

**EXPLORING STUDENT'S LEARNING ENJOYMENT AND
VOCABULARY MASTERY IN DIGITAL GAME-BASED
LEARNING EXPERIENCE: A NARRATIVE INQUIRY**

Anisa Pratiwi

Universitas Sebelas Maret, anisapradiwi@student.uns.ac.id

Nur Arifah Drajadi

Universitas Sebelas Maret, nurarifah_drajati@staff.uns.ac.id

Ellisa Indriyani Putri Handayani

Universitas Sebelas Maret, ellisaindriyani@staff.uns.ac.id

Abstract

Digital Game-Based Learning has gained numerous attentions among researchers and educators for its fun-learning concept that promotes learners' enjoyment. The present study explicates two things: the learning enjoyment reported by EFL learners based on Fu et al., (2009) 's EGameFlow and the impacts on EFL learners' vocabulary mastery based on Nation's (2001) concept, while playing games. This study involved an Indonesian EFL learner who is also an active digital game player. Narrative Inquiry methods were applied to present the findings. Thus, observations, learner's reflection diary, interviews, and artifacts are involved in the data analysis. The results showed that 6 out of 8 dimensions of EGameFlow emerged, and vocabulary mastery was achieved through Nation's (2001) concept—along with 78 new words and phrases learned. Furthermore, by looking deep into the participant's stories, the findings also generate meaningful implications for vocabulary learning and learning enjoyment in digital game-based learning.

Keywords: Digital Game-Based Learning, Learning Enjoyment, Vocabulary Learning.

INTRODUCTION

The use of digital game-based learning (DGBL) has gained a lot of interest among researchers and educators in the last decade. Scholars (e.g., Gee, 2003; van Eck, 2011) also value digital games as an educational instrument (Ebrahimzadeh & Alavi, 2016). As previous studies have shown that digital games have compelling features such as fun, challenge, goals, competition, adaptation, and interaction (Yang et al., 2019) which promotes enjoyment and task engagement that leads to high knowledge acquisition (McNamara et al., 2010), it can be argued that digital-game could promote better learning. In practice, however, students experienced different enjoyment among each other in DGBL settings.

Regarding language learning, enjoyment itself has been viewed as a trait-like sentimental experience and a response to learning tasks (Jin & Zhang, 2021). Thus, as trait-like enjoyment is a situation-specific category conceived as “individual dispositions to react with a specific level of enjoyment to specific situations within an academic context” (Goetz et al., 2006, p. 325), it is linked to the perceived control and value of language learning (Piechurska-Kuciel, 2017). These points all together imply that enjoyment and flow are beneficial (Ebrahimzadeh & Alavi, 2016; Sweetser & Wyeth, 2005) for language learning. However, to the author’s best knowledge, few studies have been conducted regarding the enjoyment of learning while playing games and its relation to vocabulary mastery within the narrative framework.

Therefore, this research study aimed to address the gap. To explore how the learner’s learning enjoyment during playing games and how it affects learner’s vocabulary mastery which was this study purpose, qualitative analysis was opted to collect the data. Additionally, the findings could broaden our understanding of learning enjoyment and vocabulary mastery in digital game-based learning. Furthermore, the result is also expected to inform the researchers and educators on how learning enjoyment in digital game-based English language learning settings could promote a better language learning experience, especially vocabulary.

1. What kind of learning enjoyment reported by EFL learner during playing games based on Fu et al. (2009)'s EGameFlow scale?
2. What are the impacts on EFL learner's vocabulary mastery during playing games based on Nation (2001)?

LITERATURE REVIEW

Digital Game-Based Learning

In recent years, digital game-based learning has gained popularity among researchers and educators (Lee, 2019). Kinzie and Joseph (2008) reported that a game is described as “a voluntary and enjoyable activity in which a player pursues a challenging goal based on the game rules” (p. 644). The system of the games may build imaginative and creative experiences for the player to be involved in problem-solving-like activities (Sykes et al., 2012) to achieve the goal. This is related to Gee's (2009) viewpoint of digital games as “problem-solving spaces that use continual learning and provide pathways to mastery through entertainment and pleasure” (p. 67). The digital game is considered a simulation that promotes an interactive learning environment where the players have specific functions to do tasks using given information (Janebi Enayat & Haghighatpasand, 2019). Thus, using games as a tool to learn a language allows learners to communicate, collaborate, and be creative and spontaneous in a meaningful way. (Sulistyawati & Warpindyastuti, 2018)

Due to its' fun learning concept—though learners learn from it (Ebrahimzadeh & Alavi, 2016), many language researchers put their attention on digital game-based learning studies (e.g., Jin & Zhang, 2021; Reinders & Wattana, 2015; Yang et al., 2019). However, to author the best knowledge, the 'digital game-based learning' term itself was first proposed by Prensky in 2001 to designate computer games usage for educational purposes. Later in 2003, Gee mentioned several beneficial features in the digital game for learning such as interactive, productive, engaging and less negative for the learners. Another study in 2005 by O'Neil et al. showed that digital games also motivate the learners, support a variety of learning approaches and focus on the cognitive and affective issues of learning (Janebi Enayat & Haghghatpasand, 2019).

Learning Enjoyment

Enjoyment is seen as the feeling of pleasure when an individual does or experiences something they like and plays a role in individuals' lives when deciding things, such as English learning (Ebrahimzadeh & Alavi, 2016). In 1990, Csikszentmihalyi proposed eight significant components on the phenomenology of enjoyment. First, individuals usually get the experience when they are faced with activities that they have a chance of achieving. Second, we must be able to concentrate on the task at hand. The third and fourth are

frequently attainable since the assigned task has defined objectives and gives immediate feedback. Fifth, one performs with a deep yet effortless engagement that removes the stresses and frustrations of daily life from consciousness. Sixth, enjoyable experiences give people a sense of authority over their behaviour. Seventh, self-consciousness fades away, but paradoxically, after the flow experience is done, the sense of self grows more substantial. Finally, one's sense of the passage of time is altered. Thus, claiming the combination of the components results in "a sense of deep enjoyment that is so rewarding people feel that expending a great deal of energy is worthwhile simply to be able to feel it." (p. 49).

In 2005, Sweetser & Wyeth explored Csikszentmihalyi's (1990) components in the digital game, resulting in GameFlow. They created a simple enjoyment model in-game evaluation by combining numerous heuristics on usability and user experience in games. Conceptually, they considered enjoyment is similar to flow, thus adding social interaction to their concept. Later in 2009, Fu et al. developed the framework into a scale that evaluates learner enjoyment in e-learning games. They argued that "in an effective e-learning game, the learner's enjoyment acts as a catalyst to encourage his/her learning initiative," (p. 101) thus, it is crucial to have an available scale that can measure the enjoyment offered by games. The following are the factors; (a) concentration, (b) goal clarity, (c)

feedback, (d) challenge, (e) autonomy, (f) immersion, (g) social interaction, (h) knowledge improvement.

Vocabulary Mastery

Hornby et al. (1974) argued that vocabulary is a list of words with definitions or translations in a book. Hatch and Brown (1995) defined *vocabulary* as a set of words used by the individual speaker of a language. Lessard-Clouston (2013) believed that vocabulary is “the words of a language, including single items and phrases or chunks of several words which convey a particular meaning, the way individual words do” (p. 2). In general, vocabulary deals with words (Schmitt, 2000). Therefore, vocabulary is a set of defined or translated words or words-phrases of a particular language.

Researchers such as Nation (2001) and Schmitt (2000) argued that the classification falls into the receptive and productive vocabulary. Receptive vocabulary refers to one understanding of a language from others through reading or listening. Productive vocabulary includes expressing meaning and producing the appropriate spoken or written form. Although the two categories generally applied to the English language skill competence (Schmitt, 2004), given the vocabulary matters, those terms will be linked to knowing a word (Nation, 2001). Nation (2001) proposed three aspects involved in knowing a word; meaning, form, and use.

There's a lot more to vocabulary than just a series of words (Kamarudin et al., 2018). Thus, in order to make vocabulary learning effective, a learner must be in a sufficient condition that would help him obtain, understand, and produce the language. Learning vocabulary is considered one of the first stages of learning a language. People can broaden their vocabulary knowledge in various ways, even based on their personality and learning style (Lessard-Clouston, 2013). For example, some people expand their vocabulary from dictionaries, digital games, podcasts, or teacher's lists.

RESEARCH METHOD

The study focused on how digital game-based learning affect learner's learning enjoyment based on Fu et al.'s (2009) EGameFlow and (Nation, 2001) vocabulary mastery. Since the present study learned in-depth about the participant's experience in digital game-based learning, we opted for narrative inquiry. Thus, narrative has been claimed as the best way to learn about 'individuals' inner worlds' through a story presented by the narrator based on the participant's live experience (Lieblich et al., 1998). In this case, the present study learned in-depth about the participant's experience in digital game-based learning regarding learning enjoyment and vocabulary mastery.

Participant

The participant is a 14-year-old Indonesian Junior High School student who studies at a public school in West Java, Indonesia. He meets the needs as he plays various types of digital games with an average of casual to high frequency, approximately 3 to 4 hours per day. He also learned English as Foreign Language at school, with the Intermediate level based on his report card and the latest English test provided by the school. He has a tendency to relate unfamiliar words with in-game visual and sound effects in any digital games that he plays to get the meaning. This is crucial as this study aims to cover DGBL and English learning matters. The participant's identity is disguised to protect the subject from any foreseen threats. Thus, the participant is under the pseudonym of Kyura.

Data Collection Methods

The present study opted for observation, written narratives, artefact analysis and interviews as the data collection method. The observation was conducted during the participant's game-play time. It was crucial to observe and record the game-play "to discover what people do and with whom, what is happening, and if any trends and patterns are discernible in these activities" (McKechnie, 2008, p. 574). Thus, the recordings were thoroughly reviewed using the artefact analysis. The written narratives used in the presented study is learner diaries, "autobiographical, introspective documents that

record the experiences of language learning from the learner's perspective.” (Barkhuizen et al., 2014, p. 35). After the game-play activity, the participant produced a coherent story by writing the given frame based on his reflections and experience.

The interview questions were open-ended and based on the written narratives and observation to allow the participant to elaborate and the researcher to develop themes. The interview elicited the narrative from the participant by asking about his English learning and gaming experience based on the EGameFlow aspects. The gaming clips are provided in the interview session to allow the participant to talk about his experience well. The participant was interviewed after the observation period and during the data analysis period to help triangulate the existing data in Indonesian—to help the participant feel comfortable talking about the details.

Data Analysis

The primary method of processing qualitative data entails the data being coded or classified. It includes making sense of enormous volumes of data (Patton, 2002), thus in detail and organized, by decreasing the volume of raw information, detecting relevant trends, and eventually taking significance from data and then establishing a cohesive chain of facts. Therefore, this study used Thematic Analysis proposed by Barkhuizen et al. (2014), including “repeated reading of

the data, coding and categorization of data extracts, and reorganization under thematic headings” (p. 75).

FINDINGS AND DISCUSSION

The recent study focuses on how the learner’s learning enjoyment while playing games affects the learner’s vocabulary mastery through the narrative inquiry. The results reveal that the dimension of learning enjoyment based on Fu et al.’s (2009) EGameFlow appeared throughout the study are six dimensions, namely autonomy, immersion, concentration, challenges, social interaction and knowledge improvement.

Emerged Sense of Control

The participant's sense of control was visible from the first day. The game was Genshin Impact, a fantasy role-playing game with multiple stories in each quest or assignment. This game's features include distinct voices for each character and subtitles at the bottom of the screen. Another feature that can benefit EFL learners is to change the language of the voice and text. (see *Figure 1*)

This act of autonomy related to the flow theory proposed by Csikszentmihalyi (1990), sense of control over one’s action that later adopted in Sweetser and Wyeth’s (2005) GameFlow and Fu et al.’s



Figure 1. Language Settings

(2009) EGameFlow as initiative act enjoyed by the learner (player) and maintained the total control over their decisions. This study found that having control of action, for example, different language choices for text and voice, definitely helped the learner understand the context of the game's story, quest, or instruction easier. Unfortunately, not all games included this valuable feature for EFL learners. Thus, for the other games, he just went with English due to the unavailability of the voice text language settings.

"There's too much dialog with the NPC this time. The story line's animation is too gorgeous. But because it was too long, I had to change the language of the text to Indonesian so I wouldn't miss anything." [RD12]

"Yes, if you play genshin, you have the option of having voice and subtitles in English, Indonesian, Japanese or Korean., Well, if you play other games, automatically English, because it's rare that a game can use two languages, right." [I1]

Exciting Action

Another dimension shown in this study is immersion. The learner claimed that playing games are a form of recreation between activities. He also confessed that there was a time he was too happy, excited, and immersed solely in the game, which made him forget the life burden for a while. It was noticeable that the participant became unaware of the surroundings, too, including time.

“Most of the time, what makes me realize (the time) is when I searched something on Google, automatically my eyes caught the clock (on the phone), so yeah.” [I1]

“I’m playing genshin impact again. I forgot to change the text to English earlier, I was so excited to continue the quest.” [RD06]

Although this category is referred to as the fundamental part of video games (Prensky, 2007) and correlated positively with enjoyment (Ebrahimzadeh & Alavi, 2016), this study found that immersion alone does not directly help the learner’s understanding of the words. A similar result was found in Ebrahimzadeh and Alavi’s (2016) study that immersion negatively correlated to vocabulary items. On the other hand, immersion plays a huge part in one’s enjoyment. Due to this nature, the learner may be prone to addiction. The participant himself admitted that he was afraid of addiction.

“Hmm, because sometimes it makes me a little lighter, (schools) starts loaded us with tasks, right, if (I) play for a while, I’ll be happy for a while before going to work (do school task) again, but I’m also afraid of addiction.” [I1]

This finding is related to Bolliger et al.'s (2015) research about some Japanese respondents who confessed their concern that digital games could be addictive and thus ineffective as English learning tools.

Absorbed by Fun

Concentration also similarly emerged throughout the research as immersion. Based on Fu et al. (2009), the concentration dimension demand “activities that encourage the player concentration while minimizing stress from learning overload,” (p. 105) which is in line with the present findings. The learner was frequently absorbed within the game, thus making him talk less. During the observation period, participants were found to play with high concentration. He managed to keep his concentration on the available quests and pay attention to quotes or actions of the characters being played. He reported that the concentration he got was because he felt the game was exhilarating. Thus, he carried the focus well while playing the game, making him not distracted from tasks that the player should concentrate on. He claimed to found the enjoyment of playing to the extent where sometimes he lost in time.

“I don't really know actually, but I feel like sometimes I'm too excited that I really focus on the game, sometimes it's just fun watching updates and new characters, new maps, new quests.” [I1]

“Because it's really fun, sometimes, I'm fully concentrated that I don't realize what time it is, suddenly.” [I1]

Lies within the lines

The next dimension explored is challenge. It has been discovered that challenge plays a vital part in experiencing enjoyment (Csikszentmihalyi, 1990). Based on Fu et al.'s (2009) EGameFlow, the game has to provide appropriate challenges for one's skill level. The complexity of the challenge also increases according to the level. In line with this theory, this study finds that the learner faced challenges (quest and task) in the game he played not only once but also continuously one after another, based on his level.

To illustrate, on the life simulation game type called *The Sims 4*, every character (minimum teen) has an aspiration or lifelong goals that the player can choose. In order to complete the chosen aspiration, the player has to complete four milestones that have their accomplishment or skill to master. Additionally, these aspirations have a unique icon to describe themselves. The participant confessed that these icons helped him understand the meaning to complete the challenge, acted as hints.

"Lineage... line of ancestry? Looks like a tree (the icon)" [O08]

"... The aspirations also (newly) added, and the language isn't that difficult, I can catch the contents from the icon." [RD08]

In fact, the learner reported that most of the time, hints for the challenges were everywhere, either with objects, texts, and even characters' words or actions. Thus, visualization is considered essential to facilitate the learner to complete the challenge, alongside the need to read and listen to characters' lines thoroughly. However,

sometimes the hints lie within the character words or actions. Thus, thoroughly listening or reading characters lines is needed to complete the challenge.

“If you don't understand the story, I think it's hard to understand the quest. The problem is that you have to be careful, sometimes the item/person you are going to doesn't have a hint from afar, or you don't have a guide to unlock a place, but it turns out that the guide is in the conversation. But because the story and the picture are great, I love to see it though.” [RD03]

Ask or being asked

The other two dimensions—social interaction and knowledge improvement, appeared to be heavily related to the vocabulary mastery part in this study. Fu et al. (2009) stated that “the tasks in the game should become a means for player to interact socially.” (p. 106). Hence, this study reveals that the learner has various relationship behaviours that shape his knowledge. First, with knowledgeable figures. While playing games, he mainly asked a knowledgeable figure (primarily the family members) about unknown and confusing words or expressions. He proceeded to recheck the answer on a searching platform—such as Google. The participant happened to notice that too and confirmed it in the interview.

“When playing, sometimes I like to look at Google to look for words that I don't understand, sometimes I ask my sister, right.” [I1]

On the other hand, if he was alone, he confessed that it is better to surf the internet immediately, even though sometimes he did not

get the meaning. This is in line with Verga and Kotz's (2017) study that showed the participants who played visual games with social interaction could identify the correct words faster.

"Yes, I immediately looked at Google, what can I do, calling my sister is complicated, asking mom sometimes knows, sometimes not." [I2]

Second, with friends (same-aged). When the learner played the games with friends, he would be the one who helped them explain the specific context in the game due to the language barrier with the game itself. Thus, he played with friends online on a certain game only. Usually, the game which requires fewer tasks or goals. He preferred to play as Solo Player. He expressed that if he plays with friends (esp. same-aged friends), his friends would be the one who asks a bunch of questions about the quest, and in return, he has to explain to them. Moreover, it increases his workload because he usually plays the game in English settings, but his friends play in Indonesian settings.

"Playing online with friends is great but not that great. It's good to be quick to win or finish the quest. But sometimes, for example, when playing Genshin that have a lot of stories, they always ask questions, sometimes it's also complicated when I use English but they use Indo. It's good as a solo player. Especially if (I) play with classmates." [I2]

Eagerness to Know

Regarding the knowledge improvement, the learner does show improvement—especially in vocabulary. Throughout the activity, the learner showed interest in unfamiliar words several times in

almost every observation session. In total, he asked, searched, mumbled, or acted about 78 words and phrases in the span of 15 observations. This result related to Müller et al.'s (2018) study that reported factors such as “satisfaction with games and willingness to learn with games” (p. 1) should be considered because they produced positive learning outcomes.

“... and because I use English text and voice, so I google a lot and ask my sister.” [RD15]

“There are some unknown words I searched on google.” [RD10]

He stated that the game he had played at the moment—Genshin Impact, has the ‘Kingdom Era’ style or old English, thus making him confused with the storyline if he cannot comprehend it. One time, he confessed that he was puzzled by specific phrases in his reflection diary.

“There is also a figurative phrase that when searched on the internet is not available, in English it is ‘lukewarm epiphany’, but in Indonesian it becomes ‘very warm chicken manure’. It’s silly yet fun.” [RD14]

The participant also complained that sometimes the language on certain games is odd due to the unchanging terms, words, or names in a different language even though he claimed that he gained new words or knowledge from it.

“This game sometimes has a strange language in my opinion, because there are words that remain in English even though they have been changed to Indonesian, such as ‘carrot’ items or people’s names sometimes, like Bandit Leader, although it makes you know more.” [RD07]

In addition, due to the improvement, he considered himself lucky because sometimes the words or phrases he learned from

games appeared in other media he watched and even school books and tasks, which he claimed to boost his motivation to learn or do the task at school. This claim is in line with Sundqvist and Wikström's (2015) study, which showed that gameplay contributed to academic learning

"... Then after that, for example doing an assignment from school or watching a movie or watching a YouTube video, so I understand already because I've seen the words like that in games. ..., on the observation, what day is it-, it seems there is 'to comply', right, next week from that, I got a homework contains those words, and I already know (the meaning) haha." [I1]

"Yes, it's motivation, because you already know it, so I'll just do it right away, faster. Especially if the word that comes out is an object model, so I already have an idea of how it looks like." [I1]

Vocabulary Knowledge

The last category to be discussed is vocabulary knowledge to explore the learner's vocabulary mastery when experiencing digital game-based learning in detail. The following are heavily related to Nation's (2001) vocabulary knowledge theory, involving three categories; (a) form, in which digital games apparently help the learner to be familiar with the unknown words' pronunciation, spelling, and word parts; (b) meaning, in which digital games provides knowledge of a word's form and meaning that is suitable, concept and context of a word, and the association comes to mind of a given word; (c) use, in which digital game help the learner to

know the grammatical functions of the word, common collocations, and any constraints on its use.

Form

Form mainly deals with recognizing certain words' pronunciation (spoken), how is the word written and spelled (written), and particular word parts to express its meaning (Nation, 2001). During observations, the participant adequately being caught and admitted following some characters uttering their line in English. To illustrate, he played the character with the wind element on Observation 11; he softly shouted along with the character when attacking the enemies.

"Go with the wind!" [O11]

However, there were some times when he failed to catch the correct pronunciation, ended up with a trip to Google Translate, or asked his sister.

"Can you say thank you besides 'thank you'? If I'm not mistaken, I heard 'much obli'? (mispronounce) but on the screen it says 'thank you'" [O11]

Although sometimes, the participant is also confused when they hear different words with the same pronunciation. For example, in Observation 06, participants played with a character named Venti, who carried a string instrument object. When his health points run low, this character said, "My lyre is broken." Thus, participants mistook the word *lyre* for *liar* because of the similar pronunciation.

"Why it is 'liar'?" [O06]

"...When using Venti, I thought I heard it wrongly. I thought it is liar as in 'pembobong', it turned out to be the weapon itself, lyre. It's similar."
[RD06]

The participant also tried to relate some word parts with other words or objects he knew to understand the whole words or phrase meaning. During observations, the participant often asked his sister by relating some words together to get the context or meaning. For example, in Observation 08, when opening the map in The Sims 4, participants tried to skim the description of each block and asked about a word.

"What is the namesake? If it's for the sake, it's 'demi', what about namesake?" when reading the sentence 'Like its namesake, Wakaba is young, new and bright ...'" [O08]

Meaning

In this concept, meaning includes the concept, association and meaning of words. Participants were found quite a lot of asking their sister and looking for meaning on google translate. When playing as Fischl in Genshin Impact, the character shouted "I summon, thee!" every time summoning a bird. Participant asked his sister about the utterances, guessing the meaning through visualization and word concepts.

"What is thee actually? Sounds like /di/, is that 'summon you'?"
[O01]

In another observation session, the participant also asked his sister about the word *abyss* when an NPC (Non-Playable Character) character mentioned, "To the heights of the heavens, or the depth

of the abyss". He could relate *abyss* to *hell* because the word *heavens* appeared in the previous conversation.

"Is abyss means 'neraka'? Isn't 'neraka' means hell?" [O03]

The participant was also found to relate the word for a movement he saw in the game with the name of an animal.

"She looks like she has wings but can't fly, 'glides' like that, what's that, not fly, gliding, right? like sugar gliders." [O01]

In addition to relating words to other words, participants also relate words to visual objects in the game being played or other games they have played in other games. For example, when he got an item called Mystic Enchantment Ore in Genshin Impact, he related enchantment and ore to other words.

"What's the difference between enchantment and spell? It's somewhat related to the witch." [O06]

"Ore is 'mine', right? It is what it means in Cities Skylines." [O06]

Another example is when the story showed a conversation with a samurai in search of an object.

"Is 'weed' actually a drug or some kind of medicinal weed?" he continued, "it says 'please find some Naku weed for me' but there is 'to reduce inflammation'. In The Sims, the weed on the plant is thrown away, right?" [O13]

The participant also admitted that he was confused by several words he thought had the same meaning because the word in the Indonesian and English languages was similar, or with words with different pronunciation and written form but had the same meaning.

"There were sometimes I felt confused. I just know that the word debt in English has different meaning with debit in Indonesian. Another

words... I just know also snake and serpent actually is the same thing. Previously, I thought if it was a different shape, size, right? But then after googling and asking uni, I know." [I1]

Use

Use covers the concepts of grammatical functions, collocation and constraints on use. While playing the game Genshin Impact, participants recognised the use of the prefix re- in the dialogue between characters, interpreting the prefix re- as 'again'.

"What is relive actually? Live again? ... Oh, it's like recall huh? Like a flashback." [O03]

Not only prefixes but participants were also found to recognize suffixes, specifically -esque, from conversations between characters. Even though he could recognize it, the participant was confused because this suffix exists behind the NPC's name.

"If someone's name is added -esque, what does that mean? 'This dish certainly does have a very 'Julie'-esque feel to it.' What is it? A touch? Characteristic?" [O12]

The participant admitted that the games he played tended to have a lot of storylines and conversations that made him quite understand when or how the word was used and other forms such as tenses. This finding is in line with Reynolds and Kao's (2021) that claimed digital game-based instruction is outstanding in retaining grammatical knowledge than only teacher instruction.

"It helps, so I really understand, because sometimes there are conversations, plus I am understanding it more when I meet the material again at school." [I1]

IMPLICATIONS AND CONCLUSION

After carefully analyzing the result of the study, the conclusions were drawn as follows; First, the study has shown us that the EFL learner does experience learning enjoyment while playing games based on Fu et al.'s (2009) EGameFlow scales. Out of 8 dimensions proposed, six dimensions were presented in this study, which comprises; (a) autonomy, (b) challenge, (c) immersion, (d) concentration, (e) social interaction, (f) knowledge improvement. Second, playing games appeared to be affecting learners' vocabulary directly. Based on Nation's (2001) concept, the learner achieved vocabulary mastery through; (a) form, (b) meaning, and (c) use. The findings also revealed that two of the dimensions (knowledge improvement and social interaction) are directly linked to vocabulary.

By looking deep into the participant's stories, this research discloses what it takes to experience enjoyment during playing games and how it helps learner's vocabulary learning. It is crucial for practitioners to know whether the learner is invested in continuing to learn through the games. Thus, by understanding the learning enjoyment in digital game-based learning, teachers and practitioners might develop gamification or integrate games for education purposes—specifically vocabulary learning, in the classrooms. It is also necessary for family members to understand that game can be perceived as media to learn English vocabulary and that their role

and supervision are essential to accomplish the learning. Likewise, the learner should be aware of their responsibility to avoid negative outcomes.

There are also some limitations needed to be pointed. First of all, due to limited participants variations, future research could analyze various types of participants such as gender, age, English proficiency, and others. Second, a more significant number of participants need to be considered to have more general data on Indonesian EFL learners. Third, the researcher also suggests that similar studies be carried out in other research methods to add more variations and perspectives into the theme. Lastly, this research mainly used commercial digital games. Hence the evaluation of enjoyment of the educational digital games is lacking. Therefore, further similar studies needed to take into account such details.

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