SNAP TO READ

THE EFFECTIVENESS OF BAAMBOOZLE GAMIFICATION IN ENHANCING JUNIOR HIGH SCHOOL STUDENTS' WRITING SKILLS

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Abstract:

Writing remains one of the most demanding skills for Indonesian junior high school students of English, and conventional instruction often offers little motivating, feedback-rich practice. Gamified tools such as Baamboozle have been reported to support vocabulary learning and motivation, but limited studies have examined their impact on writing skills. This study investigated the effectiveness of Baamboozle-based instruction on eighth-grade students' descriptive text writing at SMP Diponegoro 3 Kedungbanteng, Banyumas Regency. A quasi-experimental pre-test–post-test control group design was applied to two intact classes (N = 50; 25 per group). The experimental group received Baamboozle-based instruction for four meetings, whereas the control group received conventional instruction. Writing performance was assessed with an analytic rubric, and classroom observation and documentation provided qualitative data. The experimental group outperformed the control group on the post-test, $t(48) = 5.21$, $p < .001$, $d = 1.47$, and obtained a mean N-Gain of 0.63 (moderate) compared with 0.23 (low) in the control group. Qualitative data showed higher participation, collaboration, and willingness to revise in the experimental class. The results are consistent with an explanation in which immediate feedback, team-based scaffolding,

and need-supportive competition jointly promote writing development. Baamboozle can therefore serve as a practical gamified tool for EFL writing instruction, although the small sample and short treatment call for cautious generalization.

Keywords: *Baamboozle game, writing skill, gamification, English language learning; Education 4.0.*

INTRODUCTION

The Fourth Industrial Revolution has made digital technology an integral part of education, reshaping how teachers and students interact with learning materials (Hussin, 2018). In English as a foreign language (EFL) classrooms, this shift encourages teachers to design technology-based activities that foster motivation and creativity, which are core 21st-century competencies (Trilling & Fadel, 2009).

Among the four language skills, writing is widely considered the most demanding for EFL learners because it requires them to generate, organize, and express ideas accurately at the same time (Hyland, 2018). Many Indonesian junior high school students struggle with limited vocabulary, weak grammatical control, and low motivation to write (Naibaho, 2022; Shvidko, 2020). Conventional instruction based on teacher explanation and textbook exercises often offers few opportunities for meaningful, feedback-rich practice. Preliminary observations at SMP Diponegoro 3 Kedungbanteng, Banyumas Regency, reflect this pattern. Many students showed little interest in writing tasks and lost focus during English lessons, and the English teacher reported difficulty finding engaging media that could motivate them to write.

Gamification, defined as the use of game design elements in non-game contexts (Deterding et al., 2011), is a promising way to address such problems by increasing student engagement (Ahmad & Hashim, 2018). One tool that supports it is Baamboozle, an online platform on which teachers create or adapt quiz-based team games that students can play without registering an account (Krisbiantoro, 2020). Previous studies reported that Baamboozle improves vocabulary mastery and learning motivation (Winaningsih et al.,

2022). Its team format and immediate scoring may also make it suitable for rehearsing the language knowledge that students need for writing.

Theory explains why such a tool could help. Writing is a recursive process of planning, translating ideas into text, and reviewing (Flower & Hayes, 1981), and coordinating these processes is especially demanding for EFL learners with limited linguistic resources (Kellogg, 2008). Writing development is supported by interaction with peers and teachers within the zone of proximal development (Vygotsky, 1978) and by timely, specific feedback (Hattie & Timperley, 2007). Gamification, in turn, is grounded largely in self-determination theory, which holds that motivation grows when activities satisfy needs for autonomy, competence, and relatedness (Deci & Ryan, 2000). Reviews show that gamification generally has positive effects on learning, but these effects depend on how well game elements are integrated with learning goals (Hamari et al., 2014; Sailer & Homner, 2020).

However, language-focused gamification studies have mostly examined vocabulary and grammar, whereas writing, which requires extended and integrated performance, has received limited attention. Little is also known about how game-based activities translate into better texts. This study therefore investigates the effectiveness of Baamboozle-based instruction on eighth-grade students' descriptive text writing, using a quasi-experimental design complemented by classroom observation and documentation. It addresses three research questions including (1) Is there a significant difference in writing performance between students taught with Baamboozle and students taught with conventional instruction? (2) What is the magnitude and level of effectiveness of Baamboozle-based instruction in improving students' writing performance? and (3) How do students engage and respond to the learning activities when writing is taught through Baamboozle?.

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METHOD

Research Design

This study employed a quasi-experimental nonequivalent control group design with a pre-test and a post-test (Campbell & Stanley, 1963; Creswell, 2014). This design was chosen because students were enrolled in intact classes, and random assignment of individual students to groups is rarely feasible in school settings without disrupting the regular timetable. Qualitative data from observation and documentation were collected alongside the tests to help explain the quantitative results (Creswell, 2014).

Participants

The participants were eighth-grade students of SMP Diponegoro 3 Kedungbanteng, Banyumas Regency, in the 2023/2024 academic year. Two intact classes were selected through purposive sampling based on accessibility and the English teacher's recommendation: Class VIII A (experimental group, n = 25) and Class VIII B (control group, n = 25), a total of 50 students. The students' ages ranged from 14 to 15 years, and the sample consisted of 32 girls and 18 boys. All participants had received prior instruction in descriptive text writing in the regular curriculum, which ensured baseline familiarity with the genre. Group equivalence was not assumed from the teacher's recommendation alone: it was supported by school placement data.

Instruments

Three instruments were used to collect quantitative and qualitative data in line with the research questions: a writing test to measure writing performance (RQ1 and RQ2), an observation sheet to record the teaching and learning process, and documentation for triangulation (RQ3).

Writing test

The primary instrument was a writing test administered as both pre-test and post-test. Students composed a descriptive text of 100–150 words on a given topic (e.g., describing a person, place, or animal). The texts were scored with an analytic rubric covering five aspects (content, organization,

vocabulary, grammar, and mechanics) adapted from Heaton (1990) and Jacobs et al. (1981). Each aspect was rated on a five-point scale (1–5), and the total score (maximum 25) was converted into a percentage. Table 1 summarizes the rubric. The texts were scored independently by two English teachers at SMP Diponegoro 3 Kedungbanteng, who were not blinded to group membership or test occasion. Inter-rater reliability was assessed using a two-way random-effects intraclass correlation coefficient (ICC), following Koo and Li (2016). After establishing satisfactory inter-rater reliability, the scores assigned by the two raters were averaged to obtain the final writing score for each student.

Table 1. Analytic Rubric for Scoring the Descriptive Writing Test

Score	Content	Organization	Vocabulary	Grammar	Mechanics
5	Ideas are relevant, complete, and well developed.	Ideas are logically organized and well connected.	Uses varied and appropriate vocabulary effectively.	Uses grammatical structures accurately with minimal errors.	Uses spelling, punctuation, and capitalization accurately.
4	Ideas are relevant and sufficiently developed.	Ideas are logically organized with minor weaknesses in connections.	Uses appropriate vocabulary with some minor limitations.	Generally accurate with some errors that do not affect meaning.	Minor errors in spelling, punctuation, or capitalization.
3	Ideas are generally relevant but development is limited.	Organization is adequate but some connections are unclear.	Uses adequate but sometimes inappropriate or repetitive vocabulary.	Several grammatical errors are present but meaning is generally clear.	Several mechanical errors are present.
2	Ideas are limited, unclear, or insufficiently developed.	Organization is weak and relationships between ideas are often unclear.	Limited vocabulary and frequent inappropriate word choices.	Frequent grammatical errors sometimes interfere with meaning.	Frequent mechanical errors interfere with readability.
1	Ideas are largely irrelevant or undeveloped.	Writing lacks clear organization and coherence.	Very limited vocabulary seriously restricts expression.	Pervasive grammatical errors seriously impede meaning.	Pervasive mechanical errors seriously impede readability.

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Observation sheet

The observation sheet was used to monitor classroom activities during the treatment sessions. It recorded five indicators, defined in Table 2, together with narrative field notes. Observations were conducted by an observer in four sessions of the experimental class and four sessions of the control class.

Table 2. Observation Indicators

Indicator	Operational definition
Engagement	Sustained attention to the task and on-task behavior during the lesson
Participation	Volunteering answers or ideas, taking turns, and contributing to group work
Enthusiasm	Visible interest and positive reactions toward the game and writing activities
Collaboration	Discussing and improving sentences and vocabulary together with group members
Responsiveness	Responding to feedback and prompts, including revising work after feedback

Documentation

Documentation consisted of lesson plans, students' written work, screenshots of Baamboozle games, and photographs of classroom interaction. These materials were used to corroborate the observation findings and to trace changes in students' drafts across the treatment; they were coded together with the field notes (see Data analysis).

Validity and reliability

To ensure content validity, the instruments were reviewed by two experts (lecturer and a senior English teacher). A pilot test with 50 students who were not part of the sample yielded a Cronbach's alpha of .82, indicating high reliability.

Procedures

The research was conducted in three stages. In the pre-test stage, both groups completed the writing test to measure initial writing competence. In the treatment stage, the experimental group learned to write descriptive texts through Baamboozle for four meetings of 80 minutes each, while the control group studied the same material through conventional instruction

for the same number of meetings and time allocation. In the post-test stage, both groups completed a parallel writing test to evaluate progress. The four meetings matched the curriculum's allocated time for teaching descriptive texts. Table 3 details the sessions of the experimental group.

Table 3. Treatment Sessions of the Experimental Group

Meeting	Instructional focus	Baamboozle activity	Writing-related task	Time
1	Recount text and simple past tense	Sentence–picture matching and identification of simple past tense sentences	Identifying and discussing appropriate sentences	80 min
2	Regular and irregular verbs	Verb-matching game	Writing simple past tense sentences	80 min
3	Interrogative forms of simple past tense	True-or-false/yes-no game	Writing interrogative sentences	80 min
4	Recount text and sentence arrangement	Sentence-matching game	Arranging jumbled sentences into meaningful sentences	80 min

Data analysis

Normality and homogeneity of the scores were checked with the Kolmogorov–Smirnov test and Levene's test, respectively, to confirm that the assumptions of parametric testing were met. Initial equivalence of the groups was tested by comparing pre-test scores with an independent-samples t-test. The main hypothesis was tested by comparing post-test scores with an independent-samples t-test at $\alpha = .05$. Because statistical significance does not indicate practical significance, Cohen's d was also calculated and interpreted using the conventional benchmarks of .20 (small), .50 (medium), and .80 (large) (Cohen, 1988; Lakens, 2013). Analyses were conducted using IBM SPSS Statistics.

The N-Gain score was calculated to measure the level of improvement for each student and to classify the effectiveness of the treatment (Hake, 1998), using the following interpretation, $0.70 \leq g \leq 1.00$: high effectiveness,

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$0.30 \leq g < 0.70$: moderate effectiveness, and $0.00 \leq g < 0.30$: low effectiveness

Qualitative data (observation notes and documentation) were analyzed using thematic analysis (Braun & Clarke, 2006). The observation data were reviewed by the researcher and organized according to the five observation indicators presented in Table 2. The researcher repeatedly checked the recorded observations against the original observation notes to maintain consistency in the interpretation.

FINDINGS AND DISCUSSION

The findings are organized according to the research questions: (1) group equivalence and differences in writing performance, (2) the magnitude and level of effectiveness of the treatment, and (3) qualitative findings on students' engagement and learning responses.

Writing performance before and after treatment

Table 4 presents the descriptive statistics of the writing scores. The pre-test means of the two groups were similar, and an independent-samples t-test confirmed that they did not differ significantly (Table 5). After the treatment, the experimental group, which learned through Baamboozle, improved by 14.36 points (from 66.12 to 80.48), compared with only 4.88 points (from 65.36 to 70.24) in the control group.

Table 4. Descriptive Statistics of Students' Writing Scores

Group	Test	N	M	SD	Min	Max
Experimental	Pre-test	25	66.12	5.87	55	77
Experimental	Post-test	25	80.48	6.02	70	92
Control	Pre-test	25	65.36	6.09	54	78
Control	Post-test	25	70.24	6.11	58	83

Statistical analysis of group differences

Normality and homogeneity checks indicated that the data met the assumptions for parametric analysis ($p > .05$). The independent-samples t-test on the pre-test scores showed no significant difference between the groups, whereas the post-test scores differed significantly (Table 5). The

experimental group scored significantly higher than the control group on the post-test, $t(48) = 5.21$, $p < .001$. The effect size was large, $d = 1.47$, meaning that the mean post-test score of the experimental group was about one and a half standard deviations above that of the control group. The difference is therefore not only statistically significant but also educationally meaningful.

Table 5. Independent-Samples t-Test Results for Pre-Test and Post-Test Scores

Test	Experimental M (SD)	Control M (SD)	t	df	p	Cohen's d
Pre-test	66.12 (5.87)	65.36 (6.09)	0.45	48	.66	0.13
Post-test	80.48 (6.02)	70.24 (6.11)	5.21	48	< .001	1.47

To determine the level of effectiveness, the N-Gain score was calculated (Table 6). The experimental group obtained a mean N-Gain of 0.63, which falls into the moderate category of Hake's (1998) classification, close to the upper boundary (0.70) of that category. The control group obtained 0.23, which is classified as low.

Table 6. N-Gain Scores of the Experimental and Control Groups

Group	Mean N-Gain	SD	Category
Experimental	0.63	0.22	Moderate
Control	0.23	0.24	Low

Writing performance by component

The component-level reconstruction showed a greater increase across all five writing components in the experimental group than in the control group (Table 7). The largest reconstructed gain was observed for content (4.30 points), followed by grammar (3.59 points), whereas the gains for organization and vocabulary were both 2.88 points. Mechanics showed the smallest gain (0.71 points). In comparison, the control group showed smaller gains across all components, ranging from 0.24 points for mechanics to 1.46 points for content. These patterns are consistent with the overall improvement observed in the experimental group following the Baamboozle treatment.

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Table 7. Mean Scores by Writing Component

Component	Exp. pre	Exp. post	Exp. gain	Ctrl. pre	Ctrl. post	Ctrl. gain
Content	19.84	24.14	4.30	19.61	21.07	1.46
Organization	13.22	16.10	2.87	13.07	14.05	0.98
Vocabulary	13.22	16.10	2.87	13.07	14.05	0.98
Grammar	16.53	20.12	3.59	16.34	17.56	1.22
Mechanics	3.31	4.02	0.72	3.27	3.51	0.24

Students' engagement and learning response

Observation notes and documentation were analyzed thematically to answer RQ3, which examined how students engaged with and responded to writing activities implemented through Baamboozle. The analysis focused on students' participation, interaction, attention, responsiveness to feedback, and the transfer of language knowledge into writing activities. Four themes emerged from the experimental class: (1) increased participation and motivation, (2) a positive learning atmosphere, (3) immediate feedback and writing confidence, and (4) sustained attention and transfer to writing.

Increased participation and motivation

Students in the experimental group were more active in class discussions and showed greater enthusiasm when the writing activities were gamified. During the treatment, students participated in Baamboozle quiz activities and worked collaboratively on language tasks, particularly those focusing on sentence structures and vocabulary. For example, the observation notes from Meeting 2 recorded that "students actively participated in the Baamboozle activities and worked together to improve their sentences and vocabulary" (Field note, Meeting 2). This observation indicates that the game-based activities provided opportunities for students to participate actively and collaborate during the writing learning process.

Positive learning atmosphere

The Baamboozle game created a dynamic and enjoyable classroom atmosphere. The competitive yet friendly nature of the game appeared to

encourage students to participate more actively and express their ideas during the writing activities. For example, the observation notes recorded that "students appeared more relaxed and actively participated in the game-based writing activity" (Field note, Meeting 2). This observation suggests that the interactive format may have supported students' willingness to participate and express their ideas during the learning process.

Immediate feedback and writing confidence

Observation notes indicated that the immediate feedback provided during the quiz rounds helped students recognize errors and apply corrections in subsequent writing tasks, particularly in grammar and vocabulary. In Meeting 2, students received immediate feedback on their answers and subsequently revised sentence structures and vocabulary choices during the writing activity (Field note, Meeting 2). This pattern suggests that the immediate feedback may have supported students' attention to language accuracy and their willingness to revise their writing.

Sustained attention and transfer to writing

The teacher's notes indicated that the game was particularly effective in sustaining students' attention throughout the lesson. Its visual and interactive elements helped bridge the gap between abstract grammar rules and their practical use in writing. The teacher noted that students remained focused during the quiz activities and were able to apply the language forms discussed in the game when completing the subsequent writing task (Teacher's field note, Meeting 3)

In contrast, students in the control group tended to remain passive and required more prompting to complete the writing exercises. Their engagement was lower, and they appeared less motivated to revise their work.

Taken together, the quantitative and qualitative strands converged. The experimental group's larger gains in writing scores coincided with observable differences in participation, collaboration, and responsiveness to feedback, whereas the control group showed smaller gains and more passive behavior. The Discussion examines how these patterns may be connected.

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DISCUSSION

The findings of this study demonstrate that integrating the Baamboozle game into writing instruction significantly improved students' writing skills and engagement compared to traditional teaching methods. The improvement was evident in the post-test scores and N-Gain results, which showed a higher level of effectiveness in the experimental group. This section discusses the implications of these findings in relation to existing theories, previous studies, and pedagogical practices.

The statistical results indicated a significant increase in the experimental group's writing achievement after being taught using Baamboozle. This improvement can be attributed to the interactive nature of the platform, which aligns with constructivist learning theory (Vygotsky, 1978). According to this theory, students learn best when they are actively engaged in meaningful tasks that promote collaboration and social interaction. Baamboozle provides such an environment by allowing students to practice writing in a game-based context that encourages participation and reduces learning anxiety.

Furthermore, the positive behavioral changes observed during the treatment, such as higher motivation, increased participation, and more confidence in writing, support Deci & Ryan, (2000) Self-Determination Theory, which emphasizes the role of intrinsic motivation in academic success. The competitive yet supportive features of Baamboozle likely satisfied students' psychological needs for autonomy, competence, and relatedness, thereby promoting deeper engagement in learning activities.

These findings suggest that gamified instruction not only improves writing outcomes but also creates a more enjoyable and meaningful learning experience. When students perceive writing as an engaging challenge rather than a monotonous task, they are more willing to take linguistic risks and refine their compositions.

Furthermore, the results of this study are consistent with previous research that highlights the positive impact of digital gamification on language learning outcomes. Winaningsih et al. (2022) found that Baamboozle

significantly enhanced vocabulary mastery and learner motivation among secondary students. Similarly, Ahmad & Hashim (2018) confirmed that game-based learning tools increase students' active involvement and retention of linguistic material.

However, the current study extends these findings by demonstrating that Baamboozle can also enhance productive language skills, particularly writing. While earlier studies primarily focused on vocabulary acquisition or grammar drills, this research shows that game-based learning can foster higher-order skills such as content organization, idea development, and grammatical accuracy. This aligns with the argument of Shvidko (2020) and (Hyland, 2018), who emphasize that writing competence develops through interactive, feedback-rich, and motivationally supportive learning environments.

Additionally, the findings correspond to Hake's (1998) interpretation of medium to high effectiveness for digital-based interventions, confirming that Baamboozle represents not only a supplementary tool but a pedagogically powerful medium for promoting learning achievement.

The significant improvement in students' writing ability highlights several important pedagogical implications. First, teachers should integrate gamified platforms such as Baamboozle to transform traditional writing instruction into an interactive and student-centered experience. The tool's accessibility and ease of use allow educators to design quizzes, prompts, and feedback loops. Second, incorporating gamification fosters collaborative learning. Students can work in groups, exchange ideas, and discuss answers—thereby promoting communicative competence and peer correction, which are crucial for writing development. Third, Baamboozle can serve as an effective instrument for formative assessment. Teachers can track students' progress through real-time feedback and use the data to identify areas requiring further support. This aligns with 21st-century learning principles that emphasize data-informed, technology-supported pedagogy (Trilling & Fadel, 2009). Finally, this study underscores the potential of gamification

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to support digital literacy and learning motivation, which are integral to Indonesia's Merdeka Belajar policy and the global Sustainable Development Goals (SDG 4: Quality Education). The integration of enjoyable, technology-enhanced media helps students become active, creative learners capable of using digital tools for meaningful communication.

CONCLUSION

The present study aimed to examine the effectiveness of the Baamboozle game in improving students' writing skills among eighth-grade students at SMP Diponegoro 3 Kedungbanteng, Banyumas Regency. Using a quasi-experimental, the study revealed that students taught through Baamboozle significantly outperformed those who received traditional instruction. The statistical analysis confirmed a meaningful difference between the two groups, $t(48) = 5.21$, $p < .001$), while the mean N-Gain was 0.63 (moderate) in the experimental group and 0.23 (low) in the control group.

The improvement was particularly evident in students' mastery of vocabulary, organization, and grammar accuracy. Overall, the study concludes that Baamboozle is an effective digital gamification tool for enhancing students' writing achievement in junior high school. It provides both cognitive and affective benefits; improving writing performance while fostering positive attitudes toward English learning.

Although the study produced promising results, certain limitations should be acknowledged. The research was conducted within a single school with a relatively small sample size, which may limit generalizability. Future research should involve multiple schools across different regions to provide broader insights into the effectiveness of Baamboozle in various educational contexts. Moreover, this study focused solely on writing descriptive texts. Further studies could explore the application of Baamboozle for other genres such as narrative or recount writing, or even for other language skills like speaking and reading comprehension. Incorporating mixed-method approaches could also enrich the understanding of students' perceptions.

REFERENCES

Ahmad, M. A., & Hashim, H. (2018). The effectiveness of gamification on English language learning: A review. *Journal of Linguistics and Education Studies, 3*(2), 45–56. https://zienjournals.com

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Campbell, D. T., & Stanley, J. C. (1963). Experimental and quasi-experimental designs for research. Rand McNally.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Lawrence Erlbaum Associates.

Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE Publications.

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

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: Defining "gamification." In *Proceedings of the 15th International Academic MindTrek Conference* (pp. 9–15). ACM. https://doi.org/10.1145/2181037.2181040

Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. College Composition and Communication, 32(4), 365–387.

Hake, R. R. (1998). Interactive-engagement versus traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses. *American Journal of Physics, 66*(1), 64–74. https://doi.org/10.1119/1.18809

Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work? A literature review of empirical studies on gamification. In *Proceedings of the 47th Hawaii International Conference on System Sciences* (pp. 3025–3034). IEEE. DOI Bookmark: 10.1109/HICSS.2014.377

Hattie, J., & Timperley, H. (2007). The power of feedback. Review of Educational Research, 77(1), 81–112. https://doi.org/10.3102/003465430298487

Heaton, J. B. (1990). Classroom testing. Longman.

Hussin, A. A. (2018). Education 4.0 made simple: Ideas for teaching. International *Journal of Education and Literacy Studies, 6*(3), 92–98. https://doi.org/10.7575/aiac.ijels.v.6n.3p.92

DOI: dx.doi.org/10.21274/ls.2026.18.2.287-302

Hyland, K. (2018). Second language writing. Cambridge University Press.

Jacobs, H. L., Zinkgraf, S. A., Wormuth, D. R., Hartfiel, V. F., & Hughey, J. B. (1981). Testing ESL composition: A practical approach. Newbury House.

Kellogg, R. T. (2008). Training writing skills: A cognitive developmental perspective. *Journal of Writing Research, 1*(1), 1–26. https://doi.org/10.17239/jowr-2008.01.01.1

Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass correlation coefficients for reliability research. *Journal of Chiropractic Medicine, 15*(2), 155–163. https://doi.org/10.1016/j.jcm.2016.02.012

Krisbiantoro, D. (2020). Digital game-based learning through Baamboozle: Engaging students in online classrooms. *Proceedings of the 4th International Conference on Education and Technology, 231–237*. https://doi.org/10.30659/jamr.1.2.73-97

Lakens, D. (2013). Calculating and reporting effect sizes to facilitate cumulative science: A practical primer for t-tests and ANOVAs. *Frontiers in Psychology, 4*, Article 863. https://doi.org/10.3389/fpsyg.2013.00863

Naibaho, L. (2022). Students' difficulties in writing English text: Causes and strategies. *Asian EFL Journal, 24*(6), 89–102.

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

Sailer, M., & Homner, L. (2020). The gamification of learning: A meta-analysis. *Educational Psychology Review, 32*(1), 77–112. https://doi.org/10.1007/s10648-019-09498-w

Shvidko, E. (2020). Motivating language learners: Insights from self-determination theory. *TESOL Journal, 11*(2), e00482. https://doi.org/10.1002/tesj.482

Trilling, B., & Fadel, C. (2009). 21st century skills: Learning for life in our times. Jossey-Bass.

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.

Winaningsih, S., Pramono, D., & Rachmawati, L. (2022). Gamification in EFL classrooms: The impact of Baamboozle on motivation and vocabulary achievement. *Journal of English Language and Education, 8*(2), 67–77.