



Exploring English language learning through online gaming: A case study of two children

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Online games are often considered as a disturbance for children, negatively affecting time management, encouraging undesirable habits, and contributing to poor academic performance. While several studies have examined the effects of online games on students, in-depth exploration at the individual level remains limited. Therefore, this study investigates the potential of online games in influencing children's English language acquisition. A case study was employed, with data collected through semi-structured interviews with children and parents. Observations of children while playing online games were conducted, along with an analysis of documents such as school assignments. The findings show that the child who played online games more frequently demonstrated a stronger grasp of English vocabulary, greater fluency in speaking, and a better ability to respond to questions about words meanings compared to child who played less frequently. Both children, however, met the minimum standard score of the English subject at school. Furthermore, several benefits of learning English through online games were identified, including increased motivation and confidence. The study also suggests that examining factors such as language aptitude, learning strategies, and environmental support in the context of online gaming may provide a more comprehensive understanding of how online games can be utilized to enhance children's English language learning.

Keywords: English Language Acquisition, EYL, online games, game-based learning

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INTRODUCTION

English language proficiency is an essential skill for young generation to face the challenges of the modern era. Introducing English from an early age is believed to facilitate children's language and communication development, as well as enhance their capacity for self-assessment (Liu & Brantmeier, 2019). Parental support plays a crucial role in the development of children's language mastery (Anam et al., 2020; Pratiwi et al., 2020; Zhou et al., 2019). This support is not only important for preparing children for the future but also for shaping them into well-rounded individuals. Parents are encouraged to accompany their children in the learning process, as their presence can significantly motivate children to learn (Pratiwi et al., 2020; Zhou et al., 2019). Moreover, parental supervision is essential to help children manage their time effectively, especially as the younger generation – often referred to as “digital citizen” – spend a significant amount of time using gadgets and playing online (Zhong & Zheng, 2023).

Online games are often perceived by parents as a barrier to controlling their children's screen time, as many children and adolescents engage in prolonged gaming without time awareness (Doni, 2018). However, online games can also offer educational benefits.

They provide engaging and enjoyable learning experiences that children find appealing. Research shows that online games can support the development of English language skills, such as vocabulary, grammar and speaking (Achol & Akter, 2022). Various types of games, including computer based-games (Al-Jamili et al., 2024), have been shown to enhance speaking ability. Additionally, games can foster improvements in students’ speaking skills (Putri et al., 2023; Sun et al., 2023) and emotional intelligent (Fauziddin & Mufarizuddin, 2018; Merayo et al., 2024; Vnucko et al., 2024). Digital games, therefore, hold significant potential for enhancing young learners’ second/foreign language acquisition and motivation (Butler, Y.G;Garton, S; Copland, 2019).

Several scholars have investigated the relationship between online games and students’ language mastery. Zheng et al., (2024) found that digital game-based learning (DGBL) enhances students’ digital etiquette literacy. In addition, it is positively related to increased learning motivation and engagement. Achol & Akter (2022) examined the influence of popular online games played by children on their English language development. Their findings indicate that online games contribute positively to students’ speaking abilities. By listening to dialogues and interactions within the games, students are able to imitate and comprehend spoken language, thereby improving their speaking fluency. However, the study also found that online games had no significant impact on students’ writing performance. Moreover, Zuo et al., (2023) explored the use of augmented reality (AR) fantasy in game-based learning for improving knowledge retention in school settings. The results revealed that AR fantasy can enhance children’s ability to recall declarative knowledge and improve overall learning effectiveness in classroom contexts.

The findings of previous studies (Achol & Akter, 2022; Zheng et al., 2024; Zuo et al., 2023) highlight the positive impact of online games on students’ language learning. However, these studies did not provide an in-depth exploration of the individual experiences of learners. Therefore, this study seeks to address that gap by offering a more detailed understanding of how online games contribute to the English language development of individual children. While earlier research provided a general overview, this study aims to investigate the specific mechanisms through which online gameplay influences language acquisition at a personal level. By exploring how children benefit from engaging with online games, this study also aims to inform the development of more effective English language learning strategies that leverage the interactive and enjoyable nature of digital games. Such insights could help design learning experiences that make acquiring English more enjoyable and meaningful for young learners. Accordingly, this study focuses on understanding children’s experiences of learning English through online games and the perceived advantages of such an approach. The research questions guiding this study are:

1. What are the experiences of two children in learning English through online games?
2. What are the perceived benefits of online gaming on children’s English language development?

METHODS

A qualitative approach was used in this research. This approach was chosen because it allows researchers to explore children’s learning experiences in detail. As noted by Fadli (2021), qualitative methods enable researchers to understand the phenomena being studied from the participant’s perspective. The participants were primary school children aged 9- to 10-year-old. This case study involved two children who regularly play games for approximately 3-6 hours per day. In addition, one of children’s parents was also interviewed to support the main data. The characteristics of the participants are presented in Table 1.

TABLE 1 | Characteristics of the participants

Characteristics	A	B	C
Age	9 years old	10 years old	40 years old
English skills Ability	Speaking, reading and writing	Speaking and writing	Reading, listening, speaking, writing
School	Elementary school student	Elementary school student	-
Grade	4	5	-
Time to play games	4 hours per day	2 hours per day	4 hours per day
Preference time to play	Afternoon to Evening	Afternoon	Afternoon and evening
Role	Children	Children	Parents

The instruments used in this study were observation and interviews. Observations were conducted in the children’s daily lives, as the researcher lived with the participants, providing ample opportunity for close and continues observation. The researcher frequently played with the children and accompanied them in the afternoon and evening; thus, playtime was utilized to observe both children and their parents. The observation period lasted approximately six months, from the beginning of the end of the school semester (February to June 2024) and focused particularly on children’ engagement with online games. The second instrument was interviews. These were not conducted in a separate, formal setting but were integrated into the observation sessions. The interviews were semi-structured, allowing the children to feel at ease and unaware they were being formally interviewed, which helped elicit natural and authentic responses. In addition, to track the development of the children’s English learning, documents such as personal journals and school assignments were also collected.

The data were analyzed using the steps of data reduction, data presentation and conclusion verification. The first step, data reduction, involved organizing and condensing the collected data to identify key elements. Once the data was reduced, they were presented in a manner that highlighted the most significant findings. The second step, data presentation, involved coding the data by themes, categorizing responses, and summarizing key points, including narrative summaries of the participants’ experiences. The final stage was data

validation, which included seeking feedback from others who reviewed the data and reflecting on potential biases in researchers' interpretation. After validation, the final step was drawing conclusions. At this stage, the analyzed data were synthesized and presented in the form of narrative descriptions.

RESULTS AND DISCUSSION

The Children Experience in Learning English through Online Games

Based on the observation, significance differences were found in English language skills of the two children. Child A, who is 9 years old, shows better mastery of English vocabulary than Child B, who is 10 years old. The difference was clearly observed when they played online games together. Child A was able to understand instructions and dialogues in the games more easily and used a wider range of English vocabulary compared to Child B. Child B often asked Child A about the rules in English-language games, and Child A was able to explain them effectively.

Besides, it was found that Child A had a higher interest in online games than Child B. Child A spent more time playing online games and consistently showed enthusiasm for learning new games. She preferred playing online games over engaging in outdoor activities with friends. In contrast, Child B did not enjoy spending extended periods playing online games and preferred outdoor play. This difference in interest is believed to be one of the factors contributing to Child A's greater mastery of English vocabulary.

Furthermore, their experiences of learning English through games differed. Child A reported feeling happy and excited while playing. When asked about her experience, she explained that online games made her feel entertained and helped her relax after daily routines. For her, online games served as a fun and enjoyable way to engage with the English language.

"I like playing online games because they are fun and exciting, there are many things I can do in the game, such as exploring, completing challenges and competing with friends online. Playing online games also relieves fatigue after a day of studying at school" (A)

Interestingly, Child A revealed that most of the online games she played used English as the language of instruction. She considered this a challenge, especially since she did not initially have strong English skills.

"Many online games that I play are in English, such as Roblox, Mobile Legends, and many more. Most of them are in English in online games." (A)

At beginning of her experience with online games, Child A admitted that she had difficulty understanding the rules and instructions, which initially led to frustration and nearly caused her to give up. However, she demonstrated resilience and did not give up easily. Motivated to continue playing, she actively sought solutions to overcome her language barriers. Over time, her efforts paid off, and she discovered effective strategies for learning English through the context of online games.

In contrast, Child B showed a different attitude. She tended to play online games for shorter periods and found reading books more interesting than gaming. She expressed a sense of guilt if she did not study diligently by reading textbooks, indicating a stronger preference for traditional learning methods over digital games.

"I like to read book than play online games. It is not good for me." (B)

Moreover, Child B did not feel as excited about playing online games and preferred outdoor play with her friends. While she did enjoy playing online games, her enthusiasm was not as strong as Child A's. For B, playing games was simply a fun activity without deeper engagement. In contrast, Child A viewed online games as a way to relax and unwind after school, stating that gaming helped her relieve stress and enjoy her free time.

"I play online game is for joyful, not to learn English. That's why I don't play much. When I think I am not tired anymore, then I do my homework." (B)

The different purpose between Child A and B's engagement with online games reflect their distinct learning preferences and cognitive approaches. Child A tends to engage more with online games, while Child B prefers reading textbooks. These preferences suggest different learning styles – Child A learns through interactive, game-based experiences, whereas B is more inclined toward traditional, text-based learning.

From the parent's perspective, it was also noted that the two children have different interests. Child A enjoys playing games, particularly online games that use English as the language of instruction. In contrast, Child B prefers games that occasionally use Indonesian and does not enjoy playing online games with friends. While Child A frequently engages with English-language games, Child B is less comfortable with such games and chooses not to participate in online gaming environments with others.

"A tends to do online games that using English as language instruction. Although she gets difficulties she tries as hard as possible to understand it. While B is on the other way round, she plays online game less than A." (C)

Based on Parent C's statement it can be seen that Child A and B have different preferences when it comes to playing games, as well as different durations of online gameplay. These differences contribute to their distinct way of learning English.

The Advantages of Learning English through Online Games

The benefits of learning English through online games are summarized in [Table 2](#).

TABLE 2 | The benefits of learning English through online games

The Advantages of Learning English Using Online Games	
No.	
1	<i>Increase English Scores at School</i> 1. The score in English subjects at school increased.
2	<i>Raise Motivation</i> 1. Both children are motivated to learn English both at school and at home.

- | | |
|---|--------------------------------------------------------------------------------------------------------------------------|
| | 2. They are motivated to learn English through online games. |
| | 3. Both children are motivated to speak in English. |
| 3 | <i>Raise Confidence</i> |
| | 1. A and B are confident in conversing in English, even though they switch between English and Indonesian while talking. |
| | 2. A and B can easily provide the meanings of words/vocabulary when asked. |
| 4 | <i>Raise Self-Assessment</i> |
| | 1. A tends to assess herself when she loses a game. |

From [Table 2](#) it can be seen that there are several benefits to learning English through playing online games:

Increasing English score at school

The difference in English abilities between Child A and B is also reflected in their English subject scores at school. Child A consistently earns higher scores than Child B, which indicates a better understanding of English grammar and sentence structure. Although Child B's score has improved, the increase is not as significant as Child A's.

"My teacher said my English is better, I got 98 for my test today." (A)

Child A scored 98 on her English test at school, and her teacher was proud of her achievement. Similarly, Child B mentioned that she passed minimum standard score of English, achieving a score of 90. Both Child A and B scored above the standard criteria set by their schools.

Raising motivation

This finding shows that both children were motivated after playing online games. After approximately six months of playing online games, Child A and B become more motivated to learn English at school. This is evident from their eagerness to complete homework assignments, particularly in English. They shared their experience at school, mentioning that their English teachers appreciated their progress, as they had become better English learners. Additionally, their motivation to learn English was further fueled by their experience with online games. At the beginning, Child A struggled to understand the language used in the games. However, over time, she gradually improved and became confident enough to speak in English while playing game with her friend online.

Furthermore, Child A was particularly motivated to learn English because many of the online games she played, such as Roblox, used English as the language of instruction. In Roblox, there are many games, and most of them are conducted in English, providing A with ample exposure to the language.

"In the roblox game, there are many games that I can play, and have different missions in each game room. Most of the rooms are in English, so I have to be able to understand the meaning of English." (A)

Child A's experience shows that playing online games can be an effective means of learning English informally. With the right strategy and strong motivation, the English language barrier can be overcome, opening opportunities to enjoy a variety of interesting online games.

Raising children's confidence

Child A and B were confident in conversing in English, even although they switched between English and Indonesian while talking. Their confidence was evident when they communicated with each other in English. They used the words and phrases they had learned from online games in their daily conversations. Moreover, Child A and B were able to provide answers quickly when asked about the meaning of words or vocabulary. When the researchers asked about English vocabulary from their lessons, Child A responded quickly, and her answers were often correct. In contrast, Child B was slower in answering the questions and often needed to refer to textbooks. Although B tended to learn more slowly, she still benefited from online games, as reflected in the following statement.

"Now I understand a lot of English vocabulary, one of the reasons is because of playing online games. There are many words that I know from playing online games." (B)

Improving Self-assessment

An example of this benefit is when Child A stated that, upon facing difficulties in understanding the English instructions, she conducted a self-assessment to understand why she lost the game. She then made an effort to comprehend the instructions better so that she would not lose again in the future.

"Usually when I first play a new game, I have difficulty understanding how to play it properly, often I don't know what I should do and lose the game." (A)

The self-assessment Child A conducted was like a strategy to seek out tutorials and guides for playing online games on YouTube. She watched videos made by other gamers and observed how they played the game. A also paid close attention to the explanations and instructions given by the gamers in English. She made an effort to understand the meaning and memorize important terms that were frequently used in the game.

"I searched on YouTube about games that I felt were difficult, then I watched YouTubers play games and observed what they did to complete a mission, from there I learned how to play properly, including understanding the English instructions in the game." (A)

With persistence and the right strategy, Child A managed to overcome the English language barrier in online games. As a result, she played games more smoothly and enjoyed a more engaging gaming experience.

Based on the findings, it can be discussed in detail that children have different experience in learning English through online game. Child A tends to play more frequently than Child B. Regardless of the playing time, Child A demonstrates a distinct motivation for playing games, while Child B does not share the same enthusiasm for learning English through online games. Child A's motivation for playing online games is centered on learning English, whereas Child B's motivation is primarily for relaxation and enjoyment. Additionally, Child A exhibits a better command of English vocabulary compared to Child B. One factor believed to contribute to this difference is the level of interest and the habitual nature of playing online games. Child A, who plays online games more regularly, is exposed to a greater variety of English vocabulary and

phrases in a context that is both engaging and enjoyable. The fun nature of learning English through online games makes it easier for students to grasp the material. Furthermore, Child A's consistent gaming habits contribute to the development of a positive learning routine, which aligns with the findings of [Stoller & Nguyen \(2020\)](#) who suggested that learning habits play a crucial role in improving learners' academic performance. Moreover, online games typically incorporate various interactive and visual elements that attract children's attention, further motivating them to continue playing and learning English. Many online games also feature dictionaries or translation tools that assist children in understanding new words and phrases in English. As a result, children can improve their English vocabulary through online games. This finding is consistent with the research of [Antons et al., \(2023\)](#), who found that online games increase player engagement, encouraging continued play and learning.

Moreover, interest and online gaming habits can influence a child's English language skills, as evidenced by Child A's superior English performance compared to Child B. These differences may also be affected by a child's natural language aptitude, which plays a significant role in how easily they acquire new languages, such as English. In addition, effective learning methods that align with individual learning styles can significantly enhance language acquisition. These findings support those of [Kade et al., \(2019\)](#), who asserted that different learning styles affect learning achievement. Each student possesses a unique learning style, and their academic success can be influenced by their preferred way of learning ([Nemeth et al., 2024](#)).

In terms of the advantages of playing online games, this study found that children's English subject scores improved at school. This finding contradicts earlier claims by [Doni \(2018\)](#) and [Vnucko et al., \(2024\)](#), who argued that individuals who spent excessive time playing games tend to develop negative behavioral traits. In contrast, [Zheng et al., \(2024\)](#) found that digital game-based learning has a positive impact on students' learning motivation and engagement. That may explain why the children in this study was able to improve their academic performance in English despite spending considerable time playing online games. Engagement in gameplay also supports reinforcement learning, as highlighted by ([Antons et al., 2023](#); [Zheng et al., 2024](#); [Zuo et al., 2023](#)).

Another advantage identified in this study is the enhancement of children's motivation. Since learning English through online games, Child A has shown increased motivation to learn both at school and through the games themselves. This finding aligns with [Butler et al. \(2019\)](#), who found that digital game-based learning has a significant influence on young learners' motivation. Additionally, both Child A and B developed greater confidence, although their preferences in playing online games differ. Child A tends to respond immediately when asked questions in English, whereas Child B prefers to consult her textbook first. This difference may be attributed to the cognitive training embedded in online games, where players are required to think and respond quickly. This supports the findings of [Schiele et al. \(2025\)](#), who reported that game-based applications contribute to children's literacy skill acquisition.

Moreover, online gaming also facilitates vocabulary acquisition, which may explain why Child A can answer questions about English vocabulary more easily and speak more fluently. This is consistent with [Achol and Akter \(2022\)](#), who stated that online games positively impact speaking skills, enabling students to improve their performance with minimal effort. However, this finding contrasts with that of [Daradkeh et al. \(2024\)](#), who argued that experienced online gamers may resist the inclusion of newcomers due to differing language styles, which they believe could disrupt the gameplay experience.

In addition, self-assessment also increases as a result of playing online games. This was observed when Child A lost a game and then sought to understand why. She actively searched for information about the game instructions from YouTube gamers, which helped her identify the mistakes she had made. This form of self-assessment is valuable not only in gaming but also in broader learning contexts. From this finding, it can be concluded that by playing online games, Child A was able to learn new things. This aligns with the findings of [Saastamoinen et al. \(2024\)](#), who reported that computer-based games offer a novel and engaging way to learn. Furthermore, the design and visual appeal of games play a crucial role in maintaining player engagement. Children are more likely to enjoy playing when the game's design is interesting and visually stimulating. Conversely, they tend to lose interest when the game design is poor, as reflected in Child B's remark: "It is not good, I quit," during gameplay. Although [Almusharraf et al. \(2023\)](#) found no significant gender differences in learning through computer-based games in classroom settings, this study, which involved two female participants, revealed differences in their gaming habits and learning outcomes. This suggests that learning achievement is influenced more by individual learning styles than by gender. This finding supports the conclusion of [Himmah and Nugraheni \(2023\)](#), who argued that learning outcomes are shaped by learning styles rather than gender differences.

Child A and B demonstrate different preferences in learning English. Child A tends to utilize online game as a medium for learning English, while Child B prefers traditional methods such as reading textbooks. For Child B, playing games is primarily a form of relaxation rather than a learning strategy. Despite these differences in learning approaches, both children achieved similar academic results, obtaining high scores in English at the end of the semester. This finding contrasts with the study by [Naderi and Moafian \(2023\)](#), which reported that the non-digital learning group outperformed the digital group in academic achievement. This suggests that the effectiveness of learning strategies may depend on individual preferences and the purposeful use of technology in the learning process.

In summary, the findings indicate that Child A and B had different experiences in learning English through online games. Academic achievement is influenced not only by gaming habits but also by the children's awareness and intentions when engaging in online games – whether for relaxation or for acquiring new knowledge. The act of identifying obstacles and seeking solutions, as seen in self-reflective learning through gaming, also contributes to

academic development. Moreover, the benefits of playing online games are mediated by various factors such as learning styles and personal preferences. This highlights the importance of individualized approaches to technology-enhanced language learning.

CONCLUSION

This research shows that interest and habits in playing online games can significantly influence children's English language development. Children who engage in online gaming more frequently are exposed to a wider range of English vocabulary and phrases in an engaging and enjoyable context, which may enhance their language skills. However, it is essential to acknowledge that other factors – such as language aptitude, learning strategies, and environmental support – also play crucial roles in shaping children's English proficiency. Therefore, it is important for parents and educators to provide appropriate guidance and stimulation to help children optimize their English language development.

Future research could explore more deeply how online games can be optimally utilized to enhance children's English language development. This may include studies involving larger and more diverse participant groups to yield more generalizable results. Additionally, researchers could investigate the impact of specific online game genres on language acquisition and compare the effectiveness of online game-based learning with traditional instructional methods. Furthermore, examining the influence of other factors – such as language aptitude, learning strategies, and environmental support – within the context of online gaming and English language learning would offer a more comprehensive understanding of this educational approach.

Ultimately, this research aspires to provide valuable insights that can empower educators, parents, and game developers to create a more dynamic and effective learning environment for children exploring the English language. The findings are expected to offer practical guidance for parents and teachers on how online games can be meaningfully integrated into English language learning. This study is significant in that it highlights the potential of online games to make English learning more engaging, accessible, and enjoyable for children.

Finally, a supportive environment provided by parents, teachers, and peers plays a vital role in fostering motivation and building children's confidence in using English. It is essential for parents to recognize that each child possesses unique learning styles and abilities. Thus, offering appropriate stimulation and support is key to helping children reach their full potential in English language acquisition. Parents can facilitate this process by encouraging the use of educational online games, providing engaging English-language books and media, and creating a home environment that promotes regular exposure to English.

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