

Exploring Elementary Students' Motivation in English Vocabulary Learning through *Wordwall*: A Qualitative Study

¹ Asih Rosnaningsih, ² Peni Astuti

¹Program Studi Pendidikan Guru Sekolah Dasar, Universitas Muhammadiyah Tangerang, Indonesia

² Program Studi Pendidikan Bahasa Inggris, Universitas Faletahan, Indonesia

¹ asihrosna@umt.ac.id*, ² peniastuti@uf.ac.id

Article Info	ABSTRACT
Article History: Submission: 2026-07-14 Revised: 2026-07-17 Accepted: 2026-07-17 Published: 2026-07-31	Digital technology has increasingly become an important component of English language learning in elementary schools. This qualitative study explores elementary students' motivation in learning English vocabulary through <i>Wordwall</i> at SD Daan Mogot 1 Tangerang City, involving 27 third-grade students selected through purposive sampling. The study focused on students' motivation as reflected in their enjoyment, attention, participation, confidence, and learning interest during <i>Wordwall</i> -based activities. Data were collected through classroom observations, semi structured interviews, and documentation. The data were analyzed thematically through data condensation, data display, and conclusion drawing. The findings indicate that <i>Wordwall</i> created a more interactive and enjoyable learning environment that encouraged students to participate actively, respond to questions, and practice vocabulary repeatedly. The findings also suggest that <i>Wordwall</i> supported students' enjoyment, attention, participation, confidence, and learning interest. The study concludes that <i>Wordwall</i> can serve as a supportive digital medium for fostering elementary students' motivation in English vocabulary learning when integrated with appropriate teacher guidance and pedagogical strategies.
Keywords: English vocabulary; <i>Wordwall</i> ; learning motivation; elementary students	

To Cite This Article:

Rosnaningsih, A., & Astuti, P. (2026). Exploring Elementary Students' Motivation in English Vocabulary Learning through *Wordwall*: A Qualitative Study. *Foremost Journal*, 7(2), 35–46. <https://doi.org/10.33592/foremost.v7i2.9115>

1. INTRODUCTION

English has become an increasingly important component of elementary education because early exposure to a foreign language can provide children with opportunities to develop basic communicative competence and build foundations for subsequent language learning. Among the various components of English proficiency, vocabulary occupies a central position because learners need sufficient knowledge of words to

understand messages and express meaning. Vocabulary knowledge is not limited to knowing the meaning of individual words; it also involves understanding how words are used, recognized, and recalled in different contexts (Nation, 2022). (Schmitt, 2014) similarly emphasizes that vocabulary development is a fundamental dimension of second language learning because limited vocabulary knowledge can constrain learners' ability to comprehend and

produce language. Therefore, vocabulary learning at the elementary level needs to be supported by instructional activities that are meaningful, repetitive, contextualized, and appropriate for children's characteristics.

Despite its importance, learning English vocabulary can be challenging for elementary school students. Young learners generally require learning experiences that are concrete, visually supported, interactive, and connected to activities that can maintain their attention. Conventional vocabulary instruction that relies heavily on memorization, repetition, and teacher explanation may not always provide sufficient opportunities for active participation. In this context, motivation becomes an important consideration in language learning. (Dornyei, 2009; Dornyei & Ryan, 2015) explains that motivation plays a central role in determining the direction, intensity, and persistence of learners' behavior. Students are more likely to experience high-quality motivation when learning environments support their needs for autonomy, competence, and personal learning relatedness (Ryan & Deci, 2000). Thus, vocabulary instruction for elementary learners should not only focus on what students learn but also on how students experience the learning process.

Student motivation is closely connected to engagement in classroom activities. (Schunk & DiBenedetto, 2020) conceptualize engagement as a multidimensional construct consisting of behavioral, emotional, and cognitive dimensions. This perspective is particularly relevant to elementary English classrooms because students' motivation may be observed through

their willingness to participate, respond to questions, repeat vocabulary, interact with peers, and remain involved in learning activities (Basal et al., 2016).

The development of educational technology provides new possibilities for creating learning environments that can support these motivational dimensions. Digital learning media can combine text, images, audio, animation, and interactive activities, allowing teachers to present language input in multiple forms. (Mayer, 2020) explained multimedia learning as a theoretical basis for understanding why multimedia may support learning: learners process information through partially independent verbal and visual channels, while meaningful learning depends on how information is selected, organized, and integrated with prior knowledge. For elementary English learners, the combination of words with visual representations can therefore provide additional support for understanding and recalling vocabulary.

One form of technology-enhanced instruction that has received increasing attention is game-based learning. Games can create learning environments characterized by interaction, challenge, feedback, and goal-oriented activities. (Alexiou & Schippers, 2018) argues that well-designed games incorporate learning principles such as active participation, problem solving, feedback, and progressive mastery. Similarly, (Lampropoulos et al., 2022) highlights the potential of digital game-based learning to make learning activities more interactive and engaging for learners who are increasingly familiar with digital environments. From a broader theoretical perspective, (Plass

et al., 2015) explain that the educational potential of games is associated with several dimensions, including cognitive, motivational, affective, and sociocultural processes.

In educational games, an appropriate balance between challenge and learners' abilities can contribute to sustained involvement. (Chen, 2018) further demonstrate through a meta-analytic investigation that the effects of digital game-based vocabulary learning can vary according to game design characteristics (Tsai & Tsai, 2018). This finding is important because it indicates that the mere introduction of technology or games into language classrooms does not guarantee meaningful learning.

In a systematic review, (Zou et al., 2021) similarly reported that digital game-based vocabulary learning has been associated with vocabulary development. These findings strengthen the argument that digital games should be investigated not simply as technological tools but as learning environments that shape students' experiences. Acquah and (Acquah & Katz, 2020), in their systematic literature review of digital game-based second-language learning among learners from primary school through high school, identified evidence of positive contributions of digital games to language learning while also emphasizing the need for further research concerning implementation and instructional design. More recently, (Vnucko & Klimova, 2023) reviewed research on digital game-based vocabulary learning and concluded that game-based environments can create positive learning experiences and emotions that may support vocabulary retention. These findings are consistent with the

broader argument that enjoyable and interactive learning experiences may contribute to students' willingness to participate in language learning.

The researchers conducted a preeliminary observation in third grade students at SD Daan Mogot 1 Tangerang City. The result showed that students had relatively low motivation to learn English and limited vocabulary. During the lesson, several students appeared less enthusiastic, easily distracted, and hesitant to participate in vocabulary activities. When the teacher asked students to identify or translate simple English words, some students were unable to respond confidently and tended to wait for their classmates' answers. Students also had difficulty remembering vocabulary that had been introduced previously. These conditions suggested that conventional vocabulary activities were not always sufficient to maintain students' interest and active participation. Therefore, the use of an interactive and game-based medium such as Wordwall was considered a potential way to make vocabulary learning more engaging, provide opportunities for repeated practice, and encourage students to participate more actively.

Among the available digital platforms, *Wordwall* is particularly relevant to elementary English vocabulary instruction because it enables teachers to create interactive activities in various game-like formats (Amri & Sukmaningrum, 2023). Its activities can incorporate words, pictures, questions, matching tasks, quizzes, and other forms of interactive practice. Such features provide opportunities for repeated exposure to vocabulary while allowing students to

receive immediate responses to their answers.

The present study consequently focuses on elementary students' motivation in English vocabulary learning through Wordwall. Rather than attempting to measure the statistical effect of Wordwall on vocabulary achievement, this study seeks to explore how students explained their learning experience using *Wordwall*-supported vocabulary application and what aspects of the platform contribute to their motivation.

Accordingly, this study addresses a relatively specific and pedagogically meaningful question: How do elementary students explore their motivation when learning English vocabulary through Wordwall? By examining students' experiences in the actual classroom context, the study is expected to contribute by providing a more contextualized description of how a specific digital platform is perceived and experienced by elementary students in learning English.

2. METHOD

This study employed a qualitative descriptive research design to explore elementary students' motivation in learning English vocabulary through

Wordwall. The study was conducted at SD Daan Mogot 1 during the January–February 2026. The participants consisted of 27 third-grade students who actively participated in Wordwall-based English vocabulary learning activities and an English teacher who facilitated the learning process. The participants were selected using purposive sampling (Creswell, 2014). A qualitative approach was employed to obtain an in-depth understanding of students' experiences, responses, and motivational perceptions within their natural classroom context.

Data were collected through several techniques such as classroom observations, semi structured interviews, and documentation. Observations focused on students' enthusiasm, attention, participation, confidence, and learning interest during Wordwall activities. Interviews with selected students and the English teacher explored their experiences and perceptions, while documentation provided supporting evidence through photographs, learning activities, and Wordwall results. The following tables present the instrument blueprints used to guide data (Al-Said, 2023; Dornyei, 2009).

Table 1. Observation Instrument Blueprint

No.	Motivation Dimension	Indicator	Item
1	Enjoyment	Students show enjoyment and enthusiasm during Wordwall activities	1, 2
2	Attention	Students pay attention and remain focused during learning	3, 4
3	Participation	Students actively participate in vocabulary activities	5, 6
4	Confidence	Students show confidence in answering and completing tasks	7, 8

5	Learning Interest	Students show interest in continuing to learn English through Wordwall	9, 10
----------	-------------------	--	-------

Table 1 presents the observation instrument used to identify students' observable motivation during Wordwall-based English vocabulary learning. The observation focused on five dimensions: enjoyment, attention,

participation, confidence, and learning interest. These dimensions were observed through students' behaviors and responses during classroom activities.

Table 2. Semi-Structured Interview Instrument Blueprint

No.	Motivation Dimension	Indicator	Item
1	Enjoyment	Students describe their enjoyment and feelings during Wordwall activities	1, 3
2	Attention	Students describe their ability to focus during learning	2, 4
3	Participation	Students describe their willingness to participate in Wordwall activities	5, 7
4	Confidence	Students describe their confidence in learning and answering vocabulary tasks	6, 8
5	Learning Interest	Students describe their interest in using Wordwall for future English learning	9, 10

Table 2 presents the semi-structured interview blueprint used to explore students' experiences and perceptions of learning English vocabulary through Wordwall. The interview questions covered five motivation dimensions:

enjoyment, attention, participation, confidence, and learning interest. The interviews provided deeper information about students' feelings and experiences during the learning process

Table 3. Documentation Data Blueprint

No.	Motivation Dimension	Indicator	Item
1	Enjoyment	Evidence of students' enthusiasm during Wordwall activities	1, 3
2	Attention	Evidence of students' focus during learning activities	2, 4
3	Participation	Evidence of students' active involvement in activities	5, 7
4	Confidence	Evidence of students' confidence in completing vocabulary tasks	6, 9
5	Learning Interest	Evidence of students' continued interest in Wordwall activities	8, 10

Table 3 presents the documentation data used to support the observation and interview findings. The documentation focused on evidence related to students' enjoyment, attention, participation, confidence,

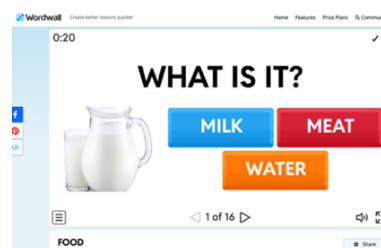
and learning interest during Wordwall-based vocabulary activities. These data were used to strengthen the interpretation of students' motivation through data triangulation.

The data were analyzed using thematic analysis. The analysis began with data familiarization through repeated reading of observation notes and interview transcripts, followed by initial coding of statements and behaviors related to students' motivation. Similar codes were then grouped into categories and developed into broader themes representing students' motivational experiences during Wordwall-based vocabulary learning. The findings from observations, interviews, and documentation were compared to identify consistencies and differences across data sources.

Data triangulation was employed to strengthen the credibility of the findings. The researcher also maintained systematic records of the data collection and analysis processes to support the dependability of the study. Ethical considerations were addressed by explaining the purpose of the study to the school and participants, obtaining the necessary permission, protecting students' identities, and using the collected data only for research purposes.

3. FINDINGS AND DISCUSSION

The findings of this study revealed five main themes related to elementary students' motivation in learning English vocabulary through Wordwall. Before using Wordwall, the teacher introduced basic food vocabulary to the third-grade students, such as rice, bread, egg, milk, chicken, and apple. The teacher wrote the words on the board and asked the students to repeat them together. The lesson mainly involved teacher explanations, repetition, and simple vocabulary exercises.



Picture 1. Wordwall Vocabulary Material about Food

After Wordwall was introduced, the classroom became more interactive and enjoyable. The third-grade students actively participated in a vocabulary game about food. They matched pictures with English words, answered questions, and repeated the vocabulary during the activity. The students appeared excited and more confident when answering. With the teacher's guidance, Wordwall helped create a fun learning experience and gave students more opportunities to practice and remember food-related vocabulary.



Picture 2. Teaching and Learning Activity using Wordwall

This picture showed that the third-grade elementary school students working together during an English vocabulary learning activity. The students are gathered around a table while the teacher provides guidance and assistance. They appear to be discussing the learning task, looking at the learning materials, and completing the activity together. The classroom setting reflects a collaborative and student-centered learning environment, where students are encouraged to

interact, participate, and support one another. This activity also provides opportunities for students to practice English vocabulary in a more engaging and meaningful way.

3.1. Enjoyment

The first finding concerned students' enjoyment during Wordwall-based vocabulary learning. Classroom observations indicated that students showed visible enthusiasm when the teacher introduced Wordwall activities. Several student raised their hands, and eagerly waited for their turns to answer the vocabulary questions. Some students also asked the teacher whether they could play another Wordwall activity after completing the first task. These behaviors indicated that students perceived the learning activity as enjoyable rather than merely as a vocabulary exercise. This observation was supported by the interview data.

Researcher: *"How do you feel when learning English vocabulary using Wordwall?"*

Student 1 (S1): *"I like learning with Wordwall because it is like playing a game. I am happy when I get the answer right."*

The finding can be interpreted through (Deci & Ryan, 2000), particularly the concept of intrinsic motivation. Students are more likely to engage in an activity when they experience interest and enjoyment. The finding is also consistent with (Vnucko & Klimova, 2023) found that digital game-based vocabulary learning may create positive learning experiences and emotions. For elementary students, this aspect is particularly important because enjoyable activities can encourage them to approach English learning more positively.

3.2. Attention

The second theme was students' attention during Wordwall activities. The observations indicated that students tended to pay close attention to the teacher's instructions and the vocabulary activities displayed on the screen. Students watched the questions, listened to explanations, and waited for opportunities to respond. Attention was particularly noticeable when activities included visual elements, immediate feedback, or time-based challenges. The observation findings were further supported by the interview data.

Researcher: *"Why do you pay attention to the Wordwall screen during the activity?"*

Student 02: *"I have to look at the screen because the question changes quickly, so I do not want to miss it."*

These responses indicate that the interactive and changing nature of Wordwall encouraged students to maintain their attention during vocabulary learning. The students' responses also suggest that curiosity about the next question and the need to respond to changing tasks helped sustain their focus throughout the activity. The findings are also related to (Fredricks et al., 2004), who conceptualize student engagement as behavioral, emotional, and cognitive. Students' ability to remain focused during *Wordwall* activities can be understood as an observable component of engagement. However, the findings do not imply that digital media automatically increase attention. The teacher's instructional strategy, activity design, duration, and appropriateness of the vocabulary tasks remain important factors in maintaining students' concentration.

3.3. Participation

The third theme was students' participation. Classroom observations showed that Wordwall encouraged students to become actively involved in vocabulary activities. Students volunteered to answer questions, selected answers on the screen, completed tasks, and responded to the teacher's instructions. Some students who were initially quiet became more willing to participate when the activity was presented as a game. This observation was supported by the interview data.

Researcher: *"Why do you want to answer the Wordwall questions?"*

Student 03: *"I want to answer because I want to try the game."*

These responses indicate that Wordwall encouraged students to participate actively in vocabulary learning. The students' statements suggest that the game-like format created a more comfortable learning atmosphere in which they felt willing to try and respond. The opportunity for all students to participate also appeared to reduce hesitation and encourage students who were initially less active to become involved in the learning activities.

The finding is consistent with (Alexiou & Schippers, 2018) argument that game-based learning can encourage active participation, feedback, problem solving, and learning through doing. In Wordwall-based learning, students were not merely listening to explanations of vocabulary; they were required to interact directly with the learning tasks. (Plass et al., 2015) similarly explain that game-based learning can facilitate interaction between learners, tasks, and learning goals. From the perspective of (Fredricks et al., 2004), students'

willingness to answer questions, complete activities, and participate repeatedly represents behavioral engagement. This finding is important because active participation provides students with opportunities to encounter and practice vocabulary repeatedly. Nevertheless, participation alone should not be interpreted as evidence of deep learning. The quality of participation depends on whether the activities are connected to appropriate learning objectives and supported by meaningful teacher feedback.

3.4. Confidence

The fourth theme was students' confidence in answering questions and completing vocabulary activities. Observations showed that students were generally willing to attempt answers even when they were uncertain. When students received incorrect answers, they were often willing to try again after receiving feedback or teacher encouragement. The repeated opportunities to respond appeared to create a supportive environment for vocabulary practice. This observation was further supported by the interview data.

Researcher: *"What do you do when your answer is wrong in a Wordwall activity?"*

Student 02: *"If my answer is wrong, I can try again. I am not too afraid because I can learn from the mistake."*

These interview responses indicate that the opportunity to try again and receive feedback helped students develop confidence during vocabulary learning. The students did not necessarily perceive incorrect answers as failure; instead, they viewed mistakes as opportunities to improve their understanding

This finding can be explained through (Deci & Ryan, 2000)'s concept of competence. Students are more likely to experience positive motivation when they feel capable of completing learning tasks. *Wordwall*'s immediate feedback and opportunities for repeated practice may provide students with information about their performance and consequently support their perception of competence. In the present context, incorrect answers were not necessarily perceived as final failure; instead, they became part of the learning process. This may explain why students remained willing to participate even when they were not certain about their answers. However, the qualitative evidence should be interpreted carefully. Therefore, the finding indicates that students experienced or expressed greater confidence during the activities, rather than demonstrating a statistically verified increase in confidence.

3.5. Learning Interest

The fifth theme was students' learning interest. The observations indicated that students showed interest in continuing to use Wordwall for English vocabulary learning. After completing activities, several students asked whether another game would be provided. Students also appeared more attentive when the teacher introduced a new activity or announced another vocabulary challenge. This observation was supported by the interview data.

Researcher: *"Would you like to use Wordwall again in future English lessons?"*

Student 01: *"I want to use Wordwall again because learning English becomes more interesting."*

These responses suggest that Wordwall stimulated students' interest

in continuing English vocabulary learning. The students' willingness to use the platform again indicates that they perceived the activities as enjoyable and meaningful. Their curiosity about future Wordwall activities also reflects a sustained interest in learning English vocabulary through interactive digital media. The finding can be interpreted through (Dornyei & Ryan, 2015) perspective that motivation influences learners' direction, effort, and persistence in learning. Students' willingness to participate in similar activities in the future indicates that their experience with *Wordwall* generated continued interest. This continued interest suggests that enjoyable and interactive learning experiences may encourage students to remain engaged in English vocabulary learning.

Overall, the findings suggest that Wordwall provided an interactive environment for English vocabulary learning. These characteristics are consistent with the principles of multimedia learning described by (Mayer, 2020; Plass et al., 2015). However, the findings also indicate that Wordwall should not be considered an independent solution to motivational problems. Students responded differently to particular activities. Some students appeared particularly motivated by scores and challenges, whereas others seemed more interested in the visual and interactive features.

The teacher also played an important role in shaping students' experiences. *Wordwall* functioned as a supporting medium rather than a replacement for teacher instruction. The teacher provided explanations, organized the activities, encouraged participation, clarified vocabulary meanings, and provided additional

support when students experienced difficulties. Thus, the motivational value of *Wordwall* appears to emerge from the interaction between the digital features of the platform and the teacher's pedagogical practices.

4. CONCLUSION

This study concludes that Wordwall provided a positive and interactive learning environment for elementary students learning English vocabulary. Students demonstrated enthusiasm during Wordwall activities, remained focused on vocabulary tasks, participated actively, showed confidence when answering and trying again, and expressed interest in using Wordwall. These findings are consistent with perspectives on intrinsic motivation, student engagement, multimedia learning, and game-based learning. The findings imply that Wordwall can serve as a complementary digital medium for creating engaging vocabulary learning experiences. However, because this

study used a qualitative design, the findings should be understood as students' experiences and motivational responses rather than evidence of a causal increase in motivation.

For pedagogical practice, English teachers are encouraged to integrate Wordwall with meaningful vocabulary activities, teacher guidance, feedback, pair or group work, and communicative practice rather than using it solely as a game. Teachers should also select activities according to students' age, proficiency level, and learning objectives. Future researchers are encouraged to examine Wordwall with different elementary school contexts and learner characteristics, including through longitudinal, mixed-methods, or experimental studies. Further research could also compare Wordwall with other digital learning platforms to identify which specific features most effectively support students' motivation and English vocabulary development.

REFERENCES

- Acquah, E. O., & Katz, H. T. (2020). Digital game-based L2 learning outcomes for primary through high-school students: A systematic literature review. *Computers & Education*, 143(103667), 103667. <https://doi.org/10.1016/j.compedu.2019.103667>
- Alexiou, A., & Schippers, M. C. (2018). Digital game elements, user experience and learning: A conceptual framework. *Education and Information Technologies*, 23(6), 2545–2567. <https://doi.org/10.1007/s10639-018-9730-6>
- Al-Said, K. (2023). Influence of teacher on student motivation: Opportunities to increase motivational factors during mobile learning. *Education and Information Technologies*, 1–19. <https://doi.org/10.1007/s10639-023-11720-w>
- Amri, F., & Sukmaningrum, R. (2023). Implementation of Wordwall as a Learning Media to Improve Students' Writing Skill. *International Journal of Multidisciplinary Approach Research and Science*, 1(03), 495–502. <https://doi.org/10.59653/ijmars.v1i03.255>

- Basal, A., Aytan, T., & Demir, I. (2016). Teaching Vocabulary with Graphic Novels. *English Language Teaching*, 9(9), 95–109. <https://doi.org/10.5539/elt.v9n9p95>
- Chen, W. (2018). A Critical Discourse Analysis of Donald Trump’s Inaugural Speech from the Perspective of Systemic Functional Grammar. *Theory and Practice in Language Studies*, 8(8), 966. <https://doi.org/10.17507/tpls.0808.07>
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Method Approaches Creswell 4th Edition* (4th ed.). Sage Publication.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/s15327965pli1104_01
- Dornyei, Z. (2009). The L2 Motivational Self System. In Z. Dornyei & E. Ushioda (Eds.), *Motivation, Language Identity and the L2 Self*. Multilingual Matters. https://books.google.co.id/books?id=dy_XBQAAQBAJ
- Dornyei, Z., & Ryan, S. (2015). *The Psychology of the Language Learner Revisited* (1st ed.). Routledge. <https://doi.org/10.4324/9781315779553/p>
- 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. <https://doi.org/10.3102/00346543074001059>
- Lampropoulos, G., Keramopoulos, E., Diamantaras, K., & Evangelidis, G. (2022). Augmented Reality and Gamification in Education: A Systematic Literature Review of Research, Applications, and Empirical Studies. In *Applied Sciences (Switzerland)* (Vol. 12, Number 13). MDPI. <https://doi.org/10.3390/app12136809>
- Mayer, R. (2020). *Multimedia Learning*. Cambridge University Press. <https://doi.org/10.1017/9781316941355>
- Nation, I. S. P. (2022). *Learning Vocabulary in Another Language*. Cambridge University Press. <https://doi.org/10.1017/9781009093873>
- Plass, J. L., Homer, B. D., & Kinzer, C. K. (2015). Foundations of game-based learning. *Educational Psychologist*, 50(4), 258–283. <https://doi.org/10.1080/00461520.2015.1122533>
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54–67. <https://doi.org/10.1006/ceps.1999.1020>
- Schmitt, N. (2014). Size and Depth of Vocabulary Knowledge: What the Research Shows. *Language Learning*, 64(4), 913–951. <https://doi.org/10.1111/lang.12077>
- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and Social Cognitive Theory. *Contemporary Educational Psychology*, 60, 101832. <https://doi.org/10.1016/j.cedpsych.2019.101832>
- Tsai, Y.-L., & Tsai, C.-C. (2018). Digital game-based second-language vocabulary learning and conditions of research designs: A meta-analysis study. *Computers & Education*, 125, 345–357. <https://doi.org/10.1016/j.compedu.2018.06.020>

- Vnucko, G., & Klimova, B. (2023). Exploring the potential of Digital Game-Based Vocabulary Learning: A systematic review. *Systems*, 11(2), 57. <https://doi.org/10.3390/systems11020057>
- Zou, D., Huang, Y., & Xie, H. (2021). Digital game-based vocabulary learning: where are we and where are we going? *Computer Assisted Language Learning*, 34(5–6), 751–777. <https://doi.org/10.1080/09588221.2019.1640745>