



# Vocabulary development of EFL young learner after long peer interaction with video games

**Slamet Asari \***

*Universitas Muhammadiyah Gresik, Indonesia*

The development of online games nowadays is not only for the purpose of entertaining but it can also be for English learning purpose since English language is commonly used as a language of instruction there in the games. Many researchers have developed online games on language use, one of which is English that focuses on vocabulary development and communicative language functions. This present study aims to find out or investigate the interactions and vocabularies learned by EFL learner while playing video games. The design of this research was a case study with a high school student. The data was taken from observation, videotaping peer interactions and depth interviews. The result indicated that he interacted not only with games but also with friends or teachers in English classrooms in gaining vocabulary (incidental vocabulary learning). The interaction occurred incidentally where they learned new vocabulary from interaction with video games and expressively used them in realistic situations. The data analysis relieved different words EFL Students learned from video games interaction as good as vocabulary gains. It included vocabulary support and learning patterns, spontaneous vocabulary interaction, and vocabulary improvement in video games interaction skill. As a result, this research found a potential theory that was implemented unconsciously in the observation of activities. This research can be used as a way for both teacher and student to optimize vocabulary development.

**Keywords:** Vocabulary Development, Peer Interaction, Video Game, EFL Learner

## OPEN ACCESS

ISSN 2503 3492 (online)

\*Correspondence:  
Slamet Asari  
[asari70@umg.ac.id](mailto:asari70@umg.ac.id)

Received: 19th October 2022  
Accepted: 21th February 2023  
Published: 6th April 2023

Citation:  
Asari, S. (2023). Vocabulary development of EFL young learner after long peer interaction with video games. *JEES (Journal of English Educators Society)*, 8(1).  
<https://doi.org/10.21070/jees.v8i1.1708>

## INTRODUCTION

Online game experiences have become popular today. It is not only to entertain but it is also believed to improve language learners' ability on their vocabulary size ([Calvo-Ferrer, 2017](#)). Unconsciously, they can also be able to understand communicative language learning function. In online games, interactions often occur between players for the needs of group games as shown in the call of duty game, where cooperation between teams is prioritized to conquer opponents. This requires players to play in a peer-to-peer manner which causes interaction. Interaction in the game results in communication between players even though they are in different languages. The games can reach participants from all over the world, so that the participants who enter are not only from one country but also from several native countries such as America and the UK. This opportunity to interact unknowingly results in new learning for English as foreign language students to learn English.

Several previous studies have conducted research on the effect of games on EFL vocabulary gains and communicative language learning function ([García-Carbonell et al., 2015](#)). The game players do the translation and acquisition process indirectly ([Chen & Yang, 2013](#)). Besides that, it turns out that it has potential in education aspect, namely scaffolding ([Salomon et al., 1989](#)). Scaffolding is widely considered to be an essential element of effective teaching, and all teachers—to a greater or lesser extent—almost certainly use various forms of instructional scaffolding in their teaching. Related to scaffolding interaction, there has been research carried out previously with children, parents and children with teachers using printed book applications ([Aram & Aviram, 2009](#); [Aram & Shapira, 2012](#)), e-books ([Neuman et al., 2020](#)), mobile applications ([Neumann, 2020](#)). However, the development of interactions does not only revolve around book applications but later uses interactions between children and online games. Studies have indicated that social interactions involved in video games can be beneficial for players. [Cole & Griffiths \(2007\)](#) noted that MMORPG's (Massive Multiplayer Online Role Playing Games) have provided many gamers the opportunity to develop lifelong friendships and partners. Other research in this area describes how gaming can lead to the development of leadership skills and to a sense of kinship and teamwork.

Nonetheless, in this study the scaffolding process occurred due to the involvement of more knowledgeable elder people or peers such as teachers, parents, peers so that the potential learning process can be well formed because it still uses supervision from both teachers and parents as a guide for learning so that children or students are able to understand book instructions and understand vocabulary in English. This interaction is also the same as the principle of Vygotsky's scaffolding theory which uses Triangular mediation ([Daniels, 2016](#)) and uses the child's (subject) mother or teacher as (mediator) and then the media as the object. This situation is different from the scaffolding interaction of children and the media which do not have a mediator in understanding games instruction. So, this study is conducted in relation to scaffolding learning theory that occurs in children's interactions when playing online games (Call of Duty) and attempt to investigate the interactions and vocabularies learned by EFL students while playing video games.

### Research on EFL Vocabulary Development

The acquisition process is one of the main central developments of vocabulary in children so that when the use of vocabulary of children is well developed this will help them in communicating ([Mashburn et al., 2009](#)) and in the development of the vocabulary acquisition process in L2 children particularly those who have done peer interaction with L2 indicating difficulties in accepting new vocabulary and a lexicon, syntax, phonology, language background, exposure, word reading and word-meaning ([Erdemir & Brutt-Griffler, 2020](#); [Helman & Burns, 2008](#); [August, 2009](#)). EFL which in its vocabulary development has difficulty with language background

factors, the inability to construct sentences, and the lack of environmental vocabulary input ([Rababah et al., 2017](#)) so that to suppress these weaknesses in the development of EFL children, research is often conducted on peer interaction in L2 and L1 children ([Angelova et al., 2008](#); [Blum-Kulka & Snow, 2004](#); [Kyratzis, 2004](#); [Palermo & Mikulski, 2014](#)) emphasizing on the interaction with friends for the vocabulary development of L2 children who have entered the scaffolding theory.

However, in previous studies, only peer interaction was carried out between parents and children or children and teachers with different applications ([Aram & Shapira, 2012](#); [Kucirkova et al., 2013](#); [Neumann, 2020](#); [O'Toole & Kannass, 2018](#); [van de Pol et al., 2010](#)). So that, there is a few studies that has been conducted on how the interaction process occurs and when this EFL/L2 child interacts between himself and video game as the media.

### Previous Research on Scaffolding Peer Interaction

Several studies have been conducted on peer interaction for vocabulary development for L2 who interacts with L1 employing either quantitative method or qualitative ones. [Palermo & Mikulski \(2014\)](#) observed the extent to which positive interactions with peers and the amount of exposure to English received from them during social interactions contribute to low-income Spanish-speaking children. The study emphasizes how crucial peer interaction is for preschoolers' acquisition of Spanish-speaking English vocabulary and letter-word knowledge. Another typical study was carried out by [Angelova et al. \(2008\)](#) who used qualitative design researching on peer interaction of Spanish and L1 children using an ethnographic approach to vocabulary as one of the components determined from the study. The study focused on learning-supporting methods as it examined how children mediate their own and one another's language acquisition within and across languages. Strategies are analyzed in the context of teaching/learning interactions in the Dual Language Program with attention paid to children's ongoing negotiation of the linguistic roles of beginner, expert, and dual linguist when working in mixed groups in English and Spanish classes.

[Erdemir & Brutt-Griffler \(2020\)](#) researched on vocabulary development and peer interaction in Turkish children to identify and promote children's vocabulary learning. This case study found that there is an increase in the language exposure of bilingual monolingual peers which mediates the development of the second language of early-emerging bilingual children. So, there is an additional vocabulary in the child indirectly. [Grøver et al. \(2018\)](#) sought to determine if peer-play talk and teacher-led group discussions in second language (L2) acquisition in preschool environments differed for five-year-old children with diverse first language (L1) vocabulary levels. By using a longitudinal design, this study involved 26 bilingual children who speak Turkish (L1) and Norwegian as participants. When they were five years old, they encountered a range in the volume and variety of L2 talk they were exposed to through interactions with teachers and peers. It was discovered that children who were exposed to teacher-led

and peer-play discussion with a high density of tokens at age five had more developed L2 vocabulary skills. Even after accounting for mother education, this interaction effect persisted.

[Sippel \(2019\)](#) conducted another study in a similar vein, examining the possibility that form-focused instruction (FFI) and peer corrective feedback (CF) could promote vocabulary growth during peer interaction (PI). A total of 77 participants—53 men and 24 women—were involved. 73 of the 77 participants were recognized as English native speakers. All of the participants were majoring in different topics; however, none of them were majoring in German. The test format was a productive vocabulary test followed by a receptive vocabulary test, a grammatical gender test, and a noun plural test. The design was quantitative experimental. The findings of this study paint a clear picture: PI alone was not adequate to support third-semester German learners' vocabulary growth. This was true for learners' accurate grasp of grammatical gender and plural forms as well as their productive and receptive knowledge of German nouns. The current trial also confirms other studies' conclusions that FFI is more effective than merely being exposed to language items. On both posttest measures of productive vocabulary and on one posttest measure of receptive vocabulary, the PI FFI CF group considerably outperformed the PI FFI group. These results show that vocabulary criticism from sources other than instructors can be useful.

In addition to studies about learner's interaction using game, [Hung et al. \(2015\)](#) investigate students' learning effectiveness, attitudes and interactions while playing a Wireless Crossword Game. The purpose of this research is to investigate the role of scaffolding integration with video games in EFL young learners. Data Collection was obtained by employing pre-and post-tests; observations; video recordings; questionnaire; interviews. It was found that system integration of Wireless Crossword Fan-Tan Game WiCFG in a collaborative and competitive game-based learning environment contributed more effective learning, more positive attitudes, more increased interactions, and reduced achievement gap. The design used in this study was quantitative. When the researchers used quantitative data, they only see how the initial and the final results. They do not see how the process is. Therefore, based on the above process, it shows that most peer interaction is done with L1 and L2 and saw the scaffolding interaction. Nonetheless, the vocabulary development has not determined yet although the most important basis to understand words used is vocabulary development. Therefore, this present study wants to know how vocabulary development is when children interact with video games. The research question is, then, stated 'How is EFL student vocabulary development after having long peer interaction with video games?'

## METHODS

### Research Design

This research aims to find the process of vocabulary development between EFL Students and Video interaction. Since it is an "intense, comprehensive description and examination of a single occurrence, phenomenon, or social unit," it qualifies as a case study ([Merriam & Sharan B., 1998](#)). In a case study, a researcher first examines a situation or an event over time using a variety of data collection techniques that draw from a variety of information sources (such as observations, field notes, videotaping, and in-depth interviews where the questions focused on aspects of acquiring or discovering new vocabulary while playing games and their meaning), and then engage in a rigorous data analysis with coding schemes and utilizing various statistical methods or using variety forms of interpretations. The present study's investigation of the video game experiences to discover how peer relationships aided in his vocabulary growth in the EFL made a qualitative single case study the most appropriate design. The participant of study was 17 years old EFL student DM (name of the subject/student) who had a long interaction learning with video games for 5 years. The weekly themes of [Erdemir & Brutt-Griffler \(2020\)](#), including getting to know one another, community, farm life, insects, rainforest ecology, and seasons, were used and modified for this study. The daily interaction routines where EFL student's interaction is observed and videotaped.

### Data Collection

The data was gathered over a nine-month period (from December 2021 to August 2022) through intensive observation and videotaping of peer interactions. The subject was observed in his classroom for 72 field visits from morning to afternoon, covering (1) English teacher-directed circle time, (2) English teacher-directed table activity time, and interactions for approximately 120 minutes, with the remainder dedicated to classroom activities ([Erdemir & Brutt-Griffler 2020](#)). Each time a field visit was conducted, the child and his interactions in the classroom while studying English were carefully monitored. The language employed by DM (the subject's name) and his peers (video games), the words they made, as well as their interaction and peer talk dynamics, were the focus of observations. Around 280 hours of participant observation were completed in total over the study period. A memo repertory, which essentially contained compiled observation notes arranged in chronological order from the start to the end of the research, was created from the detailed observation notes that were taken. These notes afterwards made it possible to track the focal child's growth in terms of his L2 development and peer interaction abilities over the course of the year. Concurrent field visits for participant observation was place.

A classroom teacher was questioned on how much language students were picking up from peers. Also, the member-checking technique ([Merriam & Sharan B., 1998](#)) was used, in which the teacher was given examples from

films and field notes to use as examples to compare and contrast their interpretations. This was done to double-check the information gathered and make sure it displayed accurate information. To add another depth to the interpretations of the findings, the data from the member-checking and interview were provided. Consequently, it resulted in the accuracy of the findings.

### Data Analysis

In Conducting in-depth analysis on subject vocabulary development, it required vocabulary acquisition, Data reduction, Data display and Drawing conclusion (Creswell, 2014; Miles et al., 2014) which topic is taken based on the theme (Blum-Kulka & Snow, 2004) for adults which is divided into; 1) Interaction with their English teacher in classroom 2) Interaction with Video games 3) direct interaction with teacher. A vocabulary acquisition and production database was built in order to record the new words that EFL students had learnt from peers and to allow for analyses and interpretations of those words. This was a thorough data platform that recorded the words created by subject and peer engagement with video games and was made up of transcripts of peer interaction videos and field notes.

## RESULTS AND DISCUSSION

The findings showed that the interaction of EFL students incidentally occurred where they learned new vocabulary from interaction with video games and expressively used them in realistic situations. The data analysis relieved different words EFL Students learned from video games interaction as good as vocabulary gains. It included vocabulary support and learning patterns, spontaneous vocabulary interaction, and vocabulary improvement in video games interaction skill.

### Vocabulary Support and Learning Patterns

Peers supplied the subject with spontaneous interactions between EFL students and video games in a variety of ways, which helped him learn and create new terms. These aids were not given to him with the goal of teaching him words. Instead, they were part of genuine encounters and were given to him on the spur of the moment in various ways by peers, supporting his acquisition and creation of new words. Peers utilized words that were not expressly taught in class by the teacher nor were part of the EFL student's basic vocabulary corpus for English. He learned a lot of new words from his friends' conversations. To promote conversation continuation and engagement in interaction episodes, several of these words were made highly conspicuous and clearly stressed. When specific words were exposed to Erdem in this way, there was a clear emphasis on some of these vocabularies, which incidentally helped him learn those words. Definitions and illustrations for each category throughout video game interactions are included in Table 1.

Peer vocabulary support made some terms more noticeable to EFL students. The supports did not consistently appear in every peer interaction episode because they happened incidentally within the real flow of the engagement and since the goal was not to teach him the language meanings in such spontaneous talks. Yet, they frequently appeared throughout the data and functioned as useful vocabulary exposures in peer interactions, contributing to the expressive language repertoire of EFL students in the classroom.

Vocabulary support and learning has four aspects based on the Eldemeir framework. There are corrections, labeling activity, labeling objects and demonstrations. According to the observation and the interview note, the findings are in the following table:

**TABLE 1 |** Vocabulary Support and Learning

Category	Description	Example
Correction	In peer interaction the category of peer interact is correction, but since in this case video games interaction is passive object students could not get corrections directly from the video. He can listen to the audio that comes out of video games over and over.	Transcript 3 - activity type interaction with video games  1st Find [1] Audio: enemy eliminated [2] Subject : (Mumbeling) enemy elimit  2nd Find [1] Audio: Enemy Eliminated [2] Subject: Enemy eliminated
Labeling Activity	Whereas in video games, the focus is on the peer, peer points to an action and specifically names it. The focal child himself, other classmates, the teacher, or an image may perform the actions that are pointed out and	Transcript 3- Activity type interaction with video games  [1] audio : your teammate is on the revive time fight

	labeled. People may also relate specific behaviors to other things, such as animals or vehicles. They may animate or personify scenes or images they have seen by adding actions, all the while naming the action.	[2] subject : (Clicking to found his teammate ) Transcript 1- Activity type direct interaction with teacher [1] Audio : let's go back to the knoll meanwhile he use the new word "knoll" to converse with the teacher (Laugh) beside that, we can go to other places if we want to enjoy our class, like go to staycation I like to go to malang to staycation, If there is no PPKM I like to see Knoll and cold weather on there
Labeling Object	When playing video games, the focus is on the peer, who points at and openly labels the object. The topic is listening to the peer, who may or may not be speaking to the child in the center. Things from pictures or in the classroom are among the objects that are pointed out and labeled.	Transcrip 3- Activity type interaction with video games [1] Audio : the airdrop enemy is coming [2] the subject automatically find the helicopter of enemy to shoot it

### Correction

A correction is an improvement or a revision when there is something that needs to be fixed. Correction in this research occurs more than five times. The subject of participant tried to correct his sentences. (minimum 5 sentences)

*He said, "(Mumbeling) enemy elimit, enemy elimited"*

According to the transcript, it shows that he repeated the same words in different ways. At the first time, the audio played the sounds of enemy elimited. After that, the subject imitated the sound that he listened to more than twice. After he noticed that he made mistakes in pronouncing the words, he kept trying to pronounce the right pronunciation. Furthermore, he unconsciously carried out self regulated learning activities.

### Labeling Activities

Labeling activity is an activity pointed to the activities happening in the interaction. It can be found from the peer or video games audio. Moreover, the peer might also associate some activities related to what he needed to do.

### Labeling Object

Labeling object is a labeling toward an object which a peer or video's clue and the peer need to guess the object. It can be seen from the script of the audio.

[1] Audio : "the airdrop enemy is coming"

[2] the subject automatically find the helicopter of enemy to shoot it

This response is called a labeling object. This happens because of the habit of interaction carried out together. In

this case the interaction between the subject and the video game and the players.

Based on four categories above it shows that the subject's vocabulary indirectly comes from the audio he hears. From the audio there was an interaction even though he didn't necessarily know what the vocabulary meant, but he could understand doing the movements that were ordered. This indirectly he does repetition / imitation and interaction toward video games. the use of video games that constantly make the subject memorize what he has to do so that indirectly there is a certain vocabulary that is automatically entered and implemented in games. then found repetition of pronunciation, he unconsciously mumbling when there is an order from the incoming games. For example, the first time he heard about "elimited" he only said "Elimit" meanwhile, after he replied to the audio again he found the right vocabulary "Elimited". This shows the subject unconsciously did self-directed learning.

Secondly, the interaction between video games, subjects and players resulted in a learning environment that supports learning. As can be seen in the labeling activity and labeling object, the subject quickly guesses the activity and object that must be found with the command sentence given by the audio. When Erdem employed a word that was coined by another person, it often seemed that the word's earlier use or repeated use by video games during the same interaction event had conditioned his vocabulary acquisition. In other words, the more often a word was used throughout the conversation, the more likely it was that the subject would

pick it up from their peer and use it. In contrast to words that were only spoken once in a video without being used again and without any non-verbal cues to make them more salient, the audio in video games was able to pick up and use these words more frequently after being exposed to them repeatedly. The subject appeared to exhibit fast-mapping, in which he gained a quick, incomplete comprehension of word meaning through repeated exposures to video games, as the teacher's lesson had not previously exposed him to these unique words. This caused him to relate the words' meaning to his life or experiences in order to employ them expressively. Subjects frequently employed peer-originated terms in future scenarios with various peers, according to the findings. The peer used the same word in various circumstances as well as within the same episode because of how frequently he used it during the interaction episode. That instance, if other participants in the current dialogue regularly used a novel word during different rounds.

The focusing child uses repetition as a pattern while learning and employing peer vocabulary. It is the simple repeating of a word, within a short space of words (including in a poem), with no particular placement of the words to secure emphasis. It is a multilinguistic written or spoken device, frequently used in English and several other languages. The researcher found out the repetition based on the data from the observation. The student repeated the same pattern in peer vocabulary. The example of repetition was in the following:

1st utterance

[1] Audio: enemy elimited

[2] Subject : (Mumbeling) enemy elimit

2nd utterance

[1] Audio: Enemy Elimited

[2] Subject: Enemy Elimited

According to the data, the researcher showed there are many repetition activities that subjects got from video games interaction. It can be seen from how the subject repeats a vocabulary. After the subject heard audio, he repeated the vocabulary and unconsciously tried from wrong vocabulary "Elimit" to better vocabulary "Elimited". It means that repetition helps students in developing their vocabulary. It is proven from how many repetitions they have and correct it automatically.

### Incidental Vocabulary Learning from Interaction

Incidental vocabulary is about spontaneous vocabulary gained from subject and videogames interaction. Capitalized spontaneous vocabulary is not only gained when interacting with games but also when interacting with friends or teachers in (Capitalization) English classrooms. The findings are supported by the data in [table 2](#):

**TABLE 2** | Incidental Vocabulary Learning

Items	Explanation
<p>Activity interaction with teacher talking about education opinion</p> <p>T : Do you think a teacher should be friendly or strict?            S : My teacher is really <i>killer</i> person and they always <i>Scold</i> at me, meanwhile in my fantasy, teacher supposed to be an Hero for ever <i>elements</i> of learning</p>	<p>Before the student learned the vocabulary through the video game, he used common vocabulary. After he played video games, he imitated and used the words which were learned by him through the video game such as "in my fantasy..." which he commonly used "In my Opinion".</p> <p>Besides that vocabulary, the subject also said "Killer" which means "Strict". The word "killer" is derived from the video game which he played.</p>
<p>activity interaction with friend discussed about Favorite Movie</p> <p>S: I like to watch cartoon movie and Thriller            SF : That sounds nice, what part of that ?            S: I live when he destroyed something <i>like the devil and an enemy in thriller</i> , for cartoon I just like Anime movie and many lesson that I can found on ther            SF : What Kind of Lesson?            S: it's like How naruto understand about friendship and Hard word to get his Rank and make his own world in peach</p>	<p>Before the student learned the vocabulary through the video game, he used common vocabulary. After he played video games, he imitated and used the words which were learned by him through the video game such as "like the devil and an enemy in thriller"</p>

Based on the results on [table 2](#), it is shown that there are implementations that are carried out unconsciously in conversations with friends and teachers. The child accidentally does incidental vocabulary that enters his vocabulary. In future scenarios with other peers, subjects were more likely to pick up and use this specific word. In the table above, transcript 9 ([Figure 1](#) and [Figure 2](#)) shows how the subject first learned a word from a video game and then used it in a group of peers four days later.

Transcript 9 - activity

Audio : *the enemy is going down we can continue to the next part*

Subject : (Mumbeling) *it's going down*

Audio : *Find your element of the sworn!*

Subject : *element, Element (Repeat)*



**FIGURE 1** | Screen: *Kill the player on the opposite team!*



**FIGURE 2** | Audio: *Finally a hunter killer drone kill!*

The words spoken by the audio are automatically played and imitated by the subject. This shows how the learning process is carried out by the subject so as to produce new vocabulary that is implemented in activities and conversations with classmates and conversations with teachers. Thus, his gradually increasing L2 competence seemingly contributed to his video interaction skills over time which fostered his vocabulary learning from video games.

This case study looked at how a 17-year-old emergent English language learner expanded his expressive vocabulary and learned new words from video interactions. His vocabulary gains' characteristics, elements that aided or hindered the process, patterns and processes, the video instruction that taught him new words through involvement

with games, and the gradual improvement of his peer interaction abilities over time were all documented in the study materials. The research topics examining the interactions and vocabulary acquired by EFL students while playing video games are examined in relation to the findings.

The subject similarly displayed two tendencies while responding to or paying attention to the linguistic supports of peers. He typically transitioned from repeating the term to using or duplicating the word that his video or video peer had used through social referencing. His copying and repetition of peer content during peer interactions are consistent with [Meyer et al., \(1994\)](#)'s study, which discovered that this was a frequent tactic for participating in peer relationships. Additionally, research has shown that L2 beginners repeat and mimic what they hear from teachers and peers, and that these behaviors mediate and support their L2 learning in the classroom ([Ohta, 2001](#)). Vocabulary learning behaviors include the verbal production of the word in various speech act forms (such as repetition/imitation and commenting/extending) in response to peer support behaviors. Creating the word in such ways may have been a reflection of his efforts to provide understandable output while learning and reinforcing the word's definition and usage.

According to the output theory, L2 acquisition may be more likely to occur through language production. It is therefore plausible that the patterns the subject displayed in his acquisition of peer terms were the kinds of linguistic products that led to vocabulary gains. This would imply that in order to be able to anchor peer vocabulary's meaning and use, he may have required to generate it in intelligible output forms. The Vygotskian theory that children imitate what they are learning or what is in their zone of development is supported by the vocabulary learning patterns that have been observed ([Newman & Holzman, 2013](#)). Also, the individual was able to pay attention to and learn the words because the video peer repeated them throughout an episode. So, terms that were repeated during a conversation increased the likelihood that the subject would pick them up. Similar to this, research indicates that in order to comprehend, anchor, and create a word, numerous exposures to the same word are required.

However, this study is different with previous study conducted by [Calvo-Ferrer & Belda-Medina \(2021\)](#) who stated that students were encouraged to meaningfully use in the game by means of written interaction. It is different from the present study which showed that the interaction of vocabulary learning through verbal interaction. The student did not give any other written interaction in the chat box. Moreover, the research was qualitative research which emphasized on the deep information from the observation and the interview. It is different from the previous research which was a quantitative design with paying attention to the number of vocabulary learned.

This current research found out that the student showed self directed learning. He tried to correct his words and grammatical errors using the term that the audio said. He imitated it and changed his words by using the correct ones.

Moreover, it makes him learn something and realize his mistake in vocabulary learning. After he noticed that, he tried his best to correct it by using the appropriate ones.

Moreover, this research emphasizes the process of acquiring new languages. Previous research revealed the results quantitatively. It only showed the number of the vocabularies which were learnt by the students after playing games. There is limited research which discusses the process and the interaction of acquiring the new language. This current research revealed that the students imitated the vocabularies from the video games such as the word "killer" from the instruction from the games. The finding of this current study also confirms to the aspects of self-directed learning suggested by Knowles (1975) in [Abdullah et al. \(2008\)](#) who proposed three aspects of self-directed learning namely; responsibility in their own planning, conducting, and evaluating. These aspects were the same with the finding of subject in repetition of the right word from "elimit" becoming "Elimited" this is the example of self-directed learning that happened in this research. The subject tried to plan his learning process by building a support environment of learning with using games. After that he tried to conduct his planning to play games, then he unconsciously learned and evaluated himself to learn English. The finding of this study suggested that children unknowingly support learning by building their own environment and autonomy. It refers to what [Reeve \(2013\)](#) suggested in his research. So, without any help from those around them, they are able to carry out direct learning with the audio used.

The self-directed learning process is one where the student guides and manages while working at their own "speed." When one could choose the time, place, and method of learning, there was a stronger sense of control over the process. The concept of having a "choice" in how one learned something was also considered. Self-directed learning is a personal endeavor that is motivated primarily by personal initiative, professional curiosity, and a sense of responsibility. Self-directed learning was viewed as an activity that was carried out at the learner's own speed and under their direction. It was also mentioned that having a choice is crucial when determining how to study. It is interesting to note that these descriptions echo ideas previously articulated by [Brockett & Hiemstra \(2018\)](#), who describe self-direction as reliant on a learner's preference or desire for taking ownership of their education. The term "self-direction" in learning refers to both the internal and outward elements of a learning process ([Brockett & Hiemstra, 2018](#)). Taking responsibility for one's own thoughts and deeds is referred to as personal responsibility. Any possibility for self-direction in learning is determined by an individual's capacity or willingness to assume responsibility.

## CONCLUSION

Referring to the findings, the researcher concludes that vocabulary support and learning has four aspects framework. There are corrections, labeling activity, labeling object, and repetition. It shows that the subject's vocabulary indirectly comes from the audio he hears. From the audio there is an interaction even though he did not necessarily know what the vocabulary means, but he could understand doing the movements instructed. He indirectly does repetition / imitation and interaction toward video games. The use of video games constantly makes the subject memorize what he has to do. As an effect, there is a certain vocabulary which comes up and is implemented automatically. In relation to repetition of pronunciation, he unconsciously mumbling when there is an order from the incoming games.

In addition to the points for mentioned, the interaction from the students and audio of the video game showed a type of incidental vocabulary. It means a spontaneous vocabulary he gains is derived from interaction not only with games but also with friends or teachers in English classrooms. Most of the interactions were incidental vocabulary learning. Regardless of the findings of this study, this study has its limitation since it is classified as a case study where the subject centralizes on one person. It is suggested that future study can expand to more subjects with different design focusing on how games affect significantly on EFL learners and how their attitudes or perception toward learning English in particular vocabulary gain via games online.

## ACKNOWLEDGEMENTS

The researcher expresses his deepest gratitude to any parties assisting very valuable contribution to some extents of this research including the parent and the subject of this study.

## REFERENCES

- Abdullah, M. M. Bin, Koren, S. F., Muniapan, B., Parasuraman, B., & Rathakrishnan, B. (2008). Adult Participation in Self-Directed Learning Programs. *International Education Studies*, 1(3), 66–72. <https://doi.org/10.5539/ies.v1n3p66>
- Angelova, M., Gunawardena, D., & Volk, D. (2006). Peer teaching and learning: Co-constructing language in a dual language first grade. *Language and education*, 20(3), 173-190. <https://doi.org/10.1080/09500780608668722>
- Aram, D., & Aviram, S. (2009). Mothers' storybook reading and kindergartners' socioemotional and literacy development. *Reading Psychology*, 30(2), 175–194. <https://doi.org/10.1080/02702710802275348>
- Aram, D., & Shapira, R. (2012). Parent-Child Shared Book Reading and Children's Language, Literacy, and Empathy Development. *Rivista Italiana Di Educazione Familiare*, 2(2), 55–65. <https://doi.org/10.1400/227336>



- August, D., Shanahan, T., & Escamilla, K. (2009). English language learners: Developing literacy in second-language learners—Report of the National Literacy Panel on Language-Minority Children and Youth. *Journal of literacy research, 41*(4), 432–452. <https://doi.org/doi:10.1080/10862960903340165>
- Blum-Kulka, S., & Snow, C. E. (2004). Introduction: The potential of peer talk. *Discourse Studies, 6*(3), 291–306. <https://doi.org/10.1177/1461445604044290>
- Brockett, R. G., & Hiemstra, R. (2018). Self-Direction in Adult Learning. In *Self-Direction in Adult Learning*. <https://doi.org/10.4324/9780429457319>
- Calvo-Ferrer, J. R. (2017). Educational games as stand-alone learning tools and their motivational effect on L2 vocabulary acquisition and perceived learning gains. *British Journal of Educational Technology, 48*(2), 264–278. <https://doi.org/10.1111/bjet.12387>
- Calvo-Ferrer, J. R., & Belda-Medina, J. (2021). The effect of multiplayer video games on incidental and intentional L2 vocabulary learning: The case of among us. *Multimodal Technologies and Interaction, 5*(12). <https://doi.org/10.3390/mti5120080>
- Chen, H. J. H., & Yang, T. Y. C. (2013). The impact of adventure video games on foreign language learning and the perceptions of learners. *Interactive Learning Environments, 21*(2), 129–141. <https://doi.org/10.1080/10494820.2012.705851>
- Cole, H., & Griffiths, M. D. (2007). Social interactions in massively multiplayer online role-playing gamers. *Cyberpsychology and Behavior, 10*(4), 575–583. <https://doi.org/10.1089/cpb.2007.9988>
- Creswell, J. W. (2014). *Research design qualitative, quantitative, and mixed methods approach*. Sage publications. [https://www.ucg.ac.me/skladiste/blog\\_609332/objava\\_105202/fajlovi/Creswell.pdf](https://www.ucg.ac.me/skladiste/blog_609332/objava_105202/fajlovi/Creswell.pdf)
- Daniels, H. (2016). *Vygotsky and Pedagogy*. Routledge.
- Erdemir, E., & Brutt-Griffler, J. (2022). Vocabulary development through peer interactions in early childhood: A case study of an emergent bilingual child in preschool. *International journal of bilingual education and bilingualism, 25*(3), 834–865. <https://doi.org/10.1080/13670050.2020.1722058>
- García-Carbonell, A., Rising, B., & Watts, F. (2015). Simulation / gaming and the acquisition of communicative. *Simulation & Gaming, 32*(4), 481–491. <https://doi.org/10.1177/104687810103200405>
- Grøver, V., Lawrence, J., & Rydland, V. (2018). Bilingual preschool children's second-language vocabulary development: The role of first-language vocabulary skills and second-language talk input. *International Journal of Bilingualism, 22*(2), 234–250. <https://doi.org/10.1177/1367006916666389>
- Helman, L. A., & Burns, M. K. (2008). What Does Oral Language Have to Do With It? Helping Young English-Language Learners Acquire a Sight Word Vocabulary. *The Reading Teacher, 62*(1), 14–19. <https://doi.org/10.1598/rt.62.1.2>
- Hung, H. C., Young, S. S. C., & Lin, C. P. (2015). No student left behind: a collaborative and competitive game-based learning environment to reduce the achievement gap of EFL students in Taiwan. *Technology, Pedagogy and Education, 24*(1), 35–49. <https://doi.org/10.1080/1475939X.2013.822412>
- Kucirkova, N., Messer, D., Sheehy, K., & Flewitt, R. (2013). Sharing personalised stories on iPads: A close look at one parent-child interaction. *Literacy, 47*(3), 115–122. <https://doi.org/10.1111/lit.12003>
- Kyrtziz, A. (2004). Talk and interaction among children and the co-construction of peer groups and peer culture. *Annual Review of Anthropology, 33*(1977), 625–649. <https://doi.org/10.1146/annurev.anthro.33.070203.144008>
- Mashburn, A. J., Justice, L. M., Downer, J. T., & Pianta, R. C. (2009). Peer effects on children's language achievement during pre-kindergarten. *Child Development, 80*(3), 686–702. <https://doi.org/10.1111/j.1467-8624.2009.01291.x>
- Merriam, & Sharan B. (1998). *Qualitative Research and Case Study Applications in Education*. Revised and Expanded from “Case Study Research in Education.” Jossey-Bass Publishers. <https://eric.ed.gov/?id=ED415771>
- Meyer, C. A., Klein, E. L., & Cenishi, C. (1994). Peer relationships among 4 preschool second language learners in “Small-group time.” *Early Childhood Research Quarterly, 9*(1), 61–85. [https://doi.org/10.1016/0885-2006\(94\)90029-9](https://doi.org/10.1016/0885-2006(94)90029-9)
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis : A method of Sourcesbook (4th ed.)*. Sage publications. <https://us.sagepub.com/en-us/nam/qualitative-data-analysis/book246128#preview>
- Neuman, S. B., Samudra, P., Wong, K. M., & Kaefer, T. (2020). Scaffolding attention and partial word learning through interactive coviewing of educational media: An eye-tracking study with low-income preschoolers. *Journal of Educational Psychology, 112*(6), 1100–1110. <https://doi.org/10.1037/edu0000428>
- Neumann, M. M. (2020). Teacher Scaffolding of Preschoolers' Shared Reading With a Storybook App and a Printed Book. *Journal of Research in Childhood Education, 34*(3), 367–384. <https://doi.org/10.1080/02568543.2019.1705447>
- Newman, F., & Holzman, L. (2013). *Lev Vygotsky (Classic Edition)*. New York. <https://doi.org/https://doi.org/10.4324/9780203758076>
- O'Toole, K. J., & Kannass, K. N. (2018). Emergent literacy in print and electronic contexts: The influence of book type, narration source, and attention. *Journal of Experimental Child Psychology, 173*, 100–115. <https://doi.org/10.1016/j.jecp.2018.03.013>
- Ohta, A. S. (2001). *Second Language Acquisition Processes in the Classroom*. Routledge. <https://doi.org/https://doi.org/10.4324/9781410604712>

- Palermo, F., & Mikulski, A. M. (2014). The role of positive peer interactions and English exposure in Spanish-speaking preschoolers' English vocabulary and letter-word skills. *Early Childhood Research Quarterly*, 29(4), 625–635. <https://doi.org/10.1016/j.ecresq.2014.07.006>
- Rababah, L. M., Alshehab, M. H., & Melhem, N. Z. B. (2018). Exploring the factors that hinder Jordanian students in developing creativity in EFL writing. *International Journal of English and Education (IJEE)*, 7(3), 161-170. <https://doi.org/10.17758/eirai.f0117427>
- Reeve, J. (2013). How students create motivationally supportive learning environments for themselves: The concept of agentic engagement. *Journal of Educational Psychology*, 105(3), 579–595. <https://doi.org/10.1037/a0032690>
- Salomon, G., Globerson, T., & Guterman, E. (1989). The Computer as a Zone of Proximal Development: Internalizing Reading-Related Metacognitions from a Reading Partner. *Journal of Educational Psychology*, 81(4), 620–627. <https://doi.org/10.1037/0022-0663.81.4.620>
- Sippel, L. (2019). The impact of peer corrective feedback on vocabulary development. *Foreign Language Annals*, 52(3), 595-611. <https://doi.org/10.1111/flan.12416>
- Van de Pol, J., Volman, M., & Beishuizen, J. (2010). Scaffolding in teacher-student interaction: A decade of research. *Educational Psychology Review*, 22(3), 271–296. <https://doi.org/10.1007/s10648-010-9127-6>

**Conflict of Interest Statement:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2023 Slamet Asari. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.