learning, it would be difficult to use them in the classroom. This finding is in line with Van Eck (2006) who pointed out that since COTS games are not designed to teach, topics and content may be limited or inaccurate, which may present an obstacle for COTS implementation. Secondly, the interview analyses indicated some challenges and barriers to integration such as misconceptions and stereotypes on COTS, lack of awareness on potential benefits of COTS on language learning, and accessibility issues. Participants of this study stated that there is a lack of awareness and understanding on society, especially among teachers, about the potential benefits of COTS game play. The participants believed that this lack of awareness results from the generation gap among teachers and the misconceptions and stereotypes about COTS games that older teachers seem to believe. Also, participants expressed some common concerns regarding the potential negative effects that may arise from using students’ game play experiences for foreign language learning such as addiction and negative effects on psychological and physical health. These findings are in line with Reinhardt (2018)’s statements in which he stated that some educators express skepticism about using these games in education due to their association with "daily activity" rather than academic pursuits. Certain teachers hold biases against games, believing that learning should only occur through work and that play is a separate aspect unrelated to education. They also object to games' use of informal language that may not align with the formal academic language and curriculum they believe should take priority. Moreover, non-gamers often hold the belief that games can have negative effects due to their addictive and violent features. These biases are not only present among teachers but also extend to administrators, parents, and even students, as they have grown accustomed to expecting education to be more serious and less game-oriented (Reinhardt, 2018). Similarly, in Bolliger et al. (2015)’s study, students expressed various concerns regarding the use of digital games for learning. These concerns encompassed potential distractions, difficulties in maintaining focus, and the enjoyment factor associated with digital games. Additionally, some students raised concerns about the potential health implications of engaging with games. Furthermore, there were doubts among students regarding the effectiveness and efficiency of digital games as educational tools.
5.1.3. Integration of COTS Games into Foreign Language Classrooms and Curricula

Another purpose of the current study was to investigate the perceptions of language teachers and students towards the incorporation of COTS games into foreign language curricula. To begin with, all the participants stated that COTS game play offer various opportunities for language learning in terms of language skills, motivation and engagement, and cognitive development. All participants of this study highlighted that COTS game environment provides enhanced immersion and sustained engagement compared to formal language learning settings due to their interactive and authentic nature. Similarly, participants in Li et al. (2021)'s study stated that they were satisfied with the gaming project because of the affordances of the game, the most mentioned ones being fun, immersive, and authentic nature of the game. This finding of the present study is also in line with Bytheway (2011)'s study on Non-Native English Speakers (NNES) in which participants viewed complete immersion in the English version of the game World of Warcraft as particularly beneficial for their language learning because, as stated by the participants, the game’s immersive nature compelled them to actively engage in meaningful interactions with other players in the game world using the target language.

Another most emphasized language learning opportunity by the participants of this study that COTS games offer was interaction and communication in English either through in-game messages or with other players via chat features of the games, allowing players to interact with others, cooperate, engage in dialogues, thus contributing to their language learning and development. In the literature, one of the most outstanding aspects of COTS games on language learning is the interaction and communication opportunities they provide to players (Ağaoğlu & Şad, 2020; Bolliger et al., 2015; Can & Türkmen, 2017; Chotipakтанasook & Reinders, 2018; Dixon & Christison, 2021; Dykes, 2021; Ebrahimzadeh & Sepideh, 2017; Li et al., 2021; Özgür & Caner, 2022; Peake & Reynolds, 2020; Rama et al., 2012; Richtoff & Persson, 2022; Schlasberg, 2021; Su et al., 2021; Yudintseva, 2015), similar to the findings of this study. According to Schlasberg's (2021) study, it was noted that the collaborative nature of COTS games allows learners to receive support and guidance from more skilled peers. Through this interactive process, learners are not only
scaffolded but also exposed to a substantial amount of target language. In their study, Peake and Reynolds (2020) explained that gaming offers learners an opportunity to engage in authentic communication, which differs from the techniques typically used in formal language classrooms. Online game interactions take various forms like instant messaging, written texts, and voice communication through headsets. Additionally, gamers have the freedom to engage in creative writing by composing open messages to communicate with other human players via the chat box within the game, which enables players to express themselves freely and communicate with one another. Another finding from Peake and Reynolds (2020)’s study indicated that playing COTS games in English provides students with the chance to acquire daily use of the language and unconventional vocabulary that they may not typically encounter in formal language learning settings. These words may include insults and inappropriate or slang expressions, which are not commonly used by participants in their formal English language classes. Through gaming, learners are exposed to and able to utilize these phrases in appropriate contexts, while also gaining access to vernacular English (Peake & Reynolds, 2020). In his study, Dykes (2021) also expressed that COTS games are essentially 3D interactive narratives that offer language exposure through dialogue, on-screen text (in addition to optional subtitles) in the form of exposition, or in-game items. In Li et al. (2021)’s study, based on the feedback received from the students, it was revealed that students were exposed to daily conversations through their engagement with COTS games. The students expressed their appreciation for this immersive experience stating that they can learn informal English by playing the game. They acknowledged that the game provided them with an opportunity to learn about the practical use of English in everyday life, which differed from the articles or literature they typically encountered in the classroom. The game allowed them to witness and understand the actual application of language in real-life conversations. This highlights the value of COTS games in providing authentic language exposure and enhancing students' understanding of language use in practical contexts. This finding is also congruent with the current study. During the interview analyses, it was seen that one of the most common statements from participants of this study was that students benefit from regular exposure to real language usage and acquire expressions that are not taught at formal language classrooms through COTS gameplay.
The present study also pointed out that the interaction opportunity in the target language of COTS games also lead to reduce anxiety and hesitation to speak in English that most students suffer from. The participants stated that by creating a sense of anonymity, COTS games allow learners to practice and develop their language skills with increased confidence. Various research studies in the literature identified similar results. According to Zhao and Lai (2008), COTS games, particularly role-playing games, offer learners opportunities to gain confidence and engage in language experimentation. Through the anonymity provided by gaming, players feel less hesitant and are more willing to freely experiment with language to achieve game objectives. Peterson (2010) suggested that COTS games facilitate role-playing and encourage risk-taking among language learners, thereby reducing hesitations in using the target language. This is supported by Reinders and Wattana (2011)’s study, which found that English language learners not only demonstrated willingness to communicate in the MMOG game Ragnarok Online but also exhibited increased interaction through text and voice chat in subsequent gaming sessions. Another study by Zheng et al. (2009) observed that Non-Native English Speakers (NNES) playing the game Quest Atlantis showed enhanced confidence in their English language skills and developed positive attitudes towards English language learning.

As indicated in many research studies and articles (Calvo-Ferrer & Belda-Medina, 2021; Çetin et al., 2012; Enayat & Haghighatpasand, 2019; Maior, 2016; Peake & Reynolds, 2020; Rama et al., 2012; Ranalli, 2008; Schlasberg, 2021; Sundqvist, 2019; Yudintseva, 2015), one of the most significant impact of COTS games on language learning is vocabulary expansion. In this study, the analyses revealed that the dynamic and immersive environment of COTS games, where players engage with different characters, objects, and settings, allow for learners to have multiple chances to encounter and become familiar with a diverse range of vocabulary throughout the gameplay. This repeated exposure helps reinforce the learning of vocabulary and aids in its retention in long-term memory for learners. In her review, Yudintseva (2015) synthesized the recent findings of seventeen studies to determine the effectiveness of learning strategies on English as a second language vocabulary acquisition through game-enhanced practices. The analysis of these studies demonstrated that English language learners improved their vocabulary through the
use of imagery, language repetitions, and contextual clues provided by non-player characters or the game environment. Additionally, interactions with native speakers and receiving advice from peers had a positive impact on vocabulary outcomes. On the other hand, according to the study by Calvo-Ferrer and Belda-Medina (2021), intentional vocabulary learning strategies were found to be more effective than incidental approaches in formal educational settings for vocabulary acquisition. The research emphasized that pure incidental learning tasks had low retention of word meanings, highlighting the importance of direct instruction to enhance the learning process and achieve significant vocabulary improvements. However, the study also revealed that incidental exposure to new words during gaming contributes to vocabulary learning, and repeated encounters with words have a positive impact on incremental vocabulary acquisition. The authors stated that recognizing relationships between unfamiliar words and meaningful contexts aids in learning, and intentional vocabulary input from students facilitates incidental vocabulary learning for other users. This suggested that a combination of both incidental and intentional approaches may be desirable for optimal learning outcomes.

For an effective integration of COTS games into foreign language classrooms and curricula, the participants of this study offered a preparation phase before the integration in which a needs analysis is conducted in order to identify the specific needs and interests of the learners. Prensky (2005) emphasized the importance of beginning with the audience in creating digital game-based learning in his article. He suggested beginning with the particular type of audience, meaning the students in the class, and selecting a representative group to work with. He stated the most important variables as age, gender, competitiveness, and previous experience with games. Similarly, participants of this study stressed that the age group, language proficiency, and familiarity with COTS game play of students are important factors to consider for an effective integration, therefore conducting a needs analysis is necessary.

In this integration process, the teacher has a significant role. The interview analyses showed that the teachers should have a facilitator role, providing guidance for students. Learners should be the active participants in the process, and teachers should assist and guide them. Moreover, teachers also need to introduce the game,
and explain the both game and learning objectives to the students to prepare them for the lesson. In order to be able to provide guidance for the students, teachers should be experienced enough in COTS game play, or competent in using them in the classroom, hence, they may need to get a training. In his study, Hanghøj (2013) identified four teacher roles: instructor, playmaker, guide, and evaluator. Similar to the findings of the current study, Hanghøj (2013) stated that the teacher should prepare the students for the game by explaining the learning goals as well as any direct instruction related to either the operational use of the game or the in-game activities. The teacher also need to provide scaffolding to assist students in reaching the learning goals, and evaluate the game outcomes and students’ learning experiences. Becker (2017) emphasized that most teachers do not naturally adopt appropriate roles when using games for learning since they do not have the necessary trainings. Therefore, they need to get the adequate support and necessary trainings to effectively perform their roles in this integration.

In this study, most of the participants pointed out that students do not participate in the activities if they are not going to get a score for it, therefore, as a result of the game playing or other game-related activities, students should get a score or a grade, in other words, these activities should be a part of their assessment in order to ensure student participation and engagement. However, this finding conflicts with Reinhardt (2018)’s suggestions on this issue. In his book, he underscored that a reward can be given to students for completing a challenge or a quest in the game, but it should be separate from the grading system and not be interchangeable for improved grades. Instead, the reward should be something that supports the course performance, for example permission to use the native language, a hint to an answer, or permission to skip an item of their choice on a quiz. The reason for that is rewards should be used to motivate students incrementally and extrinsically, unlike intangible and abstract things like grades.

The interview analyses revealed that most of the participants of this study believe the most effective way to integrate COTS games into foreign language curricula is to use interactive games, especially role-playing games because of their authentic nature. These games provide opportunities for students to interact with the game content, make choices, follow objectives, and solve problems for a goal. Moreover, almost all
of the participants stated that integrating the narratives of these role-playing games to language lessons would have a significant effect on language learning. This finding was in parallel with Reinhardt (2018)’s statements about the significance of game narratives on language learning and the potential of designing classroom activities and curricula around narratives. According to him, COTS game genres like MMORPGs, RPGs, interaction fiction, adventure and simulation can be more appropriate for language classrooms compared to others because they are rich in narratives that contextualize language learning and facilitate the understanding of form-meaning-function relationships. These narratives can be conveyed through interactive means or through other methods. Players are fully engaged in fictional worlds with rich histories and mythologies, even in games with limited backstory. Designers incorporate narrative-evoking elements into games, prompting players to create their own personal narratives as they interact with the game. This interplay between designed and personal narratives gives rise to meaning within the game. Consequently, he suggested that educational activities and curricula can be structured around narratives, fostering immersive learning experiences where learners participate in storytelling. These narratives can revolve around mysteries, historical periods, or stories where learners assume specific roles, similar to role play and simulation pedagogies (Reinhardt, 2018).

The present study highlighted that game selection and adaptation plays a crucial role in the incorporation of COTS games into the foreign language curricula. Participants highly emphasized that choosing an appropriate game for this integration is one of the most significant steps in the process. According to interview analyses, the most important factors to consider for an effective integration is learner profile and preferences, learning goals and objectives, and age and classroom-use appropriateness. The literature includes studies that focus on these factors, as well. Firstly, participants of this study stressed that learner profile, meaning, learner needs, interests, preferences, and language proficiency levels should be taken into account in the game selection process. Reinhardt (2018) also highlighted that when selecting a COTS game, considering learner profiles is crucial, especially in relation to factors like age, gaming experience, and foreign language learning backgrounds and proficiency of the learner-players. Moreover, some participants of this study offered conducting a survey with students to get their opinions about the game choice.
Similarly, Reinhardt (2018) stated that it is also essential to take into account learners' gaming skills and preferences, which can be assessed through questionnaires and discussions. While considering the learner profile, their age group and the appropriateness of games for classroom use of that group was stated as another important factor by the participants of this study. Regarding this issue, some participants stated that most COTS games have age restrictions and are targeted at specific age groups, which should be taken into account in the game selection process. Similarly, Becker (2017) recommended leaving out COTS games that are rated “M” (for mature) as they are probably not appropriate for classroom use because of including mature themes and sometimes considerable violence. Instead, she suggested choosing games rated “E” (for everybody), stating that it still offers various game choices. Another important factor according to the interview analyses of this study is that the language learning potential of games should be considered and the selected game should align with the lesson objectives. This finding is also congruent with some of the previous research such as Heeter (2013) who stated that the chosen game should enable learners to achieve the intended learning learning goals, and Reinhardt (2018) who focused on the extent to which language learning affordances would be available to learners, and the quality of language learning associated with them in game selection process. Dykes (2021) also emphasized that when selecting a COTS game for language acquisition purposes, it is crucial to consider its effectiveness. While student engagement and motivation are important factors, it is equally vital to ensure that the game provides opportunities for meaningful language learning to take place. Additionally, Schlasberg (2021) highlighted the importance of careful monitoring and selection of COTS games when incorporating them into an educational setting for language learning purposes. Inappropriate selection of games may result in limited effectiveness or even potential disadvantages. However, multiplayer games, particularly role-playing games, have shown to be highly effective for language learning. The collaborative nature of these games allows learners to receive support and guidance from more skilled peers, facilitating their progress. Additionally, the interactive nature of gameplay provides learners with exposure to a significant amount of target language. As a result, Schlasberg (2021) recommended that teachers should explore ways to integrate the collaborative aspects of multiplayer role-playing games into educational contexts to
optimize language learning experiences. Lastly, almost all participants in this study underlined the fact that not everyone plays games, and there can be some students in the class who would be reluctant to participate in game-related activities. The participants in this study emphasized the necessity to ensure that the chosen game includes everyone in the classroom to foster a sense of inclusivity and participation. However, this issue was reviewed differently in Reinhardt (2018) who stated that the learners who are not interested or do not like gaming shouldn’t be forced to play at all.

5.1.4. Potential Challenges of COTS Game Integration

The interview analyses of the present study revealed that although they have many beneficial aspects for language learning, COTS games are difficult to adapt for classroom use for several reasons. The participants explained that the main reason that makes this integration difficult is that COTS games are not designed for educational purposes, hence there is not a ready-made curriculum. Moreover, integrating COTS games into formal classrooms would be costly, there would be time management issues because of the time-consuming nature of COTS games, and administrative support would be difficult to get. This result is in line with the other studies that highlighted the challenges of COTS game integration into formal language learning settings (Becker, 2017; Becker & Jacobsen, 2005; Bolliger et al., 2015; Takeuchi & Vaala, 2014; Van Eck, 2006). Becker (2017) indicated that both the study conducted in 2005 by Becker and Jacobson and another study by Takeuchi and Vaala in 2014 revealed similar results about the barriers facing educators using games in their classrooms. She emphasized that a notable and positive change observed between 2005 and 2014 studies is that the lack of administrative support, which used to be a major obstacle to the adoption of games, has significantly diminished and is now ranked among the least significant barriers (Becker, 2017). Other than that, the results of the 2014 study are in parallel with the current study in that according to the 2014 study, the primary obstacles reported were limited time for integrating games (45%), high costs (44%), inadequate resources (35%), and the absence of curricular connections (34%) (Takeuchi & Vaala, 2014). Bolliger et al. (2015) emphasized the time management and financial issues by stating that COTS games may be difficult or inefficient to use in classes as the setup or gameplay
process might be time-consuming and potentially disrupt the flow of the lesson. Additionally, it is worth noting that quality games and the necessary devices can be costly. Van Eck (2006) also stated that the main challenge of using COTS games for educational purposes is that they are not designed for teaching and may have limited topic coverage, as well as potentially containing inaccurate or incomplete content. However, in terms of money and time, Van Eck (2006) described the COTS integration as the most cost-effective approach compared to other two strategies on incorporating games into formal learning which are having students create new games and developing educational games specifically for teaching purposes. He claimed that among these approaches, the integration of COTS games is currently the most cost-effective in terms of both financial investment and time utilization. Furthermore, this approach can be applied to any subject area and cater to learners of varying backgrounds and skill levels (Van Eck, 2006). To address the financial and technological challenges, participants of the current study suggested that common game accounts can be created, cheap or free online games can be selected, and computer labs at schools may allow for COTS game play to provide access to games for all students. In parallel with these findings, Reinhardt (2018) also recommended that in a traditional classroom setting, the presence of an instructor computer and projector may enable the entire class to engage with a single copy of a PC, networked, or browser-based game, and in a computer lab, multiple copies of a game can be accessed from different PCs. However, this finding conflicts with Dykes (2021)'s study where he explained that setting up a class account or school account and purchasing the required number of game copies is not feasible due to the restrictions imposed by popular online game stores. Typically, each copy of the game requires a separate store account, making it impractical to acquire multiple copies for a class or group of students.

5.2. Implications

The present study provided insight into how COTS games, and the informal language learning experiences gained through them, can be effectively incorporated into foreign language curricula and formal language learning settings, and what would be the related issues and challenges. The results of this study also lead to implications for the field of education and further research.
5.2.1. Implications for Practice

The findings of this study have significant implications for various stakeholders including language educators, teachers, curriculum developers, administrators and policy makers to enhance foreign language learning within formal educational contexts. Incorporating the informal language learning experiences gained through COTS games into foreign language curricula and formal language learning settings can serve as a valuable pedagogical tool to support current instructional methods. Based on the insights gained from this study, several practical implications emerge.

First and foremost, recognizing the potential of COTS gameplay for foreign language learning, and devoting more time to explore and understand the role of COTS gameplay on informal language learning may be beneficial for language educators for a more updated and effective teaching. Informal language learning experiences of students gained through COTS games can be beneficial in formal language teaching, and language educators may consider integrating these experiences to their language lessons. Language educators can create dynamic and immersive language learning environments by utilizing the engaging and interactive nature of COTS games.

Furthermore, taking into account the fact that students across various age groups dedicate a significant portion of their time to playing COTS games, particularly English preparatory school students who typically have more free time than others, it is crucial for curriculum developers to recognize the role and significance of COTS gameplay in learners' lives. As they design educational goals and materials, it could be leading for them to seek ways to incorporate COTS games as a supplementary component to the regular instructional plan. During the interviews, both teachers and students consistently emphasized the importance of COTS games in their lives. The student participants revealed that they dedicate a minimum of two hours every day to playing these games, regardless of other commitments, and some even pursued careers related to gaming. On the other hand, the teachers attributed their choice of becoming English teachers to their experiences with these games. Consequently, when teachers acknowledge the interests and needs of their students, it can result in an effective incorporation of COTS games into language lessons. Furthermore, all interview participants displayed positive attitudes towards utilizing commercial
games for language learning, highlighting their contributions to language skills. Therefore, teachers, administrators, and curriculum designers can seek opportunities to harness the potential of commercial games to enhance instruction and take into account students' needs and backgrounds.

Furthermore, the participants in this study emphasized the potential effectiveness and motivational impact of incorporating narratives and storylines from COTS games into traditional academic tasks commonly employed in formal language learning settings to bridge formal and informal language learning. Particularly for reading and writing assignments, as well as classroom discussions, integrating COTS game narratives was seen as highly beneficial. Consequently, during the curriculum development process, curriculum developers can consider and take steps to integrate COTS game narratives into foreign language curricula.

Moreover, the participants in this study suggested that using informal COTS gameplay as extracurricular and supplementary activities could serve as a bridge between formal and informal language learning within formal educational settings. In response to this, it is recommended that EFL teachers establish and oversee game clubs or organize gaming events specifically tailored for interested students. By creating dedicated spaces for informal learning within formal contexts and under the guidance of teachers, a more engaging language learning environment can be fostered. This, in turn, has the potential to enhance student participation and motivation in language learning.

However, the successful integration of informal COTS game experiences into formal language learning settings presents several challenges, such as insufficient technological infrastructure, lack of training on game-based pedagogies, and concerns about curriculum alignment. To overcome these challenges and maximize the benefits, providing teacher education programs can equip educators with the necessary skills to integrate COTS into lessons effectively. Curriculum developers can assist in planning game integration, while school administrations should ensure teachers and students have access to required technology. To facilitate integration, implementations, curricula, and lesson plans that teachers can use in the classroom can be prepared, and teachers can utilize them in their lessons. For an effective
integration, institutions need to invest in necessary resources and professional development to empower educators in integrating COTS games. Collaboration between language teachers, curriculum developers and instructional technologists facilitates the design of game-based activities aligned with curricular goals and optimized learning outcomes.

5.2.2. Implications for Further Research

In this part of the study, implications for future research are presented to provide guidance for researchers in the field of education.

Firstly, the current study utilized semi-structured interviews and a focus group interview with language teachers and students, and stimulated-recall interviews with students as its data sources. In spite of the detailed and rich data, semi-structured interviews with other stakeholders, such as administrators and curriculum designers can be conducted to explore their perceptions for a broader understanding on the topic.

Secondly, this study was limited by size and location due to its qualitative nature. The data were collected from 10 English language students of a private university in Istanbul and 10 English language teachers from different universities, only three of them being employed in a state university. The sample may be increased, and data might include students and teachers from state universities in order to get a comprehensive understanding regarding the integration of COTS gameplay experiences into foreign language curricula. In this way, it would be easier to generalize the findings.

Thirdly, longitudinal studies can be carried out in which informal language learning experiences acquired through COTS games are integrated into formal language classrooms by applying the instructional strategies specified by the participants in this study. Following this integration, further research can be undertaken to specifically identify the challenges that may arise and explore potential solutions for addressing them.

It is believed that the present study will contribute to the literature by providing insights into how language educators can incorporate informal language learning
experiences from commercial off-the-shelf games into curricula and design curricular activities combining the game and instruction. Additionally, the potential expectations for teachers when integrating COTS games into their lessons were also highlighted in this study. Future research can continue to explore and enhance methodologies for integrating COTS game experiences into formal language learning settings, thereby expanding our understanding of their impact on language education practices.
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135


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Eğer sizin için de bir sakıncası yoksa görüşmeyi kaydetmek istiyorum. Sizin için uygun mu?

Görüşmemiz yaklaşık 40 dakika sürecek. Herhangi bir sorunuz olursa bana istediğiniz aşamada sorabilirsiniz.
B. INTERVIEW QUESTIONS FOR STUDENTS

Game Play

1. Do you identify yourself as a “gamer”? How long have you been gaming?

2. What are your experiences with gaming in general? How often do you play games of any kind?

3. Could you describe a typical gaming session? Suppose you are going to play with your group, how does that work? Do you make appointments with others? Suppose you’re playing alone; how does that work? (Thorne, Fischer, & Lu, 2012)

   a. While playing COTS games, do you prefer to choose the game language as your native language (Turkish) or English? What are your reasons for choosing English or Turkish?

   b. Is there a “game language” (e.g. certain terms you often use) you use while playing games? If yes, do you use this “game language” in your daily life? (e.g. “gg”, “unlucky”, “afk”, “dodge” etc.)

4. Do you make discussions (e.g. discussing what is happening in the game, what the task is, what kind of equipment to use etc.) with other players while playing the game? If yes, are these players generally Turkish or foreigners? How often do you communicate in English while playing COTS games?

   a. When you communicate with other players, do you use a dictionary or an online translation programme? (Thorne, Fischer, & Lu, 2012)

Game Play and Informal Language Learning

5. How do you think gameplay relates to language learning? How important do you think gameplay is for language learning? (Reinhardt, 2018)

   a. Do you find playing COTS games beneficial for your language learning? Does your gameplay outside of school influence your English learning at prep school? How?

   b. If you think your gameplay improves your English skills, which language skills (reading, listening, speaking, writing, vocabulary, grammar) do you think are improved the most? Could you explain this improvement?
c. If you think that playing games contributes to improving your foreign language skills, do you think that this contribution is mostly because the language of the game is English or because you communicate in English with other players who are from other countries?


7. Has playing COTS games changed your interest in learning English?

8. Where do you believe you learned most of what you know in English (e.g. at school, through gaming/songs/TV shows etc.)? (Sundqvist & Sylvén, Extramural English in teaching and learning: From theory and research to practice, 2016)

9. Do you use any external sites that have to do with the games you play (e.g. online information, strategy sites, forums, video sites)? If yes, for what purpose, and in what language? What would you say about those external sites and foreign language learning?

**Bridging Informal and Formal Learning**

10. Do you think the games you play outside of school can be used in the classroom? Would that be effective in your English learning? If yes, how?

11. As a gamer, what advice would you give teachers who wanted to use vernacular games to learn an L2 informally/formally? (Reinhardt, 2018)

12. If you were playing a vernacular game in a language you were trying to learn, what sort of support or resources would you want or need in order to get the most out of the experience? (Reinhardt, 2018)

13. Based on your experiences as an L2 learner and a game player, what do you think is or would be the most beneficial and most challenging aspect of vernacular gameplay? (Reinhardt, 2018)

**Oyun Oynaması**

1. Kendinizi “oyuncu” (“gamer”) olarak tanımlar mısınız? Ne kadar süredir oyun oynuyorsunuz?

2. Genel olarak oyunlarla ilgili deneyimleriniz nelerdir? Herhangi bir tür oyunun ne sıklıkla oynarsınız?
   a. COTS oyunlarını oynarken oynarken oyun dilini ana diliniz (Türkçe) olarak mı yoksa İngilizce olarak mı seçmeyi tercih edersiniz? İngilizceyi veya Türkçeyi seçmenizin sebepleri nelerdir?

4. Oyunu oynarken diğer oyuncularla tartışmalar (örn. oyunada neler olup bittiği, görevin ne olduğu, ne tür ekipmanların kullanılacağı vb.) hakkında tartışmalar yapıyor musunuz? Cevabınız evet ise bu oyuncular genellike Türk mü yoksa yabancı mı? COTS oyunlarını oynarken ne sıklıkta İngilizce iletişim kuruyorsunuz?
   a. Diğer oyuncularla iletişim kurarken bir sözlük veya çevrimiçi bir çeviri programı kullanıyor musunuz? (Thorne, Fischer ve Lu, 2012)

Oyun Oynaması ve Resmi Olmayan Dil Öğrenimi

5. Oyun oynamının dil öğrenimiyle nasıl bir ilişkisi olduğunu düşünüyorsunuz? Dil öğrenimi için oyun oynamının ne kadar önemli olduğunu düşünüyorsunuz? (Reinhardt, 2018)
   a. COTS oyunları oynammanın dil öğreniminiz için faydalı olduğunu düşünüyor musunuz? Okul dışında oyun oynama alışkanlığınız, hazırlık okulundaki İngilizce öğreniminiz etkiliyor mu? Nasıl?
   b. Oyun oynamının İngilizce becerilerinizi geliştirdiğini düşünüyorsunuz, en çok hangi dil becerilerinin (okuma, dinleme, konuşma, yazma, kelime bilgisi, gramer) geliştğini düşünüyorsunuz? Bu gelişmeyi açıklayabilir misiniz?
   c. Oyun oynamının yabancı dil becerilerinizi geliştirmeye katkı sağladığı düşününürseniz, bu katkıının how çok oyun dilinin İngilizce olmadığı mi yoksa başka ülkelerden oyuncularla İngilizce iletişim kurmanızdan mı kaynaklandığını düşünüyorsunuz?

6. Oyun oynarken ikinci dil iletişiminizi nasıl geliştirebilirsiniz? (deHaan, 2019)
7. COTS oyunları oynamak İngilizce öğrenmeye olan ilginizi değiştirdi mi?
8. İngilizce bilginizin çoğunu nerede öğrendiğinizi düşünüyorsunuz (örn. okulda, oyunlar/şarkılar/TV şovları vb. yoluyla)? (Sundqvist ve Sylvén, 2016)
9. Oynadığınız oyunlarla ilgili herhangi bir harici site kullanıyor musunuz (ör. çevrimiçi bilgi, strateji siteleri, forumlar, video siteleri)? Evet ise, hangi amaçla ve hangi dilde? Bu siteler ve yabancı dil öğrenimi hakkında neler söylersiniz?

Resmi ve Gayriresmi Öğrenme Arasında Köprü Kurmak
11. Bir oyuncu olarak, resmi ya da resmi olmayan bir şekilde bir ikinci dil öğrenimi için dijital oyunları kullanmak isteyen öğretmenlere ne tavr edersiniz? (Reinhardt, 2018)
12. Öğrenmeye çalıştığınız bir dilde dijital bir oyun oynuyorsanız, bu deneyimden en iyi şekilde yararlanmak için ne tür destek veya kaynaklara ihtiyaç duyduğunuz? (Reinhardt, 2018)
13. Bir yabancı dil öğrencisi ve bir oyuncu olarak deneyimlerinize dayanarak, dijital oyun oynamanın en faydalı ve en zorlayıcı yönünün ne olduğunu veya olabileceğini düşünüyorsunuz? (Reinhardt, 2018)
C. INTERVIEW QUESTIONS FOR TEACHERS

1. How long have you been teaching? How long have you been teaching at the university level?
2. Do you play any digital games in your free time? If yes, can you briefly explain your personal gameplay experience?

Game Play and Informal Language Learning

3. Do you use digital games while teaching English? What kind of games? How often?
4. Today’s students spend a lot of time playing video games outside of school in foreign languages. What do you think about this as a language teacher? Do you know if your students play digital games in their free times?
5. What do you think about out of class digital gameplay of students and their foreign language learning?
   a. What might be the effectiveness of vernacular games as a learning resource?
   b. Do you think digital gameplay of students has any drawbacks on their learning? If yes, what kind of drawbacks it may have?
6. To what extent do you think language play should or should not be encouraged among foreign language learners? What sorts of learning activities might encourage it? (Reinhardt, 2018)

Bridging Informal and Formal Learning

8. If you were to integrate a vernacular digital game into your teaching, what would you do? Starting from the beginning can you walk me through the whole process?
   a. What would you do first?
   b. How would you decide which game to use?
   c. How exactly would you use it?
   d. When would you suggest students play the game?
   e. How would you suggest them to play?
   f. What about classroom activities? What kind of activities?
g. How do you feel about integrating a vernacular digital game into your teaching? (Confidence? Knowledge?)

9. What kind of pedagogical approach do you think can increase the affordances of games or balance out their shortcomings? (Reinhardt, 2018)

10. What do you think about teachers’ attitudes towards game usage in their teaching?

11. Do you know anything about the widespread criticisms of digital gaming? How do you feel about these?

12. What would be the drawbacks of using an educational game rather than a vernacular one, or vice versa, for foreign language learners? (Reinhardt, 2018)

13. Based on your experiences as an L2 teacher (and a game player), what do you think is or would be the most beneficial and most challenging aspect of vernacular gameplay? (Reinhardt, 2018)

1. Ne kadar süredir öğretmenlik yapıyoruzu? Ne kadar süredir üniversite düzeyinde ders veriyorsunuz?

2. Boş zamanlarınızda herhangi bir dijital oyun oynuyorsunuz? Cevabınız evet ise, kişisel oyun deneyiminizi kısaca açıklayabilir misiniz?

Oyun Oynama ve Resmi Olmayan Dil Öğrenimi

3. İngilizce öğretirken dijital oyunlar kullanıyor musunuz? Evet ise, ne tür oyunlar ve ne sıkılkta kullanıyorsunuz?

4. Günümüzde öğrenciler okul dışında yabancı dillerde video oyunları oynayarak çok zaman geçiriyorlar. Bir dil öğretmeni olarak bu konuda ne düşünüyorsunuz? Öğrencilerinizin boş zamanlarında dijital oyunlar oynamıp oynamadığını biliyor musunuz?

5. Öğrencilerin sınıf dışı dijital oyun oynama alışkanlıkları ve yabancı dil öğrenimi hakkında ne düşünüyorsunuz?
   a. Bir öğrenme kaynağı olarak dijital oyunların etkinliği ne olabilir?
   b. Öğrencilerin dijital oyun oynamalarının öğrenmeleri üzerinde herhangi bir sakıncası/dezavantajı olduğunu düşünüyor musunuz? Varsa ne gibi sakıncaları olabilir?

**Resmi ve Gayriresmi Öğrenme Arasında Köprü Kurmak**
7. Eğitim hedeflerini ve uygulamalarını desteklemek için dijital oyunların sınıfta kullanılması hakkında ne düşünüyorsunuz? (deHaan, 2019)
8. Bir dijital oyunu öğretiminize entegre edecek olsaydınız, ne yapardınız? En baştan başlayan tüm süreci anlatabilir misiniz?
   a. İlk adım olarak ne yapardınız?
   b. Hangi oyunu kullanacağızınız nasıl karar verirdiniz?
   c. Oyunu tam olarak nasıl kullanırdınız?
   d. Öğrencilere oyunu ne zaman oynamalarını önerirdiniz?
   e. Nasıl oynamalarını tavsiye ederdiniz?
   f. Ne tür sınıf aktiviteleri yapardınız?
   g. Bir dijital oyunu öğretiminize entegre etme konusunda ne düşünüyorsunuz? (Kendine güven, bilgi vb. açılarından)
9. Sizce ne tür bir pedagojik yaklaşım, oyunların elverişliliklerini artırabilir veya eksikliklerini dengleyebilir? (Reinhardt, 2018)
10. Öğretmenlerin öğretimlerinde oyun kullanımına yönelik tutumlarına hakkında ne düşünüyorsunuz?
11. Dijital oyunlarla ilgili yapılan yaygın eleştirileri yaygın eleştirileri biliyor musunuz? Bu eleştiriler hakkında ne düşünüyorsunuz?
12. Dijital bir oyun yerine eğitici bir oyun kullanımının ya da tam tersinin yabancı dil öğrenenler için dezavantajları neler olabilir? (Reinhardt, 2018)
13. Bir yabancı dil öğretmeni (ve bir oyuncu) olarak deneyimlerinize dayanarak, dijital oyun oynammanın en faydalı ve en zorlayıcı yönünün ne olduğunu veya olabileceğini düşünüyorsunuz? (Reinhardt, 2018)
D. FOCUS GROUP INTERVIEW QUESTIONS

1. Today’s students spend a lot of time playing video games outside of school in foreign languages. As language teachers and learners, what do you think about this?

2. Do you think the games students play outside of school can be used in the classroom? Would that be effective in English language teaching and learning? If yes, how?

3. If a vernacular game were to be integrated into a language lesson, how would that integration be? Starting from the beginning can you walk me through the whole process?
   a. What should be done first?
   b. How should the game decision to be used be made?
   c. How exactly should the game be used?
   d. When should the students play the game?
   e. How should they play?
   f. What about classroom activities? What kind of activities?
   g. How do you feel about integrating a vernacular digital game into your lesson?

4. Based on your experiences as an L2 learner or teacher and a game player, what do you think is or would be the most beneficial and most challenging aspect of vernacular gameplay? (Reinhardt, 2018)


6. While playing a vernacular game in English, what sort of support or resources students may want or need in order to get the most out of the experience? (Reinhardt, 2018)

7. What kind of pedagogical approach do you think can increase the affordances of games or balance out its shortcomings? (Reinhardt, 2018)

1. Günümüzde öğrenciler okul dışında yabancı dillerde video oyunları oynayarak çok zaman geçiriyorlar. Yabancı dil öğretmenleri ve öğrencileri olarak bu konuda ne düşünüyorsunuz?
2. Öğrencilerin okul dışında oynadıkları oyunların sınıfta kullanılabileceğini düşünüyor musunuz? Bu, İngilizce öğretimi ve öğreniminde etkili olur mu? Evet ise, nasıl?

3. Bir dijital oyunu bir dil dersine entegre edilecek olsaydı, bu entegrasyon nasıl olurdu? En baştan başlayarak tüm süreçleri anlatabilir misiniz?
   a. İlk adım olarak ne yapılmalı?
   b. Hangi oyunun kullanılacağına nasıl karar verilmeli?
   c. Oyun tam olarak nasıl kullanılamalı?
   d. Öğrenciler oyunu ne zaman oynamalı?
   e. Nasıl oynamalılar?
   f. Ne tür sınıf aktiviteleri yapılmalı?
   g. Bir dijital oyunu dersinize entegre etme konusunda ne düşünüyorsunuz?

4. Bir yabancı dil öğrencisi veya öğretmeni ve bir oyuncu olarak deneyimlerinize dayanarak, dijital oyun oynamının en faydalı ve en zorlayıcı yönünün ne olduğunu veya olabileceğini düşünüyorsunuz? (Reinhartd, 2018)

5. Eğitim hedeflerini ve uygulamalarını desteklemek için dijital oyunların sınıfta kullanılması hakkında ne düşünüyorsunuz? (deHaan, 2019)

6. Dijital bir oyunu İngilizce oynarken, bu deneyimden en iyi şekilde yararlanmak için ne tür destek veya kaynaklara ihtiyaç duyarsınız? (Reinhardt, 2018)

7. Sizce ne tür bir pedagojik yaklaşım, oyunların elverişliliğini artırabilir veya eksikliklerini dengeleyebilir? (Reinhardt, 2018)
E. INFORMED CONSENT FORM

ARAŞTIRMAYA GÖNÜLLÜ KATILIM FORMU

Bu araştırma, ODTÜ Eğitim Programları ve Öğretim Bölümü Yüksek Lisans öğrencisi Ece Koçak tarafından Dr. Öğr. Üyesi Nur Akkuş Çakır danışmanlığında yüksek lisans tezi kapsamında yürütülmektedir. Bu form sizi araştırma koşulları hakkında bilgilendirmek için hazırlanmıştır.

Çalışmanın Amacı Nedir?

Bu çalışmanın amacı, yabancı dil olarak İngilizce öğrenen üniversite hazırlık sınıfları öğrencilerinin, herhangi bir eğitim amacı olmayan, tamamen eğlence amaçlı tasarlanan dijital COTS oyunlarını (commercial off-the-shelf, eğitim amaçlı geliştirilmemiş oyunlar) okul dış ortamlarda, günlük eğlence olarak oynenan dil öğrenimindeki rolüne incelemek ve öğrencilerin resmi ve resmi olmayan öğrenmeleri arasında bu oyunlar yoluyla nasılsa köprü kurulabileceği araştırmaktır.

Bize Nasıl Yardımcı Olmanızı İsteyeceğiz?


Sizden Topladığımız Bilgileri Nasıl Kullanacağız?


Katılmınızla ilgili bilmeniz gerekenler:

Çalışma, genel olarak kişisel rahatsızlık verecek sorular içermemektedir. Ancak, katılım sırasında sorularдан da herhangi başka bir nedenden ötürü kendinizi rahatsız hissetseniz cevaplama işini yarıda bırakıp çıkmaktan serbestsiniz. Böyle bir durumda çalışmayı uygulayan kişiye, çalışmadan çekmak istediğiniz söylemek yeterli olacaktır.

Araştırmaya ilgili daha fazla bilgi almak ister seniz:

Bu çalışmaya katıldığınız için şimdiiden teşekkür ederiz. Araştırmada hakkında daha fazla bilgi almak için Eğitim Programları ve Öğretim Bölümü öğretim üyelerinden Dr. Öğr. Üyesi Nur Akkuş Çakır (E-posta: ) ya da yüksek lisans öğrencisi Ece Koçak (E-posta: ) ile iletişime kurabilirsiniz.

Yukarıdaki bilgileri okudum ve bu çalışmaya tamamen gönüllü olarak katıldığımı (Formu doldurup imzaladıkta sonra uygu la yerine geri veriniz).

İsim Soyad

Tarih

Imza

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F. A SCREENSHOT OF MAXQDA
## G. CODEBOOKS OF TEACHER, STUDENT AND FOCUS GROUP INTERVIEWS

<table>
<thead>
<tr>
<th>CODE</th>
<th>DESCRIPTION</th>
<th>IN VIVO CODE</th>
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<tbody>
<tr>
<td>Out-of-class activities like “game nights” or “game clubs”</td>
<td>The creation of a voluntary student club aimed at organizing out-of-class activities, such as game nights, as a means of fostering socialization and engagement outside of formal academic settings.</td>
<td>As a first step, as I mentioned, I probably wouldn't try to implement this in every class I entered, but I would try to create something like a club. I would do something that requires only voluntary student participation. First and foremost, I would establish a club of this kind. (T9)</td>
</tr>
<tr>
<td>Playing the first parts of the game in class as an example and assigning the rest as homework</td>
<td>Utilizing in-class time to introduce and demonstrate the initial portions of a game, followed by assigning the remaining game segments as homework, with the intention of promoting English language learning through gamified and self-directed study during students' free time outside of the classroom.</td>
<td>First of all, if possible, if we are going to do this on a device that children can carry, such as a phone or a laptop, and if they have these devices, I'm thinking of doing the first one in the classroom as an example, and then I plan to do it outside the classroom. Because children already interact with English enough in the classroom, and when they go home, on weekdays or weekends, their mothers, fathers, or responsible individuals constantly pressure them to study. I would like them to be able to study by playing games in the evenings or on weekends, or during their free time. Because we also need to encourage students to make good use of their free time. (T1)</td>
</tr>
<tr>
<td>Use of games for extracurricular activities</td>
<td>Implementing games as a dedicated hour or specific time outside of regular class hours, treating it as an extracurricular activity.</td>
<td>I think we probably need an hour or a specific time outside of the regular class hours to incorporate games as part of the lessons. We can consider it as an extracurricular activity. In such a case, the person leading or managing the club could be the teacher who delivers the lesson or a teacher who is interested in the subject. (T8)</td>
</tr>
<tr>
<td>Using example sentences from games</td>
<td>Incorporating example sentences from games as a teaching tool to activate</td>
<td>... for example, in games like Counter-Strike, there's a warning message saying ‘the</td>
</tr>
<tr>
<td><strong>Presentation of examples from games via multimedia resources (e.g. YouTube videos)</strong></td>
<td>Utilizing multimedia resources to present excerpts and visual examples from COTS games, enhancing the natural and visual learning experience for students in lieu of physical or verbal cues.</td>
<td>We can't open and demonstrate COTS games in class, but I can show excerpts from the games as videos because they can upload certain parts of the game to YouTube. They actually upload almost everything from the game. So, when teaching a specific word or demonstrating a movement, instead of using body language, I open it for them to see it visually and learn more naturally. (T6)</td>
</tr>
<tr>
<td><strong>Linking abstract concepts to their practical applications in real-world scenarios</strong></td>
<td>Utilizing games as a tool to connect abstract concepts to their real-life counterparts by associating words with corresponding visuals and actions, facilitating a direct correlation that enhances student engagement and retention of vocabulary.</td>
<td>… there is something we struggle with when teaching, which is connecting concepts to their real-life counterparts. Instead of the student just sitting and repeating action words, in a game, you say 'crawl' and press 'Z', and the character starts crawling. You say 'jump' and when you press it, the character jumps. There's a direct correlation. The student cannot forget these words, it's impossible… Therefore, directly associating words with visuals and actions is an incredible tool. (T3)</td>
</tr>
<tr>
<td><strong>Integration of game narrative into reading and writing assignments</strong></td>
<td>Leveraging COTS games with their immersive narratives as authentic materials for reading activities and process writing assignments, allowing students to explore and analyze narrative differences and the impact of their choices on the game's storyline.</td>
<td>Using COTS games can be beneficial as authentic material. For example, Skyrim can be great in this regard. It has its own stories, and you collect stories within Skyrim. Or there's The Witcher, where you follow a story and your choices influence the game's storyline. In fact, if you have downloaded The Witcher 1-2-3 to your computer and you have the files from the first game, the choices you made in the first game...</td>
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students' existing knowledge in an engaging manner.

 bomb has been planted' during bomb installation. I use this as an example to teach students about the passive voice. The students actually already know it, so I say to them, 'I'm selling you something you already know'. (T6)
| Classroom activities such as essay/report writing, classroom discussions, presentations, role-playing, storytelling, and group quests | Implementing a variety of engaging classroom activities to foster student interaction, critical thinking, and creative expression, utilizing game-based approaches to enhance the learning environment. | So, there can be many activities. It can be role-playing. Here, we can use many activities that we already use in the classroom… By creating a discussion environment in the classroom, by initiating a discussion, by providing a topic, you can enable the children to discuss it among themselves, or you can ask them to do a role-play based on a scenario created among the three of them. 
(T7) |
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<tbody>
<tr>
<td>The necessity to know English to understand and complete quests in games increases motivation to learn</td>
<td>Highlighting the motivational aspect of learning English through role-playing games where players are required to have a command of English to comprehend and successfully complete quests within the game world, thereby providing intrinsic motivation to improve language skills.</td>
<td>… there are role-playing games that we categorize as RPGs. For example, there is a game called Divinity: Original Sin. There are also role-playing games like the upcoming Baldur's Gate III, which is older. These kinds of role-playing games definitely provide benefits because there is a significant amount of dialogue within the game. Players need to have a command of English in order to fulfill these quests within the game world. (T8)</td>
</tr>
<tr>
<td>Competition with peers increases motivation</td>
<td>Recognizing that incorporating elements of competition within educational contexts can be an effective means of reinforcing learning and increasing students' motivation due to the enjoyment and desire to outperform their peers.</td>
<td>If used for reinforcement purposes, it can be very effective because students tend to enjoy a little competition and excitement. Even if students have reached the age of 18, there are still many students in classrooms, even at the university level, who engage in playful banter like &quot;Oh, I surpassed you, I crushed you.&quot; This can be something that increases the desire to learn due to the competitive spirit, as seen in games like Kahoot. (T6)</td>
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**THE CODEBOOK OF STUDENT INTERVIEWS**

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<tr>
<th>CODE</th>
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<tbody>
<tr>
<td><strong>Using example sentences or words from games</strong></td>
<td>Teachers can effectively use examples or words from games to enhance language learning by directly incorporating game-related vocabulary or scenarios into their teaching.</td>
<td>In my opinion, for teachers to use it, I think the teacher needs to play that game in order to be able to use it; otherwise, it would be difficult to use. For example, I can give an example from one of our preparatory school teachers. There was a word called &quot;cripple,&quot; which means disabled. Our teacher asked someone in our class, for instance, &quot;Which game did you play?&quot; That person mentioned the name of the game, and the teacher said something like, &quot;In that game, there is a character called 'cripple' who walks slowly.&quot; So, by playing the game themselves, teachers can directly provide examples and teach using the game… So, it can be used by giving examples from games. (S5)</td>
</tr>
<tr>
<td><strong>Vocabulary learned from the game used in writing assignments</strong></td>
<td>Vocabulary learned directly from games can be effectively utilized in writing assignments, allowing students to apply and reinforce their understanding of game-related words and expressions in a formal written context.</td>
<td>Some words can definitely be used. I'm thinking right now about the words I used in the paragraph, I can't recall them very well, but we definitely use certain words, for sure. For example, I remember using words in my paragraphs that I directly learned from the game. I believe we can definitely use the words we learn from games in writing classes. I have used them in school, for sure. (S5)</td>
</tr>
<tr>
<td><strong>Presentation of examples from games via multimedia resources (e.g. YouTube videos)</strong></td>
<td>Incorporating multimedia resources in the classroom can provide valuable examples of language use and cultural aspects from games.</td>
<td>For example, watching the streams of a foreign Twitch streamer in the classroom etc, this could also be possible because that streamer is more focused on the chat aspect rather than the game itself, so they speak a lot of English. I believe there are many things that can be learned from this, especially from story-driven games and Twitch streams. (S1)</td>
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<td>Topic</td>
<td>Summary</td>
<td>Example</td>
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<tr>
<td>Spoken production is limited to game content</td>
<td>In COTS games, the spoken production is often limited to game-related topics and interactions.</td>
<td>In games, you only chat within the game and talk about the game itself. (S1)</td>
</tr>
<tr>
<td>Games have no impact on grammar improvement</td>
<td>Games have limited impact on grammar improvement as the language used in games is often informal and relaxed, with less focus on adhering to grammatical rules.</td>
<td>It's far from grammar (the game language). Definitely because, well, daily language is being spoken. (S7) You don't pay much attention to grammar while playing, writing because it's an informal environment. For example, let's say we use 'doesn't' with 'he/she/it,' but if we use 'don't' there, it doesn't cause any problem, and nobody comes up to me asking why I used 'don't.' It's like that, you know, we feel more relaxed because it's not formal. (S2)</td>
</tr>
<tr>
<td>Expensive equipment and infrastructure is needed for playing COTS games</td>
<td>Playing COTS games requires expensive equipment and infrastructure, which may pose a financial barrier to use these games for language learning purposes.</td>
<td>Well, a good computer is definitely required. Especially for certain games, you definitely need a good computer in terms of hardware. Some games like LoL, CS, and so on, require headphones. They require special equipment. In my opinion, a mouse is definitely necessary, a good mouse for example, a keyboard is necessary, and headphones are necessary so that you can hear the sound of the players. The better ones of these can be costly, of course. (S5)</td>
</tr>
<tr>
<td>Games are addictive</td>
<td>The addictive nature of games can make it difficult for some individuals to disengage from gaming activities, leading to a potential impact on their daily lives and priorities.</td>
<td>These games actually create addiction. Honestly, I don't smoke or drink alcohol, and I haven't even seen drugs in my life. Furthermore, I haven't consumed a single gram of sugar for 9 months. Despite having freed myself from all addictions, I can't seem to break free from these games. (S9)</td>
</tr>
<tr>
<td>Games isolate people from the real world</td>
<td>Playing games can provide a temporary escape from real-life responsibilities and create a sense of relaxation which may lead to neglecting important tasks and responsibilities in favor of gaming.</td>
<td>Personally, I believe that playing games initially has positive effects on one's mental well-being. It provides a sense of relaxation and allows you to disconnect from the outside world to some extent. When</td>
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159
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<thead>
<tr>
<th>Topic</th>
<th>Description</th>
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<tbody>
<tr>
<td>Engrossed in a game</td>
<td>You tend to forget about your daily life, responsibilities, work, and school, and focus solely on the game world. This temporary escape can have both positive and negative implications. For instance, if you have pending assignments and you choose to play games instead, it may result in incomplete tasks.</td>
<td>(S7)</td>
</tr>
<tr>
<td>Not everyone likes playing games</td>
<td>Not everyone has the same level of interest or enjoyment in COTS gameplay.</td>
<td></td>
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<tr>
<td>Games provide reinforcement for English learned at school</td>
<td>Playing games helps to reinforce the English language skills acquired in Prep classes.</td>
<td>(S1)</td>
</tr>
<tr>
<td>Games provide opportunities for speaking practice</td>
<td>Games offer valuable opportunities for improving speaking skills through interactions with new people and foreigners, fostering communication practice.</td>
<td>(S1)</td>
</tr>
<tr>
<td>Gaming terms and in-game interactions enable vocabulary expansion</td>
<td>In-game terminology and interactions contribute to the expansion of vocabulary, predominantly focusing on English language learning through exposure.</td>
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</table>

Not all games are developed in Turkey, and I rarely play Turkish-made games. Since most games are internationally based, the in-game terms are in English. Because of that, these terms are in English, and the complementary phrases or expressions are also in English. So, even if it's not the best in terms of grammar, English is learned primarily based on vocabulary. (S9)
## The Codebook of Focus Group Interviews

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<tbody>
<tr>
<td>Narrative of the game can be used in reading assignments</td>
<td>Game narratives can be effectively integrated into reading assignments to enhance student engagement and participation, bridging the gap between formal education and students' personal interests.</td>
<td>For example, let's say there are many reading activities and texts in an English textbook. If I take a story of any champion from the LoL universe and include it in the book, when I come across that activity, as a LoL player, I can say, &quot;Hey, this is from the game I play, I know this story,&quot; and it can increase my excitement and participation in the lesson. (S2)</td>
</tr>
<tr>
<td>Equal position of students in using language while playing games increases participation</td>
<td>Equal position in games eliminates fear of judgment and increases student participation regardless of language proficiency.</td>
<td>Students have a bias, and I think we need to break that, apart from the game. You know how they think things like making a mistake in class and fearing the teacher's reprimand or being laughed at by classmates… But in games, as you said, this doesn't exist. Everyone is in the same position, they get upset not because you spoke incorrectly, but because you played poorly, that's the problem there. So, if I played poorly, it's fine, maybe I wasn't in my best day, it happens, but in terms of language, it doesn't matter if I had a bad day or couldn't speak, it isn't a problem in the game. (T2)</td>
</tr>
<tr>
<td>Gameplay leads to embracing English language beyond the classroom</td>
<td>Games foster the understanding of English as a means of communication beyond academic settings.</td>
<td>Absolutely, there's also the issue of speaking English in the classroom, encouraging students to speak English. Everyone knows Turkish, so why should I speak English? Why do I need English for communication? Students often struggle to see the purpose of English in communication. However, in games, as you rightly mentioned, they learn the purpose of English, the purpose of language learning. It becomes a means of communication, whether it's related to in-game text, a character giving me commands, or playing with</td>
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162

| **Obligation to learn and react in English more quickly in games compared to formal learning settings triggers spoken production** | In COTS games, the obligation to learn and react quickly in English, coupled with the potential for criticism and pressure, pushes individuals to perform and communicate in English effectively. | S3: Well, you use it in some way or another. People often mix in English words while speaking because they commonly use Turkish-English. And in games, for example, you have to learn, otherwise you'll get criticized if you speak incorrectly. T2: So, you're conditioned in a way, right? S3: Yes, exactly. T1: So when we say you should study and learn the lesson, you don't listen to us, but you listen to some random guy. S3: Well, you need to be pushed into a corner. When you're cornered, you speak beautifully. When I'm cornered in a game, I can even speak French. |
| **Competition in games increases motivation and informal language learning** | The necessity of English proficiency for success within the competitive gaming environment drives incidental language learning. | Competition is also one of the factors that increases motivation the most. It's what we call incidental learning. Yes, the student's goal is actually to play the game, they don't really care about learning English there, but while playing the game, they need English to win without even realizing it, so they learn there. Competition provides that. (T1) |
| **Continuous self-assessment on language proficiency through gameplay encourages learning** | The rapid self-feedback that COTS games offer encourages learners to assess their language skills continuously and provides a motivating factor for actively improving their English abilities within the game environment. | I'll add something to this as well. Do you know what causes the difference in efforts to speak English between the game and the classroom? In the classroom, the result of having better English comes after 8 weeks, a month, or a semester in an exam. But in the game, achieving better English happens within half an hour. Because if they can't understand the task, they can't do it. If they can't |
| **Difficulty in understanding game quests in English leads to play in Turkish** | Difficulty in comprehending game quests in English results in gameplay conducted in Turkish for better understanding and progression. | T2: So do you prefer playing them in Turkish or in English? Is there such an alternative, does the game offer a Turkish option? S1: It offers it to me, apart from that when I'm going to play the story, I play it in English, but when, let's say, a quest or something comes up, I do it in Turkish. Because sometimes I really can't understand what they want. Because they use a very complex English, to be honest. When I can't understand, I translate it into Turkish and say, "Okay, this is what they want, I need this or I have to go there, I need to talk to this person," I say that then. Because sometimes it's really not understandable. |
| **Accessibility and socioeconomic factors** | Concerns about accessibility and socioeconomic factors related to expensive equipment for playing games. | What will you do if someone says, ‘Hocam, my computer can't handle it, I can't play this game’? Will I tell them to go and buy a good system for 30,000 liras? (S3) |
H. THEMES, SUB-THEMES AND CODES

Theme 1: Bridging Informal Language Learning from COTS to Formal Classroom

Sub-theme 1.1: Using COTS as Extracurricular and Supplementary Activities
Teacher interview codes:
1.1.1: Out-of-class activities like “game nights” or “game clubs”
1.1.2: Playing the first parts of the game in class as an example and assigning the rest as homework
1.1.3: Use of games for extracurricular activities

Sub-theme 1.2: Expanding Language Learning in Classroom Through Out-of-Class Game-Related Content

Teacher interview codes:
1.2.1: Using example sentences from games
1.2.2: Presentation of examples from games via multimedia resources (e.g. YouTube videos)
1.2.3: Linking abstract concepts to their practical applications in real-world scenarios

Student interview codes:
1.2.4: Using example sentences or words from games
1.2.5: Vocabulary learned from the game used in writing assignments
1.2.6: Presentation of examples from games via multimedia resources (e.g. YouTube videos)

Sub-theme 1.3: Integration of Game Narrative and Storyline
Teacher interview codes:
1.3.1: Integration of game narrative into reading and writing assignments
1.3.2: Utilization of game’s storyline for developing productive skills
1.3.3: Classroom activities such as essay/report writing, classroom discussions, presentations, role-playing, storytelling, and group quests

Focus group interview codes:
1.3.8: Narrative of the game can be used in reading assignments
1.3.9: Integrating some parts of the game, not the whole

Sub-theme 1.4: Language Learning from Informal COTS Game Play Experience as a Motivational Force for Formal Language Learning Classrooms
Teacher interview codes:
1.4.1: Learners seek to enhance their language skills to interact effectively with peers in COTS games
1.4.2: Immersive and authentic context that increases intrinsic motivation that could sustain students engagement in formal language learning classroom
1.4.3: The necessity to know English to understand and complete quests in games increases motivation to learn
1.4.4: Competition with peers increases motivation
1.4.5: Providing reinforcement through practical application of the language
1.4.6: Gameplay leads to embracing English language beyond the classroom
Focus group interview codes:

1.4.7: Equal position of students in using language while playing games increases participation
1.4.8: Various game contents increase curiosity about other disciplines as well
1.4.9: Gameplay leads to embracing English language beyond the classroom
1.4.10: Competition in games increases motivation and informal language learning
1.4.11: Narratives of games attract attention and increases participation
1.4.12: Students are willing to participate in gaming events unlike in-class activities that are not related to games
1.4.13: Continuous self-assessment on language proficiency through gameplay encourages learning
1.4.14: Obligation to learn and react in English more quickly in games compared to formal learning settings triggers spoken production

Theme 2: Challenges and Limitations

Sub-theme 2.1: Language Learning Challenges in COTS

Teacher interview codes:

2.1.1: Rarity of language input in some games
2.1.2: Potential for false learning
2.1.3: Discrepancy between game language and standard language

Student interview codes:

2.1.4: Spoken production is limited to game content
2.1.5: Games have no impact on grammar improvement

Focus group interview codes:

2.1.6: Spoken production is limited to game content
2.1.7: Difficulty in understanding game quests in English leads to playing in Turkish
2.1.8: Students’ purpose being advancing in gameplay rather than comprehending the language used in the game
2.1.9: Availability to play games in Turkish
2.1.10: Ease of translating unknown English words and expressions to Turkish to complete quests

Sub-theme 2.2: Challenges and Barriers of Integration

Teacher interview codes:

2.2.1: Lack of awareness and understanding about the potential of COTS games
2.2.2: Generation gap among teachers and students
2.2.3: Time and effort required for curriculum and lesson planning
2.2.4: Lack of information and experience about COTS games among teachers
2.2.5: Tendency to stick to familiar curriculum and routine
2.2.6: Misconceptions and stereotypes on COTS gameplay
2.2.7: The need for understanding and support from higher-level administrators
2.2.8: Using games without interfering with the entertainment nature
2.2.9: Teachers’ obligation to follow the given programme
Student interview codes:
2.2.10: Expensive equipment and infrastructure is needed for playing COTS games

Focus group interview codes:
2.2.11: Accessibility and socioeconomic factors
2.2.12: Limited understanding and utilization of games by educators
2.2.13: The need to challenge misconceptions and stereotypes
2.2.14: The need for understanding and support from higher-level administrators
2.2.15: Resistance to the idea of playing games as a valuable activity

Sub-theme 2.3: Negative Impacts and Concerns

Teacher interview codes:
2.3.1: Negative effects on physical and mental health
2.3.2: Addictive nature of the games
2.3.3: Risk of disengagement for non-interested students
2.3.4: Perceived isolation from the real world
2.3.5: Students’ tendency to play in Turkish if it is available

Student interview codes:
2.3.6: Games are addictive
2.3.7: Games isolate people from the real world
2.3.8: Not everyone likes playing games

Focus group interview codes:
2.3.9: Difficult to select appropriate games for educational purposes due to the wide variety of game genres and mechanics
2.3.10: The need to make compromises to cater to diverse learner preferences and interests
2.3.11: Feasibility and engagement issues of implementing informal language learning activities through either old or new games in formal education
2.3.12: Difficult to find a game that suits the skills and abilities of all students
2.3.13: Distraction caused by the pressure of competition
2.3.14: Students may focus on winning rather than learning
2.3.15: Risk of disengagement for non-interested students
2.3.16: Using a game in which some students have a significant advantage can create a discrepancy among students

Theme 3: Potentials of Integrating COTS Game Play to Formal Learning

Sub-theme 3.1: Language Learning Opportunities and Engagement in Gaming

Teacher interview codes:
3.1.1: Exposure to daily use of the language
3.1.2: Opportunities for spoken and written production
3.1.3: Engagement with in-game messages/chat
3.1.4: Enhanced immersion and sustained engagement compared to formal learning settings
3.1.5: Role-playing games encourage speaking in English by creating anonymity
3.1.6: Making students active participants in the learning process
3.1.7: Relevance and authenticity input in the target language
3.1.8: Easing language learning process with visual clues
3.1.9: The reality that COTS games offer leads to incidental learning
3.1.10: Vocabulary expansion
3.1.11: Incidental learning of phrasal verbs
3.1.12: Providing cultural context about various countries
3.1.13: Offering natural language acquisition through exposition
3.1.14: Long-term effectiveness of COTS games compared to short-term effectiveness of educational games
3.1.15: Helping meaning construction and comprehension
3.1.16: Enhancing comprehension and learning capacity

**Student interview codes:**
3.1.17: Games provide reinforcement for English learned at school
3.1.18: Games provide opportunities for speaking practice
3.1.19: Gaming terms and in-game interactions enables vocabulary expansion
3.1.20: Games present daily language and slang expressions that are not taught at school
3.1.21: Role-playing in narrative-based games provides active learning
3.1.22: Code-switching occurs between L1 and L2 while playing the game
3.1.23: Games allow for exposure to different accents of English
3.1.24: Games allow for incidental learning of grammar rules
3.1.25: Games increase confidence and reduce hesitation to speak in English

**Focus group interview codes:**
3.1.26: Offering daily communication and discussions in English
3.1.27: Providing opportunities for speaking practice
3.1.28: Incidental learning of informal use of the language
3.1.29: Exposure to language
3.1.30: Both conscious and unconscious language learning
3.1.31: Language development and skill enhancement through challenging situations and communication under pressure in games
3.1.32: Contribution to interlanguage development
3.1.33: Improving language subskills
3.1.34: Demonstrating real-life language use
3.1.35: Learners can see the differences in language use between informal and formal settings
3.1.36: Contribution to English for special purposes
3.1.37: Variety of game genres and their sustainability for different skills
3.1.38: Authentic learning experiences in language acquisition
3.1.39: Understanding the practical aspect of the language
3.1.40: Awareness of English as a means of communication
3.1.41: Recognizing the purpose of learning English
3.1.42: Vocabulary expansion
3.1.43: Teaching semantics and semiotics through games
3.1.44: Creating meaning in communication

**Sub-theme 3.2: Enhanced Language Skills and Cognitive Development**
Teacher interview codes:

3.2.1: Enhanced language skills through interaction and communication in multiplayer online games
3.2.2: Development of language and cognitive skills through gameplay
3.2.3: Adressing all language skills, unlike educational games that focus on a single subject or skill
3.2.4: Impact on character development

Student interview codes:

3.2.5: Games improve cognitive skills like problem solving, strategic thinking, decision making and critical thinking

Focus group interview codes:

3.2.6: Improving hand-eye coordination
3.2.7: Socialization opportunities
3.2.8: Answering the human need of gameplay

Sub-theme 3.3: Increased Motivation for Language Learning

Teacher interview codes:

3.3.1: Increased desire to learn due to the imaginative features of COTS games
3.3.2: Making students ready to learn
3.3.3: Increasing the sense of curiosity which is crucial for learning
3.3.4: Being mentally relaxing and calming
3.3.5: Gaming process is similar to learning process
3.3.6: Impact on career choice
3.3.7: Authenticity and fun factor of COTS games compared to the perceived boredom and repetitiveness of educational games
3.3.8: Providing instant gratification

Student interview codes:

3.3.9: Narrative of the game attracts attention
3.3.10: Narrative of the game increases participation
3.3.11: Games create a desire to learn on students
3.3.12: Games increase motivation by creating an ambition to learn

Focus group interview codes:

3.3.13: Reducing anxiety and increasing confidence to speak in English
3.3.14: Increasing self-motivation and curiosity to learn
3.3.15: The anonymity provided by the internet leads to comfort on students
3.3.16: Stress relief feature of COTS games
3.3.17: Providing instant gratification
3.3.18: Empowering students through self-directed learning
3.3.19: Students realize their own personalized learning methods through gameplay
3.3.20: Students recognize their deficiencies in the target language through informal learning experiences in gameplay
3.3.21: Narrative-based games evoke emotional engagement and empathy

Theme 4: Integration of COTS Games into Formal Language Learning Settings

Sub-theme 4.1: Preparation for the Integration
Teacher interview codes:
4.1.1: Collaboration between curriculum designers and teachers
4.1.2: Conducting a needs analysis before integration
4.1.3: Adoption of a structuralist pedagogical approach
4.1.4: Conducting a pilot study to test the integration

Focus group interview codes:
4.1.5: A whole new approach is necessary for the integration
4.1.6: Alternative approaches should be explored to integrate informal learning experiences into formal education
4.1.7: Dedicating sufficient time and effort to fully harness the potential of game-based learning

Sub-theme 4.2: Teacher Training and Support
Teacher interview codes:
4.2.1: Vocational training for teachers
4.2.2: Teacher participation in gameplay to increase motivation and decrease affective filters
4.2.3: Teacher as facilitator, providing guidance for students
4.2.4: Teacher should be experienced and knowledgeable about COTS games

Focus group interview codes:
4.2.5: Teacher intervention and guidance to direct games towards language learning objectives
4.2.6: Teachers should be experienced and knowledgeable in gameplay

Sub-theme 4.3: Strategies for the Integration
Teacher interview codes:
4.3.1: Utilization of interactive games
4.3.2: Incorporation of games in online lessons
4.3.3: Use of narrative-based games as authentic materials
4.3.4: Preference for peer-work or group-work activities to increase student-student interaction
4.3.5: Introduction of the game to students before use
4.3.6: Inclusion of scoring or assessment to ensure student participation
4.3.7: Interdisciplinary use of COTS games across multiple subjects
4.3.8: Combining game objectives and language learning objectives

Student interview codes:
4.3.9: The stories of narrative-based games can be integrated
4.3.10: Narrative of the game used in writing assignment
4.3.11: Narrative of the game used in reading assignment
4.3.12: Narrative of the game used for interdisciplinary teaching and learning

Focus group interview codes:
4.3.13: Using games as authentic materials
4.3.14: Balancing game-based learning and traditional teaching methods
4.3.15: Teachers should provide meaningful incentives or rewards to motivate students without creating negative associations
4.3.16: Teachers should promote student agency and personalization in the learning process by allowing flexible grouping and project selection
4.3.17: Curating and tailoring game experiences to match learning objectives
4.3.18: Game-related activities and assignments in class should be cooperative rather than individual
4.3.19: Integrating informal language learning activities into formal education
4.3.20: Assigning gameplay as performative project assignments

**Theme 5: Game Selection and Adaptation**

**Teacher interview codes:**

5.1: Game selection according to the language proficiency level of the students
5.2: Choosing games that align with the subject matter, lesson objectives, and specific skills to be targeted
5.3: Taking into account the age restrictions and appropriateness of games when selecting them for the classroom
5.4: Selecting games with enriched plots
5.5: Game selection according to the student learner profile, needs and interests
5.6: Choosing games that provide rewards, goals, or outcomes to motivate and engage students
5.7: Ensuring that the chosen game includes everyone in the classroom
5.8: Using role-playing games that offer alternative choices to provide personalized content

**Student interview codes:**

5.9: The chosen game should be easy to play
5.10: The chosen game should address everyone in the class
5.11: Games that require playing everyday can be difficult to integrate
5.12: Games with ranking features can be used

**Focus group interview codes:**

5.13: Flexibility in selecting games based on learning goals
5.14: Selected game should be easy to play and understand
5.15: Students should focus on the task in the game rather than learning how to play the game
5.16: Considering students’ interests and preferences while selecting the game

**Theme 6: Challenges and Limitations of Integration**

**Teacher interview codes:**

6.1: Not applicable / difficult to adapt for classroom use
6.2: Too much class size
6.3: Resistance from teachers and other decision-makers
6.4: Time-consuming nature and time management difficulties
6.5: Need for a significant investment
6.6: Increased responsibility and workload for teachers
6.7: Difficult to integrate with the existing technological infrastructure
6.8: Common game accounts can be used to reduce cost
6.9: Necessary physical and technological conditions should be provided
6.10: Computer labs should allow for COTS gameplay to provide access to games for all students
6.11: Cheap or free online games should be selected to reduce economical disadvantages

**Student interview codes:**
6.12: Not applicable to classroom
6.13: Preference to play outside of the classroom with friends
6.14: Narrative-based games are more applicable in terms of technological requirements and needs

**Focus group interview codes:**
6.15: Resistance to integration from students, teachers, and other decision-makers
6.16: Difficulty in adapting games for classroom
6.17: Time limitations
6.18: Difficult to select appropriate games for educational purposes due to the wide variety of game genres and mechanics
6.19: The need for understanding and support from higher-level administrators
6.20: Financial and technological needs
6.21: Interactive nature of the games makes controlling difficult
6.22: Using a game in which some students have a significant advantage can create a discrepancy among students
6.23: Need for a dedicated and comprehensive curriculum
I. APPROVAL OF THE METU HUMAN SUBJECTS ETHICS COMMITTEE

28 ŞUBAT 2023

Konu: Değerlendirme Sonucu
Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (IAEK)
İlgili: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Dr. Öğr. Üyesi Nur AKKUŞ ÇAKIR

Döşmanlığınız yürütüldüğünden Ece KOÇAK’ın “EFL Students’ Language Learning Experiences in COTS Environment (EFL Öğrencilerinin Dijital COTS Oyun Ortamında Dil Öğrenme Deneyimleri)” başlıklı araştırmanız İnsan Araştırmaları Etik Kurulu tarafından uygunsuz görülen 0118-ODTÜAFF-2023 protokol numarası ile onaylanmıştır.

Bilgilerinize saygıyla sunarız.

Prof. Dr. Şıbel KAZAK BERUMENT
Başkan

Prof. Dr. İsmet AKÇOMAK
Üye

Doç. Dr. Ali Emre Turgut
Üye

Dr. Öğretim Üyesi Şerife SEVİNÇ
Üye

Dr. Öğretim Üyesi Murat Perit ÇAKIR
Üye

Dr. Öğretim Üyesi S.Howay ÖZCAN KABASAKAL
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Dr. Öğretim Üyesi Müge GÜNDÜZ
Üye
ORTA DOĞU TEKNIK ÜNİVERSİTESİ REKTÖRLÜĞÜNE
(Öğrenci İşleri Daire Başkanlığı)

İlgili : 30.03.2023 tarihli ve 367 sayılı yazı.

İlgili yazının doğrultusunda, Üniversitemiz Eğitim Bilimleri Anabilim Dalı Eğitim Programı ve Öğretim üyesi lisans programı öğrencisi Ece KOÇAK'ın 10 Nisan 2023 - 30 Mayıs 2023 tarihleri arasında Dr.Öğr. Üyesi Nur AKKUŞ ÇAKIR'un dansımlarında yürütüleceği obra “EFL Students' Language Learning Experiences in COTS Environment (EFL Öğrencilerinin Digital COTS Oyun Ortamında Dil Öğrenme Deneyimleri)” başlıklı tez çalışması. Üniversitemiz Yabancı Diller Yüksekokulu Hazırlık Programı öğrencilerine anket yolu ile veri toplaması için görevlendirilmesi Rektörülüğümüzce uygun bulunmuştur.

Bilgilerinizi ve gereğini sayılarınızı arzıca ederim.

Prof.Dr. Volkan ONGEL
Vekil Rektör
Giriş


Okul dışı bağlamlarda COTS oyunlarının önünüşü üzerine yapılan birçok araştırma, oyunların sunduğu birçok özelliğinin öğrencilerin İngilizce öğreniminde önemli ölçüde katkısı olduğunu göstermektedir. Bu nedenle, birçok dil öğretmeni, öğrencilerin okul dışı ortamlarda oynadığı oyunları sınıfe dahil etmeye başlamıştır, ve COTS oyunlarının yabancı dil öğretimine etkisi günümüzde eğitim alanında yapılan çalışmalarla popüler bir konudur (Chen & Yang, 2013; Li vd., 2021; Ranalli, 2008). Ancak, bu konuda çok sayıda araştırma yapılmış olması rağmen, birçok araştırmacıya göre öğrencilerin informel ortamlarda oyun yoluyla dil öğrenme deneyimlerine ilişkin kapsamlı ve sistematik bir açıklama ve araştırma eksigi bulunmakta (Li vd., 2022; Özugür & Caner, 2022; Sundqvist, 2019) ve bu alanda farklı örneklemeler ve bakış açılarıyla çalışmaları yürütülmesinde yarar olduğu belirtilmektedir (Can & Türkmen, 2007). Ayrıca, öğrencilerin okul dışında öğren diklerinin okulda öğren diklerini şekillendirmeye yardımcı olabileceği fikri, informel ortamlarda edinilen öğrenme deneyimlerinin formal öğrenme ortamlarına en iyi nasıl aktarılabileceği ve formel ve informel öğrenmenin nasıl etkili bir şekilde birbirine bağlanabileceği sorularını ortaya çıkarmaktadır, ancak bu konuda yeterli bilgi ve araştırma henüz bulunmamaktadır (Lai vd., 2013; Li vd., 2021; Voogt et al., 2018). Kapsamlı bir literatür taramasının ardından, COTS oyunlarının oynamasıyla...
ilgili çalışmaların çoğunu yalnızca öğrencilerin algılarını incelediği ve öğretmenlerin algılarını da içeren çalışmaların çoğunlukla anket yoluyla veri toplayarak nicel yöntemler kullanıldığı görülmüştür, bu da öğretmenlerin algılarını kapsamlı bir şekilde yansıtabilmektedir. Tüm bunlar göz önüne alındığında, bu çalışma, okul dışı ortamlarda oynanan COTS oyunlarının formel eğitimde İngilizce dil öğrenimine nasıl katkı sağlayabileceğini öğretmen ve öğrenci perspektifleriyle tartışmayı, bu deneyimlerin etkili bir şekilde formel eğitime nasıl dahil edilebileceğini ve COTS oyunlarının yabancı dil müfredatına nasıl entegre edilebileceğini araştırmayı amaçlamaktadır. Bu çalışmada özellikle aşağıdaki sorulara yanıt aranmaktadır:

1) COTS oyunları aracılığıyla elde edilen informal dil öğrenme deneyimleri, formel dil öğrenme sürecine etkili bir şekilde nasıl entegre edilebilir, böylece formel ve informal dil öğrenme bağlamları arasında nasıl bir köprü oluşturulabilir?
   a) Öğretmenlerin formel ve informal dil öğrenme bağlamları arasında COTS oyunları kullanarak etkili bir şekilde köprü kurmaları için potansiyel uygulamalar nelerdir?
   b) Eğitimciler, COTS oyunları aracılığıyla elde edilen informal dil öğrenme deneyimlerini yabancı dil müfredatına dahil ederken hangi zorluklarla karşılaşabilirler ve bu zorlukların üstesinden gelmek için öneriler neler olabilir?

2) COTS oyunlarının yabancı dil müfredatına dahil edilmesinde öğretmen ve öğrenci görüşleri nelerdir?
   a) Öğretmenlerin COTS oyunlarını yabancı dil müfredatına etkili bir şekilde dahil etmeleri için potansiyel uygulamalar nelerdir?
   b) Eğitimciler, COTS oyunlarını yabancı dil müfredatına dahil ederken hangi zorluklarla karşılaşıabilirler ve bu zorlukların üstesinden gelmek için öneriler neler olabilir?

Literatür incelediğinde, birçok araştırmacının dijital oyunların öğrenme için potansiyelini hem DGBLL hem de DGELL perspektiflerinden keşfetmeye odaklandığı görülmüştür (Özgür & Caner, 2022). Dil öğrenme için oyunlar üzerine yapılan önceki araştırmalar ayrıca DGBLL ve DGELL’in sık sık birbirleriyle karşılaştığını ve eşanlamlı olarak kullanıldığını, ancak aslında iki ayrı yaklaşım

COTS oyunlarının yabancı dil öğrenme için kullanılmasına ilişkin yapılan çalışmalar, COTS oyunlarıyla kazanılan informel dil öğrenme deneyimlerinin öneminde ve bu deneyimlerin etkili bir şekilde formel ortamlara nasıl aktarılacağına odaklanmaktadır (Lai vd., 2013). Ayrıca, informel oyun oynaması yoluya geliştirilen beceri ve uygulamaların, akademik hedefleri desteklemek için resmi sınıf ortamlarında kullanlabilmeceğini belirtilmektedir (Reinhardt, 2018; Voogt vd., 2018). Literatürde göre, COTS oyun deneyimlerinin formel dil öğrenme ortamlarında kullanılması için bazı stratejiler bulunmaktadır. Örneğin, COTS oyunlarının içeriği; edebi kaynaklar olarak kullanılabilecek üzere oyun hikayeleri (Becker, 2017); dil kullanımını kavramsallaştırmak için ve oyun deneyimlerinin anlatılmasına teşvik eden etkinlikler gerçekleştirecek (Reinhardt, 2018) ve COTS deneyimleri sonucu artan dil öğrenme motivasyonun sınıf ortamasına aktarılması yoluyla (Richtoff ve Persson, 2022) formel dil öğrenme ortamlarında kullanılabilir. Bu çalışmada, öğrencilerin formel ve informel dil öğrenmesini birleştirmeye yönelik içgörü sağlamak amacıyla yabancı dil öğrenmenlerinin ve öğrencilerinin COTS oyun oynaması anahtar olana ve bu oyun oynamının informel dil öğrenme deneyimlerini formel dil öğrenme ortamlarına entegre etme stratejilerine yönelik algıları incelenmiştir.
Yöntem


Çalışmanın verileri, öğrencinin ve öğretmenlerle ayrı ayrı yapılan yarı yapılandırılmış görüşmeler ve gönüllü üç öğretmen ve üç öğrenci ile birlikte yapılan odak grup görüşmesi yoluya toplanmıştır. Odak grup görüşmesi ile birden fazla baksış açısı ve
deneyimle daha zengin ve çeşitli veri elde edilmesi hedeflenmiştir. Görüşme soruları, kapsamlı bir literatür taraması sonrasında araştırmacı tarafından geliştirilmiştir. Görüşmelerin geçerliliği için dört fakülte üyesinden uzman görüşü alınmış ve geri bildirimler doğrultusunda sorular yeniden düzenlenmiştir.

Öğrencilerle yapılan bireysel görüşmeler, oyun sırasında geçen informal dil öğrenim sürecini daha iyi anlamak için uyarılmış hatırlatma görüşmesi metoduyla desteklenmiştir. Uyarılmış hatırlatma, katılımcıları, bir olay sırasında eş zamanlı düşüncelerini bir video sekansı veya başka bir görsel hatırlama biçimini kullanılarak hatırlamaya davet eden ve böylece bilişsel süreçlerin araştırılmasına izin veren araştırma yöntemidir (Fox-Turnbull, 2009). Katımcıların anketler sırasında kullanılmak amacıyla COTS oyunlarının oynarken ekranlarını video kaydı ve ekran görüntüsü alınmış ve öğrencilerle bireysel görüşmelerinden 1-1.5 hafta sonra bu görüntüler kullanılarak bir uyarılmış hatırlatma görüşmesi yapılmıştır. Katımcıların onayıyla tüm görüşmeler, daha sonra transkrip edilerek üzere ses kaydedici cihazlarla kaydedilmiştir.


Araştırmadan önce ve araştırma sırasında bazı etik düşünceler göz önünde bulundurulmuştur. İlk olarak, çalışma için Orta Doğu Teknik Üniversitesi İnsan Araştırmaları Etik Kurulu'nun, daha sonra çalışmanın yürütüleceği İstanbul Beykent Üniversitesi'nden izin alınmıştır. Katımcılar, görüşmeeye başlamadan önce sözli


**Bulgular**

Mevcut çalışmanın sonuçları, öğretmen, öğrenci ve odak grup görüşmeleri üzerinde yapılan dönüşlü tematik analizin ardından, hedef dilde COTS oyun oynamanın öğrencilerin informel dil öğrenim deneyimlerinde önemli bir rolü olduğunu göstermiştir. Veriler, dil öğretmenleri ve öğrencilerinin bu informel dil öğrenim deneyimlerini formel dil öğrenme ortamlarına entegre etmeyi bir ihtiyaç olarak
algıladıklarını ortaya koymuştur; ancak, bunu uygulamak konusunda birkaç endişeleri bulunmaktadır. Görüşmelerde, öğretmen ve öğrenci katılımcılar, COTS oyunları aracılığıyla kazanılan informel dil öğrenim deneyimlerini formel dil öğrenme sürecine entegre etmek ve COTS oyunlarını yabancı dil müfredatına dahil etmek için çeşitli alternatif yaklaşımlar sunmuşlardır.

İlk olarak, COTS oyunlarından edinilen informel dil öğrenimini formel sınıf ortam ile birleştirmek için en sık dile getirilen stratejiler, COTS'u ders dışı ve destekleyici etkinlikler olarak kullanmak, oyunlarla ilişkili içerik aracılığıyla sınıf içinde dil öğrenimini genişletmek, oyun hikayesi ve kurgusunu entegre etmek ve informel COTS oyun oynama deneyiminden elde edilen dil öğrenimini formel dil öğrenme süreçlerinde motivasyon kaynağı olarak kullanmaktı. Katılımcılar, COTS oyunlarının ilgi çekici ve motive edici yönlerinin, öğrencilerin sınıf ortamında dil becerilerini, katılım ve motivasyonlarını artırmak için kullanılabileceğini, öğrencilerin formel ve informel öğrenmeleri arasında bir köprü kurabilmek için COTS oyunlarının analizleri ve hikayelerinin özellikle okuma ve yazma etkinlikleri için dil müfredatına entegre edilebileceğini, ilgili öğrenciler için oyun küüpleri kurulabileceği, oyunlarla ilgili projeler ve ödevler verilebileceğini, ve informel COTS oyun oynama deneyiminden kaynaklanan artan dil öğrenme motivasyonunun, formal dil öğretiminde bir motivasyon kaynağı olarak kullanılabilirceğini belirttiler.

Öğretmen ve öğrenci katılımcılar, informel dil öğrenme deneyimlerini formel dil ortamlaryla birleştirme konusunda endişelerini de paylaştılar. COTS ortamında dil öğrenme zorluklarını, bazı COTS oyunlarında dil girdisinin az olabileceğini ve yanlış dil öğrenmeye sebep olabileceğini açıkladılar. Entegrasyonun zorlukları ve engellerini, müfredat ve ders planlaması için çok fazla zaman ve emek gerektiğini ve COTS oyunları oynama konusundaki önyargı ve yanlış anlamalardan kaynaklanabileceğiz zorlukları belirttiler. Son olarak COTS oyunlarının olumsuz etkileri ve engelleri, bundan kaynaklanan endişelerini, örneğin COTS oyunlarının bağımlılık yapıcı olduğu ve COTS oyunları oynamaya ilgi duymayan öğrencileri bu entegrasyon sonucu kaybetme riskini açıkladılar.

İkinci araştırma sorusuyla ilgili olarak veriler, COTS oyunlarının yabancı dil müfredatına entegre edilmesine ilişkin öğrenci ve öğretmenlerin algılarını ortaya çıkarmıştır. Görüşme analizleri, COTS oyunları oynamanın formel öğrenime
entegrasyonu için dil öğrenme fırsatları ve katılımı artırmak, dil becerilerinin ve bilişsel gelişimin ve dil öğrenmeye yönelik motivasyonun artması gibi birçok potansiyeli işaret etmiştir. Dil öğrencileri ve öğretmenleri ile yapılan görüşmeler, COTS oyunlarının formel dil öğrenme ortamlarına nasıl entegre edilebileceğine dair veriler de sunmuştur. Katılımcılar, entegrasyon için bir hazırlık aşamasının olması gerektiğini ve süreçte öğretmen eğitimi ve desteği önemini vurguladı ve sınıfa COTS oyunlarının entegrasyonu için birçok strateji önerdi. En çok önerilen stratejiler arasında, öğrenci katılımını sağlamak için COTS oyunları ile ilişkili etkinlik ve ödevlerde puanlama veya değerlendirme olması, etkileşimli veya hikaye tabanlı rol yapma oyunlarının kullanılması, İngilizce dışındaki çeşitli derslerde de COTS oyunlarının disiplinlerarası kullanımı, ve öğrenci profiline ve ders hedeflerine uygun ve ilgili oyunların seçilmesi vardır. Ayrıca, hem öğretmen hem de öğrenci katılımcılar, entegrasyonda oyun seçiminin ve oyunları sınıf ortamına uyarlamanın önemini vurguladı ve bu seçim ve uyarlamanın nasıl olması gerektiğini açıkladılar.

Son olarak, görüşme analizleri, öğretmenlerin ve öğrencilerin, COTS oyunlarını yabancı dil müfredatına dahil etme konusunda eğitici olanları karşılaşıabileceği zorluklar hakkındaki endişelerini ortaya koymustur. Öğretmen ve öğrenci katılımcılar, entegrasyonun potansiyel zorluklarını ve sınırlamalarını açıkladı. Bu zorluklardan bazıları, COTS oyunlarının sınıf kullanılmakta zorluk, müfredat ve ders planlaması için gereken zaman ve çabanın fazlalığı ve bunun getirdiği öğretmenler için artan sorumluluk ve iş yükü, ve COTS oyunlarının okul ortamında kullanılması ciddi bir yatırım gerektirmesinden dolayı ortaya çıkan yakıtlık, finansal ve teknolojik sorunlar olarak belirtildi.

Tartışma

COTS oyunlarındaki informal dil öğrenim deneyimleri ile formal dil öğrenimi arasında köprü kurmaya ilişkin bulguların çoğu, literatürde önerilenlerle uyumludur. Öncelikle, bu çalışmanın katılımcıları, COTS oyunlarına ilgili öğrenciler için oyun kulüpleri veya oyun buluşması gibi etkinlikler oluşturarak ve öğrencilere COTS oyunlarıyla ilgili etkinlikler veya ödevler vererek, COTS’u ders dışı ve destekleyici olarak kullanmayı önerdiler. Bu sonuç, COTS’u öğretmen rehberliğinde oynatıp dil öğrenme becerilerini teşvik etmek için kullanmayı (Li vd., 2021), okul sonrası oyun kulübü oluşturmayı (Dubbles, 2009), belirli türdeki COTS oyunları, örneğin tek

181
oyunculu oyunları, kampüs dışı çalışmalarda veya dil merkezlerinde kullanmayı (Dykes, 2021) ve öğrencilere oyunlarla ilgili ödevler ve oyun projeleri vermeyi (deHaan, 2019) öneren diğer çalışmalarla uyumludur.


Görüşme analizleri, informel dil öğrenimi deneyimlerini formel dil sınıflarına ve müfredatına dahil etme çabalarında eğitimcilerin karşılaştıkları potansiyel zorlukları ortaya çıkarmıştır. İlk olarak, katılımcılar bazı COTS oyunlarının sınırlı dil


Bu çalışmanın katılımcıları tarafından vurgulanan bir diğer önemli dil öğrenme fırsatlarından biri, COTS oyunlarının, oyun içi mesajlar aracılığıyla veya oyunların sohbet özellikleri üzerinden diğer oyuncularla etkileşim ve iletişim kurma imkanı sunduğudur. Bu da oyuncuların birbirleriley İngilizce olarak etkileşime geçmesine,

Buna ek olarak, katılımcılar COTS oyunlarının oyuncuların çeşitli karakterlerle, nesnelerle ve ortamlarla etkileşimde bulunduğu canlı ve etkileyici ortamı sayesinde, öğrenciler oyun sırasında farklı kelimelere maruz kalma ve bu kelimeleri öğrenme fırsatı sunduğu, bu yolla öğrenilen kelimelerin öğrenciler için daha kalıcı bir öğrenme olduğunu ifade etmiştir. Benzer şekilde, literatürdeki birçok çalışma, COTS oyunlarının dil öğrenimi üzerindeki en önemli etkilerinden birinin öğrencilerin İngilizce kelime edinimlerinde katkısı ve kelime dağarcığının genişletilmesi olduğunu göstermiştir (Calvo-Ferrer & Belda-Medina, 2021; Çetin vd., 2012; Enayat & Haghighatpasand, 2019; Maior, 2016; Peake & Reynolds, 2020; Rama vd., 2012; Ranalli, 2008; Schlasberg, 2021; Sundqvist, 2019; Yudintseva, 2015).


Bu çalışmada, katılımcıların çoğu, öğrencilerin sınıf içi etkinliklerde katılımlarını sağlayabilme için oyun oynamaya veya diğer oyunla ilgili etkinliklerin sonucunda öğrencilerin not veya puan alması gerektiğini, yani bu etkinliklerin öğrenci katılımını ve ilgisini sağlamak için değerlendirme bir parçası olması gerektiğini ifade edildi. Ancak bu bulğu, Reinhardt (2018)’ın bu konudaki önerileriyle çelişmektedir. Reinhardt (2018) kitabında, öğrencilere oyun içinde bir görevi tamamlamalarını için
bir ödül verilebileceğini, ancak bunun net sisteminin ayrı olması gerektiğini vurgulamıştır. Bunun yerine, öğrencinin performansını destekleyecek, örneğin ana dili kullanma izni, cevap için ipucu verme veya sınavda istedikleri bir sorundan muaf olmak gibi ödüller olabileceğini belirtmiştir.


Bu çalışmanın bulguları, COTS oyunlarının dil öğrenimi için birçok faydali yönü olması başına rağmen, sınıfların adaptasyonu zor olduğunu göstermiştir. Katılımcılar, bu entegrasyonu zorlaştıran temel nedeni COTS oyunlarının eğitim amaçları için tasarlanmamış olması nedeniyle hazırlık bir müfredatın olmaması olarak belirtmiştir. Ayrıca, katılımcılar göre COTS oyunlarının sınıflarca entegre edilmesi maliyetli olacaktı, COTS oyunlarının zaman alıcı olduğu nedeniyle zaman yönetimi sorunları olacak ve idari destek almak zor olacaktır. Bu sonuç, COTS


Öneriler

Bu çalışma, COTS oyunlarının ve bu oyunlar aracılığıyla elde edilen informel dil öğrenim deneyimlerinin nasıl etkili bir şekilde yabancı dil müfredatına ve formel dil öğrenme ortamlarına dahil edilebileceği ve bu bağlamda ilgili konular ve zorlukların neler olabileceği konusunda öğretmen ve öğrenci görüşlerini ortaya koymaktadır. Bu çalışmanın sonuçları aynı zamanda eğitim alanına ve daha ileri araştırmalara yönelik çıkartımlara da yol açmaktadır.

Öğrencilerin COTS oyunları aracılığıyla elde ettiğimiz informel dil öğrenim deneyimleri, formel dil öğreniminde faydalı olabilir ve dil eğitmenlerinin bu deneyimleri derslerine entegre etmesi, daha güncel ve etkili bir öğretim yaklaşımasını sunabilir. COTS oyunlarının müfredata entegre etmesi, eğitim hedeflerini güçlendirebilir.
Formel ve informel dil öğrenimi arasında bir köprü oluşturmak için COTS oyunlarından alınan hikayelerin derslere entegre edilmesi, özellikle okuma ve yazma etkinlikleri ile sınıf içi tartışmalarda faydalı olabilir. Bu nedenle müfredat geliştiricileri, COTS oyunlarında alınan hikayeleri yabancı dil müfredatına entegre etmeyi düşünmek ve bu yönde adımlar atabilirler.

COTS oyunları, formel eğitim ortamlarında sınıf dışı ve destekleyici etkinlikler olarak kullanabilir. İngilizce öğretmenleri ilgili öğrenciler için oyun kulüpleri kurabilir veya oyun entegrasyonu düzenleyebilir.

Öğretmen eğitim programları sunmak, öğretmenlere oyun tabanlı pedagogiler konusunda bilgi ve COTS oyunlarını etkili bir şekilde derslere entegre etmek için gerekli becerileri edinmeyi sağlayabilir. Müfredat geliştiricileri, oyun entegrasyonunu planlamada yardımcı olabilirken, okul yönetimleri öğretmenlerin ve öğrencilerin gerekli teknolojiye erişimini sağlamalıdır. Entegrasyonu kolaylaştırmak için, öğretmenlerin sınırlarında kullanabileceği uygulamalar, müfredat ve ders planları hazırlanabilir ve öğretmenler bunları derslerinde kullanabilir.

Bu çalışmadan belirtilen stratejiler uygulanarak COTS oyunları aracılığıyla elde edilen informel dil öğrenim deneyimlerinin dil sınırları entegre edildiği çalışmalar gerçekleştirilebilir. Bu entegrasyonun ardından, ortaya çıkabilecek zorlukları belirlemek ve bunlarla başa çıkma yollarını araştırmak amacıyla daha ileri araştırmalar yapılabilir. Gelecekteki araştırmalar, COTS oyun deneyimlerini formel dil öğrenim ortamlarına entegre etmek için metodolojileri keşfetmeye ve geliştirmeye devam edebilir, böylece dil eğitimi uygulamaları üzerindeki etkilerini anlamaya alanını genişletebilir.
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