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The Impact of Video Games on English Language Acquisition among Primary School Children: A Case Study from North Macedonia

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Abstract

This study examined how computer video games support English-language learning among elementary pupils in the city of Stip, North Macedonia. A questionnaire completed by 45 parents (32 mothers, 13 fathers) of children aged 7–14 revealed that playing English-language games markedly boosts vocabulary, communication, self-expression and motivation. Parents noticed richer word use, greater confidence and more active peer interaction after game play. The findings confirm that the virtual, feedback-rich environments of video games create an authentic, engaging context that facilitates effective foreign-language acquisition, making them a valuable complement to classroom English instruction.

Keywords: *video games, school,language, skills, motivation.*

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Introduction

The rapid advancement of new technologies has reshaped traditional behaviors worldwide, influencing both developed and developing countries. Computer systems, widespread Internet access, modern tools, and smartphones define this era, significantly affecting younger generations. Since technological progress often requires proficiency in foreign languages, many individuals face the challenge of learning a second language. For children, this challenge is frequently addressed through video games, as many are designed in English – the preferred language for gaming.

Consequently, playing video games unknowingly enhances various English language skills (Albaqami, 2022; Seli and Santosa, 2022). Language learning involves complex vocalization, such as speaking and object manipulation, which are tied to cognitive abilities. Video games, played on computers, mobile devices, and consoles, require multitasking – listening, reading, writing, and speaking in English – while utilizing strategic thinking (Snigdha and Debnath, 2024). Their immersive nature fosters engagement with narratives and dialogues, reinforcing language acquisition. For example, over 200 million people play PUBG, a multiplayer battle royale game. Through visuals, narratives, and interactions, video games encourage players to focus and participate, thereby improving their English skills. This has led researchers to emphasize video games as a sophisticated learning tool. With over two billion players worldwide, and an average player age of 31, gaming extends beyond children and teenagers (ICLS, 2024). The repeated exposure to words, phrases and in-game dialogues in a stress-free environment allows children to develop communication skills without conscious effort.

Materials and Methods

The enjoyment of playing video games significantly enhances language learning, as it occurs alongside gaming pleasure. Free play and interaction with game characters contribute to language acquisition progress (Winaldo and Oktaviani, 2022). Language-learning games are often tied to platforms such as PlayStation, Xbox, Nintendo, Windows, and smartphones (Vujisic, 2023). Games incorporating dialogues, interactivity, and pronunciation challenges are invaluable for language learning. Popular choices include FIFA, which helps with vocabulary and pronunciation, as well as fantasy games like Grand Theft Auto, Call of Duty, and The Witcher, which expose players to conversational language (ICLS, 2024). Video games also enhance spatial awareness and technical thinking, enriching children's vocabulary. Teachers play a vital role in guiding students toward educational video games (Lai, 2012). The benefits of video games for language learning include vocabulary expansion and improved writing skills through engaging content. Interactive games instinctively motivate players to compete in listening, speaking, and writing. Didactically designed games evoke emotions that keep children engaged in storylines, fostering critical thinking and collaboration (Vujisic, 2023; Gentile & Gentile, 2008). The multifunctionality of video games enables children to practice speaking, listening, reading, and writing in English while applying cognitive skills. Games require strategic thinking and problem-solving, with repetition reinforcing language engagement (Snigdha & Debnath, 2024).

This research methodology focuses on assessing the effectiveness of mediation in English language learning through video games. The study targeted parents of primary school students (aged 7-14) in Štip, as minors requiring parental oversight. The research involved students learning English as a second or foreign language as part of their school curriculum. The primary goal was to evaluate the role of video games in enhancing language skills, with parents playing a key role in the process. However, a significant portion of parents had limited English proficiency, posing challenges during the survey. To ensure research validity, the first phase involved securing parental consent through direct contact with selected participants. In the second phase, a survey comprising 13 online questions via Google Forms was conducted. A total of 45 parents (32 women, 13 men) aged 30 to over 45 participated. The questionnaire was designed with clear, concise questions, primarily offering "Yes," "No," and "Maybe" responses, avoiding the Likert scale to minimize confusion. The survey focused on children's

attitudes toward video games and their use as a modern learning tool. Parents played a crucial role in interpreting the questionnaire and assessing the impact of video games on their children's autonomy, motivation, and self-confidence in language learning. They also evaluated the overall influence of video games on English language acquisition, a perspective emphasized by Albaqami (2022).

Q.1. Do the children who play video games make progress in learning English?

Q.2. Does playing video games improve skills and motivation in learning English in primary school children?

Hypothesis H.1. The children who often play video games have progress in learning English.

Hypothesis H.2. The children who play video games improve their skills and increase motivation in learning English.

Results

The clearly defined goals and methodological approach employed in this research yielded a series of results that are both original and comparable to similar studies conducted globally. These findings were derived from 13 operational questions answered by parents of primary school children in Stip. The specific results are presented in the overview that follows.

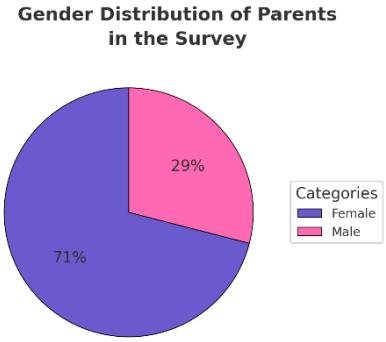

Figure 1. Gender Distribution of Parents in the Survey

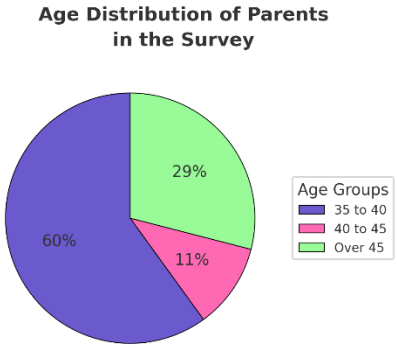

Figure 2. Age Distribution of Parents in the Survey

As illustrated in Fig. 1, the majority of surveyed parents, accounting for 71.1%, are female, while male participants constitute 29%. This distribution aligns with the traditional findings of similar research, such as studies conducted in Montenegro (Vujisic, 2023) and on a broader scale, as evidenced by research involving respondents in Saudi Arabia (Albaqami, 2022). The diagram above shows that the majority of surveyed parents, 60%, fall within the most common age range of 35–40 years, a finding consistent with many studies conducted both regionally and globally. Notably, 28.9% of respondents are over 45 years old, reflecting a recent trend of parenthood being realized later in life. Interestingly, only 11.1% of surveyed parents are between the ages of 40 and 45, which is somewhat surprising given the expectation that this age group would closely follow the predominant 35-40-year range.

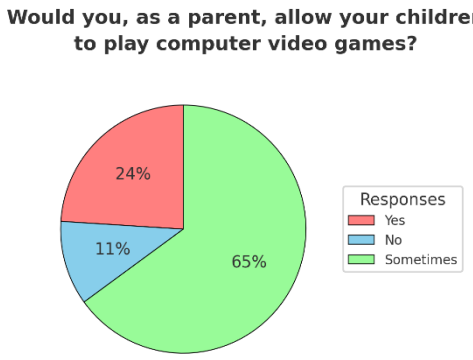

Figure 3. Parents' Approval for Video Gaming

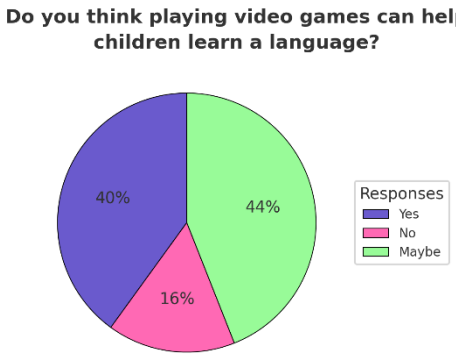

Figure 4.The Diagram Shows whether Playing Video Games is Useful for Language Learning

Figure 3 illustrates that less than one-third 24% of the surveyed parents consistently allow their children to play video games. A small proportion 11% stated that they do not permit video games at all, while the majority 65% reported that they occasionally allow their children to play. These findings closely correspond to the data presented by Vujisic (2023), which indicates that 84% of parents impose limits and supervise their children's video game activities, whereas only 15.5% establish specific norms and enforce sanctions for non-compliance. This reflects the nuanced approach parents take in balancing supervision with fostering their children's autonomy. Figure 4 demonstrates that 40% of the surveyed parents affirmed that playing video games is beneficial for learning a foreign language, while 16% responded negatively. The majority, however, or 44%, indicated that playing video games *can* be useful for language learning. This observation aligns with findings from researchers in the Balkan region, who have confirmed similar trends. Moreover, when considering the responses of parents who recognized the potential usefulness of video games for language learning, these findings closely correspond to those reported by Albaqami (2022).

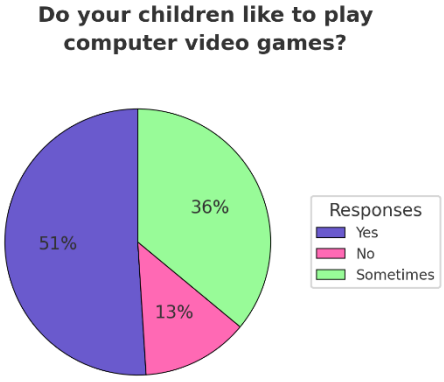

Figure 5. The Diagram Illustrates the Survey Results Regarding Children's Desire to Play Video Games

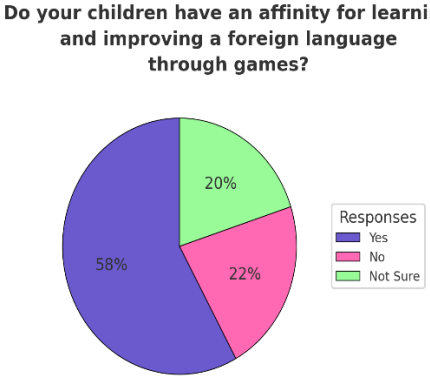

Figure 6. Showing the Affinity of Teenagers to Learn a Foreign Language through Video Games

Figure 5 shows that more than half of the surveyed parents (51.1%) reported that their children enjoy playing video games. When combined with the significant percentage (35.6%) of parents who stated that their children sometimes agree to play video games, the total rises to 86.7%, indicating a strong positive trend. This aligns with the global trend among the younger generation, who exhibit a notable preference for video games. For instance, in Montenegro, children's engagement with video games is closely tied to internet usage. Over 90% of children aged 6–17 use the internet (Logar et al., 2016) and approximately 80% express a preference for playing video games (Vujisic, 2023). Figure 6 illustrates that the majority of respondents (58%) indicated that their children have an affinity for learning a foreign language through video games, highlighting the trend among the younger population to embrace computer video games as a modern tool for language acquisition. Notably, 22% of surveyed parents expressed a negative opinion, while an additional 20% were uncertain about their children's inclination to learn a foreign language through video games. This combined figure of 42% is slightly higher than findings from similar research conducted in the region and globally.

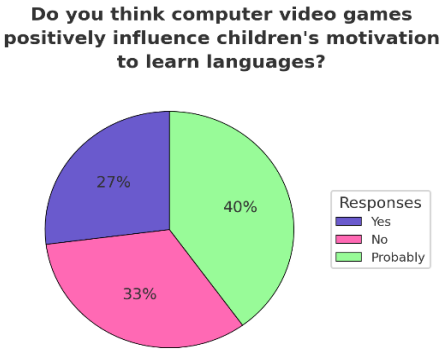

Figure 7. Presentation of the Results of the Influence of Video Games on Motivation and How Many Children Learning Language

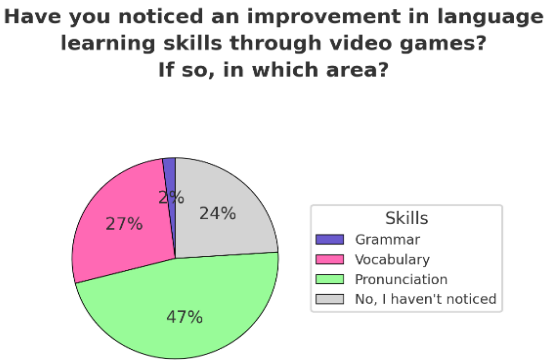

Figure 8. Presentation of the Results for Improving Language Skills through Video Games

Figure 7 presents a three-part distribution of responses from surveyed parents: 26.7% responded positively, 33.3% negatively, and the largest portion (40%) indicated that it is possible or likely that video games positively influence children's motivation to learn foreign languages. These findings deviate slightly from the global average, where motivation is widely regarded as a key factor in language learning through video games. For instance, Wu et al. (2011) and Ashraf et al. (2014) concluded that online games enhance students' language competence, confidence, and motivation. Similarly, Glover (2013) emphasized that students experience high levels of motivation while engaging with video games. Figure 8 reveals that the majority of respondents (47%) indicated a focus on improving pronunciation, while 27% emphasized vocabulary enhancement. The latter is supported by the findings of Huang and Yang (2014) and Klimova and Kacet (2017). Additionally, 8.8% of responses reflected mixed answers, combining areas such as vocabulary and pronunciation or grammar and vocabulary. When these are combined, the total exceeds 73%, clearly suggesting that playing video games has positively influenced children's language skills, as highlighted by Rusmanayanti and Nasrullah (2020). However, it is important to note that 24% of respondents reported

no noticeable improvement in their children's language skills through playing computer video games.

Figure 9: Illustration of the Results of Recording Language Errors when Playing Video Game

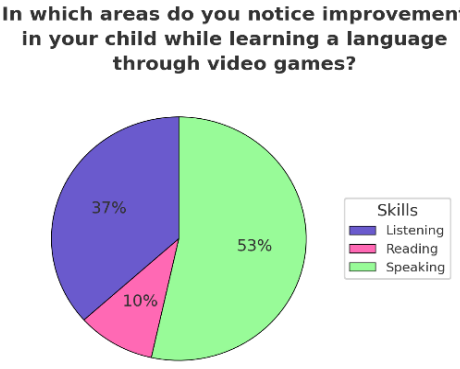

Figure 10. Demonstration of Improvement in Language Learning through Video Games

Figure 9 shows that the majority of surveyed parents (60%) stated that they did not notice their child making language mistakes while playing video games. Adding the 17.8% of respondents who explicitly answered 'no,' the total rises to 77.8%. This figure is notably higher than the global average, particularly when considering that only 22.2% of respondents reported otherwise. Figure 10 illustrates that more than half of the surveyed parents reported the greatest improvement in language learning through video games in the area of speaking. This finding aligns with Albaqami (2022), whose study reported a similar result, with 58% of participants in Saudi Arabia identifying speaking as the area of most significant improvement. Additionally, Lai and Wen (2012) and Berns et al. (2013) also highlight the notable enhancement of speaking skills through video games. The percentage of improvement in listening skills is also substantial at 31.1%. However, the improvement in reading is relatively low, at just 6.7%. The remaining 11% reflects combinations such as listening and speaking, listening, reading, and speaking, or speaking and listening. These combinations further underscore the multifaceted impact of video games on language learning, as noted by Da Silva (2014), who emphasizes the complementary effects of these skills in the language acquisition process. Figure 11 reveals that the largest proportion of surveyed parents (42.2%) indicated that conversations with friends during gameplay had the most significant influence on their children's language improvement. Interestingly, nearly equal proportions were observed for the influence of instructions from in-game characters (26.7%) and direct interaction with dictated characters (24.4%). These findings align with similar research conducted regionally and globally, as evidenced by the works of Kosjerina (2015) and Kostov (2020). Additionally, 6% of the responses reflected language improvement through combinations, such as instructions from the game itself and interaction with dictated characters, further emphasizing the multifaceted nature of language learning through video games.

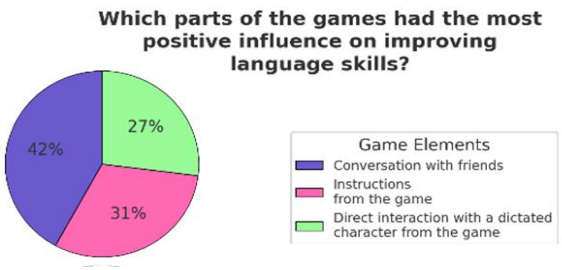

Figure 11. The Results of Parts of the Game that Positively Affect the Improvement of the Language

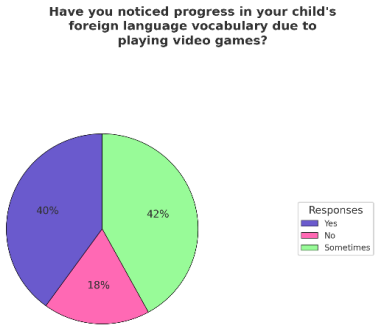

Figure 12: Presentation of the Results for Vocabulary Progress when Learning a Foreign Language through Video Games

Figure 12 shows that more than one-third (40%) of surveyed parents affirmatively stated that they notice progress in their children's foreign language vocabulary through playing video games. Additionally, 42.2% of respondents indicated that they sometimes observe such progress, supporting the notion that video games serve purposes beyond more entertainment for children. Similar conclusions have been drawn by Klimova and Kacet (2017), Yip and Kwan (2006), and Sørensen and Meyer (2007) who argue that online games are effective tools for enhancing student motivation and improving vocabulary acquisition during the process of learning foreign languages. This connection between games and vocabulary development is further emphasized in the works of Fadilah et al. (2023). However, it should also be noted that 17.8% of respondents reported no noticeable progress in their children's vocabulary, a finding consistent with similar studies conducted in the region. Last question is "Do you think video games should be included in school curriculum? It illustrates that the majority of surveyed parents (55.6%) responded negatively to the idea of incorporating video games into the school curriculum. A significant portion (35.6%) indicated that video games could be part of the curriculum, while a smaller fraction, just under 9%, expressed that video games should be included in school curricula. These findings largely align with similar research conducted in the Balkan region, particularly in Montenegro (Vujisic, 2023) and Croatia. However, European and global perspectives, such as those presented by Zhonggen (2019), suggest that video games should be integrated into local language teaching. Researchers from Saudi Arabia have expressed similar views, emphasizing the potential of video games as educational tools.

Discussion

In alignment with the main research objective, framed through two core questions and their corresponding hypotheses, it can be stated that the findings meet the research expectations. The first research question, *"Do teenagers who play video games make progress in learning English?"* is addressed by hypothesis H-1, which posits that *"Teenagers who frequently play video games demonstrate progress in learning English."* The data reveal that 80.4% of respondents affirmed that playing computer video games positively impacts their children's mastery and progress in the English language. Furthermore, considering that

over 57% of children expressed an affinity for playing video games and more than 50% of respondents stated that their children enjoy playing them, it is reasonable to conclude that hypothesis H-1 is confirmed. These findings align closely with those of Albaqami (2022), where 80.6% of respondents similarly reported that playing video games positively affects their children's English language learning. Additionally, Snigdha and Debnath (2024) emphasize that children who play video games tend to exhibit superior English language skills compared to their peers who do not engage in gaming. Supporting this perspective, Vujisic (2023) notes that children who spend extended periods playing video games acquire English proficiency more rapidly than those who do not play. The answer to the second research question, *"Does playing video games improve skills and motivation in learning English in primary school children?"* is supported by the findings related to Hypothesis H-2: *"Teens who play video games improve skills and increase motivation in English language learning."*The findings reveal that 73% of respondents observed a positive impact of video games on improving children's language skills, as noted by Rusmanayanti and Nasrullah (2020). Additionally, 66.7% of respondents (combining "yes" and "probably") recognized an increase in children's motivation to learn English through video games, providing further confirmation of Hypothesis H-2. These results align with Albaqami (2022), who identifies a statistically significant relationship between playing online games and improving self-esteem, enhancing motivation, and reducing communication anxiety in English among children in Saudi Arabia. Similarly, Gnambs and Appel (2017) found that computer video games improve students' cognitive skills, which can further support language acquisition. Furthermore, Winaldo and Octaviani (2022) highlight that frequent gamers often excel in English, particularly in grammar, pronunciation, and fluency, as they acquire these skills indirectly through gameplay. Alfirevic (2015) reinforces this by emphasizing that video games as a teaching tool enhance vocabulary development and significantly boost children's motivation to learn a foreign language.

Conclusion

The research findings, in comparison with studies from Europe and Asia, confirm that video games, as a widely used technological tool, significantly contribute to English language learning. Surveyed parents unanimously acknowledged that their children enjoy playing video games and that these games positively impact their language development. Modern technological tools present both challenges and opportunities for children growing up in the digital era. Initially drawn to video games for entertainment, children unknowingly develop language skills, as games encourage vocabulary acquisition, conversational abilities, and listening comprehension. Interactive storytelling enhances writing skills, while gaming's motivational aspects improve focus and communication with in-game characters. This relaxed, immersive environment fosters language learning without conscious effort. The study highlights the substantial role of video games in refining children's English skills, emphasizing the potential for their integration into formal education. With proper teacher guidance, children can be directed toward the educational aspects of video games. While this approach is not yet formalized, the increasing influence of technology and children's engagement in gaming may eventually lead to the adoption of video games as a recognized tool for language learning in schools.

Conflict of Interests

No conflict of interest.

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