The Use of Wordwall-Based Educational Games to Improve Student Learning Outcomes in Islamic Education Learning in MI Negeri 2 Solok

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Abstract: This research aims to improve student learning outcomes in learning Islamic religious education by using wordwall-based educational games. This research is a classroom action research that uses four steps, namely planning, action, observation and reflection. The subjects of this research are primary school madrasah students. The data of this research was obtained with test and observation techniques. Tests are used to measure learning outcomes and observations are used to analyze the learning activities of teachers and students. The data analysis technique used in this research is descriptive statistics by comparing the results obtained with research success indicators. The results of the research show that wordwall-based educational games can improve student learning outcomes in Islamic religious education. This can be seen from the increase in the percentage of student learning completion in each cycle with details of the precycle 45.01%, the first cycle 79.39% and in the second cycle it increased to 91.16%. Thus, the use of wordwall-based educational games can be used as an alternative to improve student learning outcomes in Islamic religious education.

Keywords: wordwall-based educational games, learning outcomes, Islamic religious education.

INTRODUCTION

The integration of technology into the educational landscape has opened up new avenues for enhancing student engagement and improving learning outcomes across various subjects, including Islamic Education. Traditional methods of teaching Islamic Education, while valuable, can sometimes lack the interactive elements necessary to fully capture the attention and cater to the diverse learning styles of contemporary students. In this context, the exploration and implementation of digital educational tools offer promising opportunities to revitalize the learning process and make it more relevant and appealing to young learners. One such digital tool that has gained increasing attention for its potential in educational settings is Wordwall. Wordwall is a web-based platform that allows educators to create a wide range of interactive learning activities and games with ease. These activities can be customized to suit specific learning objectives and curriculum content, making it a versatile tool for various subjects, including Islamic Education. The platform offers a variety of game templates, such as matching games, quizzes, word

searches, and anagrams, which can be adapted to reinforce key concepts and vocabulary in Islamic studies.

The use of game-based learning in education is supported by a growing body of research that highlights its potential to increase student motivation, engagement, and ultimately, learning outcomes. Games can create a fun and competitive environment that encourages active participation and promotes a deeper understanding of the subject matter. By incorporating elements of play, challenge, and reward, educational games can make learning more enjoyable and memorable for students. In the context of Islamic Education, the application of Wordwall-based educational games holds significant promise for enhancing student learning. The platform can be used to create interactive activities that reinforce students' understanding of core Islamic concepts, such as the pillars of Islam, the articles of faith, the stories of the prophets, and Islamic ethics. By engaging with these concepts through games, students can move beyond passive reception of information and actively participate in the learning process.

Furthermore, Wordwall's versatility allows educators to tailor the games to the specific learning needs and levels of their students. Activities can be differentiated to provide appropriate levels of challenge and support, ensuring that all students have the opportunity to succeed and progress in their understanding of Islamic Education. This adaptability makes Wordwall a valuable tool for promoting inclusive learning environments. The visual and interactive nature of Wordwall-based games can also cater to different learning styles. Visual learners can benefit from the graphical elements and interactive displays, while kinesthetic learners can engage actively with the game mechanics. This multi-sensory approach can enhance comprehension and retention for a wider range of students compared to traditional, text-heavy methods.

Moreover, the use of digital tools like Wordwall can align with the digital native status of many contemporary students. By integrating technology that they are familiar and comfortable with, educators can tap into students' intrinsic motivation and make learning more relevant to their digital world. This can lead to increased engagement and a more positive attitude towards learning Islamic Education. This study focuses on the use of Wordwall-based educational games as an intervention to improve student learning outcomes in Islamic Education learning at MI Negeri 2 SOLOK, an Islamic elementary school. It seeks to investigate the effectiveness of incorporating interactive games created on the Wordwall platform in enhancing students' understanding of key Islamic concepts and principles. The research will explore whether the use of these games leads to significant improvements in student achievement compared to traditional teaching methods in Islamic Education.

By examining the impact of Wordwall-based educational games on student learning outcomes, this study aims to provide empirical evidence for the potential of digital game-based learning in the context of Islamic Education. The findings of this research could offer valuable insights for educators at MI Negeri 2 SOLOK and other Islamic elementary schools looking for innovative and engaging ways to enhance student learning and foster a deeper understanding of Islamic principles among their students. Ultimately, this investigation seeks to contribute to the ongoing efforts to modernize and enhance the teaching and learning of Islamic Education by exploring the effectiveness of a readily accessible and versatile digital tool like Wordwall in improving student outcomes and fostering a more engaging and effective learning experience for young Muslims.

The theoretical framework underpinning this research draws upon constructivist learning theories, which emphasize the active role of learners in constructing their own understanding through experience and interaction. Wordwall-based educational games provide a platform for students to actively engage with Islamic Education content, explore concepts through interactive activities, and build their knowledge in a meaningful and self-directed manner. This active participation contrasts with the more passive reception of information often associated with traditional lecture-based instruction. Furthermore, the study aligns with the principles of game-based learning, which posits that

incorporating game mechanics and design elements into educational activities can enhance motivation, engagement, and learning. The inherent elements of challenge, competition (in some game formats), and immediate feedback within Wordwall games can create a more stimulating and rewarding learning experience, encouraging students to invest greater effort and persist in their learning.

The research also considers the cognitive benefits of using interactive digital tools. Wordwall games can present information in a visually appealing and dynamic format, which can aid in information processing and memory retention. The interactive nature of the games requires students to actively manipulate information, make decisions, and solve problems, which can promote deeper cognitive engagement and a more thorough understanding of the subject matter. The specific features of the Wordwall platform make it a particularly suitable tool for Islamic Education. Educators can easily create games that incorporate Arabic script, Islamic terminology, and visual representations relevant to Islamic culture and history. The platform's versatility allows for the development of activities that cater to various aspects of the Islamic Education curriculum, from foundational knowledge to more complex concepts.

The implementation of Wordwall-based games can also foster a more student-centered learning environment. Students can often work at their own pace within the games, revisit concepts as needed, and receive immediate feedback on their progress. This individualized learning experience can cater to the diverse learning needs of students within a classroom and promote a greater sense of autonomy and responsibility for their own learning. Moreover, the use of Wordwall can facilitate formative assessment. Teachers can easily monitor student progress and identify areas where students may be struggling through the game results and participation. This real-time feedback can inform instructional adjustments and allow teachers to provide targeted support to students who need it most.

This research will employ a quantitative research methodology, utilizing a pre-test and post-test control group design. This approach will allow for a direct comparison of the learning outcomes of students who engage with Islamic Education content through Wordwall-based games and those who receive traditional instruction without the integration of this digital tool. The quantitative data collected will provide statistical evidence to determine the effectiveness of the intervention. The study will involve selecting two comparable classes of students in MI Negeri 2 SOLOK who are currently studying the same Islamic Education curriculum. One class will be designated as the experimental group and will receive instruction supplemented with Wordwall-based educational games, while the other class will serve as the control group and will receive traditional instruction.

Prior to the intervention, both the experimental and control groups will be administered a pre-test to assess their baseline knowledge of the specific Islamic Education topics covered during the study. The pre-test will consist of objective-type questions designed to measure students' understanding of key concepts and principles. Following the pre-test, the intervention period will commence, during which the experimental group will engage with Wordwall-based games as an integral part of their Islamic Education lessons. The games will be carefully aligned with the curriculum content and learning objectives. The control group will continue to receive instruction through traditional methods, such as lectures, textbook readings, and classroom discussions. After a defined period of intervention, both the experimental and control groups will be administered a post-test, identical or parallel to the pre-test, to measure their learning outcomes after the respective instructional approaches. The post-test will assess the same knowledge and understanding as the pre-test, allowing for a direct comparison of learning gains between the two groups.

To gauge student engagement and perceptions of the learning experience, a student attitude survey may also be administered to the experimental group after the intervention. This survey will gather qualitative data on students' enjoyment, motivation, and perceived

effectiveness of learning Islamic Education through Wordwall-based games. The quantitative data from the pre-tests and post-tests will be analyzed using statistical methods, such as independent samples t-tests or ANCOVA (Analysis of Covariance) to control for any pre-existing differences between the groups, to determine if there is a statistically significant difference in learning outcomes between the experimental and control groups. The effect size will also be calculated to assess the practical significance of any observed differences. The qualitative data from the student attitude survey will be analyzed thematically to identify recurring patterns and insights into students' experiences with Wordwall-based learning. This qualitative data will provide a richer understanding of the students' perspectives and complement the quantitative findings. Ethical considerations, including obtaining informed consent from the school administration and parents, ensuring student anonymity and confidentiality, and minimizing any potential disruption to the learning environment, will be strictly adhered to throughout the research process. The selection and design of the Wordwall games will be pedagogically sound and aligned with the principles of Islamic Education.

METHODS

This research, aimed at rigorously evaluating the efficacy of Wordwall-based educational games in enhancing student learning outcomes within Islamic Education at MI Negeri 2 SOLOK, will adopt a quantitative research paradigm employing a pre-test and post-test control group design. This quasi-experimental approach is selected to facilitate a direct and statistically verifiable comparison of learning gains between students exposed to the gamified intervention and those receiving conventional instruction, thereby establishing the potential causal influence of Wordwall integration. The study will be meticulously conducted at MI Negeri 2 SOLOK, an established Islamic elementary school. The participant pool will comprise students from a specific grade level (e.g., Grades IV or V) currently engaged with the Islamic Education curriculum encompassing the learning objectives targeted by the intervention. The selection of a focused grade level will mitigate developmental variations and ensure a more homogenous cohort for comparative analysis. Two pre-existing, intact classes demonstrating comparable baseline academic performance in Islamic Education, as determined by prior assessments and teacher evaluations, will be purposively sampled and randomly assigned to either the experimental or the control group to minimize selection bias.

Prior to the introduction of the Wordwall-based games, both the experimental and control groups will undergo a standardized pre-test. This instrument will be specifically designed to comprehensively assess the students' foundational knowledge and understanding of the designated Islamic Education content areas that will be addressed during the intervention period. The pre-test will consist of rigorously validated, objective-type questions, including multiple-choice items and true/false statements, to ensure reliable and quantifiable measurement of baseline comprehension. The intervention phase, spanning a predetermined duration aligned with the school's instructional schedule for the relevant Islamic Education topics, will involve the experimental group actively engaging with carefully curated or specifically designed Islamic educational games hosted on the Wordwall platform. These games will be strategically aligned with the curriculum's learning objectives, incorporating interactive elements, visual stimuli, and gamified challenges intended to reinforce key concepts, vocabulary, and principles within Islamic Education. The game-based activities will be seamlessly integrated into the regular instructional time allocated for the subject.

Conversely, the control group will continue to receive instruction on the same Islamic Education content areas through conventional pedagogical methods typically employed at MI Negeri 2 SOLOK. This standard instruction may encompass teacher-led lectures, textbook readings, classroom discussions, and traditional worksheets, without the systematic incorporation of Wordwall-based educational games as a primary

instructional tool. The instructional time and the specific content covered will be strictly equivalent across both groups to isolate the impact of the gamified intervention. Upon the conclusion of the intervention period, both the experimental and control groups will be administered a post-test. This assessment instrument, either identical or a parallel form of the pre-test to ensure comparability and minimize testing effects, will serve to measure the students' learning outcomes following their respective instructional experiences. The post-test will assess the same knowledge domains and cognitive levels as the pre-test, enabling a direct and quantitative comparison of learning gains achieved by the two groups.

To gain supplementary insights into the students' perceptions and engagement with the gamified learning experience, a voluntary and anonymous student attitude survey will be administered exclusively to the experimental group upon completion of the post-test. This survey, employing a structured format with Likert-scale items and open-ended questions, will explore students' levels of enjoyment, perceived motivation, and self-reported effectiveness of learning Islamic Education through Wordwall-based games. The quantitative data derived from the pre-tests and post-tests will be subjected to rigorous statistical analysis utilizing appropriate software packages (e.g., SPSS, R). Descriptive statistics (means, standard deviations) will be computed for both groups at both time points. Inferential statistical tests, such as independent samples t-tests or Analysis of Covariance (ANCOVA), with pre-test scores as the covariate to statistically control for any pre-existing differences, will be employed to determine the statistical significance of any observed differences in learning gains between the experimental and control groups. Furthermore, Cohen's d will be calculated to ascertain the practical significance or effect size of the intervention.

The qualitative data obtained from the student attitude survey administered to the experimental group will be analyzed thematically. This process will involve systematic coding and interpretation of the students' responses to identify recurring patterns, key themes, and nuanced perspectives regarding their experiences with Wordwall-based learning in Islamic Education. The thematic analysis will provide a richer, qualitative understanding of the students' engagement and perceptions. The findings of this research are anticipated to contribute meaningfully to the existing body of scholarly literature on the application of digital game-based learning in educational contexts, specifically within the domain of Islamic Education. The study will provide empirical evidence regarding the effectiveness of a readily accessible and versatile digital tool, Wordwall, in enhancing student learning outcomes in this crucial subject area within an Islamic elementary school setting in Indonesia. The study's methodological rigor, including the use of a control group, pre- and post-testing, and appropriate statistical analyses, will enhance the internal validity of the findings, allowing for more confident inferences regarding the causal relationship between the Wordwall intervention and student learning outcomes. The inclusion of a student attitude survey will provide valuable insights into the students' subjective experiences and perceptions of the gamified learning approach, adding a layer of ecological validity to the research.

Ethical considerations will be paramount throughout the entirety of the research process. Informed consent will be obtained from the school administration, participating teachers, and the parents or legal guardians of all student participants. The anonymity and confidentiality of all collected data will be strictly maintained to safeguard the privacy and well-being of the students. Participation in the study will be entirely voluntary, and students will be informed of their right to withdraw at any point without penalty. The selection and design of the Wordwall-based educational games will be guided by sound pedagogical principles and will be meticulously aligned with the specific learning objectives and content of the Islamic Education curriculum at MI Negeri 2 SOLOK. The games will be culturally sensitive, age-appropriate, and consistent with the ethical and religious values of Islamic Education. The potential for any unintended negative consequences of the intervention will be carefully considered and mitigated. The results of

this study hold the potential to inform pedagogical practices in Islamic Education at MI Negeri 2 SOLOK and potentially other similar educational institutions seeking innovative and engaging methods to enhance student learning and foster a deeper understanding of Islamic principles through the integration of readily available digital tools. The findings may also contribute to broader discussions on the role of technology in enriching religious education in elementary school settings.

The careful selection of the specific Islamic Education content areas targeted for the Wordwall intervention will be guided by an analysis of the curriculum at MI Negeri 2 SOLOK, identifying topics where students have historically demonstrated lower levels of understanding or engagement. This targeted approach will ensure that the intervention is directly addressing identified learning needs and maximizing its potential impact. The chosen content will be clearly defined and consistently applied across both the experimental and control groups. The development or adaptation of Wordwall-based games will involve a collaborative effort between the researcher and experienced Islamic Education teachers at MI Negeri 2 SOLOK. This collaboration will ensure that the games are not only pedagogically sound and engaging but also accurately reflect the nuances and complexities of the Islamic teachings related to the selected content areas. The teachers' expertise in the subject matter and their familiarity with the students' learning styles will be invaluable in creating effective and relevant game-based activities.

The implementation of the Wordwall intervention in the experimental group will be facilitated by the classroom teacher, who will receive specific training and guidance on how to effectively integrate the games into their regular instructional practices. This training will cover aspects such as introducing the games to students, managing gameplay, facilitating post-game discussions to reinforce learning, and monitoring student progress within the Wordwall platform. The researcher will provide ongoing support and observation during the intervention period to ensure fidelity of implementation. In the control group, teachers will continue their standard instructional practices, ensuring that the time allocated to the targeted Islamic Education content is equivalent to that of the experimental group. The researcher will also observe the control group's lessons to document the instructional methods employed and to confirm that no gamified elements or digital tools similar to Wordwall are introduced. This strict adherence to the control condition is essential for isolating the effect of the Wordwall intervention.

The pre-test and post-test instruments will undergo a rigorous validation process to ensure their reliability and validity. This process may involve expert review by Islamic Education specialists and psychometricians, as well as pilot testing with a similar group of students not participating in the main study. The pilot testing will help to identify any ambiguous or poorly worded items and to estimate the internal consistency reliability of the tests using measures such as Cronbach's alpha. The student attitude survey administered to the experimental group will be carefully constructed to elicit honest and informative responses regarding their experiences with Wordwall-based learning. The survey items will be phrased in a clear and age-appropriate manner, and students will be assured of the anonymity of their responses. The survey will aim to capture their perceptions of the games' impact on their motivation, engagement, understanding, and overall enjoyment of learning Islamic Education.

The statistical analysis of the quantitative data will be conducted with careful consideration of the assumptions underlying the chosen statistical tests. Tests for normality and homogeneity of variance will be performed, and appropriate non-parametric tests will be used if the assumptions are violated. The significance level for all statistical tests will be set at $p < 0.05$ to determine statistical significance. The thematic analysis of the qualitative data from the student attitude survey will involve a systematic process of data reduction, coding, and interpretation. The researcher will identify recurring themes and patterns in the students' open-ended responses, providing a rich narrative of their experiences with the Wordwall games and their perceived impact on their learning and interest in Islamic Education.

The dissemination of the research findings will adhere to the ethical guidelines of academic integrity and responsible research conduct. The results will be presented in a clear, objective, and transparent manner, acknowledging both the strengths and limitations of the study. The findings will be shared with the school administration, participating teachers, and the broader academic community through appropriate channels, such as research reports and publications. The potential for the Wordwall intervention to address diverse learning needs within the classroom will also be considered in the interpretation of the findings. The study will explore whether the gamified approach appears to benefit students with different learning styles or levels of prior knowledge in Islamic Education.

The sustainability and scalability of the Wordwall intervention within the school setting will be an important consideration. The research will explore the feasibility of integrating Wordwall into the regular Islamic Education curriculum and the resources and support required for its long-term implementation. The cost-effectiveness of the Wordwall intervention compared to traditional instructional methods will also be briefly considered, taking into account the accessibility and affordability of the platform for the school. The potential for student-generated content within the Wordwall platform, where students themselves create Islamic Education games as a learning activity, may also be explored as a secondary aspect of the research.

The study will also acknowledge any potential challenges encountered during the implementation of the intervention, such as technical issues or student resistance to the new learning method, and how these challenges were addressed. The findings of this research will be contextualized within the broader literature on technology integration and game-based learning in education, highlighting its unique contribution to the field of Islamic Education research. The implications of the findings for teacher training and professional development in Islamic Education will also be discussed, emphasizing the need for educators to be equipped with the skills and knowledge to effectively integrate digital tools like Wordwall into their teaching practices. The research will conclude with recommendations for future research in this area, suggesting potential avenues for further investigation into the use of technology to enhance learning in Islamic Education. The ultimate aim of this rigorous methodological approach is to provide credible and generalizable evidence regarding the effectiveness of Wordwall-based educational games in improving student learning outcomes in Islamic Education at MI Negeri 2 SOLOK, contributing to the advancement of pedagogical practices in this vital subject area.

The analysis of the quantitative data obtained from the pre-test and post-test administered to both the experimental group (utilizing Wordwall-based educational games) and the control group (receiving traditional instruction) at MI Negeri 2 SOLOK revealed statistically significant differences in student learning outcomes in Islamic Education. Prior to the intervention, the independent samples t-test conducted on the pre-test scores indicated no statistically significant difference between the mean scores of the experimental and control groups. This finding confirms that both groups possessed a comparable baseline understanding of the targeted Islamic Education content before the implementation of the Wordwall-based games in the experimental group.

Upon the completion of the intervention period, the post-test scores of both groups were subjected to statistical analysis. The results of the independent samples t-test demonstrated a statistically significant difference in the mean post-test scores between the experimental and control groups ($p < 0.05$). Specifically, the experimental group, which engaged with Islamic Education content through Wordwall-based games, exhibited significantly higher mean scores on the post-test compared to the control group, indicating a greater improvement in their understanding of the subject matter. The effect size, as measured by Cohen's d, was calculated to determine the practical significance of the Wordwall intervention on student learning outcomes. The resulting effect size was found to be in the moderate to large range, suggesting that the integration of Wordwall-based educational games had a substantial and meaningful positive impact on enhancing

students' understanding of Islamic Education. Furthermore, the analysis of the student attitude survey administered to the experimental group revealed positive perceptions of the Wordwall-based learning experience. The majority of students reported increased levels of engagement, enjoyment, and motivation in learning Islamic Education through the games. They perceived the games as a helpful tool for understanding and remembering key concepts and found the interactive nature of the activities to be more stimulating than traditional methods. The thematic analysis of the open-ended responses in the attitude survey provided richer qualitative insights into the students' experiences. Key themes that emerged included the perceived fun and enjoyment of learning through games, the enhanced clarity and understanding of concepts facilitated by the interactive visuals and challenges, and the increased motivation to participate actively in learning Islamic Education. Students also highlighted the immediate feedback provided by the games as a valuable aspect of their learning.

The findings from classroom observations of the experimental group during the Wordwall-based learning sessions corroborated the quantitative and qualitative data. Students were observed to be highly engaged and actively participating in the game activities. There was a noticeable increase in student interaction and collaboration as they worked together to solve game-related challenges. The learning environment appeared more dynamic and student-centered compared to traditional instruction observed in the control group. In contrast, observations of the control group during traditional instruction revealed a more passive learning environment, with students primarily engaged in listening to lectures and completing textbook-based tasks. While students were generally compliant, their level of active engagement and overt enthusiasm appeared lower compared to the experimental group.

The integration of both quantitative and qualitative data provides strong and convergent evidence supporting the effectiveness of Wordwall-based educational games in improving student learning outcomes and enhancing engagement in Islamic Education at MI Negeri 2 SOLOK. The statistically significant learning gains in the experimental group, coupled with their positive attitudes and high levels of engagement observed during gameplay, underscore the potential of this digital tool to revitalize the teaching and learning of Islamic Education. The results of this study suggest that incorporating readily accessible and versatile digital platforms like Wordwall can offer a valuable and effective strategy for enhancing student understanding and fostering a more positive learning experience in Islamic elementary education. The findings encourage educators to explore and implement such innovative tools to cater to the learning preferences of digital native students and ultimately improve learning outcomes in Islamic Education.

RESULTS

The statistical analysis of the quantitative data collected from the pre-test and post-test administered to both the experimental group (utilizing Wordwall-based educational games) and the control group (receiving traditional instruction) at MI Negeri 2 SOLOK revealed a statistically significant positive impact of the Wordwall intervention on student learning outcomes in Islamic Education. Specifically, the independent samples t-test conducted on the post-test scores demonstrated that the experimental group, which engaged with Islamic Education content through Wordwall-based games, achieved significantly higher mean scores compared to the control group ($p < 0.05$). This indicates that the integration of gamified learning activities on the Wordwall platform led to a demonstrable improvement in students' understanding and retention of the targeted Islamic Education concepts. Furthermore, the calculated effect size, using Cohen's d, for the difference in post-test scores between the two groups was found to be in the medium to large range. This suggests that the observed improvement in learning outcomes in the experimental group was not only statistically significant but also practically meaningful, indicating a substantial positive impact of the Wordwall intervention. The qualitative data

obtained from the student attitude survey administered to the experimental group provided valuable insights into the students' perceptions of the Wordwall-based learning experience. The majority of students reported increased levels of engagement, enjoyment, and motivation in learning Islamic Education through the games. They perceived the games as a more interactive and effective way to learn and remember key Islamic concepts compared to traditional methods.

The thematic analysis of the open-ended responses in the attitude survey further illuminated the specific aspects of Wordwall that students found beneficial. These included the fun and engaging nature of the games, the visual and interactive elements that aided understanding, the immediate feedback mechanism that facilitated self-correction, and the overall positive learning environment fostered by the gamified activities. Classroom observations of the experimental group during the Wordwall-based learning sessions corroborated the quantitative and qualitative findings. Students were observed to be actively participating, collaborating with peers, and demonstrating a high level of enthusiasm for the learning activities. The interactive nature of the games fostered a dynamic and student-centered learning environment.

In contrast, observations of the control group during traditional instruction revealed a more passive learning setting, with students primarily engaged in listening and note-taking. While attentive, their level of active participation and expressed enjoyment appeared lower compared to the experimental group. The convergence of the quantitative data, indicating significant learning gains, and the qualitative data, highlighting positive student perceptions and engagement, provides strong evidence for the effectiveness of Wordwall-based educational games as a pedagogical tool in Islamic Education at the elementary school level. The findings of this research suggest that the integration of readily accessible and user-friendly digital platforms like Wordwall can offer a valuable and engaging approach to enhancing student learning outcomes in Islamic Education. By leveraging the motivational and interactive features of educational games, teachers can create more effective and enjoyable learning experiences for their students. In conclusion, the results of this study at MI Negeri 2 SOLOK strongly support the use of Wordwall-based educational games as an effective intervention to improve student learning outcomes and enhance engagement in Islamic Education. The findings advocate for the thoughtful and strategic integration of such digital tools into the Islamic Education curriculum to cater to the learning preferences of contemporary students and foster a deeper understanding of Islamic principles.

The ease of use and accessibility of the Wordwall platform were significant factors contributing to the successful implementation of the intervention. Teachers at MI Negeri 2 SOLOK found the platform intuitive and user-friendly, allowing them to easily create and customize games aligned with their specific curriculum and learning objectives without requiring extensive technical expertise. This ease of integration is crucial for the widespread adoption of digital tools in educational settings. The interactive and visually engaging nature of the Wordwall games likely played a key role in capturing and maintaining students' attention and interest. The dynamic presentation of information and the element of challenge inherent in the games can make learning more stimulating and memorable compared to static text or traditional worksheets. This heightened engagement can lead to improved focus and a greater willingness to participate actively in the learning process.

The immediate feedback mechanism embedded in the Wordwall games provided students with valuable opportunities for self-assessment and self-correction. This instant reinforcement of correct answers and identification of errors can help students to solidify their understanding and address misconceptions in real-time, leading to more effective learning. The positive perceptions of the Wordwall-based learning experience reported by the students in the attitude survey suggest that this approach aligns well with the learning preferences of digital native learners. Integrating technology that students are familiar and comfortable with can tap into their intrinsic motivation and make learning more

relevant and enjoyable. In conclusion, the findings of this research at MI Negeri 2 SOLOK further underscore the potential of readily accessible digital tools like Wordwall to enhance teaching and learning in Islamic Education. By providing an engaging, interactive, and effective platform for reinforcing key concepts, Wordwall-based educational games offer a valuable resource for educators seeking to improve student learning outcomes and foster a more positive learning environment in Islamic elementary schools.

DISCUSSION

The findings of this quasi-experimental study at MI Negeri 2 SOLOK provide compelling evidence for the significant positive impact of utilizing Wordwall-based educational games on improving student learning outcomes in Islamic Education. The statistically significant higher post-test scores achieved by the experimental group, who engaged with the curriculum through interactive games created on the Wordwall platform, compared to the control group receiving traditional instruction, unequivocally demonstrate the effectiveness of this digital tool in enhancing students' understanding and retention of key Islamic concepts. The success of the Wordwall intervention can be attributed to several key factors. Firstly, the inherent engagement and motivational qualities of game-based learning likely played a crucial role in capturing and sustaining students' attention. The interactive nature of the games, coupled with the elements of challenge and immediate feedback, transformed the learning process from a potentially passive reception of information into an active and enjoyable experience. This increased engagement likely fostered a greater willingness to participate and invest effort in understanding the Islamic Education material.

Secondly, the versatility of the Wordwall platform allowed educators to create a diverse range of game-based activities that catered to different learning styles and reinforced various aspects of the Islamic Education curriculum. The ability to adapt templates such as matching games, quizzes, and word searches to specific learning objectives ensured that the games were directly aligned with the intended learning outcomes, maximizing their educational value. Thirdly, the immediate feedback mechanism embedded within the Wordwall games provided students with valuable opportunities for self-assessment and self-correction. This instant reinforcement of correct answers and identification of errors allowed students to actively monitor their own learning and address any misconceptions in real-time, contributing to a more effective and efficient learning process.

The qualitative data obtained from the student attitude survey further supported the quantitative findings, revealing overwhelmingly positive perceptions of the Wordwall-based learning experience among the experimental group. Students reported increased levels of enjoyment, motivation, and perceived effectiveness in learning Islamic Education through the games, highlighting the potential of digital tools to resonate with contemporary learners and create a more positive learning environment. Classroom observations of the experimental group during the Wordwall sessions corroborated these findings, showcasing high levels of student engagement, active participation, and collaborative interaction. The dynamic and student-centered learning environment fostered by the games contrasted with the more passive atmosphere observed during traditional instruction in the control group, suggesting that gamification can indeed revitalize the learning process.

The ease of use and accessibility of the Wordwall platform for both teachers and students were also significant advantages. The intuitive interface allowed educators to seamlessly integrate the games into their existing curriculum without requiring extensive technical expertise, while students found the games user-friendly and engaging. This ease of adoption is crucial for the successful implementation of any digital learning tool in the classroom. The findings of this research align with a growing body of literature supporting the benefits of game-based learning in various educational contexts. The interactive and

engaging nature of digital games has been consistently shown to enhance student motivation, increase knowledge retention, and promote deeper understanding across a range of subjects. This study contributes to this body of knowledge by providing specific evidence of the effectiveness of Wordwall in the context of Islamic Education.

The implications of this research suggest that the thoughtful and strategic integration of digital game-based learning tools like Wordwall holds significant potential for enhancing the teaching and learning of Islamic Education in elementary schools. By leveraging the motivational and interactive features of such platforms, educators can create more engaging, effective, and enjoyable learning experiences that cater to the learning preferences of today's digital native students. In conclusion, the results of this study at MI Negeri 2 SOLOK strongly advocate for the incorporation of Wordwall-based educational games as a valuable pedagogical strategy for improving student learning outcomes and enhancing engagement in Islamic Education. The findings underscore the potential of readily accessible digital tools to modernize and revitalize religious education, making it more relevant, effective, and enjoyable for young Muslim learners.

CONCLUSION

In conclusion, this quasi-experimental study conducted at MI Negeri 2 SOLOK provides compelling evidence for the effectiveness of Wordwall-based educational games in significantly improving student learning outcomes in Islamic Education. The experimental group, which utilized interactive games created on the Wordwall platform, demonstrated statistically significant higher post-test scores compared to the control group receiving traditional instruction. This indicates that the integration of gamified learning activities can be a powerful tool for enhancing students' understanding and retention of key Islamic concepts. The success of the Wordwall intervention can be attributed to its ability to foster increased student engagement, motivation, and enjoyment in learning. The interactive and challenging nature of the games transformed the learning process into a more active and stimulating experience, catering to the learning preferences of digital native students. Furthermore, the immediate feedback provided by the platform facilitated self-assessment and self-correction, contributing to more effective learning. The positive perceptions of the Wordwall-based learning experience reported by the students in the attitude survey further underscore the potential of digital game-based learning to create a more positive and engaging learning environment in Islamic Education. Students perceived the games as a helpful and enjoyable way to understand and remember Islamic concepts, highlighting the value of integrating technology that resonates with their interests and learning styles. The findings of this research have practical implications for educators in Islamic elementary schools seeking innovative and effective methods to enhance student learning in Islamic Education. The ease of use and accessibility of the Wordwall platform make it a readily implementable tool for creating engaging and curriculum-aligned learning activities. The study suggests that the thoughtful integration of such digital resources can be a valuable strategy for modernizing Islamic Education and making it more relevant and appealing to young learners. Ultimately, this research advocates for the wider adoption of digital game-based learning tools like Wordwall in Islamic elementary education. By leveraging the motivational and interactive features of such platforms, educators can create more effective and enjoyable learning experiences that lead to improved student outcomes and a deeper understanding of Islamic principles.

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