Jurnal Pendidikan Dasar Nusantara Vol 11, No 1, July 2025
ISSN 2579-6461 (Online) ISSN 2460-6324 (Print)
DOI: https://doi.org/10.29407/jpdn.v11i1.26133

Effectiveness of Wordwall Education Games (Gaull) to Improve Reading and Writing Skills of 1st Grade Elementary School Students

Submitted:
July 1, 2025
Accepted:
July 11, 2025
Published:
July 31, 2025

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Abstract: This study aims to test the effectiveness of the wordwall education game on improving the reading and writing skills of first-grade elementary school students. This study applies a quasi-experimental method through the "Nonequivalent Control Group Design" design. In its implementation, this study included two groups of subjects, namely the control group and the experimental group. The control group was given learning through word cards, while the experimental group was given through the wordwall education game media. Both groups were then given an initial reading and writing ability test, the results of which were analyzed using IBM SPSS software. The results of the analysis showed a significant value of 0.000 in the reading aspect and 0.006 in the writing aspect, which means that Ho was rejected and H1 was accepted, through the "Independent Sample T-test", meaning that a significant difference was obtained in reading and writing abilities between the compared groups. These findings show that the application of the wordwall education game media is effective in improving the initial reading and writing skills of first-grade elementary school students.

Keywords: Reading, Writing, Wordwall, Grade 1 Students

PRELIMINARY

Education is a conscious and planned effort to create learning conditions so that students actively expand their potential. According to Pristiwati (2022), education is defined as a lifelong learning experience that occurs in various places and situations, supporting the growth of living beings. Education is lifelong and begins through a long and continuous process. Students can begin formal education in elementary school. In elementary school, children attend classes ranging from grades 1 to 6, with each level having different characteristics and learning focuses. In the early grades, or grade 1, one of the primary skills students must master is reading and writing. These skills are the foundation for achieving educational success. Without these skills, students will struggle to understand and follow the learning process. In line with the statement above, reading

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and writing are core skills and must be mastered by students at the elementary school level (Widyaningrum & Hasanudin, 2019).

Based on a survey conducted by the Program for International Student Assessment (PISA), the reality in the field is that Indonesia ranks 62nd out of 70 countries or is in the top ten countries with the lowest literacy. This is the focus of the challenge that students' literacy skills must be improved and optimized, especially in early elementary school students. Based on observations conducted at Muhammadiyah Ambarbinagun Elementary School, reading and writing skills are still classified as not meeting expectations, marked by several students who are still not fluent in reading, inaccurate pronunciation and intonation, difficulty putting together syllables that have double consonants, difficulty distinguishing similar letters such as p and q, as well as incomplete and errors in spelling words. This is caused by several factors originating from within and from the individual themselves. Such as a lack of student learning preparation, while external factors that cause are the lack of use of interesting models and a lack of optimal learning media that lead to ineffective learning.

Effective learning is the key to supporting the learning process to achieve predetermined learning objectives. This is in line with the opinion of Muthma'innah et al., 2024, that learning effectiveness is the expected outcome achieved in accordance with the objectives of implementing a learning model or media. A learning model or media can be considered effective when student learning outcomes improve (Warsita, 2018). Effective learning is also defined as a learning process that provides students with opportunities to master specific skills, acquire knowledge, and develop positive character traits, all within a comfortable and enjoyable environment. Effective learning helps students learn something useful. Reading and writing are critical aspects of learning, especially in the early stages, commonly referred to as "literacy." Therefore, the choice of learning strategies significantly influences the effectiveness of such learning. One such strategy is the choice of learning media. Selecting the right learning media not only provides dynamics to learning but also supports the development of critical skills (Sofia Sulistyo et al., 2024).

Based on these issues, a teacher must be able to understand and find solutions to produce effective learning through the use of appropriate learning media. The right media will engage students, creating engaging learning experiences that are engaging and can

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foster their interest in learning. This is in line with Nurmalita (2012), who stated that game-based media is not merely a tiring game that can lead to laziness, but rather a game that can create enjoyable learning and also provide students with valuable information while playing. One such medium is game-based educational wordwalls, which are suited to the characteristics of early grade students, who still enjoy playing and games. Teachers can package learning to optimize reading and writing skills by utilizing these game-based educational wordwalls. According to Rahmadanti et al. (2024), wordwalls are interactive and practical learning platforms. They can be used as learning materials, teaching tools, and engaging evaluation instruments for students. This also aligns with Ningsih (2024), who stated that Wordwall is a website platform that can be used as a fun, interactive medium with several usable template features. This wordwall is designed to make it easier for teachers to design game-based learning media that can be tailored to the topic of the lesson.

In this study, several features were used: (a) anagram, (b) gameshowquiz, and (c) unjumble. The researchers used these three features in a classroom setting with the aid of an infocus. In the anagram feature, students were instructed to listen to the sound of the anagram and compose the scrambled word by writing the correct word order. In the gameshow quiz feature, students answered multiple-choice questions, and in the third feature, unjumble, students were instructed to arrange words into simple sentences from the scrambled words.

Researchers utilized these three features because they are relevant for improving the reading and writing skills of early-grade students. These three features were designed and utilized to suit the characteristics of early-grade students. They can help them recognize letters, familiarize them with the shape and sound of each letter, train them to combine letters into syllables, combine syllables into words, and pronounce simple sentences with correct spelling. According to Imanulhaq & Pratowo (2022), the advantages of this educational wordwall game media include:

a. It provides an engaging and easy-to-follow learning experience for elementary school students, as elementary school-aged children naturally enjoy games.
b. Wordwalls can be used in any learning environment, as the platform includes a collection of game templates that can be used for learning and evaluated directly.

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c. It can be accessed via the web, allowing students to use it independently using a computer or mobile device.
d. Wordwalls are web-based, so there's no need to install an app to use them.

The use of this wordwall educational game media will be more effective if it is used properly and appropriately. This alternative learning media is engaging and increases interest, allowing students to play an active role directly in the learning process, thus supporting early reading and writing skills. The purpose of this research is to compare the two groups and to determine the effectiveness of the wordwall educational game media in optimizing early reading and writing skills. The results of this study are expected to contribute to learning, particularly in the use of wordwall educational game media.

METHOD

This study employed a quasi-experimental methodology. (Sugiono, 2023: 111) states that the experimental method is a method implemented through experiments, which is utilized to determine the impact of an independent variable (treatment) on a dependent variable (outcome) in a directed situation. According to (Janna & Herianto, 2021), Quasi-Experimental research includes two sample groups: an "experimental" group and a "control" group. The experimental group is the group receiving the treatment, namely students who participated in the learning process using educational wordwall game learning media, while the control group is the group learning without using the experimental group media. The design used was a non-equivalent control group design. In the test, reading and writing test data were collected from the two groups of subjects, and the results were analyzed using SPSS to determine and answer which media was more effective in optimizing reading and writing skills in first-grade students.

The time, location, and activities of this research were conducted at Muhammadiyah Ambarbinangun Kalipakis Elementary School, Tirtonirmolo, Kec. Kasihan, Bantul Regency, DIY, with implementation time carried out for 2 days. In the first meeting, students were given a reading and writing pretest and given learning in each class according to the media used. On the second day, learning continued, after the learning, students were given a final posttest to observe whether there were differences before the treatment was given and after being given treatment using the media.

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RESULTS

Table 1. Mean Values of Beginning Reading and Writing Skills Before and After Treatment in the Control Class

No	Description	Score		Information
		Pretest	Posttest	
1.	Mean Beginning Reading Skills	60,5	79,5	Increased
2.	Mean Beginning Writing Skills	66,5	82,25	Increased

Source: Muhammadiyah Ambarbinnagun Elementary School

Based on table 1 above, it can be seen that the mean pretest of initial reading skills before being given treatment using word card media was 60.5, the posttest of initial reading skills after being given learning using word card media was 79.4, while the mean pretest of initial writing skills before treatment was 66.5 and the posttest after being given treatment was 82.25. Based on these two skills, it can be said that the results of the pretest and posttest on each skill increased.

Tabel 2. Score (*Mean*) Reading and Writing Skills Before and After Treatment in the Experimental Class

No	Description	Score		Information
		Pretest	Posttest	
1.	Mean Beginning Reading Skills	58,3	87	Increased
2.	Mean Beginning Writing Skills	62,67	86	Increased

Source: Muhammadiyah Ambarbinnagun Elementary School

Based on table 2 above, it can be seen that the mean pretest of initial reading skills before being given treatment using wordwall education game media was 58.3, and the posttest after being given learning using wordwall education game media was 87. Meanwhile, the mean pretest on initial writing skills before treatment was 62.67 and the posttest after being given treatment was 86. Based on these two skills, it can be said that the pretest and posttest results for each skill increased.

Table 3. Comparison of Values (Mean) of Reading and Writing Skills in the Control and Experimental Classes

No	Description	Score		Information
		Control	Exsperiment	
1.	Mean Beginning Reading Skills	79,5	87	Increased
2.	Mean Beginning Writing Skills	82,25	86	Increased

Source: Muhammadiyah Ambarbinnagun Elementary School

Based on table 3 above, it can be seen that between the average (mean) of the control and experimental classes there is a difference which can be seen from the mean value of the reading skills of the control class, namely 79.5 and in the experimental class

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it increased to 87, while in the initial writing skills in the control class it was 82.25 and the mean in the experimental class was 86. Based on the average value (mean), it can be said that both reading and writing skills in the control class and the experimental class have differences with each media that has been used. Based on the table above, the comparison of the mean posttest of initial reading and writing skills in both classes can be seen in Figures 1 & 2.

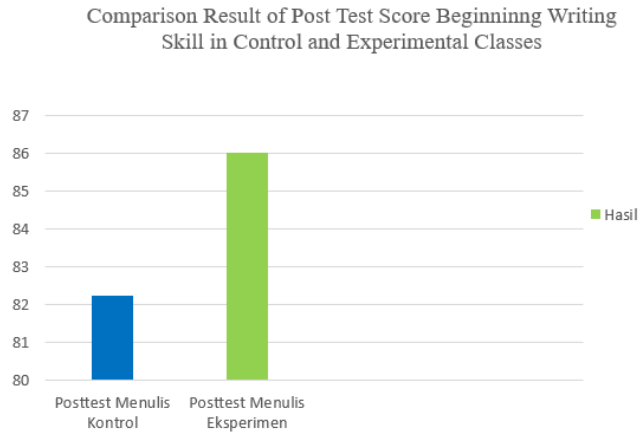

Figure 1. Comparison of the Average Values of Beginning Writing Skills in the Control and Experimental Classes.

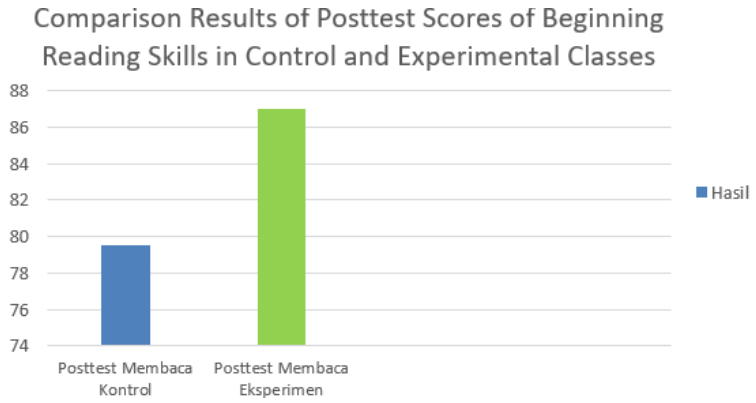

Figure 2. Comparison of Average Reading Skill Scores of Control and Experimental Classes.

Table 4 Results of Hypothesis Testing of Independent Sample T-Test for Reading Skills

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Nilai	Equal variances assumed	3.234	.077	-4.243	64	.000	-7.047	1.661	-10.365	-3.729
	Equal variances not assumed			-4.213	59.133	.000	-7.047	1.673	-10.394	-3.700

Source: SPSS Independent Sample T-test

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From the Independent Sample T-Test output table above, it can be seen that the Sig (2-tailed) value for initial reading is 0.000 < 0.05, thus it can be said that there is a significant (real) difference in influence between the use of wordwall education game media to improve the initial reading skills of grade 1 students at Muhammadiyah Ambarbinangun Elementary School.

Table 5 Results of Hypothesis Testing of Independent Sample T-Test for Writing Skills

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Nilai	Equal variances assumed	1.275	.263	-2.853	64	.006	-3.338	1.170	-5.676	-1.001
	Equal variances not assumed			-2.840	61.218	.006	-3.338	1.176	-5.689	-.988

Sumber: Uji Independent Sample T-test SPSS

From the Independent Sample T-Test output table above, it can be seen that the Sig (2-tailed) value for initial writing is 0.006 < 0.05, thus it can be said that there is a significant (real) difference in influence between the use of educational game media to improve initial writing skills.

DISCUSSION

In this study, the results indicate a difference in the ability of early reading and writing skills in students who learned using the game education wordwall (gaull) media as an experimental class with students who learned using word cards as a control class. Proven through the results of the average analysis in the experimental class with the acquisition of a pretest score of 58.3 for initial reading and 62.67 for initial writing. After conducting the pretest, then learning was carried out using the game education wordwall media, the average posttest reading results increased to 87 and writing to 86. The results of the posttest scores in the experimental class using the game education wordwall media have reached the criteria for achieving learning objectives.

Table 6. Learning Objective Completion Criteria Beginning Reading and Writing Skills

Score	Classification
Score > 80	Excellent
70 < Score ≤ 80	Good
50 < Score ≤ 70	Fair
20 < Score ≤ 50	Poor
Score ≤ 20	Needs Guidance

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Based on Table 6 above, in class 1B, with 34 students as the experimental class, using the wordwall educational game (gaull) during the learning process, it can be concluded that 25 students (74%) scored "very good" on the posttest for their initial reading skills, followed by 9 students (26%). Meanwhile, in the posttest for their initial writing skills, 28 students scored "very good" (82%), and 6 students scored "good" (18%). Furthermore, based on the posttest scores for the control class, namely class 1A, with 32 students who received the word card media during the learning process, it is known that 14 students (44%) scored "very good" on the posttest for their initial reading skills, 15 students (47%), and 3 students (9%) scored "fair." Meanwhile, in the posttest for their initial writing skills, 14 students (44%) scored "very good," and 18 students (56%) scored "good."

Based on the data above, it shows that the reading and writing skills of grade 1 students of Muhammadiyah Ambarbinangun Elementary School are better and more effective after using wordwall education game media compared to only using word card media. In line with research conducted by (Mochammad & Triansyah, 2024) regarding the influence of wordwall media on students' early reading skills, with research results proving that wordwall media is a platform that can be used as a learning aid, learning resource or online-based scoring instrument that is interesting for students, the results of the analysis of student responses in this study obtained answers that strongly agree and agree with a percentage of 83.3% so it was concluded that in this study students responded well to learning using wordwall application media and there was an influence of wordwall media in improving early reading skills in students of SDN Kepanjin 1. So it is said that in this previous study it supports and is in line with the research studied, especially on the aspect of early reading skills, that there is a positive influence of wordwall media on early reading skills.

Although research conducted by Mochammad & Triansyah (2024) only demonstrated a positive effect of wordwalls on early reading skills, this study went beyond just early reading skills and also examined the effectiveness of wordwalls in improving early writing skills. The researchers added this variable based on the fact that reading comprehension and writing are two language skills that are closely related and mutually supportive in early literacy for students. This research also aligns with research conducted by Bachry, Yuwono, & Utami (n.d.) on the use of wordwalls to optimize

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cursive writing skills in third-grade deaf students at SKh Negeri 02, Serang City, Banten. This study concluded that the application of wordwalls improved cursive writing skills, as indicated by the percentage of cursive writing test scores showing a steady, positive increase.

The relevance of previous studies to the study conducted by this researcher is the application of word walls. Although previous research discussed cursive writing, there is a connection with the study conducted by the researcher regarding initial writing skills using word walls. Cursive writing skills are also built on the foundation of early or basic writing. Furthermore, exploring the visual forms of letters in early writing and cursive letters in the use of word walls helps to understand the visuals of writing by engaging visual memory for letter shapes. This research also aligns with research (Herta, Nupus, Sanggarwati, & Setiawan, 2023) on the use of word walls as a learning tool to foster learning interest in elementary school students. The results of this study show that there is an increase in student interaction and involvement in the learning process. In line with the research conducted by the researcher, a high interest in learning can be a factor influencing the effectiveness of the learning process. Having a high interest in learning will encourage students to be active in learning activities.

CONCLUSION

Early reading and writing skills are two language skills that students must master at an early stage. This aims to ensure students can easily follow and understand the learning messages provided. The use of educational wordwall games is one of the appropriate ways to optimize early reading and writing skills. The use of educational wordwall games has been proven to be effective in optimizing both skills in first-grade students, as seen from the significant t-test for reading skills, which is 0.000, and the significant writing score is 0.006 or <0.05, which means Ho is rejected while H1 is accepted.

REFERENCES

Bachry, H., Yuwono, J., & Utami, Y. T. (n.d.). Penggunaan Media Wordwall Untuk Meningkatkan Kemampuan Menulis Tegak Bersambung. *Jurnal UNIK Pendidikan Luar Biasa*, *3*(1), 1–7.

ISSN 2579-6461 (Online) ISSN 2460-6324 (Print)
DOI: https://doi.org/10.29407/jpdn.v11i1.26133

Herta, N., Nupus, B. C., Sanggarwati, R., & Setiawan, T. Y. (2023). Pemanfaatan Aplikasi Game Wordwall dalam Pembelajaran untuk Menumbuhkan Minat Belajar Siswa Sekolah Dasar. *Jurnal Seminat Nasional Paedagoria*, *3*, 527–532.

Imanulhaq, R., & Pratowo, A. (2022). Edugame Wordwall : Inovasi Pembelajaran Matematika di Madrasah Ibtidaiyah. *Jurnal Pedagogos : Jurnal Pendidikan STKIP Bima*, *4*(1), 33–41.

Janna, N. M., & Herianto. (2021). Artikel Statistik yang Benar. *Jurnal Darul Dakwah Wal-Irsyad (DDI)*, (18210047), 1–12.

Mochammad, & Triansyah, A. (2024). Pengaruh Media Pembelajaran Wordwall Terhadap. *Jurnal Sains dan Ilmu Pendidikan)*, *4*(2), 32–38.

Muthma'innah, M., Amri, F., & Silitonga, F. (2024). Peningkatan Efektivitas Pembelajaran Melalui Strategi Pembelajaran. *TADRIBUNA: Journal of Islamic Education Management*, *4*(2), 79–86.

Ningsih, F. S. (2024). Implementasi Media Pembelajaran Interaktif dalam Menunjang Pemahaman Siswa MI di Era Society 5 . 0 seorang guru harus menggunakan media yang menarik perhatian siswa untuk memfasilitasi efektivitas optimal dari proses pembelajaran yang sedang berlangsung d, *6*(1), 683–698.

Rahmadanti, A., Amril, L. O., & Efendi, I. (2024). Efektivitas Media Pembelajaran Wordwall terhadap Hasil Belajar Siswa Pada Pelajaran Matematika di Sekolah Dasar. *Jurnal Pengajaran Sekolah Dasar*, *3*(1), 117–125.

Sugiono, 2023. Metode Penelitian kuantitatif kualitatif dan R&D. Bandung: Alfabeta

Warsita, B. (2018). Strategi Pembelajaran Dan Implikasinya Pada Peningkatan Efektivitas Pembelajaran. *Jurnal Teknodik*, *XIII*(1), 064–076.