BILINGUAL PUBLISHING GROUP

Forum for Linguistic Studies

https://journals.bilpubgroup.com/index.php/fls

ARTICLE

Improving L2 Vocabulary Acquisition through Drawing Games: Insights into Student Engagement among Thai EFL Learners

Sirathee Teemueangsai [1] , ***Apisak Sukying*** [1*] , ***Changyong Min*** [2]

[1] *Faculty of Humanities and Social Sciences, Mahasarakham University, Maha Sarakham 44150, Thailand*

[2] *Department of Foreign Languages, Shanxi Normal University, Taiyuan 030001, China*

ABSTRACT

Student engagement is essential for L2 vocabulary learning in EFL contexts. Engaged students are more prone to focus, retain new words, and use them accurately. Engaged students are also motivated to learn vocabulary outside classes, which promotes vocabulary development and overall language improvement. This study explores EFL students' perceptions of drawing games as a vocabulary learning tool through focus group interviews. The qualitative data offer deeper insights into how drawing games influence vocabulary knowledge and retention. Twenty participants were purposively selected through an intact class sampling method and divided into High-Performing (HP) and Low-Performing (LP) groups based on their vocabulary size. Each of the five focus groups included two HP and two LP students. The thematic analysis examined cognitive, behavioral, and affective engagement with inter-coder reliability and member checking to ensure the trustworthiness of the findings. The results revealed that students demonstrated all types of engagement, with cognitive engagement showing through planning, simplification, and guessing, while behavioral engagement emerged in discussions, collaboration, and play behaviors. Moreover, affective engagement was reflected in students' enjoyment and confusion toward vocabulary learning. HP students reported assistance from their peers and strategic thinking, while LP students highlighted the fun and interactive nature of the games. Some students faced challenges in interpreting drawings, suggesting a need for scaffolding and guided discussions. Overall, the study provides qualitative evidence that drawing games enhance engagement, reinforcing their value as an interactive and effective EFL teaching tool.

Keywords: Drawing Games; Student Engagement; Vocabulary Acquisition; Thai EFL Learners

*CORRESPONDING AUTHOR:

Apisak Sukying, Faculty of Humanities and Social Sciences, Mahasarakham University, Maha Sarakham 44150, Thailand; Email: apisak.s@msu.ac.th

ARTICLE INFO

Received: 3 April 2025 | Revised: 25 April 2025 | Accepted: 26 April 2025 | Published Online: 8 May 2025

DOI: https://doi.org/10.30564/fls.v7i5.9327

CITATION

Teemueangsai, S., Sukying, A., Min, C., 2025. Improving L2 Vocabulary Acquisition through Drawing Games: Insights into Student Engagement among Thai EFL Learners. Forum for Linguistic Studies. 7(5): 655–669. DOI: https://doi.org/10.30564/fls.v7i5.9327

1. Introduction

Vocabulary knowledge is essential for language learning, forming the foundation for successful communication and understanding in both oral and written contexts [1–4]. According to Nation [5], vocabulary is critically connected to other linguistic systems and essential to second language (L2) development. However, conventional vocabulary instruction relies heavily on rote memorization, translation exercises, and decontextualized lists of words found in most traditional English language textbooks, which often cause boredom and low retention [6–8]. Thus, there is a need for English as a foreign language (EFL) classrooms to use more interactive and meaningful vocabulary instruction in a contextual manner [2,9,10].

Students' perceptions of vocabulary learning are essential to their motivation, engagement, and overall ability to acquire new words. Conventional vocabulary instruction, which emphasizes rote memorization and passive learning, is often associated with low levels of engagement and negative attitudes toward vocabulary teaching and learning [11]. A study by Bavi [12] explored the effect of performing fun-based activities on vocabulary knowledge. The results demonstrated a significant improvement in vocabulary knowledge. Additionally, the findings from the study revealed that students were more relaxed and easier to work with when teaching vocabulary. Studies indicate that active learning approaches, including game-based activities, will boost students' perceptions of vocabulary and enhance their learning experiences [13].

Drawing games have been used in vocabulary instruction as an innovative method because they are found to enhance spelling and pronunciation due to the combination of visual and kinesthetic modalities [14]. Besides drawing, game-based learning helps acquire vocabulary through an interactive and motivating atmosphere in which learners can interact with language by facing challenges, responding to tasks and getting immediate feedback [15]. Since games combine cognitive, emotional, and social dimensions, they mirror Vygotsky's [16] zone of proximal development (ZPD) to facilitate learning. Research has shown that educational games support vocabulary retention, peer interaction, and communicative skills by providing low anxiety and an immersive environment [17]. Thus, compared to rote learning, game-based methods are more effective in promoting vocabulary acquisition in EFL contexts [18,19]. In this regard, drawing games inherently combine the two tendencies of game-based learning via visual representation and thus become a more personalized, engaging, and interactive means of vocabulary learning [20,21].

Recent studies have also demonstrated the importance of mindsets, resilience, and motivation in sustaining learners' engagement in language learning. Liu, Li, and Wang [22] found that different patterns of students also existed, whereby students with a growth mindset reported significantly less burnout and anxiety as well as significantly higher levels of engagement, and students with a fixed mindset were more likely to experience disengagement. Likewise, Liu, Zhong, Chen, and Wang [23] found that resilience and motivation were mediators between English learning burnout and engagement. Learners used psychological resources through the effect and pressure. Together, these studies underscore the importance of developing educational interventions that not only promote academic skills but also enhance students' emotional resilience and motivation to sustain long-term engagement.

Although drawing games have been shown to enhance vocabulary learning, research on their use in Thai EFL contexts remains limited. Ninth-grade students in Northeastern Thailand continue to struggle with vocabulary acquisition due to limited English exposure outside the classroom and the reliance on traditional teaching methods. This study examines the impact of drawing games on students' perceptions of vocabulary learning in Thai EFL secondary schools. By evaluating the effectiveness of this approach, the study seeks to contribute to the development of engaging and interactive vocabulary instruction strategies in Thai EFL classrooms. This brings down to the following research questions:

1. How do Thai EFL secondary school students engage cognitively, emotionally, and behaviorally in L2 vocabulary acquisition through drawing games?
2. What are Thai EFL secondary school students' perceptions of using drawing games for L2 vocabulary acquisition?

2. Literature Review

2.1. Vocabulary Knowledge

It is well-documented that vocabulary knowledge is fundamental to learning a language. It allows learners to express their thoughts and understand what is communicated. Vocabulary also includes multi-word phrases as opposed to just single words, which act as one single meaning [3,5]. Research shows that vocabulary is more than just a collection of single words; it is also about meaningful combinations of words, which are necessary for fluent communication.

Research has shown that the benefits of vocabulary knowledge in learning a second language are undeniable. They need to know enough vocabulary to communicate with others and comprehend language input [1,2]. Vocabulary knowledge also involves the knowledge of concrete and abstract meanings [5,24]; it is the basis of all

language skills. Webb and Nation [25] also argue that both depth (the richness of word knowledge) and breadth (the quantity of known words) are of importance in acquiring language proficiency.

Laufer and Goldstein [26] distinguished between passive and active vocabulary knowledge. Passive vocabulary is the understanding of vocabulary words when they are read or heard, whereas active vocabulary is the production of those words in speech or writing. This difference is relevant for language assessment because it allows researchers to create multiple test modalities that better reflect a learner's overall vocabulary knowledge. Some examples are the settings in which students learn the word, how they know it, and the definitions they use. A good vocabulary aids all aspects of communication: listening, speaking, reading, and writing. The main elements of working towards this competence are the three core components of vocabulary knowledge: form, meaning, and use [5]. Consequently, developing these aspects by a balanced approach that integrates both passive and active vocabulary learning strategies is essential. This approach scaffolds a mastery of vocabulary knowledge and promotes overall second language acquisition [27,28].

2.2. Student Engagement

Student engagement refers to the extent of a student's active participation in educational activities and is regarded as a multidimensional construct, including behavioral, emotional, cognitive and agentic dimensions [29]. When learning vocabulary, engagement is a key ingredient to ensuring words are learned more deeply, retained, and used more often. Behavioral engagement refers to involvement in tasks and contribution to the peer-learning process; emotional engagement to interest in, enthusiasm for and positive feelings related to learning; cognitive engagement to the employment of deep learning strategies and critical thinking; and agentic engagement to the degree of individuals' proactiveness in the learning process.

Student engagement is a critical factor in language learning, especially in vocabulary acquisition. It involves the different levels of attention, curiosity, motivation, and active engagement that learners show during the learning process. The three interrelated dimensions of engagement in the second language (L2) learning setting are addressed as cognitive, behavioral, and affective [29–31]. Each dimension serves a unique yet complementary function in contributing to students' academic trajectory and language acquisition.

A critical factor in this learning activity is cognitive engagement, the mental effort and the strategy learners use to comprehend new vocabulary. This involves employing memory techniques, studying word forms, recognizing cognates and collocations, and using words in context. They memorize surface-level vocabulary but not the knowledge that connects the dots and extract meaning from the text they recite but fail to comprehend. Behavioral engagement indicates the observed behavior, including classroom participation and adherence to instructions, interaction with peers, and completion of assignments. It shows students are willing to put time and effort into learning. Affective engagement refers to learners' attitudes, feelings, and affective responses towards vocabulary learning. Positive emotions like enjoyment, interest, enthusiasm, and less anxiety can drive students to learn and make vocabulary more relevant and lasting.

Vocabulary learning is itself a basis of L1 acquisition. Nation [5] suggests three aspects of vocabulary knowledge, which include form (spelling and pronunciation), meaning (concepts and associations), and use (grammatical patterns and collocations). Vocabulary knowledge can be receptive (recognizing and understanding words while listening and reading) and productive (using words when speaking and writing). Repeated exposure, meaningful contexts, and active engagement are key to vocabulary development [9,10,26,31]. Without a solid vocabulary, the learners find it difficult to express themselves fluently and understand and comprehend reading and listening to texts.

The key takeaway is that student engagement is vital to vocabulary acquisition success. Cognitive, behavioral, and affective engagement can be supported with instructional approaches. To illustrate, drawing games can improve not only vocabulary retention and use but also overall motivation among learners and learner confidence. This knowledge brings more effective and student-centered language teaching practices as it gives an in-depth understanding of how students interact with vocabulary learning.

3. Materials and Methods

3.1. Participants and Settings

This study involved 20 ninth-grade students from an educational opportunity expansion school in northeastern Thailand. All participants had been learning English as a foreign language for at least eight to nine years, with an average of three hours of English instruction per week. However, they had limited exposure to English outside the classroom, underscoring their challenges in acquiring and retaining vocabulary. The study employed convenience sampling, selecting one ninth-grade EFL class (n = 20), which participated in drawing games as a supplementary instructional method. Participants were grouped into **High-Performing (HP) and Low-Performing (LP) categories** based on their overall test scores, with a **median of 41.5** as the cutoff. Each focus group included two HP and two LP students, allowing for a balanced representation of perspectives.

3.2. Data Collection Techniques

Focus group interviews were conducted to gain deeper insights into participants' perceptions of the intervention. Rabiee [32] defines focus group interviews as a qualitative research tool to explore participants' perceptions, experiences, and ideas about an intervention. This method provides rich, detailed data to complement the quantitative findings, offering a comprehensive understanding of students' experiences with drawing games in vocabulary learning. The focus group sessions involved 20 participants from the experimental group, divided into five groups. Each group consisted of two high-performing and two low-performing students, ensuring a balanced representation of perspectives. Each session lasted approximately 10--15 minutes, depending on the flow of the focus group conversation. However, the researcher remained flexible, allowing discussions to extend naturally to avoid restricting participants' responses due to time constraints.

The focus group interviews were conducted in Thai to facilitate mutual understanding, ensuring that participants could express their thoughts clearly and confidently. The interviews were conducted voluntarily and interactively, allowing turn-taking to occur naturally. The researchers provided occasional follow-up prompts to encourage participation from quieter students and to alleviate potential power dynamics within the groups. The interviews were guided by open-ended questions aimed at exploring students' cognitive, behavioral, and emotional engagement and their perceptions of the drawing games intervention. Sample questions included: "What do you think about the words you are learning when you play drawing games?", "What strategies do you use to remember vocabulary when you draw or see your friends' drawings?", "Do you help your classmates during the game? If yes, how?", "How do you feel when learning vocabulary through drawing games?", In your opinion, are drawing games helpful for learning English vocabulary? Why or why not?", and "Do you think drawing games make learning vocabulary easier or more difficult? Please explain." These questions offered a flexible framework to explore the effectiveness of the intervention and the students' overall experiences.

A coding scheme was developed by having two independent coders analyze a subset of the focus group data using predefined categories. Any discrepancies were resolved through discussion, refining the coding based on common patterns. Member checking was conducted to ensure validity, allowing participants to review preliminary findings and confirm their accuracy. Their feedback verified that the themes accurately represented their experiences with the drawing game intervention. The final analysis identified three key engagement themes: cognitive engagement, reflecting how students actively use strategies to learn vocabulary during the intervention; behavioral engagement, highlighting participation, effort, and willingness to learn; and affective engagement, involving emotional responses, motivation, and enjoyment in the learning process.

3.3. Drawing Games as an Intervention

In the current study, a picture-prompted word guessing game was developed as a form of extracurricular lesson associated with traditional vocabulary learning practice, facilitating a more interactive and participatory learning experience of vocabulary. In a classic game of Pictionary, a member from each team will get up to draw a word that the teacher has given them while the other students try to guess the word. Despite the solicitation of responses and the application of visual prompts, this format may not greatly encourage participation since only one student draws per turn. This, in turn, risks stifling opportunities for more general student participation and collaboration.

To overcome these limitations, the drawing games designed in this project were purposefully set up to encourage the learner's participatory and interactive vocabulary learning. The students were first split into groups, with every group having equal ability levels. The activity started with the first group drawing a picture to activate vocabulary learned in previous sessions. The drawing was then handed to the next group of students, who interpreted what they saw in the image and wrote descriptive words or sentences to explain what the image conveyed to them. Another group was then given the description and drew a new depiction based on the text. This was repeated until all groups contributed, and the teacher shared and discussed the final drawings and interpretations. Such active engagement created a reciprocal relationship that stimulated cognitive thinking when students retrieved and utilized vocabulary knowledge, behavioral engagement when working in groups and actively participating, and emotional engagement by promoting enjoyment against limiting anxiety among learners. The recursive nature of the drawing games promoted the learning of vocabulary because of the multimodal processing and the broader form-meaning mappings involved, as well as contributed to critical thinking, creativity, and peer-assisted learning.

Moreover, to facilitate inclusiveness and cooperation, this study modified the traditional version of Pictionary by having the members work together as a group to draw the item, rather than picking one person to draw for the team as the traditional rules of the game. Once each group had finished its cooperative picture, the drawings were traded to different groups of students who explained its content based on how much vocabulary they knew at the time. This modification allowed for an even more inclusive learning process in that all students actively carried out the drawing and guessing activities. In the end, the borrowed drawing

games gave rise to a more social and communicative learning environment that successfully facilitated meaning-driven vocabulary practice in terms of collaboration and expression [29,30].

3.4. Data Collection Procedure

The data collection for this study was conducted for two months. Initially, participants were given consent forms, which were signed by both the students and their guardians, confirming their voluntary participation and ethical approval for inclusion in the study. Before the intervention, all participants were given the pre-test, and the pre-test scores were used as a baseline to evaluate their vocabulary gains. During the intervention period, students participated in two hours of vocabulary instruction based on weekly topics aligned with the school curriculum. This was followed by one hour of drawing games designed to reinforce the vocabulary taught during the lesson. These drawing game activities aimed to promote active learning, engagement, and retention of the target vocabulary. The integration of drawing games created a more interactive and student-centered learning environment, in contrast to traditional rote memorization technique.

A post-test was conducted again after the end of the intervention to measure the vocabulary gained after the intervention. The 20 ninth graders were divided into low-performance (LP) and high-performance (HP) groups based on their overall vocabulary knowledge. The performance-based groupings provided a framework for conducting focus group interviews to explore students' perceptions of using drawing games as a vocabulary learning strategy. The interviews were conducted in native Thai (L1) to allow students to freely express their experiences, engagement levels, and views on using drawing games to acquire vocabulary and vocabulary retention over time.

3.5. Data Analysis

To address the research questions (RQ1) how Thai EFL secondary school students cognitively, affectively, and behaviorally engage in L2 vocabulary learning through drawing games and (RQ2) students' perceptions of the use of drawing games for L2 vocabulary learning, the qualitative data collected from the focus group interviews were analyzed.

A deductive thematic analysis using the engagement frames introduced by Reeve [29] and Fredricks et al. [30] was used to inductively capture findings by discerning patterns of information and developing themes within the data. Interview transcripts were initially transcribed (verbatim). The researchers read the transcripts several times to generate deep familiarity with the data. A provisional coding scheme was developed based on established dimensions of cognitive, behavioral, and emotional engagement, in addition to prior work on vocabulary learning and game-based learning.

To establish the reliability and validity of the analysis, two coders coded a portion of the transcripts using the coding scheme. The improved coding framework accurately reflected the subtlety of participants' experiences and was achieved by fostering inter-coder reliability after discussion and resolution of differences. Member checking was used to strengthen trustworthiness, where some of the participants were sampled to review initial interpretation, checking the trustworthiness of the themes by showing the authenticity and accuracy of the presented themes.

The final higher-level structure had three primary engagement dimensions: cognitive (strategy use, active meaning processing and reflection), behavioral (participation, sustained effort and peer collaboration), and emotional (motivation, enjoyment, pride and anxiety). Furthermore, a thematic analysis was conducted of students' attitudes towards drawing games, which aimed at drawing students' learning to benefits, challenges and attitudes towards implementing drawing games on vocabulary learning.

4. Results and Discussion

4.1. Students' Cognitive, Behavioral, and Affective Engagement in L2 Vocabulary Acquisition through Drawing Games

The focus group interview data revealed that Thai EFL secondary students engaged cognitively, behaviorally, and affectively in L2 vocabulary acquisition through drawing games. Thematic analysis identified key patterns in how students interacted with the vocabulary learning process, highlighting active participation, strategic thinking, and emotional responses that contributed to their overall engagement.

The results showed that drawing games improve students' understanding of form-meaning connections in vocabulary acquisition, aligning with previous research and conceptual frameworks. This study classified student engagement into cognitive, behavioral, and affective engagement domains. This multidimensional perspective reinforces the credibility of the findings, suggesting that drawing games influence students' vocabulary acquisition holistically.

4.1.1. Cognitive Engagement

Cognitive engagement refers to students' use of mental strategies during their learning process. These strategies demonstrate their active participation in processing and applying vocabulary during the games. In this study, students demonstrated active cognitive engagement by employing strategies such as planning,

simplification, and guessing when drawing and interpreting pictures.

The analysis of the findings showed that students exhibited significant engagement through simplification, planning, and guessing strategies. The cognitive strategies reflect students' active involvement in constructing meaning from newly learned words and align with cognitive learning theories that focus on active processing and scaffolding in learning [30].

Simplifying

Students used simplification as a cognitive strategy to make complex ideas easier to depict and understand. This involved breaking vocabulary items into manageable visual elements, using basic shapes and symbols, and focusing on the most recognizable features. The excerpt derived from one of the interview sessions is illustrated in Excerpt 1.

Excerpt 1: Interactions on **Simplifying**

Interviewer: Let's talk about how you decided what to draw during the games. How did you decide what to draw? Did you use any strategies to make the words easier to remember?

Kla (HP): Instead of drawing a full scene, I just drew something **small** that represented the word. It saved time and made it **easier** for my friends to guess.

Interviewer: What about you, Nut?

Nut (LP): Before drawing, I thought about which part of the word to show first to make it **easier**. If I tried to add too much, my friends might get confused.

Tan (HP): Me too! I tried to draw **simple** shapes so my friends could guess the word easily. Like, instead of drawing a full elephant, I would just draw a trunk and big ears.

Interviewer: Good! Do you think simplifying the drawing helped you learn the word better?

Beam (LP): Yes! If a word was too hard, I made a **simple** picture. It helped me understand it faster.

Nut (LP): Definitely! When I had to decide which part of the word to show, it made me think about the word more carefully. That helped me remember it better later.

Students exhibited simplification ability by using basic symbols and visual components to make newly learned vocabulary items easier to recognize, demonstrating strategic thinking in breaking down morphologically complex words. This claim can be supported by Kla's statement in Excerpt 1.

Planning

Participants engaged in a planning process, arranging the ideas and selecting the most suitable representations for vocabulary, keeping the concept remembered. Planning involves choosing key elements of a word, organizing their efforts toward efficiency, and working with others. Excerpt 2 shows a sample interaction between the participants and the interviewer. These findings show the planning focus showcased more students taking a proactive approach, allowing for better individual task completion and sharing communication with other students.

Excerpt 2: Interactions on **planning**

Interviewer: Did you think about how to represent the word before drawing, or did you just start and adjust as you went?

Tonkao (HP): **Before drawing**, I thought about making the picture clearly show the word. It made learning easier because I had a clear idea before I started.

Interviewer: So, did having a plan help you feel more confident while drawing?

Eve (HP): Yes! I also **planned** with my teammates. We talked about how we could connect the word to something everyone knows so they could guess it faster.

Interviewer: Good job on that! So, instead of just drawing randomly, you tried to relate the word to something familiar. Can you give me an example?

Eve (HP): Yes, for the word "island," I didn't just draw a random piece of land—I added a palm tree and some waves because everyone knows that image.

Interviewer: What about you, Peno?

Peno (LP): I **decided** which part of the word I would focus on before starting to draw.

Guessing

Guessing is another cognitive engagement strategy. It pushed students beyond recall, asking them to actively analyze visual cues, read symbolic or literal representations, and connect those representations to vocabulary items they already knew. This process activated thinking skills, including critical thinking, making inferences, and solving problems. When students participated in guessing, they needed to process the drawings shown in front of them, reflect on their possible meanings, and negotiate these meanings with classmates, leading to more cognitive engagement.

In addition to guessing, it encourages collaborative problem-solving. Students worked in groups, discussing

their ideas about the meanings of words and honing their guesses through conversation. This interactive component allows students to learn from one another and reinforce existing knowledge. Such activities are consistent with Vygotsky's [16] sociocultural theory, which emphasizes the role of social interaction in learning and cognitive development. Through this drawing activity, students practiced not just vocabulary but also developed their metacognitive strategy of what they knew, what they had yet to learn, and how they would get to the right answer.

In Excerpt 3, the strategic use of guessing demonstrates how drawing games can take vocabulary instruction beyond passive memorization into productive, analytical learning. It supports learners in processing information meaningfully, relating it to prior knowledge and building new understandings cooperatively. The examples presented in Excerpt 3 were drawn from the focus group interview. These experiences highlight the importance of visual cues and modeling with peers to support the deeper processing of new vocabulary and keep learners at a task longer.

Excerpt 3: Interactions on **guessing**

Interviewer: Let's talk about the part of the game. How did you figure out what your friends were drawing?

Kwan (LP): When I look at my friends' drawings, I try to **guess** the word. It makes me think harder and remember better.

Interviewer: Did you ever make a wrong guess at first? How did you adjust?

Nam-Nao (LP): Yes! At first, I **thought** it was a tree because there were branches, but then I saw the circle in the middle and **realized** it was a lion.

Interviewer: So, did noticing small details help you change your answer?

Nam-Nao (LP): Exactly! If I had just looked at the first part, I would've kept thinking it was a tree. But when I looked again, I understood the drawing better.

Interviewer: What about you two? How did you approach guessing?

Mix (HP): I tried to look for key details. Like one time, I noticed the drawing had a face with a smile and glasses, so I **guessed** it was a teacher because we talked about that word in class.

Donut (HP): We also worked together as a team. We all looked at the drawing together and **guessed** it might be "book" because of the rectangles and lines.

Interviewer: Alright. So, discussing and collaborating with your team helped improve your guessing?

Donut (HP): Yes! If one person wasn't sure, another teammate might see something they missed.

4.1.2. Behavioral Engagement

Behavioral engagement in drawing game activities was demonstrated through students' physical actions and social interactions, categorized into three primary behaviors: talking, helping, and playing. These behaviors demonstrated how students actively participated in tasks, collaborated with peers, and immersed themselves in the learning process.

Talking

Talking behaviors involved active communication among students during the games. Participants frequently asked questions, clarified drawings, and collaborated to decide how to represent or guess vocabulary items. Talking behaviors were also implied to enhance task efficiency, as students engaged in frequent verbal exchanges to address uncertainties and refine their approach to the activities. For example, some participants noted that they asked teammates for spelling assistance or ideas on simplifying their drawings. Other students said discussing and deciding on drawing elements helped ensure clarity and ease of understanding for peers.

Additionally, excitement and enthusiasm during the games often led to students shouting out guesses, further demonstrating their active involvement and engagement. This verbal interaction facilitated task completion and strengthened collaboration and mutual understanding. Excerpt 4 provides examples from the participants to support this claim.

Excerpt 4: Interactions on **talking**

Interviewer: Let's discuss things you do during the drawing games.

Apple (LP): I like asking my friends about their pictures because sometimes they have a different way of showing the word. It helped me see new ways to think about the words.

Nock (HP): If the picture was hard to guess, I always asked my friends to help me figure it out. Sometimes, one person noticed a detail that I didn't see.

Pepe (LP): We talked about our drawings, and my friends helped me if I didn't understand a word. If I wasn't sure what something meant, they explained it to me.

Nut (HP): Sometimes, when the other groups struggled with my drawing, I accidentally shouted at them to tell them what the picture was.

Interviewer: It sounds like most of you like to talk with each other during the games, not just within teams but even across groups. Would you say that discussing the drawings helped improve your vocabulary?

Nock (HP): Definitely! Talking about the words and pictures helped us remember them better.

Helping

Helping behaviors were characterized by students' willingness to provide support to their peers during the activities. This included assisting with vocabulary understanding, correcting spelling errors, offering suggestions for drawings, and giving hints during gameplay. The following responses highlight a supportive learning environment where students work together to overcome challenges. Helping behaviors not only facilitated the completion of tasks but also contributed to a sense of community within the group. Participants expressed a willingness to share knowledge, clarify misunderstandings, and provide guidance, reflecting their collaborative spirit and commitment to mutual success. Excerpt 5 presents examples of the participants' helping behaviors.

Excerpt 5: Interactions on **helping**

Interviewer: Apart from just talking, how did you and your teammates work together during the games?

Big (HP): I **helped** my friends. If someone was confused, we **helped** them by explaining or showing our pictures. It made learning fun because we weren't just playing alone but working together.

Interviewer: So, when someone struggles, you like to step in to support them?

Poom (HP): I **helped** other teams sometimes! When they couldn't think of the answer, I gave them a **hint** so they could figure it out.

Interviewer: What about the difficult words? Did anyone help their teammates with that?

Big (HP): Yes! If someone in my team didn't know how to spell the word, I **told** them the correct spelling. That way, they could remember it for next time.

Khing (LP): Because I'm not good at English. So, if the picture was hard to guess, I always asked my friends to **help** me figure it out. Sometimes, they saw things that I didn't notice.

Playing

Playing behaviors encompassed students' active engagement with the mechanics of the game, such as drawing, guessing, and writing. These actions demonstrated how participants immersed themselves in the activities, combining physical involvement with cognitive processing. Excerpt 6 presents excerpts from the participants in response to their physical reactions (playing). In short, these findings suggest that playing behaviors foster collaboration and enjoyment as students actively participate in all aspects of the game. Taking turns to draw and guess may encourage teamwork, while the time constraints may add an element of excitement and challenge. The interactions between drawing and guessing also emphasize the reciprocal nature of the tasks, requiring students to engage not only with the vocabulary but also with their peers' contributions.

Excerpt 6: Interactions on **playing**

Interviewer: Let's talk about my experience playing drawing games. Did it feel more like a game or a learning activity?

Mix (HP): It's like **playing** and learning at the same time. I don't get bored, and I want to learn more words.

Interviewer: So, the game aspect made learning more engaging for you?

Mix (HP): Yes! If it were just memorizing words, I think I would lose interest. But because it was a **game**, I wanted to keep going.

Interviewer: That's great! What about you?

Donut (HP): Yes! It feels like a **game**, not a lesson. I always look forward to it.

Nam-Nao (LP): I like the challenge of **guessing** the words. It makes learning exciting.

Kwan (LP): To me, I love that I had to **draw** very fast before the time ran out. It made me focus more and not overthink my drawing.

Behavioral engagement in this study was exemplified by students' involvement and participation in essential aspects of classroom engagement, including talking, helping, and playing. These aspects serve as indicators of investment in learning. These findings support Vygotsky's [16] sociocultural theory that learning occurs through social activities, whereby learners create knowledge together through conversation and shared experience.

In the context of drawing games, talking can be a process by which students negotiate meaning and clarify vocabulary items with each other. The co-construction of knowledge during these classroom activities enables students to consolidate their understanding of the forms and meanings of words in a non-threatening, low-anxiety environment. For example, when students tried to describe drawings or guess vocabulary through visual cues, they also seemed to have discussed the synonyms, categories or past

experiences with the word and reinforced their semantic networks.

Helping behavior developed with confident students helping those with difficulty with spelling, drawing or guessing meanings. Additionally, this peer support cultivated a cooperative environment in which students felt comfortable asking questions and taking risks, both of which are beneficial for vocabulary development. This behavior is in line with Fredricks et al. [27], highlighting that behavioral engagement includes expending effort, persisting in the face of difficulties, and cooperating with others to achieve goals in the learning process.

Designing the game required creativity; the mechanics of the drawing game features (time challenges, teams guessing each other's drawing, the creativity of drawings) added an extra level of fun and excitement that kept sustained attention and motivation. This suggests that vocabulary practice felt less like a formal task and more like an enjoyable activity, which helped reduce affective filters and raise willingness to engage. Research by Gee [33] and Plass et al. [15] suggests that game-based learning promotes long-lasting behavioral engagement through immediate feedback, clear objectives, and social interactions.

These behaviors (talking, helping, and playing) provide insights into the dynamic nature of behavioral engagement in a game-based EFL classroom. Together, the study's findings imply that vocabulary acquisition and development can be achieved if students are engaged in interactive and collaborative tasks. Excerpts 4, 5, and 6 represent students' response that further inhabits this argument by demonstrating how drawing games enable meaningful, socially rich learning experiences.

4.1.3. Affective Engagement

Affective engagement encompasses students' emotional responses to the drawing games, including feelings of enjoyment and occasional confusion. These emotions played a significant role in shaping the overall learning experience, influencing both motivation and engagement. The affective engagement was categorized into two primary codes: enjoyment and confusion, reflecting positive and negative experiences. The analysis of these emotional responses provides insights into the strengths and areas for improvement in the implementation of drawing games.

Enjoyment

The majority of participants expressed high levels of enjoyment during the drawing games. Students described the activities as fun, engaging, exciting, and refreshing from traditional learning methods. Many students noted that the games were simultaneously challenging and relaxing, balancing mental stimulation and a stress-free environment. The process of revealing pictures and guessing words often elicited laughter and excitement, contributing to a positive classroom atmosphere. These responses suggest that the games foster active participation and provide students with an enjoyable and memorable learning experience. The elements of fun and excitement appeared to motivate students to engage more deeply with the tasks, making the learning process more effective. This claim is supported by the excerpts presented in Excerpt 7.

Excerpt 7: Interactions on **Enjoyment**

Interviewer:	Let's talk about how you felt while playing the drawing games. Did you enjoy the experience?
Gun (LP):	Yes! Drawing games makes learning **fun**. I can remember words better because I think about how to draw them.
Interviewer:	That's great to hear! So, did the game aspect make vocabulary learning more engaging?
Peno (LP):	Yes! I feel **happy** when we play drawing games. It's better than just writing words over and over.
Interviewer:	So, compared to traditional methods, as we regularly did, this was a more enjoyable way to learn?
Peno (LP):	Definitely! It felt less like a school task and more like an activity I actually **wanted to do**.
Eve (HP):	Yes! I **love** every part of the games, whether it's the drawing, writing, or revealing the answers.
Interviewer:	What about you, Tonkao?
Tonkao (HP):	Yes, I do **love** the games. I love the idea of having limited time for drawing because it makes the games more **challenging**.

Confusion

Excerpt 8 demonstrates the participants' responses to confusion. Despite the overall positive reception, some students reported confusion during the drawing games. These challenges primarily stemmed from difficulties interpreting their peers' drawings or deciding how to represent certain words. Some participants found the complexity of the tasks overwhelming, leading to occasional cognitive overload. Additionally, a few students expressed uncertainty about the game rules during the initial rounds, suggesting that more explicit instructions or demonstrations could enhance the experience.

While the confusion code represents a challenge to affective engagement, it also highlights areas for potential improvement. Students who experienced confusion generally noted that repeated game exposure alleviated their uncertainties. Nevertheless, refining task design, providing

explicit instructions, and offering examples could help minimize confusion and enhance students' overall engagement and learning outcomes.

Excerpt 8: Interactions on **Confusion**

Interviewer: Let's talk about the challenges you faced while playing the drawing games. Were there any moments when you felt confused?

Khing (LP): Yes! Sometimes, I **didn't understand** what my friend drew. It was **hard** to guess the word.

Big (HP): The rules were a bit **unclear** at first, so I didn't know if I was doing it right.

Interviewer: What did you do in those situations?

Ai-Aun (LP): Sometimes, I **didn't understand** my friend's drawing, but we just laughed and figured it out together.

Poom (HP): Yes! I did the same thing!

Interviewer: How did you overcome that?

Poom (HP): It made more sense after playing a few rounds. And if I **wasn't sure** about something, my teammates helped explain it.

Affective engagement describes the emotions students felt while interacting with the activities, whether they were annoyed or confused or enjoyed using the tool. Judging from the reactions, drawing games lower learning anxiety and facilitate learning vocabulary more efficiently and enjoyably.

Many students spoke of enthusiasm and excitement and saw the drawing games as a refreshing and welcome alternative to traditional memorization strategies, as Peno stated in Excerpt 7. The results align with a body of literature that questions traditional approaches and asserts that visually appealing, interactive learning approaches boost motivation to learn vocabulary. Specifically, Ou et al. [34] showed that making drawings creates motivation and retention of memory, and Saragih et al. [35] found that students are engaged and enjoy drawing-based activities.

Although all the students liked the drawing games, a few students said they got confused about the drawings their peers had made from time to time. These challenges can, however, be mitigated through structured guidance and repeated exposure that deepens the learning experience over time, as presented in Excerpt 8. Additionally, the experience of students dealing with difficulties in the foreign language during the course can be conceptualized by the links between foreign language boredom, academic buoyancy, and language engagement. Liu et al. [36] assert that academic buoyancy, the skill to manage academic adversity—diminishes boredom's adverse effects. Resilient learners look at challenges as surmountable and maintain motivation and engagement in the face of challenge, as reflected in Ai-Aun's encounter.

The results of this study also revealed distinct differences between high- and low-performing Thai EFL secondary school students in terms of L2 vocabulary acquisition via drawing games. Although both groups were engaged in the collaborative nature of the activity, they were involved in different ways. In Excerpt 5, for example, Big helped guide other students and correct spelling during this collaborative work, often in an informal leader or follower space. In contrast, low-performing students engaged by clarifying and interpreting one another's drawings (i.e., see Excerpt 4). These representations indicate active participation in their respective groups, though differing styles of support within their teams.

The results of the current study point to the significance of academic buoyancy in maintaining high levels of engagement in drawing games. Consistent with Liu et al. [36], more resilient students coped better with academic difficulties, remaining motivated and engaged despite adversity. Drawing games promoted active cognitive, behavioral and affective engagement that effectively decreased test anxiety and enhanced vocabulary learning perceptions. This aligns with Liu et al. [22], who reported that highly involved students with growth orientations had lower levels of anxiety and burnout. The study also found a reciprocal relationship between the dimensions of engagement. Behavioral engagement, including talking, helping, and playing, promotes emotional engagement (creating positive feelings towards learning) by fostering a two-way process of behavioral and emotional engagement [31,36,37]. Behavioral participation also was a driver of cognitive engagement, and the cognitive strategies failed to significantly enhance behavioral participation in the absence of the cooperative game design. These results highlight the significance of creating interactive social learning contexts to optimize cognitive and emotional L2 vocabulary gains.

The study does, overall, provide large amounts of evidence for the fact that drawing games seem to work as instruction for vocabulary learning. The collaborative nature of cognitive, behavioral, and affective engagement reflects the multidimensional values of the approach. Drawing games help vocabulary learning be more interactive, student-centered, and enjoyable and help reduce rote memorization to achieve a deeper understanding of words, stronger connections between forms and meanings, and long-term retention, the goals that traditional vocabulary teaching methods often neglect. Such findings enhance the pedagogical potential of game-based learning strategies to be implemented in EFL classrooms and suggest the need for a wider application of such methods in the language education context.

4.2. Students' Perceptions of Using Drawing Games for L2 Vocabulary Acquisition

The interview also demonstrated positive perceptions of the intervention in vocabulary learning. Most students emphasized that the games improved their engagement, motivation, and vocabulary retention. As a result, two themes emerged based on the transcribed excerpts, including effectiveness and motivation.

4.2.1. Effectiveness

Many students found drawing games more effective than traditional vocabulary instruction because they provided active engagement, visualization, and meaningful recall, which made vocabulary learning both memorable and enjoyable, with some students emphasizing that visualizing words through drawing helped them create stronger connections between word forms and meanings. In contrast, some students felt that actively creating visual representations led to better recall. An example of the interactions relating to effectiveness is shown in Excerpt 9.

Excerpt 9: Interactions on **Effectiveness**

Interviewer: In what ways do you think these games helped you learn vocabulary compared to traditional methods?

Apple (LP): It **helps me see the word in my head**, and I can **remember it better**. When I just memorize words, I forget them quickly.

Nock (HP): Yeah, same for me! I **can remember words better** because I think about how to draw them.

Interviewer: So, do you think drawing helps more than just writing the words repeatedly?

Pepe (LP): Yes! When I just write words, I forget them quickly. But when I draw, **I think I remember them for longer**.

Interviewer: That's interesting! So, would you remember these words even after some time?

Apple (LP): Yeah, it's **easier to remember** because I remember what I drew and why I drew it that way.

Cake (HP): I think so! **When I see the picture in my head, I remember the word**, too.

Nock (HP): Yes! It's not just memorizing words. It's like making them **stick in my brain**.

4.2.2. Motivation

Several students mentioned that drawing games influence their motivation to learn vocabulary due to the enjoyable learning environment. Some students described the games as fun activities they would like to participate more. In addition to enjoyment, the games also improved students' focus and participation, with some students stating that they paid closer attention to the lesson because they were excited to see their classmates' drawings and wanted to perform well in the game (See Excerpt 10).

Excerpt 10: Interactions on **motivation**

Interviewer: Did playing these drawing games motivate you to learn vocabulary more? How does it compare to the old learning methods?

Beam (LP): Right! Usually, when we just memorize words, I feel tired and don't want to study. But with these games, I feel excited to learn.

Interviewer: Alright. What about others?

Nut (LP): Definitely! I think drawing makes the lesson fun, so I don't feel like I'm forcing myself to remember the words.

Kla (HP): Yeah, and I feel happy when we play. It's better than just writing words over and over again.

Interviewer: That's great to hear! Do you think this motivation helped you focus more on learning?

Beam (LP): Yes, because I was excited to see what my friends would draw next. It made me pay more attention in class.

Tan (HP): I think so because when I had to draw, I wanted to do well because my friends had to guess. It made me more involved in the lesson.

Kla (HP): I also looked forward to class because I knew we would get to play.

Nut (LP): Yes! It's more fun than just listening to the teacher talk. I actually want to join in.

Regarding students' perceptions of drawing games in vocabulary acquisition, students did not feel that vocabulary instruction based on drawing was less effective than regular methods. Indeed, students thought it was more effective because it allowed them to act while visualizing words. Rote memorization, while effective in the short term for achieving fast recall, was often accompanied by fast forgetting. In contrast, students reported that creating visual representations enabled them to build stronger form-meaning connections, leading to improved recall of vocabulary. As Apple explained in Excerpt 9, drawing helped create mental imagery that made words easier to recall. This explanation can be evidenced by Paivio's [38] Dual Coding Theory, which states that information encoded in both verbal and visual formats creates greater potential for better recall. Furthermore, multiple studies confirm the effect of visual and interactive means to teach vocabulary, where drawing and game-based tasks have proved more effective than traditional instruction [7,8,12,34,35,39-43].

Perceptions also differed by students' performance levels. Well-organized games were so much fun that high-

performing students felt that time pressure was not a problem, as noted by Tonkao in Excerpt 7. However, some low-performing students found interpreting some of the drawings difficult, which occasionally made them confused (Khing, Excerpt 8). Both groups, despite the differences, reported a positive emotional engagement. Underperforming students commented that drawing game activities attenuated the pressure and anxieties often present in traditional memorization, as shown in Mix in Excerpt 6.

Drawing games were also perceived as highly motivating, besides assisting vocabulary acquisition. The students said the games helped make learning vocabulary more fun, interactive and engaging. Many said that the playful format inspired them to participate more, and Nut (Excerpt 10) further shared that the drawing activities made the lessons feel more comfortable and less forced. This result aligns with Nation [5], who argues that motivation is a prerequisite for maintaining attention in the long term and for successful learning of vocabulary.

The results of this study also implied that drawing games may promote autonomous motivation, which could raise engagement and active participation. Some students also wanted to learn English in the same way as Kla explained in Excerpt 10. This finding is consistent with Wang and Liu [44], who point to the instrumental magnitude of autonomous motivation in enhancing engagement in EFL learning. The results of their study indicate that students' independent motivation may facilitate their active involvement in learning activities, leading to their high levels of achievement.

Together, drawing games are a beneficial pedagogical approach that supports both cognitive challenge and enjoyment, providing a way to practice vocabulary retention while promoting learner motivation. The results highlight the importance of an interactive, student-centered approach to EFL teaching and the potential benefits of sighting students in visually and socially stimulating environments.

5. Conclusions

5.1. Major Findings

This study explored Thai EFL secondary students' engagement and perceptions of drawing games as a vocabulary learning tool. The findings provide strong evidence that drawing games enhance vocabulary acquisition by developing cognitive, behavioral, and affective engagement. Students actively processed vocabulary through simplification, planning, and guessing, collaborated with peers through discussion and helping behaviors, and expressed enthusiasm and enjoyment, making learning more interactive and meaningful.

The results also revealed differences between high-performing (HP) and low-performing (LP) students' engagement with the games. While both groups benefited from the social aspects of learning, HP students took on leadership roles, assisting peers with spelling and offering hints. In contrast, LP students focused more on clarifying word meanings through discussion. Despite occasional challenges in interpreting drawings, students generally found the activities engaging and practical, with many reporting that drawing games reduced learning anxiety and increased motivation.

Overall, this study highlights the effectiveness of drawing games in promoting vocabulary learning by integrating visual, interactive, and collaborative elements into instruction. The findings suggest that drawing-based activities can be an engaging alternative to traditional vocabulary instruction, particularly in EFL contexts where students struggle with form-meaning connections and retention.

5.2. Implications of the Study

The results of the present study have some pedagogical and research implications for teaching English as a Foreign Language (EFL) learners in general and vocabulary learning in particular.

Regarding pedagogy, the research suggests that drawing games can greatly enhance cognitive, behavioral and emotional engagement, and all can significantly add to vocabulary learning in their own right. Cognitive engagement was facilitated because students were processing word meanings, using memory tactics, and deliberating their learning. Active engagement was observed when students participated with interest, worked together and kept trying during learning tasks. Emotional engagement, such as enhanced enjoyment, motivation, and reduced anxiety, contributed to a good affective atmosphere for learning vocabulary. Importantly, these three engagement dimensions had a dynamic interaction: students' participation (behavioral engagement) promoted positive emotions towards learning (affective engagement), which, in return, led to greater cognitive efforts to understand and remember new vocabulary. The result was that this teaching strategy had a higher impact on the student's learning and that they remembered more. Consequently, EFL teachers are encouraged to incorporate drawing activities in their instruction to establish an active, student-centered, and emotionally supportive classroom. Such practices fulfil varying learning requirements, encourage authentic and interactive vocabulary practice and use, and, in the end, improve learners' overall language proficiency.

With regard to research, this study adds to the growing body of literature on active and multimodal learning methods, particularly this still less-researched field of

drawing-based vocabulary instruction. Implications for instructional precepts (which should address cognitive, behavioral, and affective aspects) are stressed. This study should be expanded in the future with a larger number of participants from more diverse backgrounds, using longitudinal or experimental/mixed methods design to explore the long-term effects of drawing games on vocabulary retention and development. Moreover, comparative research of drawing games and other multimodal interventions (e.g., digital storytelling, drama-based activities, or gamified learning platforms) would generate further distinctions universal to specific engagement-driven approaches.

In sum, this study points out the necessity of shifting the teaching paradigm in EFL classes towards creative, engaged pedagogies. Interactive and creative tasks such as drawing games stimulate cognitive investment, active participation, and emotional involvement, which is why language teachers will be more likely to achieve long-standing and rich vocabulary learning results.

5.3. Limitations and Suggestions for Future Studies

While the findings of this study showed evidence of the effectiveness and motivational impact of drawing games on vocabulary learning, some limitations should be considered.

Firstly, the study was conducted with a relatively small group of ninth-grade EFL students from a single school. As a result, the findings may not be generalizable to broader populations, including learners of different age groups, proficiency levels, or cultural backgrounds. Therefore, future research should involve a larger and different sample to support these findings.

Another limitation of this study is its reliance solely on qualitative data to investigate students' perceptions of drawing games in vocabulary learning, leading to the lack of findings on students' vocabulary improvement. Future studies should consider employing a quantitative or mixed-methods approach with a more specific focus on vocabulary knowledge to see a holistic understanding of how drawing games impact vocabulary learning.

Author Contributions

Conceptualization, S.T. and A.S.; methodology, S.T. and A.S.; formal analysis, S.T., A.S. and C.M.; data collection, S.T.; writing—original draft preparation, S.T.; writing—review and editing, S.T., A.S. and C.M.; supervision, A.S. and C.M. All authors have read and agreed to the published version of the manuscript.

Funding

This research project was financially supported by Mahasarakham University, Thailand.

Institutional Review Board Statement

The study was conducted in accordance with the Declaration of Graduate School, Mahasarakham University and approved by Ethics Committee of Mahasarakham University (protocol number: 761-630/2567).

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon request.

Acknowledgments

Sirathee Teemueangsai would like to express his sincere gratitude to Apisak Sukying for his valuable guidance and support throughout this research project. The authors are also thankful to the students and teachers, who provided the opportunity and accommodation to conduct the research project. Specifically, this research project was financially supported by Mahasarakham University, Thailand.

Conflicts of Interest

The authors declare no conflict of interest.

References

[1] Afzal, N., 2019. A study on vocabulary-learning problems encountered by BA English majors at the university level of education. Arab World English Journal. 10. DOI: https://dx.doi.org/10.2139/ssrn.3465990

[2] Alqahtani, M., 2015. The importance of vocabulary in language learning and how to be taught. International Journal of Teaching and Education. 3(3), 21–34.

[3] Lessard-Clouston, M., 2021. Teaching Vocabulary. TESOL Press: Alexandria, VA, USA.

[4] Schmitt, N., 2010. Researching Vocabulary: A Vocabulary Research Manual. Springer: Berlin, Germany.

[5] Nation, P., 2022. Learning Vocabulary in Another Language. Cambridge University Press: Cambridge, UK.

[6] Methaneethorn, J., Sudchada, P., Insuk, S., 2021. Game-based learning for teaching English to Thai pharmacy students. Kasetsart Journal. 42(3), 617–622. DOI: https://doi.org/10.34044/j.kjss.2021.42.3.24

[7] Ratsamee, D., 2020. Thai students' attitudes and satisfaction toward using vocabulary games in

vocabulary learning [PhD thesis]. Bangkok, Thailand: Thammasat University.

[8] Tanago, N., 2017. The effectiveness of using game-based learning in teaching English vocabulary [Master's Thesis]. Bangkok, Thailand: Thammasat University.

[9] Matwangsaeng, R., Sukying, A., 2023. The effects of morphological awareness on L2 vocabulary knowledge of Thai EFL young learners. World Journal of English Language. 13(2), 51–53. DOI: https://doi.org/10.5430/wjel.v13n2p51

[10] Sumalee, P., Sukying, A., 2024. The Effects of Derivational Suffix Instruction on English Vocabulary Knowledge in Thai High School Learners. REFLections. 31(2), 335–352.

[11] Schmitt, N., 2008. Instructed second language vocabulary learning. Language Teaching Research. 12(3), 329–363. DOI: https://doi.org/10.1177/1362168808089921

[12] Bavi, F., 2018. The effect of using fun activities on learning vocabulary at the elementary level. Journal of Language Teaching and Research. 9(3), 629–639. DOI: http://dx.doi.org/10.17507/jltr.0903.24

[13] Taheri, M., 2014. The effect of using language games on vocabulary retention of Iranian elementary EFL learners. Journal of Language Teaching and Research. 5(3), 544–549. DOI: https://doi.org/10.4304/jltr.5.3.544-549

[14] Wammes, J.D., Meade, M.E., Fernandes, M.A., 2015. The drawing effect: evidence for reliable and robust memory benefits in free recall. The Quarterly Journal of Experimental Psychology. 69(9), 1752–1776. DOI: https://dx.doi.org/10.1080/17470218.2015.1094494

[15] Plass, J.L., Homer, B.D., Kinzer, C.K., 2015. Foundations of game-based learning. Educational Psychologist. 50(4), 258–283.

[16] Vygotsky, L.S., 1978. Mind in Society: The Development of Higher Psychological Processes. Harvard University Press: Cambridge, MA, USA.

[17] Derakhshan, A., Khatir, E.D., 2015. The effects of using games on English vocabulary learning. Journal of Applied Linguistics and Language Research. 2(3), 39–47.

[18] Aghlara, L., Tamjid, N.H., 2011. The effect of digital games on Iranian children's vocabulary retention in foreign language acquisition. Procedia – Social and Behavioral Sciences. 29, 552–560.

[19] Vahdat, S., Behbahani, A.R., 2013. The effect of video games on Iranian EFL learners' vocabulary learning. Reading. 13(1), 61–71.

[20] Altun, M., 2015. The use of drawing in language teaching and learning. Journal of Educational and Instructional Studies in the World. 5(4), 91–93.

[21] Joklová, K., 2009. Using pictures in teaching vocabulary [PhD thesis]. Bratislava, Slovak: Masarykova univerzita, Pedagogická fakulta.

[22] Liu, H., Li, X., Wang, X., 2025. Students' mindsets, burnout, anxiety and classroom engagement in language learning: a latent profile analysis. In: Innovation in Language Learning and Teaching. Taylor & Francis: Oxfordshire, UK. pp. 1–16. DOI: https://doi.org/10.1080/17501229.2025.2491748

[23] Liu, H., Zhong, Y., Chen, H., et al., 2023. The mediating roles of resilience and motivation in the relationship between students' English learning burnout and engagement: a conservation-of-resources perspective. International Review of Applied Linguistics in Language Teaching.

[24] Min, C., Sukying, A., 2024. Investigating the role of word knowledge components in Chinese L2 writing ability. 3L: Language, Linguistics, Literature. 30(4), 273–290. DOI: http://doi.org/10.17576/3L-2024-3004-19

[25] Webb, S., Nation, P., 2017. How Vocabulary is Learned. Oxford University Press.

[26] Laufer, B., Goldstein, Z., 2004. Testing vocabulary knowledge: Size, strength, and computer adaptiveness. Language Learning. 54(3), 399–436. DOI: https://doi.org/10.1111/j.0023-8333.2004.00260.x

[27] Schmitt, N., 2019. Understanding vocabulary acquisition, instruction, and assessment: A research agenda. Language Teaching. 52(2), 261–274. DOI: https://doi.org/10.1017/S0261444819000053

[28] Sukying, A., 2018. Investigating receptive and productive affix knowledge in EFL learners. In: Hirsh, D. (ed.). Explorations in Second Language Vocabulary Research. Springer: Berlin, Germany. pp. 183–218.

[29] Reeve, J., 2012. A self-determination theory perspective on student engagement. In: Christenson, S., Reschly, A.L., Wylie, C. (eds.). Handbook of Research on Student Engagement. Springer: Berlin, Germany. pp. 149–172.

[30] Fredricks, J.A., Blumenfeld, P.C., Paris, A.H., 2004. School engagement: Potential of the concept, state of the evidence. Review of Educational Research. 74(1), 59–109. DOI: https://doi.org/10.3102/00346543074001059

[31] Jiang, Y., Sukying, A., 2024. Student engagement with teacher written corrective feedback among Chinese private college students of varying language proficiencies. World Journal of English Language. 14(6), 47–58. DOI: https://doi.org/10.5430/wjel.v14n6p47

[32] Rabiee, F., 2004. Focus-group interview and data analysis. Proceedings of the Nutrition Society. 63(4), 655–660.

[33] Gee, J.P., 2003. What video games have to teach us about learning and literacy. Computers in Entertainment. 1(1), 20–20. DOI: https://doi.org/10.1145/950566.950595

[34] Ou, K.L., Tarng, W., Chen, Y.R., 2018. Vocabulary learning through picture-viewing and picture-drawing on tablets. International Journal of Distance Education Technologies. 16(3), 64–80. DOI: https://doi.org/10.4018/IJDET.2018070104

[35] Saragih, S.T., Riyadi, S., Kariadi, M.T., 2022. Drawing media to improve students' understanding on prepositions. Jurnal Edulanguage. 8(1), 37–51.

[36] Liu, H., Elahi Shirvan, M., Taherian, T., 2024. Revisiting the relationship between global and specific levels of foreign language boredom and language engagement: A moderated mediation model of academic buoyancy and emotional engagement. Studies in Second Language Learning and Teaching. 15(1), 13–39. DOI: https://doi.org/10.14746/ssllt.40195

[37] Li, Y., Lerner, R.M., 2013. Interrelations of behavioral,

emotional, and cognitive school engagement in high school students. Journal of Youth and Adolescence. 42, 20–32. DOI: https://doi.org/10.1007/s10964-012-9857-5

[38] Paivio, A., 1990. Mental Representations: A Dual Coding Approach. Oxford University Press: Oxford, UK.

[39] Ahmed, A.A.A., Ampry, E.S., Komariah, A., et al., 2022. Investigating the effect of using game-based learning on EFL learners' motivation and anxiety. Education Research International. 1–9. DOI: https://doi.org/10.1155/2022/6503139

[40] Bush, M.D., 2007. Facilitating the integration of culture and vocabulary learning: The categorization and use of pictures in the classroom. Foreign Language Annals. 40(4), 727–745. DOI: https://doi.org/10.1111/j.1944-9720.2007.tb02890.x

[41] Dolati, R., Mikaili, P., 2011. Effects of instructional games on facilitating of students' vocabulary learning. Australian Journal of Basic and Applied Sciences. 5(11), 1218–1224.

[42] El Rusyda, S., Suparman, U., Sudirman, S., 2014. Teaching vocabulary through Pictionary game to first grade students of SMP Al-Kautsar [PhD thesis]. Lampung University.

[43] Huyen, N.T.T., Nga, K.T.T., 2013. Learning vocabulary through games. Asian EFL Journal. 5(4), 90–105.

[44] Wang, Y., Liu, H., 2022. The mediating roles of buoyancy and boredom in the relationship between autonomous motivation and engagement among Chinese senior high school EFL learners. Frontiers in Psychology. 13, 992279. DOI: https://doi.org/10.3389/fpsyg.2022.992279