

Wordwall application in growing the interest of religious learning students of SMK Muhammadiyah 4 Banjarmasin

Muhammad Yazid Maulidi¹, Ani Cahyadi²

1 Universitas Islam Negeri Antasari Banjarmasin; muhammadyz@gmail.com

2 Universitas Islam Negeri Antasari Banjarmasin; anicahyadi@uin.antasari.ac.id

ARTICLE INFO

Keywords:

Educational technology;
Wordwall; Islamic Religious
Education

Article history:

Received 2024-01-05
Revised 2024-02-13
Accepted 2024-02-14
Published 2024-03-01

ABSTRACT

Educational technology is often assumed in the perception that leads solely to the problem of electronics or technical equipment only, whereas educational technology contains a very broad understanding and application. The progress of global technology has been influential in all aspects of life both in economics, politics, art culture and even in education. The world of education must be willing to hold a positive innovation for the advancement of education and schools. One of the products of that educational technology is wordwall. Wordwall application has become one of the innovative learning tools in the context of Islamic Religious Education. . This research explores the use of Wordwall application in improving the effectiveness of learning Islamic Religious Education subjects at the high school level and above. Experimental research methods are used by involving a group of students as research subjects. This study aims to evaluate the impact of the use of Wordwall application on the understanding of Islamic religious concepts, student involvement, and their learning interests. The results showed that the use of Wordwall application in Islamic Religious Education Learning significantly improve students ' understanding of religious concepts, as well as encourage student involvement in the learning process. Students show greater interest in learning Islamic religious material when using the Wordwall app, which offers an interactive and engaging format. In this context, the Wordwall app has proven to be an effective tool in improving the learning of Islamic Religious Education in schools. The implications of this study indicate that the integration of technology in Islamic religious learning can enrich the learning experience of students and support their understanding of religious concepts in a more comprehensive and enjoyable.

Corresponding Author:

Muhammad Yazid Maulidi

Universitas Islam Negeri Antasari Banjarmasin; muhammadyz@gmail.com

This is an open access article under the [CC-BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/)

1. INTRODUCTION

The Era of Industrial Revolution 5.0 has now entered and developed throughout the world where characterized by the presence, interaction and system development, increased connectivity, artificial intelligence virtualization as well as the presence of digital and information technologies. Virtualization technological developments have brought changes in the world of education, technology has place and benefits are so important that some aspects have felt it one of them is the aspect of Education. In this case the role of educational technology is very needed to facilitate the learning process and also improve the quality in learning by providing technology-based learning resources that can be done with the openness of the window of Science and teknologi which can be widely used in the world of Education (Surani, 2019).

Islamic Religious Education (PAI) is one of the important subjects in the education curriculum, which aims to develop students' understanding of the values, teachings, and practices in Islam. In an effort to improve the effectiveness of PAI learning, educational technology has become an integral part in bringing a more interactive and engaging learning approach to students. One of the educational technology applications that stands out is Wordwall, a platform that allows teachers to create different types of learning activities, such as puzzles, flashcards, quizzes and other interactive games. The use of this application has shown great potential in enriching the learning experience by utilizing visual, audio, and interactive elements.

In the context of Islamic Religious Education lessons, Wordwall provides an opportunity for teachers to present religious materials in a more interesting and interactive format. Teachers can create activities that support students' understanding of the teachings of Islam, including memorization of Quranic verses, understanding of key concepts in Islam, and also provide more contemporary context related to Islamic values in everyday life. By utilizing the Wordwall application, teachers can customize teaching methods that are more dynamic, increase student engagement, and provide a more diverse and enjoyable learning experience in Islamic Religious Education Learning. The opportunity to creatively combine technology with the teachings of the Islamic religion gives hope that this approach can help increase students' interest in religious learning, while maintaining the essence and primacy of the religious values taught (Sambell, 2020).

In addition, the application of Wordwall in PAI learning provides opportunities for teachers to present Islamic religious materials in a more interesting and interactive format. Teachers can introduce Quranic verses, Hadith, as well as religious concepts in the form of games or exercises that are challenging and entertaining for students (Al-Daoud, 2018). The Wordwall app also allows the personalization of learning, where the teacher can customize the activities according to the level of understanding of the students. By providing a variety of games that can be accessed online, Wordwall can increase student engagement and support their understanding of Islamic religious concepts in a more fun way (Zayid, 2019). In this way, the use of Wordwalls in vocational schools for PAI learning can be an effective strategy for improving the quality of Islamic learning in these schools. The use of this wordwall application is able to make learning more interesting, effective and interactive for students, so that it can increase their understanding of Islamic teachings and the values contained therein.

2. METHODS

In researching the use of Wordwall applications in Islamic Religious Education Learning, several research methods can be used to gain a comprehensive understanding of the effect of this application on the learning process and students' understanding of Islamic religious concepts. The research method used in this study is an experimental method. This method can be used to measure the direct impact of using Wordwall application on students understanding of PAI material. Experimental research allows the division of control groups and experimental groups, where the experimental group uses the Wordwall application in learning, while the control group learns without using the application. Comparison of the results between the two groups can provide significant information about the effectiveness of Wordwall applications in improving student understanding (Smith, 2015).

This research was conducted at SMK Muhammadiyah 4 Banjarmasin located on JL.Guerrilla No.10 South Banjarmasin, 70234. Researchers use a quantitative approach to the research carried out, this is because the scientific rules in the form of concrete/empirical, systematic, objective, measurable and rational have been met, so that the resulting research data in the form of numbers and analysis using statistics (Sugiyono, 2013). This research uses a qualitative approach, which in the approach used in this study emphasizes a deep understanding of a problem or observing problems in research that is a generalization in nature, so a substantive category and hypothesis are obtained in qualitative research (Rukajat, 2018). Qualitative approaches offer the flexibility to collect data through a variety of techniques, such as in-depth interviews, participatory observation, content analysis, or narrative analysis. This approach allows the researcher to delve deeper into a deep understanding of the context and experience of the research subject.

In addition, descriptive quantitative approach is also used in this study, where descriptive quantitative approach is one type of non-experimental quantitative research that is quite easy. This study is obtained by concerning the state of the subjects or phenomena of a population that describes the quantitative data. This study also used several instruments in the form of questionnaires containing several questions about the perception of the research problem. Descriptive quantitative methods in this study is intended to get an idea of how the application of wordwall in improving the critical thinking of students at SMK Muhammadiyah 4 Banjarmasin.

This study has a population of all students of Class X SMK Muhammadiyah 4 Banjarmasin with a total of 75. While the method used in this study is a quantitative research with the type of Experimental Research with one group Prettes-Posttes design method. The type of research used by researchers is Posttest and Pretest is a study used to find the effect of certain treatments on their effects in controlled conditions (Bonate, 2000). The research design as follows:

O_1XO_2

Information

O_1 = initial test before being given treatment (Pretest)

X = the treatment given

O_2 = final test after being given treatment

Thus, it is expected that research using quantitative research design is able to test certain theories by examining the relationship between variables. These variables are measured so that data consisting of numbers can be analyzed based on statistical procedures (Creswell, 2012).

3. FINDINGS AND DISCUSSION

In this section will be discussed about the data from research that has been obtained by researchers while in the field. The Data to be described is about the wordwall application media questionnaire and data on student learning outcomes in Classes X, XI, and XII by presenting Islamic religious education materials in accordance with the class.

The data description of the data as follows:

1. Analysis of data on the use of applications wordwall.

Based on the questionnaires that the researchers have distributed to respondents, as many as 35 people in Class X TKJ and TKRO, 24 people in Class XI tkj and TKRO, and 16 people in Class XII TKJ and TKRO on July 23, 2023.

Then the author enters the number the provisions are as follows:

- a. SS answers scored 4
- b. S answers is given a score of 3
- c. KS answers is given a score of 2

d. STS answers are scored 1

The results of the questionnaire that has been collected are tabulated into Tabular Form and will be presented the results of student answers. Then to find out data about how effective the use of Wordwall application media on student learning outcomes. From the results of the questionnaire respondents from 20 questions with indicators strongly agree 41.1%, agree 26.1%, less agree 2.4% and strongly disagree 0.3%. So it can be concluded from the results of the percentage of student response questionnaires agree with the use of wordwall application as a learning medium.

Based on data from student learning outcomes at the time of pretest obtained an average of 65.18 classes, with sufficient category as many as 47 students or 89.9% and good category as many as 28 students or 37%. As for the average grade obtained Posttest 84.07, with enough category 14 students or 14.8%, good category 35 students or 18.5% and excellent category 26 students or 66.6%. Based on this percentage, the level of student ability in mastering Islamic religious education materials after using wordwall application media is very good.

The results of research conducted by researchers, then the research data can be presented as follows. The calculation of the validity of the test has been done by researchers on the pretest and posttest the number obtained 21 valid multiple choice questions and there are 4 Invalid questions 1 question is too easy of the 25 multiple choice questions in the test. The instrument was tested for validation by the acceptance criteria of the following questions:

If $R \text{ count} > R \text{ table}$ then the item is declared valid, while if $R \text{ count} < r \text{ table}$ then the item is invalid or revised.

Table 1. Results of the Reliability Test

Cronbach'Alpa	N of Items
.869	21

Reliability test calculation using SPSS 21 application with alpha cronbsc'hif the value of alpha cronbsc'h > 0.60 then the item questions reliable. From the reliability test results obtained value cronbach'alpa value of 0.869 which means $0.869 > 0.60$ then it can be extracted reliably.

Table 2. Mean, Median, Minimum and Maximum Results

<i>Variabel</i>	<i>Pretest</i>	<i>Posttest</i>
Mean	65,19	84,07
Median	65, 00	85,00
Minimum	50	60
Maximum	80	100

Furthermore, descriptive statistical analysis test pretest posttest, to see the average mean of learning outcomes, median to see the middle value of learning outcomes pretest posttest, minimum to see the lowest value of pertest posttest and maximum to see the highest value of pretest posttest. So that the value obtained pretest mean 65, 29, median 65.00, minimum 50, and maximum 80, and for the value of the mean posttest 84, 07, median 85.00, minimum 60 and maximum 100.

Table 3. Result Test Of Normality

Kelas	Kolmogorov Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig	Statistic	Df	Sig
Pretest	.194	27	.010	.934	27	.086
Posttest	.192	27	.012	.992	27	.045

Normal test to get normally distributed data or not. The technique used uses Shapio-Wilk with measurement criteria of 5% or 0.05, if the GIS value > 0.05 then the data is normally distributed, and if

< 0.05 then the data is not normally distributed. The results of the normal test using Shapiro-Wilk on pretest0, 086 and posttest0, 045, which means 0.086 and $0.045 > 0.05$ which is the normal data distribution.

Tabel 4. Result of Homogeneity Test

Levene Statistic	df1	df2	Sig.
3.834	1	52	.056

Homogeneity test is done to test whether a test model is homogeneous or not. homogeneous test performed using SPSS 21 with the provisions of the value if the value of GIS > 0.05 then the data is declared homogeneous and if the value of GIS < 0.05 then declared inhomogeneous. From the homogeneity test results obtained sig value of 0.056 which means $0.056 > 0.05$ then the data is declared homogeneous.

Table 5. T-test results

		Mean	Std. Dev	Paired Differences		T	Df	Sig. (2-tailed)
				Std. Error Mean	95% Confidence Interval of the Difference Lower Upper			
Pair 1	PRE TES T - POS TTE ST	19.074	8.884	1.710	-22.588 -15.560	11.157	26	.000

Hypothesis test using T-test Paired Sample T-test with the help of SPSS 21 to see if there are variables independently individually affect the variables dependent. To calculate the hypothesis used degrees of freedom on significance level = 0.05 with criteria, namely :

- H_0 : Allegedly there is no effective use of media-based learning Wordwall on Islamic Religious Education subjects is not effective on the learning outcomes of students in Class X, XI, XII majors TKJ and TKRO SMK Muhammadiyah 4 Banjarmasin.
- H_a : Suspected of effective usage wordwall-based learning media on basic programming subjects on the learning outcomes of Class X, XI, XII students majoring in TKJ and TKRO SMK Muhammadiyah 4 Banjarmasin.

Based on Table 5 of the T - test obtained GIS value of 0.000 is smaller than 0.05 it can be concluded that H_a is accepted and H_0 rejected, meaning the effectiveness of the use of wordwall application to the learning outcomes of students in Class X, XI, XII TKJ and TKRO in Islamic Religious Education subjects SMK Muhammadiyah 4 Banjarmasin. However, the effectiveness of using Wordwall in PAI learning in vocational schools of course depends on various factors, including learning design, the quality of the content provided, and how teachers use it in the teaching process. The following are some possible research results that can be expected from the use of Wordwall in PAI learning at vocational schools:

1. Improved Understanding of Concepts: Using Wordwall can help students understand Islamic religious concepts better through the various interactive activities provided, such as flashcards, quizzes, or puzzles. This can be reflected in an increase in test scores or other evaluations that measure students' understanding of PAI material.

2. Increased Motivation and Engagement: Research has shown that the use of technology in learning can increase student motivation and engagement. By using Wordwall, students can be involved in interesting and interactive activities, which can increase their interest in PAI learning.
3. Increased Information Retention: The use of technology such as Wordwall can help increase student information retention through the use of a variety of learning activities, which can help strengthen mental connections to Islamic Education material.
4. Improved Collaboration and Competition Skills: Wordwall can help improve students' collaboration skills through group activities or competition in quiz or puzzle games. This can have a positive impact on students' ability to work together and learn from each other.
5. However, it is important to remember that research results may vary depending on the context and specific implementation of the use of Wordwall in PAI learning in vocational schools. Therefore, it is important to conduct more in-depth research and ongoing evaluation to understand the true impact of using these applications in specific educational contexts. (Ainy, 2015)

4. CONCLUSION

So it can be concluded that the use of wordwall media as a learning medium effectively affects student learning outcomes. This wordwall application can be used by teachers when conducting the learning process so that students are able to understand the material taught. It can be proved by the results of the hypothesis test pretest and posttest value shows that the GIS (2 - tailed) is worth $0.000 < 0.05$ then it can be concluded H_0 rejected and H_a accepted which means the effective use of wordwall-based learning media in Islamic religious education subjects on the learning outcomes of students in grades XI, XI, XII, majors TKJ and TKRO SMK Muhammadiyah 4 Banjarmasin.

And comparing t count with T table obtained t count $11.157 > t$ table 2.056, so it can be concluded that H_0 rejected and H_a accepted. Which means the effectiveness of the use of wordwall application-based learning media in Islamic religious education subjects on the learning outcomes of students in grades XI, XI, XII, majoring in TKJ and TKRO SMK Muhammadiyah 4 Banjarmasin.

Finally, the use of Wordwall apps in Islamic religious learning opens up new opportunities in the way students understand, respond to, and engage in religious learning. This shows that the integration of technology in religious education can make a positive contribution to the effectiveness of learning and students' understanding of the values and teachings of the Islamic religion.

REFERENCES

- Adrian, Q. J. (2019). Game Edukasi Pembelajaran Matematika untuk Anak SD Kelas 1 dan 2 Berbasis Android. *Jurnal Teknoinfo*, 13(1), 51-54.
- Ainy, F. (2015). *The Effectiveness of Word Wall Strategy On Students' Vocabulary Mastery (A Quasi Experimental Study in the Seventh Grade of Mts Manaratul Islam Jakarta in the Academic Year 2014/2015)*. Jakarta: Department of English Education Faculty of Tarbiyah and Teachers' Training Syarif Hidayatullah State Islamic University.
- Areni, I. S., Amirullah, I., Muslimin, Z., Palantei, E., Prayogi, A., & Bustamin, A. (2019). Pengenalan Pembelajaran Interaktif Berbasis Game di SDN 14 Bonto-Bonto Kabupaten Pangkep. *Panrita Abdi-Jurnal Pengabdian pada Masyarakat*, 3(2), 177-183.
- Arta, A., & Putri, D. A. P. (2020). Game edukasi pembelajaran sejarah berdirinya Indonesia untuk sekolah dasar. *Emitor: Jurnal Teknik Elektro*, 20(2), 77-81.
- Al-Daoud, S. A. (2018). The Integration of Mobile Learning in Teaching Islamic Education. *International Journal of Interactive Mobile Technologies*, 50-63.

- Bonate, P. L. (2000). *Analysis of Pretest-Posttest Designs*. England: CRC Press.
- Borman, R. I., & Erma, I. (2018). Pengembangan Game Edukasi Untuk Anak Taman Kanak-Kanak (TK) Dengan Implementasi Model Pembelajaran Visualitation Auditory Kinesthetic (VAK). *JUPI (Jurnal Ilmiah Penelitian Dan Pembelajaran Informatika)*, 3(1).
- Citra, C. A., & Rosy, B. (2020). Keefektifan penggunaan media pembelajaran berbasis game edukasi quizizz terhadap hasil belajar teknologi perkantoran siswa kelas X SMK Ketintang Surabaya. *Jurnal Pendidikan Administrasi Perkantoran (JPAP)*, 8(2), 261-272.
- Creswell, J. W. (2012). *Research Design Pendekatan Kualitatif, Kuantitatif, dan Mixed*. Yogyakarta: Pustaka Pelajar.
- Firmandasari, R. A., Suryawinata, M., Hasanah, F. N., & Untari, R. S. (2020). Game bahasa jawa krama sebagai media pembelajaran anak berbasis android. *JUPI (Jurnal Ilmiah Penelitian dan Pembelajaran Informatika)*, 5(2), 150-160.
- Hanandita, T. (2022). Game Based Learning Berbasis Quizizz Sebagai Inovasi Media Pembelajaran di Era New Normal. *Adi Widya: Jurnal Pendidikan Dasar*, 7(2), 199-204.
- Putra, D. W., Nugroho, A. P., & Puspitarini, E. W. (2016). Game Edukasi berbasis android sebagai media pembelajaran untuk anak usia dini. *JIMP (Jurnal Informatika Merdeka Pasuruan)*, 1(1).
- Rukajat, A. (2018). *Pendekatan penelitian kualitatif (Qualitative research approach)*. Yogyakarta: Deepublish.
- Sambell, K. e. (2020). Technology Enhanced Learning in the Islamic Studies Classroom: A Systematic Review. *International Journal of Islamic Education*, 45-58.
- Smith, J. A. (2015). Interpretative phenomenological analysis as a useful methodology for research on the lived experience of pain. *British Journal of Pain*, 41-42.
- Subiyakto, B., & Jumriani, J. (2022). Pengembangan Media Pembelajaran Game Edukatif Android Berbasis Produk Lokal Kampung Tematik Kota Banjarmasin Untuk Meningkatkan Keterampilan Berpikir Kreatif.
- Subiyakto, B., Putro, H. P. N., Jumriani, J., Mutiani, M., Ramadhan, M. A., & Ramiadani, A. K. (2023). Assistance In Making Learning Media Based on Android-Based Educational Game Learning Media. *Journal of Social Development*, 1(2), 57-63.
- Sugiyono. (2013). *Metode Penelitian Kuantitatif, dan R&D*. Bandung: Alfabeta.
- Surani, D. (2019). Studi literatur: Peran teknologi pendidikan dalam pendidikan 4.0 . *Prosiding Seminar Nasional Pendidikan FKIP*, 456-459.
- Zayid, W. A. (2019). The Impact of Interactive Learning on Students' Understanding of Islamic Studies. *Journal of Educational Technology & Society*, 213-225.