

THE EFFECT OF USING THE WORDWALL DIGITAL LEARNING PLATFORM ON IMPROVING EIGHTH-GRADE STUDENTS' INTEREST IN ISLAMIC EDUCATION AT SMP NEGERI 2 PEKALONGAN IN 2025

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ABSTRAK

Perkembangan teknologi digital memberikan peluang bagi guru untuk memanfaatkan media pembelajaran interaktif yang mampu meningkatkan minat belajar siswa. Salah satu media pembelajaran yang dapat digunakan adalah Wordwall yang menyediakan berbagai aktivitas pembelajaran berbasis permainan edukatif. Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan media pembelajaran digital Wordwall terhadap minat belajar Pendidikan Agama Islam (PAI) siswa kelas VIII di SMP Negeri 2 Pekalongan. Penelitian ini menggunakan pendekatan kuantitatif dengan metode eksperimen melalui desain One Group Pretest–Posttest Design. Sampel penelitian berjumlah 32 siswa yang dipilih menggunakan teknik purposive sampling. Teknik pengumpulan data menggunakan angket, observasi, dan dokumentasi. Analisis data dilakukan melalui uji validitas, reliabilitas, uji normalitas, uji homogenitas, uji Paired Sample t-test, serta analisis N-Gain dengan bantuan aplikasi SPSS 23. Hasil penelitian menunjukkan bahwa nilai signifikansi sebesar 0,018 ($p < 0,05$) yang berarti terdapat pengaruh signifikan penggunaan Wordwall terhadap minat belajar siswa. Selain itu, nilai rata-rata N-Gain sebesar 0,831 termasuk dalam kategori tinggi. Hasil penelitian ini menunjukkan bahwa penggunaan media Wordwall efektif dalam meningkatkan minat belajar siswa pada pembelajaran PAI

Kata kunci : media pembelajaran digital, Wordwall, minat belajar, pembelajaran PAI

ABSTRACT

The development of digital technology provides opportunities for teachers to utilize interactive learning media that can enhance students' learning interest. One of the learning media that can be used is Wordwall, which provides various game-based educational activities. This study aims to determine the effect of using Wordwall digital learning media on students' interest in learning Islamic Religious Education (PAI) among eighth-grade students at SMP Negeri 2 Pekalongan. This study employed a quantitative approach using an experimental method with a One Group Pretest–Posttest Design. The research sample consisted of 32 students selected through purposive sampling. Data were collected using questionnaires, observation, and documentation. Data analysis was conducted through validity and

reliability tests, normality test, homogeneity test, Paired Sample t-test, and N-Gain analysis using SPSS 23. The results showed a significance value of 0.018 ($p < 0.05$), indicating a significant effect of Wordwall on students' learning interest. Furthermore, the average N-Gain value of 0.831 was categorized as high. These findings indicate that the use of Wordwall media is effective in improving students' learning interest in Islamic Religious Education.

Keywords: *digital learning media, Wordwall, learning interest, Islamic education*

INTRODUCTION

Education is the cornerstone of building an intellectually capable and highly competitive generation. In the context of globalization and the rapidly evolving world, education is a crucial tool for preparing a workforce that can adapt to change (Puspitasari & Syafitri, 2025). Especially among the younger generation, education is not only focused on mastering academic content, but also on character development, creativity, and critical thinking skills (Kurniasari, 2024). Therefore, the educational process must be comprehensive and ongoing, using an approach that stimulates students' interest and motivation.

One of the key aspects of education is the learning process. This process serves as a bridge between teachers, as facilitators, and students, as learners, in the transmission of knowledge, values, and skills (Hutabarat et al., 2024). Effective learning depends not only on the curriculum and teaching methods, but also on how well teachers can create an engaging and enjoyable learning environment (Andini et al., 2024). In practice, monotonous and conventional teaching often leads to boredom and low student motivation.

In a previous study conducted by (Anggraeni & Amirudin, 2025), The focus of this study is the learning interest of fifth-grade students at MI Muhammadiyah 02 Sedayulawas for the 2024/2025 academic year. The researcher utilized the digital platform Quizizz as a classroom learning tool to enhance students' learning interest. The results of the study indicate that a paired-sample t-test revealed an increase in the average learning interest of 4.88 points following the implementation of Quizizz, with a significance level of 0.000 ($p < 0.05$). This demonstrates that interactive learning through Quizizz is proven to be more effective than conventional lecture methods, as it actively engages students in a fun and engaging manner that is relevant to the digital world they encounter.

One of the main challenges faced in the learning process at the junior high school level is students' low motivation to learn, which significantly affects their active participation, academic achievement, and critical thinking skills (Mahanis et al., 2025). This situation is also evident at Pekalongan State Junior High School 2, particularly in the eighth grade, where several teachers have observed that many students display a lack of enthusiasm and engagement during lessons. These signs are evident in the students' low level of participation during discussions, as well as their tendency to adopt a passive attitude toward the learning process. This situation indicates that student engagement in learning is still suboptimal. Based on the observation results, one factor strongly suspected to be the primary cause is the lack of variety in the teaching methods employed by teachers, resulting in a learning process that tends to be monotonous and fails to stimulate active student participation. In addition, the minimal use of engaging and interactive learning media further exacerbates this situation, as a lack of variety in media can diminish students' interest and attention toward the material being presented. Consequently, the learning process becomes monotonous and fails to optimally stimulate students' motivation to learn.

With the advancement of technology, a variety of digital learning tools are now available to enhance the quality of classroom instruction. One such popular and interactive digital tool is Wordwall. Wordwall allows teachers to create various types of quizzes, educational games, and other interactive activities that can capture students' attention. This tool can be used both online and offline, and is capable of accommodating a variety of student learning styles (Jannah et al., 2025).

The use of Wordwall in the classroom is expected to be one way to boost students' interest in learning. With its engaging interface, interactive features, and ease of use, Wordwall can make the learning environment more dynamic and enjoyable (Kusumarini et al., 2025). Students do not merely absorb material passively; they are actively engaged in the learning process through games and quizzes that encourage their participation. As a result, the learning process is no longer boring but has become an activity that students look forward to.

Based on the above discussion, it is important to conduct a study titled "The Effect of Using the Wordwall Digital Learning Tool on Enhancing Eighth-Grade

Students' Interest in Islamic Education at SMP Negeri 2 Pekalongan in 2025." This study aims to determine the extent to which the use of Wordwall is effective in fostering students' interest in learning, as well as how the implementation of this medium can be integrated into the classroom learning process. The results of this study are expected to contribute positively to improving the quality of learning and serve as a reference for teachers in selecting learning media that align with students' needs in the digital age.

METHOD

This study employs a quantitative approach using an experimental method. The experimental method aims to test the effect of a treatment on a specific variable under controlled conditions. The research design used is the One-Group Pretest–Posttest Design, according to Sugiyono in (Syamsuddin et al., 2022) that is, it involves only one experimental group that is given a pretest to determine the initial condition, then receives the treatment, and concludes with a posttest to determine the final condition after the treatment.

The study population consists of all eighth-grade students at SMP Negeri 2 Pekalongan for the 2025/2026 academic year, totaling 224 students distributed across seven classes (VIII A–VIII G), each comprising 32 students. The study sample consisted of one class, namely Class VIII G, with 32 students, selected using purposive sampling. The selection of the sample was based on specific considerations by the researcher and school officials, namely that the class was deemed to have representative characteristics and be relevant to the research objectives.

Data collection methods included questionnaires, observations, and documentation. Data analysis was conducted using validity and reliability tests. Additionally, normality was tested using the Shapiro-Wilk test, homogeneity was tested using the One-Way ANOVA method, hypothesis testing was performed using the paired t-test (Paired Sample Test), and N-Gain values were calculated as data analysis techniques using SPSS 23.

DISCUSSION

Wordwall Digital Learning Resource

Wordwall is a web-based educational game that can be used as a learning tool. Wordwall is a platform that offers educational features. This aligns with the view that (Tigor Sitohang et al., 2024) Wordwall is a website that offers a variety of educational quiz features and can serve as an interactive game in the learning process. This definition is supported by the opinion that (Nur et al., 2024) Worldwall offers several types of games, including quizzes, matching games, anagrams, word scrambles, word searches, and sorting games. This website can be used to engage students during the learning process.

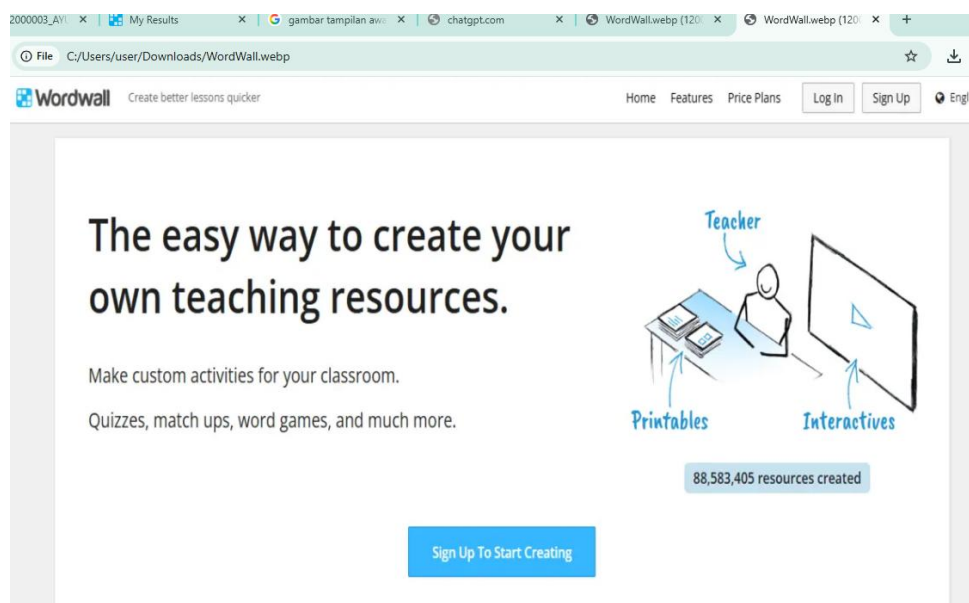


Figure 1. Platform Wordwall

From the above definition, it can be concluded that Wordwall is an educational website that offers various features designed to facilitate the delivery of learning materials in the teaching-learning process. The use of Wordwall in Islamic Education (PAI) can help students explore, understand, and apply Islamic concepts in a more interactive way. This digital tool also allows teachers to customize the content of the games according to students' comprehension levels and lesson topics, making the learning process more personalized, effective, and efficient.

Analysis of the Effect of the Wordwall Platform on the Learning Motivation of Eighth-Grade Students

In the learning process, before instruction began, the researcher distributed a pretest in the form of a questionnaire to measure interest in learning Islamic Education, and after instruction was completed or following the intervention, the researcher distributed a post-test in the form of a questionnaire on interest in learning Islamic Education. The results of the SPSS 23 analysis showed that the pre-intervention questionnaire and the post-intervention questionnaire each consisted of 15 items, resulting in a total of 30 valid items. Data is considered valid when $r_{(calc)} > r_{(table)}$ and significance < 0.05 . From the 32 respondents, the researcher obtained an $r_{(table)}$ of 0.349 and a significance level greater than 0.05, meaning all observation items—both before and after the intervention—are considered valid.

The next testing phase is the Reliability Test. The Reliability Test was also conducted using the data from both questionnaires. Based on the results of the reliability test, the instrument, consisting of 30 items—15 items in each section—yielded Cronbach’s Alpha values of 0.763 and 0.709. Both values are above the established criteria, so it can be concluded that the research instrument is reliable and has a high level of reliability—greater than the threshold (>0.05)—making it suitable for use as a data collection tool in the study.

The next step is to conduct preliminary tests, including a normality test and a homogeneity test. The normality test used in this study is the Shapiro-Wilk test, the results of which are presented in Table 5 below.

Table 5. Results of the Normality Test

		Kolmogorov-Smirnov ^a		Shapiro-Wilk			
Kelas		Statistic	Df	Statistic	df		
Hasil Observasi	Pre-angket	,127	32	,200*	,971	32	,532
	Post-angket	,165	32	,027	,943	32	,092

Table 5 shows the Shapiro-Wilk test results. Since the number of respondents was less than 50, the Sig. values were 0.532 for the pre-test and 0.092 for the post-test (both > 0.05), indicating that the data are normally distributed.

The next test was a homogeneity test of the pretest and posttest scores using the One-Way ANOVA method. The results of the homogeneity test are shown in Table 6 below.

Table 6. Homogeneity Test

Levene Statistic	df1	df2	Sig.
3,970	1	62	,051

The results of the homogeneity test using one-way ANOVA showed a significance value of 0.051 (> 0.05), indicating that the data are homogeneous and meet the requirements for further parametric statistical analysis.

After confirming that the data were normally distributed and homogeneous, the next step was to conduct a paired t-test (Paired Sample Test) as a hypothesis test. The hypothesis of this study was that the digital learning medium Wordwall has an effect on increasing PAI students' interest in learning. The results of the hypothesis test are presented in Table 7 below.

Table 7. Results of the Paired-Sample T-Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	Sig. (2-tailed)	
					Lower	Upper			
Pair 1	PRE ANGKET POST ANGKET	-2,063	4,649	,822	,387	3,738	2,510	31	,018

As shown in Table 7 above, the Sig. (2-tailed) value is $0.018 < 0.05$; therefore, we can conclude that there is a significant difference in learning interest between the pretest and posttest data.

Following the hypothesis test, we proceeded to test the n-gain values based on the students' pretest and posttest scores. The results of the n-gain test are presented in Table 8 below.

Table 8. N-Gain result

	N	Minimum	Maximum	Mean	Std. Deviation
NGAIN_SKOR	32	-6.00	12.00	.8316	3.70798
NGAIN_PERSEN	32	-225.00	450.00	31.1863	139.04937
Valid N (listwise)	32				

The data presented shows that the mean N-Gain Score is 0.831. This mean value falls into the high category, as it exceeds the N-Gain criterion of ≥ 0.70 . This indicates a highly significant increase in learning interest between the pre-treatment (pretest) and post-treatment (posttest) conditions.

The findings of this study indicate that the use of digital game-based learning media can create a more engaging and interactive learning environment. The game-based activities available on Wordwall can increase student engagement in the learning process, making students more active and motivated to participate in the lessons.

The findings of this study are also consistent with the theory of game-based learning, which states that learning presented in the form of a game can increase students' motivation, participation, and interest in learning. Thus, the use of Wordwall can serve as an effective alternative learning tool for improving the quality of Islamic Education instruction in schools.

CONCLUSION

Based on the results of a study conducted on eighth-grade students at SMP Negeri 2 Pekalongan, it can be concluded that the use of the Wordwall digital learning platform has a significant effect on increasing interest in learning Islamic Religious Education (IRE). This is evidenced by the results of the Paired Sample T-Test, which showed a significance value of 0.018 (< 0.05), indicating a significant difference in learning interest before and after the intervention. Furthermore, the average N-Gain value of 0.831 falls into the high category (≥ 0.70), suggesting that the implementation of Wordwall is effective in creating more interactive and engaging learning experiences, thereby actively increasing student engagement in the PAI learning process.

The limitations of this study lie in the use of a one-group pretest–posttest design without a control group, meaning that external factors outside the treatment cannot be fully controlled, as well as the limited sample size—restricted to a single class—which limits the generalizability of the findings. Nevertheless, this study offers practical insights for Islamic Education teachers in utilizing interactive digital media as an innovative alternative teaching strategy, while also enriching theoretical research on the effectiveness of game-based media in Islamic education. For future research, it is recommended to use an experimental design with a control group, expand the sample size, and include additional variables such as learning outcomes, motivation, or critical thinking skills to obtain a more comprehensive understanding of the effectiveness of Wordwall in learning.

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