

Gamers' perceptions on vocabulary acquisition via video
games – Escape from Tarkov's effects on learning English

Bachelor's Thesis

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Tiivistelmä – Abstract <p>Videopelien suosio on kasvanut 2000-luvulla, ja sen vuoksi niiden vaikutuksia sekä mahdollista käyttöä kielenoppimisen tukena tutkitaan jatkuvasti. Tässä kandidaatintutkielmassa tarkastellaan Escape from Tarkov-videopelin vaikutuksia pelaajien englannin sanaston oppimiseen. Tutkielmassa pyritään selvittämään erilaisten pelimekaniikkojen vaikutuksia englannin sanaston omaksumiseen sekä sanaston siirrettävyyttä todellisen maailman kielitilanteisiin. Tutkimus perustuu pelaajien havaintoihin ja käsityksiin, eikä siinä mitata varsinaista oppimista.</p> <p>Aineisto kerättiin verkkokyselyllä, joka jaettiin Escape from Tarkov- pelaajien Discord yhteisöissä. Kysely sisälsi suljettuja ja avoimia kysymyksiä, joiden tarkoituksena oli selvittää pelaajien näkemyksiä Escape from Tarkovin vaikutuksista englannin sanaston oppimiseen. Kyselyyn vastasi yhteensä 31 pelaajaa.</p> <p>Tulokset osoittavat, että enemmistö vastanneista pelaajista (83,9%) on huomannut englannin sanaston kasvua pelaamisen seurauksena. Pelin terminologiaa pidettiin merkittävimpana sanaston oppimisen kannalta. Suurin osa pelaajista (77,4%) koki sanaston siirrettävyyden todellisen maailman kielitilanteisiin mahdolliseksi.</p> <p>Tutkimuksen perusteella Escape from Tarkov voi toimia tehokkaana välineenä englannin sanaston oppimisessa. Pelimekaniikat sekä vuorovaikutustilanteet pelin sisällä tarjoavat pelaajille mahdollisuuden oppia ja harjoitella sanastoa monipuolisissa kielenkäyttötilanteissa. Tutkimus tarjoaa arvokasta tietoa pelaajien näkemyksistä videopelien roolista kielenoppimisen tukena ja avaa mahdollisuuksia jatkotutkimukselle aiheeseen liittyen.</p>	
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1. INTRODUCTION

Video games have grown increasingly popular in the 21st century. According to Yanev (2023), over 3 billion people have actively played video games in 2023, and this number will keep growing as gaming has been on an upward curve since 2015 (Yanev, 2023). This phenomenon has been widely acknowledged, and because of this, studying how video games can affect learners' vocabulary acquisition has become a current issue in the search for new and effective teaching methods. As Janebi Enayat and Haghghatpasand (2019) elaborate, video games have become valuable tools for education. Exploring if the vocabulary obtained from video games can be transferred to communicative situations with other people could open new doors regarding teaching methods on discourse. Even though there is previous research about the relationship between video games and language learning, different games contain distinct game features that can have varying contributions to gamers' language learning. This thesis focuses on a game called *Escape from Tarkov*, aiming to examine its possible implications on English vocabulary acquisition.

There are several reasons why the relationship between *Escape from Tarkov* and vocabulary acquisition was chosen as the subject of this thesis. First of all, this thesis distinguishes itself from other studies since no previous research has been conducted on this game. Because of its complex gameplay and mechanics, *Escape from Tarkov* offers an exciting context for doing this thesis. Additionally, as Reinhardt (2019) claims, the specific game mechanics that can enhance vocabulary acquisition are not well known. By examining the contribution of different game features to vocabulary acquisition, this study aims to cover this particular gap in existing literature. Finally, the transferability of vocabulary learned from video games to real-world discourse has not been well-researched previously, even though it is a truly important aspect of language skills. By addressing these gaps in the literature, the present study's aim is to add knowledge to existing research on how video games can affect language learning.

Overall, the goal of this thesis is to analyze gamers' perceptions of how *Escape from Tarkov* affects the acquisition of vocabulary among players who are learning English as a second language. To achieve this, it focuses on the importance of various game mechanics in *Escape from Tarkov*, and how these game features are perceived in contributing to gamers' vocabulary acquisition. Moreover, it compares these game mechanics to each other to learn more about the

connections and impacts they have on language learning. Finally, this thesis aims to examine if the acquired vocabulary from the game can be transferred to real-life language use and social interactions based on gamers' perceptions.

2. BACKGROUND

The theoretical part of this thesis provides a general overview of the relationship between video games and vocabulary acquisition. It explores existing research on the topic as well as highlights some key findings. In addition, the transferability of video game vocabulary to real-world language use is discussed. Finally, it focuses specifically on *Escape from Tarkov*, its mechanics, and their possible effects on English vocabulary acquisition.

2.1 Vocabulary acquisition through video games

Previous research has shown that video games can act as an effective vocabulary learning tool. In their respective studies, Smith et al. (2013) and Rahman and Angraeni (2020) demonstrate that the use of video games can have a positive impact on the acquisition of English vocabulary. One of the benefits of utilizing video games in language learning, according to Oxford and Crookall (1990), is that new vocabulary is associated with meaningful visual images. Numerous parts of the brain are activated when these connections with pictures and verbal elements are made, thereby amplifying cognitive capacity for effective learning (Oxford & Crookall, 1990). This aligns with the discovery of Kim and Gilman (2008), where combining visuals and texts seemed to have a stronger influence on vocabulary acquisition and retention than both approaches individually.

While there is rich and varied vocabulary within video games, the correlation between learning new words and the necessity of comprehending them within the game is notable. A study conducted by Shintaku (2016) revealed that vocabulary acquired in an adventure game was retained better among students when it was essential for progressing in the game. Another study by Cheung and Harrison (1992) came to a similar conclusion when studying Chinese English learners' vocabulary retention. Thus, vocabulary acquisition from video games is not only dependent on the overall quantity of words, but how important they are towards progression in the game. Another feature that arises with the desire to advance within a game is motivation. Ushioda (2016) states that motivation is acknowledged as a crucial factor in achieving success in second language acquisition processes. Motivation may also influence the elements that learners choose to focus on (Ushioda, 2016). In the context of gaming, the immersive nature of video games usually creates motivation as a byproduct, as players aim to advance in a game.

The most fundamental vocabulary must be learned to progress in the game, which can result in motivation towards language learning as well.

Additionally, there appear to be differences in the effectiveness of vocabulary acquisition between varying game genres. According to Gunel and Top (2022), video game genres are sometimes hard to classify since the classification processes and genres evolve over time. Nevertheless, building on Reinhardt's (2019) claims that Massively Multiplayer Online Role-Playing Games (MMORPGs) seem to be the best genre for learning second languages, this study focuses specifically on *Escape from Tarkov* to delve deeper into its effectiveness on gamers' language acquisition. The decision in choosing this particular game is well justified with *Escape from Tarkov* being recognized as an exemplary game within the MMORPG genre. Even though MMORPGs are seen as valuable tools for learning a second language, there is a major gap in the literature regarding the effectiveness of different game mechanics that assist and enhance vocabulary acquisition. As Reinhardt (2019) elaborates, the mechanics of the games that enhance vocabulary acquisition remain unknown. The consensus suggests that video games can be effective for vocabulary acquisition, but to understand what mechanics make other games more suitable for language acquisition than others, more research needs to be conducted. One primary goal of this study is to classify some of the game mechanics instrumental in language acquisition, aiming to acquire a richer understanding of their role and impact.

2.2 The transferability of video game vocabulary to real-world language use

Video games can serve as more than just platforms for learning new vocabulary. Camacho Vásquez and Ovalle (2019) demonstrated that students who played *Scribblenauts* and *Age of Empires II*, not only learned vocabulary through gaming but also proficiently integrated narrative language into their social interactions. It seems that in addition to vocabulary acquisition, some video games can help students gain abilities in real-world language use and communication. Players are not only learning isolated words but also gaining an understanding of how these words fit into coherent and contextually relevant expressions. This integration of narrative language into social interactions indicates that video games can act as valuable tools in transferring vocabulary into real-world language use.

In addition to interpersonal communication, language proficiency strongly relies on the mastery of reading skills. A study by Borgonovi (2016) highlights a convincing connection between video games and their positive effects on learners' reading skills and comprehension. This suggests that the interactive and narrative elements within games can contribute to a deeper understanding of written content. Accordingly, Salgarayeva et al. (2021) describe that teaching reading in Latin via digital games is significantly faster than using traditional methods. Previous research supports the idea that engaging with video games can correlate with enhanced reading proficiency. This presents video games as a potential tool for improving gamers' reading and comprehension skills.

The transferability of video game vocabulary to real-world language use remains somewhat underexplored in existing research. To address this gap, this study aims to examine this relationship between video game vocabulary, and its possible transferability to social interactions in real-world situations.

2.3 Escape from Tarkov's potential for vocabulary learning

Escape from Tarkov is a highly immersive and realistic first-person shooter (FPS) video game. The game was developed by Battlestate Games, and after its release in 2016, it has gained a dedicated following for its intense and unforgiving gameplay set in the fictional Russian city of Tarkov. The game itself is an MMORPG, and it requires players to actively engage with the game environment, which extends to linguistic elements within the game such as dialogue, written text, in-game communication and vocabulary.

As mentioned, MMORPGs are one of the best genres for language acquisition (Reinhardt, 2019, p. 241). However, Reinhardt (2019) elaborates that due to the variety of game mechanics in MMORPGs, isolating the certain types of mechanics that are useful in vocabulary acquisition is difficult and therefore, research in this area is surprisingly scarce. In this study, a distinction between different game mechanics that contribute to vocabulary acquisition is established. To make a clear presentation, the various mechanics of Escape from Tarkov have been divided into three categories: the game's terminology, communication and interactions.

First, the terminology of *Escape from Tarkov* ranges from firearms and equipment to medical supplies and even geography. Because of its wide range, the game introduces players to vocabulary that they might not encounter in conventional teaching. Engaging with a diverse range of weapons, attachments and equipment assists players in understanding vocabulary related to firearms, ammunition and tactical gear. Vocabulary involving medical supplies and treatment must be comprehended to be able to manage the character's injuries. Dealing with aspects such as hunger, thirst and fatigue demands understanding of the vocabulary related to survival and environmental conditions. In addition, the game's complex map and locations expose players to vocabulary related to landmarks and directions.

Second, in group-based gameplay, teamwork and communication is often vital. Discussions with teammates introduce vocabulary related to tactics and strategies as well as in-game locations and surroundings. In addition to vocabulary acquisition, the game environment provides an opportunity for descriptive language use in an informal setting. One of the benefits of this, according to Reinders and Wattana (2015), is that the MMORPG's nature of offering anonymity in communication is efficient in reducing communicative anxiety. Therefore, the communicative aspect of *Escape from Tarkov* is a beneficial tool in transferring vocabulary to everyday language use.

Third, interactions with other players and NPCs (non-player characters), such as traders, introduce players to specific vocabulary related to tasks, conversations and trade-related items. Understanding objectives is necessary for progress, and as mentioned already, it strengthens the retention of crucial vocabulary. As players interact with the game's mechanics, they have the opportunity to expand their vocabulary in a contextually relevant manner.

To summarize, this study addresses the gap highlighted by Reinhardt (2019) concerning the contribution of specific game mechanics in vocabulary acquisition. Focusing on *Escape from Tarkov*, the present study divides the game's mechanics into three categories to clearly present the differences between these mechanics, and their possible roles in vocabulary acquisition. This can provide valuable insights into the possibilities that different game mechanics play in the development of gamers' vocabularies. *Escape from Tarkov* seamlessly integrates language acquisition and the players' overall gaming experience, which can also have a positive impact on the transferability of acquired vocabulary to real-world language use.

3. RESEARCH AIM AND QUESTIONS

This research aims to discover the impact of Escape from Tarkov on vocabulary acquisition among gamers learning English as a second language. In addition, it focuses on the relationship between game mechanics and their contribution to English vocabulary acquisition, as well as on the game features that can positively impact language learning. Finally, it examines the transferability of said vocabulary to real-world language use and communication. It is important to add that this thesis analyzes merely the perceptions of gamers and not their actual measurable learning. To answer these issues, the following research questions were created:

1. How do gamers perceive the impact of Escape from Tarkov on their English vocabulary acquisition?
2. What specific game features and mechanics within Escape from Tarkov can contribute to vocabulary acquisition?
3. How do gamers perceive the transferability of the vocabulary they acquire in Escape from Tarkov to real-world language use and communication?

The research questions were formed to acquire a greater understanding of the topic, and they allowed the study to analyze the influence of Escape from Tarkov on vocabulary acquisition in detail. Since this study relies on the perceptions of the participants, the research questions were formed accordingly. The first research question aims to get an overall view of the impact of Escape from Tarkov on gamers' vocabulary acquisition. The second question delves deeper into the possible game mechanics that can enhance vocabulary acquisition. Furthermore, the game features that can improve the gamers' language learning process are explored. The third question seeks to examine if the vocabulary acquired from the game can be utilized in real-world situations.

4. DATA AND METHODS

This section of the thesis presents how the data for this study was gathered. It clarifies the information of the participants as well as explains why the data collection method was justified. Furthermore, the methods of analysis are discussed.

4.1 The data

To answer the research questions presented earlier, the data for this study was collected via an online questionnaire. According to Denscombe (2014), an online questionnaire is a set of questions that aims to gather information from the participants directly. This questionnaire included both closed and open-ended questions, and it was designed to collect the participants' insights on the impact of *Escape from Tarkov* on their vocabulary acquisition. There was no need to gather private information from the participants to answer the research questions of this thesis. The anonymity of the participants might have ensured a better response rate, and it made the data more convenient to analyze.

The closed-ended questions focused on the participants' gaming experience, which included their hours played in *Escape from Tarkov*. The questions examined if the respondents had noticed an increase in their English vocabulary since playing the game, and whether they had a preferred method of learning within the game environment. The learning methods in question were visual elements and verbal interactions. Additionally, the participants were asked about the contribution of different game mechanics to their language learning, as well as their views on the transferability of acquired vocabulary to real-world language use. These questions provided quantitative insights into the participants' gaming habits and perceptions. As Denscombe (2014) points out, closed-ended questions offer data that is easily quantifiable and can be straightforwardly analyzed. However, they may also constrain participants, preventing them from providing nuanced responses on the subject (Denscombe, 2014). To counter this, the closed-ended questions that revolved around the game mechanics contained an additional slot where participants could write their own answers if needed. The open-ended questions were formed to explore the participants' experiences with *Escape from Tarkov* further and to collect their detailed perceptions of vocabulary acquisition. As noted by Denscombe (2014), open-ended questions offer the benefit of capturing responses that are more likely to cover the

entirety of participants' perspectives. The open-ended questions in this survey explored examples of vocabulary that the participants had learned from the game. Furthermore, examples of vocabulary used in real-world contexts were examined.

4.2 Data collection and participants

The online questionnaire was distributed in various discord channels, including Finnish, German and Russian Escape from Tarkov player communities. This was to ensure effective spreading of the questionnaire among players for whom English is a second language. Distributing the questionnaire within these Discord servers focused on Escape from Tarkov was deliberate, as it provided direct access to communities and players likely to possess valuable insights on the game and its language learning possibilities. The survey collected responses from a total of 31 participants from these Discord communities. Most respondents (48.4%) reported playing Escape from Tarkov for over 1000 hours, which indicated a significant investment of time playing the game. A notable portion (35.5%) reported playing between 100 and 1000 hours, while a smaller percentage (16.1%) reported playing less than 100 hours.

The decision to use a questionnaire as the data collection method was justified for several reasons. According to Denscombe (2014), questionnaires are most effective when they seek relatively simple and uncontroversial information. In this study, an online questionnaire was the most suitable method of gathering the participants' perceptions on quite straightforward issues. Moreover, the use of questionnaires offers scalability, which is an advantage in examining the responses from a large and diverse sample of Escape from Tarkov players. As highlighted by Denscombe (2014, p. 167), questionnaires are most suitable when the goal is to acquire “standardized data from identical questions without requiring personal, face-to-face interaction”. The questionnaire was distributed digitally, allowing the participants to respond at their own convenience and from locations of their choice. This made the study more accessible to participants, which potentially had a positive impact on the response rates compared to more time-consuming methods such as interviews.

4.3 Methods of analysis

The acquired data was analyzed using the mixed methods approach. According to Denscombe (2014), this approach combines the use of qualitative and quantitative data in order to acquire a more complete picture of the findings. In this study, it was used to ensure a comprehensive examination of the participants' responses to the survey. Denscombe (2014) describes quantitative data as being obtained from participants' answers to closed-ended questions and presented as numbers. In the present study, the quantitative data were statistically examined by presenting the responses to closed-ended questions as numerical data. Statistics such as percentages, means and medians were calculated to summarize the participants' responses to the closed-ended questions. These data were then compared to acquire a clear understanding of the relationships between the findings. The qualitative data, on the other hand, was acquired via the open-ended questions. As stated by Denscombe (2014), open-ended questions provide data in the form of words and sentences. In this study, the open-ended questions revolved around the vocabulary that participants felt they had learned from the game. Additionally, the participants were asked to provide examples of words and phrases they had used in real-world contexts. The findings were analyzed to investigate recurring themes and vocabulary among the responses. The use of mixed methods approach as the method of analysis was justified, as it captured experiences and perspectives that may not have been adequately captured through qualitative or quantitative analysis alone.

5. RESULTS

The survey collected responses from a total of 31 participants regarding their experience with Escape from Tarkov and its impact on their English vocabulary acquisition. The participants were asked to provide their opinions on various aspects related to their experiences in the game. The results of the closed-ended and open-ended questions are presented below.

5.1 Closed-ended questions

Regarding the impact on vocabulary acquisition, the majority (83.9%) of participants had noticed an increase in their English vocabulary since playing Escape from Tarkov. 16.1% of participants reported no increase in their vocabulary. These results are demonstrated in Table 1.

Table 1. Answers (n=31) to the question “Have you noticed an increase in your English vocabulary since playing Escape from Tarkov?”

Noticed an increase in vocabulary	Participants	Percentage
Yes	26	83.9%
No	5	16.1%

The participants were also asked to identify specific game mechanics that they believed contributed to their vocabulary acquisition. This question allowed participants to choose multiple options. The mechanics were split into the game’s terminology, communication and interactions. The participants had the chance to add an additional mechanic if they felt something had been left out, but out of the 31 participants, none of them did. As can be seen from Table 2, the most commonly selected mechanic was the game's terminology (96.8%), followed by communication (71.0%) and interactions (48.4%).

Table 2. Answers (n=31) to the question “Which specific mechanics in Escape from Tarkov do you believe have contributed to your vocabulary acquisition?”

Game mechanics contributing to vocabulary acquisition	Participants	Percentage
The game's terminology (Equipment, weapons, maps, healing etc.)	30	96.8%
Communication (Discussions with teammates and other players using voIP)	22	71.0%
Interactions (Tasks from traders, understanding objectives, “the story”)	15	48.4%
Other	0	0%

The participants were further encouraged to identify the game mechanic they believed contributed the most to their vocabulary acquisition. The majority of participants (64.5%) indicated that the game's terminology played the most significant role in their vocabulary acquisition. A smaller percentage of participants credited their vocabulary acquisition primarily to communication (16.1%) or interactions (19.4%). None of the participants selected the "Other" option, which suggested a clear preference for the already specified mechanics in contributing to their vocabulary acquisition. These results are presented in Table 3.

Table 3. Answers (n=31) to the question “Which of these mechanics do you believe has contributed to your vocabulary acquisition the most?”

Mechanic	Participants	Percentage
Terminology	20	64.5%
Communication	5	16.1%
Interactions	6	19.4%
Other	0	0.0%

When asked about their preferred learning method, the participants showed a preference for both visual elements and verbal interactions, with 45.2% selecting both options. However, verbal interactions were just slightly favored (35.5%) over visual elements (19.3%), as can be seen in Table 4.

Table 4. Answers (n=31) to the question “Do you find that you learn better through visual elements in the game (e.g., in-game texts, visuals) or through verbal interactions with other players?”

Preferred learning method	Participants	Percentage
Visual elements	6	19.3%
Verbal interactions	11	35.5%

Both	14	45.2%
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Table 5 presents that most participants (77.4%) expressed their confidence in the transferability of the vocabulary they acquired in Escape from Tarkov to real-world language use. However, a small percentage (12.9%) felt uncertain about the transferability of their vocabulary, while 9.7% reported not having acquired vocabulary from the game at all.

Table 5. Answers (n=31) to the question “Do you feel that the vocabulary you've acquired in Escape from Tarkov is transferable to real-world language use?”

Transferability to real-world language use	Participants	Percentage
Yes	24	77.4%
No	4	12.9%
Not acquired vocabulary	3	9.7%

Finally, the participants were asked to rate the overall impact of Escape from Tarkov on their English vocabulary acquisition on a scale of 1 to 10. Presented by Table 6, the mean rating was 5.8, with a median rating of 6.0. This suggested a moderate to high impact on vocabulary acquisition for most respondents.

Table 6. Answers (n=31) to the question “On a scale of 1 to 10, how would you rate the overall impact of Escape from Tarkov on your English vocabulary acquisition?”

Min value	Max value	Mean	Median
0.0	10.0	5.8	6.0

5.2 Open-ended questions

Among the participants who reported an increase in vocabulary, various words and phrases were mentioned. These words and phrases were divided into the following categories: miscellaneous words, weapons, medical items and communication.

The participants were asked to provide examples of words and/or phrases they believed they had learnt from the game. Up to 11 of the 13 respondents mentioned learning different miscellaneous words connected to different aspects of the game such as military equipment, building-related items and armor. Concrete examples of these words were item names such as *sealing foam*, *power cord*, *wrench* and *phase control relay*. One of the participants also reported having learned vocabulary related to the game’s mechanics, such as *spawns*, *raid* and *loot*. Four of the participants reported having learned vocabulary related to weapons and various gun parts. Likewise, four participants had acquired vocabulary associated with medical items such as *bandages* and *defibrillators*. Additionally, four participants had learned words and phrases useful in communication. This included giving directions, slang and different greetings specific to the game, such as “*Hello, comrade*”.

Furthermore, the participants were asked to provide examples of words and/or phrases they had used in real-life situations. They gave examples such as discussions with law enforcement or military personnel about equipment and utilizing medical terminology and item names in practical contexts. Since there were only eight answers to this question, it felt unnecessary to divide the results into different categories. However, communication skills (four participants) and providing directions (three participants) emerged as the most common skills learned from the game. Two answers to the question are presented below as direct quotes.

Answer 1: “Utilizing communication skills learned from the game to interact with others in real-world scenarios.”

Answer 2: ”Basic communication skills with other players and providing directions.”

6. DISCUSSION

The present study aimed to explore gamers' perceptions of the impact of *Escape from Tarkov* on their English vocabulary acquisition. According to the findings, the majority of the participants reported a noticeable increase in their vocabulary since playing the game, with 83.9% acknowledging there had been a positive impact. This suggests that *Escape from Tarkov* can serve as an effective tool for vocabulary acquisition among gamers, which aligns with the findings of Rahman and Angraeni (2020) and Smith et al. (2013).

Furthermore, the significant investment of time playing *Escape from Tarkov*, as evidenced by 48.4% of respondents playing for over 1000 hours, is a sign of the immersive nature of the game and underlines its potential influence on language learning. As already mentioned, the immersive nature of video games can create motivation, which is, according to Ushioda (2016), a pivotal part of succeeding in learning a second language. The findings also suggest that participants learned vocabulary better through both visual elements and verbal interactions than utilizing these learning methods separately with 45,2% of participants selecting both learning methods in the survey. This aligns closely with the findings of Kim and Gilman (2008), who observed that integrating visuals and texts had a more noticeable impact on vocabulary learning and retention compared to using these methods individually.

In the survey, the participants were asked to choose and identify specific game mechanics they believed contributed to their vocabulary acquisition, with the game's terminology being the most selected at 96.8%. This discovery suggests that exposure to diverse vocabulary related to weapons, medical supplies and various items within the game can improve vocabulary acquisition effectively. Moreover, the participants also emphasized the role of communication (71.0%) and interactions (48.4%) in contributing to their vocabulary acquisition. Discussions with teammates and interactions with non-player characters were seen as valuable opportunities for language acquisition and practice within the game. These findings also support the notion that the gameplay of *Escape from Tarkov* provides an opportunity for using acquired language skills in relevant contexts. As mentioned by Reinders and Wattana (2015), MMORPGs offer anonymity when communicating, which can reduce anxiety experienced by the players. This can potentially be seen from the responses, with 71,0% of respondents highlighting

communication as a contributor to their vocabulary acquisition. Additionally, multiple participants saw communication skills and giving directions as the primary skills learned from the game. These findings highlight the possibilities of using MMORPGs, and *Escape from Tarkov*, as tools for teaching English oral skills in EFL classrooms.

In their respective studies, Shintaku (2016) and Cheung and Harrison (1992) concluded that vocabulary was retained better amongst students when it was essential for progressing in the game. In this study, “Interactions” was thought to be the game mechanic that contained the most important vocabulary to advance in the game before the distribution of the survey. Interestingly, despite nearly half of the participants selecting "Interactions" as a contributor to their vocabulary acquisition, it ranked the lowest compared to "Terminology" and "Communication". Furthermore, only six participants chose “Interactions” as the game mechanic that contributed to their vocabulary acquisition the most. This discrepancy to previous research could be attributed to participants finding "Interactions" vocabulary more familiar and less challenging due to its similarity with everyday conversational language. Additionally, participants might have perceived "Terminology" and "Communication" as more crucial vocabulary for achieving specific goals or tasks within the game, which led to prioritizing these categories in their selections.

One of the aims of this study was to explore gamers' perceptions about the possibility of transferring vocabulary acquired in *Escape from Tarkov* to real-world language use. Most participants (77.4%) expressed confidence in the transferability of their vocabulary, citing practical uses of acquired vocabulary such as discussions with military personnel or law enforcement about equipment, and utilizing medical terminology in real-life situations. Communicational skills and providing directions emerged as the most mentioned tools regarding real-world language use. These findings suggest that vocabulary acquired from *Escape from Tarkov* can have practical utility besides the obvious virtual environment. This aligns with previous research demonstrating the transferability of vocabulary learned through video games to various areas, including reading proficiency and communication skills (Borgonovi, 2016; Camacho Vásquez & Ovalle, 2019).

The findings of this study complement existing literature about vocabulary acquisition from video games. However, the present study extends previous research by introducing a previously unexplored game, *Escape from Tarkov*. Additionally, this study discusses the contribution of game mechanics to language acquisition, and the transferability of video game vocabulary to real-world language use, both fairly uninvestigated issues among researchers. According to the findings of this thesis, *Escape from Tarkov* can serve as a tool for vocabulary acquisition in gamers' language learning processes, as well as assist in transferring this vocabulary to communication skills in real-life contexts. These results align with previous research conducted on the matter (Janebi Enayat & Haghighatpasand, 2019; Vásquez & Ovalle, 2019). Furthermore, different game mechanics can contribute to gamers' vocabulary acquisition in different proportions. It seems, however, that all the mechanics that have been defined in this study, can have an impact on the gamers' vocabulary and its retention.

7. CONCLUSION

This thesis aimed to investigate Escape from Tarkov's impact on gamers' English vocabulary acquisition. The research questions focused on gamers' perceptions of Escape from Tarkov's influence on their vocabulary acquisition, the specific game mechanics contributing to vocabulary learning, and the transferability of acquired vocabulary into real-world language use. To gather this information, an online survey was distributed in various Discord servers of Escape from Tarkov player communities, and the obtained data was analyzed. Overall, the findings of this study demonstrate that Escape from Tarkov can act as a considerable tool in English vocabulary acquisition. Most of the participants had noticed an increase in their vocabulary since playing the game. The game mechanics were divided into three categories in this study, and "Terminology" was seen as the biggest contributor to vocabulary acquisition, followed by "Communication" and "Interactions" in that order. Furthermore, most of the participants felt confident in the transferability of acquired vocabulary to real-world language use, providing some examples of how they had utilized it in different contexts.

The findings of this study can have multiple implications for language learning, but also for game developers. First of all, the findings highlight the possibility of using games, such as Escape from Tarkov, as potential tools for language education. Wide-ranging vocabulary with the opportunity of being able to transfer these acquired words to communication within the game and later to real-life situations, demonstrates the practical benefit that these games can have in language learning. Moreover, game developers could examine the impacts of different game mechanics on language acquisition based on this study's findings in order to create games specifically designed for language learning. This way, the mechanics, content and features could be tailored to align with goals related to improving the players' language skills.

Even though this study has provided valuable insights into the relationship between gaming and language acquisition, it is necessary to acknowledge that it does have its limitations. The data examined was based on self-reported information from the participants. This could have led to participants giving answers that are socially acceptable. In addition, the number of participants taking part in the survey was relatively small. Because of this, the findings may not fully represent the views of a broader population, and therefore, cannot be generalized.

Furthermore, the survey was distributed to players who mostly had plenty of experience in the game. This may have added potential for questionnaire bias since participants who were particularly interested in the topic may have been more inclined to respond. It is also important to consider that this study focused specifically on Escape from Tarkov, and the findings might not be reliable when discussing vocabulary acquisition in other games and genres.

The strengths of this study, however, outweigh its limitations. One of its advantages are the participants, who were primarily experienced gamers. This meant the respondents were most likely capable of providing perceptive information about the game as well as its language learning potential. Moreover, the reason for distributing the questionnaire among Finnish, German, and Russian player communities was to ensure a broad representation of players within the gaming population. This choice not only boosts the generalizability of the findings but also offers this study various perspectives. This diversity and gaming experience among the participants may have improved the information received, thus strengthening the credibility of this study. Lastly, this study ventured into an unexplored area since no research had been conducted on Escape from Tarkov previously. One of its strengths is, of course, its uniqueness and contribution to filling a crucial gap in literature. These strengths collectively position this thesis as a valuable addition to literature on vocabulary acquisition in gaming.

To conclude, video games continue to shape the possibilities in education, and provide advantages over more traditional teaching methods. By building on the strengths of this thesis, and dealing with its limitations, future research could improve knowledge about vocabulary acquisition from video games. The game mechanics that enhance language learning and the methods that can improve the transferability of video game vocabulary to real-life language use could be researched further. In the future, understanding the potential of video games as educational tools is not only relevant but essential for designing language teaching that is both effective and engaging.

REFERENCES

- Borgonovi, F. (2016). Video gaming and gender differences in digital and printed reading performance among 15-year-olds students in 26 countries. *Journal of Adolescence*, 48(1), 45-61. <https://doi.org/10.1016/j.adolescence.2016.01.004>
- Camacho Vásquez, G., & Ovalle, J. C. (2019). The influence of video games on vocabulary acquisition in a group of students from the BA in English teaching. *GIST Education and Learning Research Journal*, 19, 172–192.
- Cheung, A., & Harrison, C. (1992). Microcomputer adventure games and second language acquisition: A study of Hong Kong tertiary students. In M. C. Pennington & V. Stevens (Eds.), *Computers in applied linguistics: An international perspective* (pp. 155– 178). Multilingual Matters.
- Denscombe, M. (2014). *The good research guide: For small-scale social research projects*. 5th edition. McGraw Hill Education, Open University Press.
- Gunel, E., & Top, E. (2022). Effects of educational video games on English vocabulary learning and retention. *International Journal of Technology in Education*, 5(2), 333–350. <https://doi.org/10.46328/ijte.225>
- Janebi Enayat, M., & Haghightasand, M. (2019). Exploiting adventure video games for second language vocabulary recall: A mixed-methods study. *Innovation in Language Learning and Teaching*, 13(1), 61–75. <https://doi.org/10.1080/17501229.2017.1359276>
- Kim, D., & Gilman, D. A. (2008). Effects of text, audio, and graphic aids in multimedia instruction for vocabulary learning. *Journal of Educational Technology & Society*, 11(3), 114–126. <http://www.jstor.org/stable/jeductechsoci.11.3.114>
- Oxford, R., & Crookall, D. (1990). Vocabulary learning: A critical analysis of techniques. *TESL Canada Journal*, 7(2), 9-30. <https://doi.org/10.18806/tesl.v7i2.566>
- Rahman, A. A., & Angraeni, A. (2020). Empowering learners with role-playing game for vocabulary mastery. *International Journal of Learning, Teaching and Educational Research*, 19(1), 60-73. <https://doi.org/10.26803/ijlter.19.1.4>
- Reinders, H., & Wattana, S. (2015). Affect and willingness to communicate in digital game-based learning. *ReCALL*, 27(1), 38–57. <https://doi.org/10.1017/S0958344014000226>
- Reinhardt, J. (2019). *Gameful second and foreign language teaching and learning: Theory, research, and practice*. Springer International Publishing AG.
- Salgarayeva, G. I., Iliysova, G. G., Makhanova, A. S., & Abdrayimov, R. T. (2021). The effects of using digital game based learning in primary classes with inclusive education.

European Journal of Contemporary Education, 10(2), 450–461.
<https://doi.org/10.13187/ejced.2021.2.450>

Shintaku, K. (2016). The interplay of game design and pedagogical mediation in game-mediated Japanese learning. *International Journal of Computer-Assisted Language Learning and Teaching*, 6(4), 36– 55. <https://doi.org/10.4018/IJCALLT.2016100103>

Smith, G. G., Li, M., Drobisz, J., Park, H. R., Kim, D., & Smith, S. D. (2013). Play games or study? Computer games in eBooks to learn English vocabulary. *Computers & Education*, 69, 274-286.

Ushioda, E. (2016). Language learning motivation through a small lens: A research agenda. *Language Teaching*, 49(4), 564–577. <https://doi.org/10.1017/S0261444816000173>

Yanev, V. (2023, July 26). Video game demographics - Who plays games in 2023? Techjury. <https://techjury.net/blog/video-game-demographics/>

APPENDIX

Escape from Tarkov's effects on vocabulary acquisition

Mandatory questions are marked with a star (*)

Hi, I'm an English teacher student at the University of Jyväskylä. I am conducting a study on the impact of Escape from Tarkov on English vocabulary acquisition. Your answers will help me learn the specific game elements that may enhance vocabulary acquisition and if this acquired vocabulary can be transferred to real-world language use. To answer this survey, you should have played Escape from Tarkov at least once. Also, English must not be your first language (L1). Your participation is voluntary, and all responses will be kept confidential. The survey is anonymous and no identifiable information is collected. The survey should take approximately 5 minutes to complete. Please take the time to carefully respond to the following questionnaire. Your honest and thoughtful answers will contribute significantly to the success of this research.

Thank you for your participation!

Reetu Räsänen

For further information, contact me via email: reetu.rasanen@hotmail.com

1. Approximately, how many hours have you played Escape from Tarkov? *

- Less than 10 hours
- 10-100 hours
- 100-1000 hours
- Over 1000 hours

2. Have you noticed an increase in your English vocabulary since playing Escape from Tarkov? *

- Yes
- No

3. If yes, please provide examples of words or phrases you believe you've learned from the game.

4. Which specific mechanics in Escape from Tarkov do you believe have contributed to your vocabulary acquisition? Terminology: equipment, weapons, maps, healing etc. Communication: Discussions with teammates and other players using vol P. Interactions: Tasks from traders, understanding objectives, "the story" *

- The game's terminology
- Communication
- Interactions
- Other, please explain.
-

5. Which of these mechanics do you believe has contributed to your vocabulary acquisition the most? *

- Terminology
- Communication
- Interactions
- Other, please explain.
-

6. Do you find that you learn better through visual elements in the game (e.g., in-game texts, visuals) or through verbal interactions with other players? *

- Visual elements
- Verbal interactions
- Both
-

7. Do you feel that the vocabulary you've acquired in Escape from Tarkov is transferable to real-world language use? *

- Yes
- No
- I have not acquired vocabulary
-

8. If yes, please provide examples of words or phrases you've used in real-life situations.

9. On a scale of 1 to 10, how would you rate the overall impact of Escape from Tarkov on your English vocabulary acquisition? *

