

Application of Wordwall Gameshow Quiz Media to Increase Interest and Learning Results

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Abstract: The application of media is motivated by the use of video-based learning which has not been able to increase students' interest and learning outcomes. The lack of application of innovative and creative learning media can result in student learning outcomes not being achieved optimally, especially in class IV science and science learning on the Solar System material. The purpose of this research is to find out how to apply the Wordwall Gameshow Quiz media to increase learning interest and learning outcomes in the Solar System material in class IV. This research uses a qualitative type of research using a descriptive qualitative approach. The data sources for this research come from class teachers and class IV students. Data collection techniques use observation, interviews, documentation and questionnaires. The learning results from this research showed that 15 students out of 20 children understood the learning delivered using Wordwall media. Regarding interest in learning itself, there has been an increase shown by the number of students fulfilling more of the indicators, thus showing interest in feeling happy about lessons that are fun and enjoyable, as well as involving them directly in the application of the Wordwall Gameshow Quiz media. Through research and assessments, it shows that students like this media. Thus, it can be concluded that the Wordwall learning media is very suitable and effective for use in teaching and learning activities, especially in class IV science learning material on the solar system.

Keywords: Gameshow quiz; Interest in learning; IPAS; Learning outcomes; Wordwall

Introduction

Education is not only considered as a precursor in providing knowledge and exploring skills, but is also expanded to fulfill individual aspirations, as well as needs and skills for a satisfying personal and social life. Education is a means of preparing children not only for future life, but also for their current life, as they develop. In Bisa (2023) and Ghafar (2024), education is defined as an effort aimed at creating an atmosphere through a learning system so that students can actively develop their talents in religious spiritual aspects, their self-control and society. Education is a humanization process known as humanizing humans (Soares et al.,

2024; Mujahid et al., 2022). Therefore, it is structured wisely, because the younger generation needs to be accompanied and nurtured during each transition to adulthood so that they grow into individuals with critical thinking, adequate abilities and good moral behavior. Education is more than just teaching, providing knowledge, changing views, and forming identity in various fields. Education can remove false beliefs from our minds, help us gain a clear understanding of the things around us, and overcome confusion.

Directed steps are needed to create quality activities so as to produce a generation that is smart and skilled so they can explore technological advances and rapid

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changes in the field of education (Lo, 2023; Dhanaraju et al., 2022). The millennial generation is facing very rapid technological developments, so there needs to be a balance in learning styles at school (Chan & Lee, 2023). In the Independent Curriculum, teachers are required to follow technological developments as an anticipatory step towards progress in industry 4.0. Learning in the Independent Curriculum emphasizes the process of fulfilling the needs and character of students, given the freedom to develop according to potential interests and talents. The Merdeka Curriculum is adapted to the previous curriculum and combines science and social studies lessons. The aim of science and science learning is to develop inquiry skills, understand oneself and one's environment, and expand knowledge through learning. Therefore, students are encouraged to increase their curiosity about phenomena that occur around them (Scott-Barrett et al., 2023).

The use of Wordwall gamification shown by Câmpean et al. (2024) in learning increases positive responses from students. Students will be happy with lessons that use Wordwall gamification, making the learning process more interesting and interactive. According to research Lo et al. (2022), student learning outcomes from the first to the third meeting have shown good results. This is in accordance with research which found that the use of Wordwall media increased student involvement and interest in lessons. Students actively express opinions and interact both inside and outside the discussion group (Pei et al., 2023). The use of learning media proposed by Pradana (2023) can increase student interest and motivation and states that the use of platform media can improve student learning outcomes. Apart from that, research by Adnyana et al. (2022) and Syamsidar et al. (2023), shows that the use of Wordwall media is effective in improving learning achievement. Apart from that, research Yanuarta et al. (2024), has proven that the use of various media, as a benefit of online game media such as Wordwall, can arouse students' interest in learning.

Based on the background that has been described, the implementation of the Wordwall Gameshow Quiz media on the Solar System material in class IV of SDN Mangkang Kulon 02 can go well. The aim is to find out how the use of Gameshow Quiz-based Wordwall can increase student interest and learning outcomes in Solar System material in class IV.

Method

This research was conducted at SDN Mangkang Kulon 02 through two meetings with Mr. Eko Pambudi as the fourth grade teacher and twenty fourth grade students who were the research subjects. The data is in the form of interview techniques, observation,

documentation and questionnaires which are processed by describing or telling in general about the application of the Wordwall Gameshow Quiz in class IV in the science and science subject on the Solar System. Next, the data is reduced, explained, and conclusions are drawn to analyze all the data.

The qualitative descriptive research method was taken as this test. Busetto et al. (2020) explained that qualitative research is a real type and aims to assess phenomena according to actual circumstances. This research was conducted using various available methods including observation, interviews, and the use of documentation (Aspers & Corte, 2019; Erita et al., 2022). Qualitative methods approach the world from very different perspectives. Qualitative research does not attempt to confirm anything, therefore the assumption that there is a goal to study a particular phenomenon does not apply. Qualitative research is research that results from discoveries that cannot be achieved using calculation procedures or by means of quantification.

Quantitative research is an in-depth approach in gaining a comprehensive understanding of social reality, so that a number of problems must be addressed seriously. Delivery or depiction that is carried out in depth is called descriptive. This is in line with the research objective, namely understanding how the application of the Wordwall Gameshow Game can increase student interest and learning outcomes. The aim of this research is to describe events or find explanations for ongoing phenomena. Apart from that, this research also interprets and explains information about the current state, perspectives and views of society. An interview is a dialogue between two or more people in order to obtain the desired information accurately. The type of interview used is an unstructured interview, where the questions asked are not focused on a few main points so that they can be more relaxed but focused. Class IV teacher sources were interviewed to obtain information about the learning media that had been used in science and science lessons.

Questionnaires were needed to see student responses as answers related to the application of the Wordwall Gameshow Quiz media. Documentation as concrete evidence of the research that has been carried out. The data obtained from direct visits to the field, interviews and questionnaires were then narrated to obtain specifications regarding the application of Wordwall learning media in class IV science and science learning at SDN Mangkang Kulon 02.

Result and Discussion

This research began by providing explanations to 20 students in class IV regarding the Solar System

material using Wordwall. In accordance with the increasingly developed era, learning media has also become a supporting factor in learning. Interesting learning must be supported by media that makes it easier for students to receive learning. For example, the use of wordwall media can attract and make it easier for students, with this media students will be invited to play an active role, and give the impression of receiving lessons that have never been felt before.



Figure 1. Students pay attention to the teacher in using Wordwall

Based on the picture, all students pay attention to the explanation of the material. This shows that students have the ability to concentrate and show their interest in Wordwall media. Next, students will be given questions to determine how their understanding of the material is. The questions given use the Gameshow Quiz feature where students will work on them first, then at the end they will be corrected together. The results of learning using Wordwall media show that 15 children scored above the KKM, while 5 other children were still below the KKM. After completing the questions, students were then given a questionnaire sheet to determine their interest in learning after using Wordwall media in the Solar System material.

According to Van Aswegen et al., (2023), Bowden et al. (2021), and Lombardi et al. (2019), the emergence of feelings of joy, interest, acceptance and student involvement are components that are determined by interest in learning. Questionnaire regarding student responses to the use of Wordwall-based learning media, researchers also distributed a questionnaire regarding students' interest in learning in science and science learning as a result of the implementation of Wordwall-based learning media in class IV of SDN Mangkang Kulon 02, Semarang City. The following are the results of a questionnaire on students' learning interest in

science learning with a total of 20 answer choice questions.

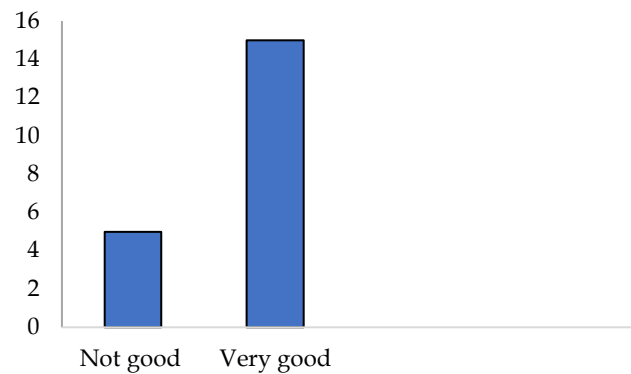


Figure 2. Bar chart of student interest results

Based on Figure 2, it shows that 15 of the students who answered liked the science lesson, while the other 5 students said they didn't like it. IPAS is liked because it is easy to learn and some people like the material about the Solar System. Five students stated that they were not interested in using Wordwall media without giving a reason, the others stated that it was an interesting, fun and unique learning method that had never been used by the teacher before. Using Wordwall media with Gameshow Quiz, 15 students stated they understood the material well, while 5 students felt they did not understand. Apart from that, students who don't understand don't like science learning and find Wordwall media uninteresting. Thus, it has been concluded that there are more students who show interest in learning than students who do not show interest in learning. Fifteen students received scores above the KKM, and five students were still below the KKM.

The results of this research were also carried out by Hidayaty et al. (2022) "The Effect of Using Wordwall Learning Media on the Learning Interest of Class 3 Students in Science Lesson Content at SDN Kebaharan 2" that Wordwall media consists of hidden pictures and words or wordsearch influences students' interest in learning material forms of objects. Another research conducted by Smiderle et al. (2020) entitled "Application of Word Wall Media to Improve Students' Science and Science Learning in Class Va Tiga Hati Kefullan Hulu" stated that in this research the use of word wall media could help improve learning outcomes well twice. meeting. From the results of the questionnaire, it can be seen that out of 20 class IV students, there were 5 students in the poor category, and 15 students in the very good category.

Interactive learning is a teacher's effort to increase student involvement in certain learning (Ong & Quek, 2023; Heilporn et al., 2021). Nowadays, access to

technology-based learning media has become very easy, so it can prevent students from getting bored. Learning videos can be used by teachers who have provided them on various platforms such as YouTube or other platforms. According to Haleem et al. (2022), technology plays a very significant role in increasing students' understanding of information, so that the integration of technology in learning can strengthen effectiveness. Teachers should use technology-based learning media because at this level students are at the right age to receive more complex knowledge and understanding (Sailer et al., 2021; Darling-Hammond et al., 2020). Media has dual benefits as a learning aid and as a source of information for students. As a result, teachers must have skills and competencies in using technology-based learning media. As previously explained, interactive learning aims to increase student participation by using technology-based learning media, which is easy to access and teachers need to have the skills and competence in using technology to increase learning effectiveness (Aditya, 2021; Winter et al., 2021).

Based on the results of an interview with Mr. Eko Pambudi as class IV homeroom teacher at SDN Mangkang Kulon 02, video screening for the IPAS subject is still not sufficient to increase students' interest and learning outcomes during the learning process. Natural and Social Sciences (IPAS) is a science that studies living things and inanimate objects in the universe and their interactions, as well as researching human life both as individuals and social creatures. In general, science is defined as a collection of various knowledge that is arranged logically and systematically by considering cause and effect. This knowledge includes natural and social knowledge. This is a challenge that must be overcome in order to increase student interest and learning outcomes in science subjects (Ernawati et al., 2022; Suri et al., 2022).

Media has a role in facilitating intermediary between senders and recipients. This is also based on the learning context, where the teacher's direct use of media helps students understand the learning message better. The effect is that it can create effective and enjoyable learning conditions through the use of the school environment. Therefore, it is not surprising that the use of media is the main trigger for student learning success (Ratnasari & Haryanto, 2019). The rapid development of media in the field of education influences both the psychology of learning and educational programs, so that it can encourage and direct technological progress and development (Sivakumar et al., 2023; Noor et al., 2022). Rapid progress in learning environments produces unique characteristics and abilities in each environment (Shemshack & Spector, 2020; Gligorea et al., 2023; El-Sabagh, 2021).

Wordwall is a web application that has many features with various themes and interactive activities. As a website, Wordwall allows teachers to create various kinds of digital learning media (Palioura & Dimoulas, 2022). This platform is famous for providing a variety of educational games, such as true or false, random wheel, find pictures, card guessing puzzles, and etc. One of the advantages of Wordwall when used is that the various template options available allow teachers to be able to adapt it to students' needs and characteristics. The use of Wordwall media will arouse students' enthusiasm for learning science and science, making it effective and students understanding the material more deeply. The aim of implementing Wordwall media is to introduce students and teachers that this application can be used in teaching and learning activities in the classroom (Elhefni et al., 2023). With the Wordwall learning media, students can increase their understanding of the material presented by the teacher. Apart from that, Wordwall can also contribute to thinking and enrich students' knowledge.

Conclusion

Based on the results and discussion, it can be concluded that implementing attractive, fun and exciting lessons can improve learning outcomes and interest. This learning is considered as a fulfillment for students which can be realized by implementing the Wordwall Gameshow Quiz media. Learning that uses Wordwall media makes students more active and enthusiastic and confident. This is caused by changes in attitudes towards the science and science learning process in accordance with the results of observations made and student questionnaires. Changes in attitudes, shown by changes in the implementation of the Wordwall Gameshow Quiz media, can improve learning outcomes and interest in class IV Solar System material.

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Author Contributions

Preparation of A.L.R, S., proposals; A.L.R data collection; Data analysis and preparation of articles A.L.R; Correction of data results and article S; S validation.

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Conflicts of Interest

The authors declare no conflict of interest.

References

- Aditya, D. S. (2021). Embarking digital learning due to COVID-19: Are teachers ready? *Journal of Technology and Science Education*, 11(1), 104. <https://doi.org/10.3926/jotse.1109>
- Adnyana, I. N. G. W., & Dewi, K. S. (2022). The Effect of Wordwall Based Media on Students' Procedure Text Achievement in Ninth Grade Students. *Jurnal Pendidikan Bahasa Inggris Undiksha*, 10(1), 7-13. <https://doi.org/10.23887/jpbi.v10i1.45143>
- Aspers, P., & Corte, U. (2019). What is Qualitative in Qualitative Research. *Qualitative Sociology*, 42(2), 139-160. <https://doi.org/10.1007/s11133-019-9413-7>
- Bisa, M. (2023). Sports Education as a Means of Building Student Character: Values and Benefits. *AL-ISHLAH: Jurnal Pendidikan*, 15(2), 1581-1590. <https://doi.org/10.35445/alishlah.v15i2.3889>
- Bowden, J. L.-H., Tickle, L., & Naumann, K. (2021). The four pillars of tertiary student engagement and success: A holistic measurement approach. *Studies in Higher Education*, 46(6), 1207-1224. <https://doi.org/10.1080/03075079.2019.1672647>
- Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice*, 2(1), 14. <https://doi.org/10.1186/s42466-020-00059-z>
- Câmpean, A., Bocoş, M., Roman, A., Rad, D., Crişan, C., Maier, M., Tăuşan-Crişan, L., Triff, Z., Triff, D.-G., Mara, D., Mara, E.-L., Răduţ-Taciu, R., Todor, I., Baciuc, C., Neacşu, M.-G., Dumitru, I., Colareza, C. C., & Roman, C. E. (2024). Examining Teachers' Perception on the Impact of Positive Feedback on School Students. *Education Sciences*, 14(3), 257. <https://doi.org/10.3390/educsci14030257>
- Chan, C. K. Y., & Lee, K. K. W. (2023). The AI generation gap: Are Gen Z students more interested in adopting generative AI such as ChatGPT in teaching and learning than their Gen X and millennial generation teachers? *Smart Learning Environments*, 10(1), 60. <https://doi.org/10.1186/s40561-023-00269-3>
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97-140. <https://doi.org/10.1080/10888691.2018.1537791>
- Dhanaraju, M., Chenniappan, P., Ramalingam, K., Pazhanivelan, S., & Kaliaperumal, R. (2022). Smart Farming: Internet of Things (IoT)-Based Sustainable Agriculture. *Agriculture*, 12(10), 1745. <https://doi.org/10.3390/agriculture12101745>
- Elhefni, E., Al Ihwanah, A. I., Adib, H. S., Ariani, R., & Safitri, R. (2023). Use of Word Wall Learning Media to Improve Learning Outcomes Indonesian Learning in Elementary Schools. *AL-ISHLAH: Jurnal Pendidikan*, 15(2), 1556-1562. <https://doi.org/10.35445/alishlah.v15i2.1447>
- El-Sabagh, H. A. (2021). Adaptive e-learning environment based on learning styles and its impact on development students' engagement. *International Journal of Educational Technology in Higher Education*, 18(1), 53. <https://doi.org/10.1186/s41239-021-00289-4>
- Erita, Y., Hervia, S., Febria, B., & Ismail, K. (2022). Kinemaster-Based Video Media Development On Integrated Thematic Learning In Elementary School. *Journal of Digital Learning and Distance Education*, 1(2), 79-86. <https://doi.org/10.56778/jdlde.v1i2.23>
- Ernawati, M. D. W., Sudarmin, S., Asrial, A., Haryanto, H., Sanova, A., Kurniawan, D. A., & Azzahra, M. Z. (2022). The Influence of Student Interest on Student Learning Outcomes in Science Subjects. *Jurnal Pendidikan Sains Indonesia*, 10(4), 849-861. <https://doi.org/10.24815/jpsi.v10i4.25306>
- Ghafar, Z. (2024). The Positive and Negative Aspects of Social media platforms in many Fields, Academic and Non-academic, all over the World in the Digital Era: A Critical Review. *Journal of Digital Learning and Distance Education*, 2(8), 707-721. <https://doi.org/10.56778/jdlde.v2i8.212>
- Gligorea, I., Cioca, M., Oancea, R., Gorski, A.-T., Gorski, H., & Tudorache, P. (2023). Adaptive Learning Using Artificial Intelligence in e-Learning: A Literature Review. *Education Sciences*, 13(12), 1216. <https://doi.org/10.3390/educsci13121216>
- Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3, 275-285. <https://doi.org/10.1016/j.susoc.2022.05.004>
- Heilporn, G., Lakhali, S., & Bélisle, M. (2021). An examination of teachers' strategies to foster student engagement in blended learning in higher education. *International Journal of Educational Technology in Higher Education*, 18(1), 25. <https://doi.org/10.1186/s41239-021-00260-3>
- Hidayaty, A., Qurbaniah, M., & Setiadi, A. E. (2022). The Influence of Wordwall on Students Interests and Learning Outcomes. *Jurnal Penelitian Ilmu Pendidikan*, 15(2). <https://doi.org/10.21831/jpipfip.v15i2.51691>
- Lo, C. K. (2023). What Is the Impact of ChatGPT on Education? A Rapid Review of the Literature. *Education Sciences*, 13(4), 410. <https://doi.org/10.3390/educsci13040410>

- Lo, K. W. K., Ngai, G., Chan, S. C. F., & Kwan, K. (2022). How Students' Motivation and Learning Experience Affect Their Service-Learning Outcomes: A Structural Equation Modeling Analysis. *Frontiers in Psychology, 13*, 825902. <https://doi.org/10.3389/fpsyg.2022.825902>
- Lombardi, E., Traficante, D., Bettoni, R., Offredi, I., Giorgetti, M., & Vernice, M. (2019). The Impact of School Climate on Well-Being Experience and School Engagement: A Study With High-School Students. *Frontiers in Psychology, 10*, 2482. <https://doi.org/10.3389/fpsyg.2019.02482>
- Mujahid, A., Aderus, A., Mirnawati, M., & Firman, F. (2022). Humanistic Education and the Concept of "Merdeka Belajar" in Indonesia: A Perspective of the Qur'an. *AL-ISHLAH: Jurnal Pendidikan, 14*(4), 5263-5272. <https://doi.org/10.35445/alishlah.v14i4.2181>
- Noor, U., Younas, M., Saleh Aldayel, H., Menhas, R., & Qingyu, X. (2022). Learning behavior, digital platforms for learning and its impact on university student's motivations and knowledge development. *Frontiers in Psychology, 13*, 933974. <https://doi.org/10.3389/fpsyg.2022.933974>
- Ong, S. G. T., & Quek, G. C. L. (2023). Enhancing teacher-student interactions and student online engagement in an online learning environment. *Learning Environments Research, 26*(3), 681-707. <https://doi.org/10.1007/s10984-022-09447-5>
- Palioura, M., & Dimoulas, C. (2022). Digital Storytelling in Education: A Transmedia Integration Approach for the Non-Developers. *Education Sciences, 12*(8), 559. <https://doi.org/10.3390/educsci12080559>
- Pei, L., Poortman, C., Schildkamp, K., & Benes, N. (2023). Teachers' and students' perceptions of a sense of community in blended education. *Education and Information Technologies. https://doi.org/10.1007/s10639-023-11853-y*
- Pradana, H. D. (2023). The Impact of Digital Media on Student Learning at University. *Jurnal Ilmu Pendidikan (JIP) STKIP Kusuma Negara, 15*(1), 1-8. <https://doi.org/10.37640/jip.v15i1.1717>
- Ratnasari, D., & Haryanto, H. (2019). Analysis of Utilization of Gadgets as Effective Learning Media in Innovation Education to improve Student Learning Achievement. *KnE Social Sciences. https://doi.org/10.18502/kss.v3i17.4671*
- Sailer, M., Murböck, J., & Fischer, F. (2021). Digital learning in schools: What does it take beyond digital technology? *Teaching and Teacher Education, 103*, 103346. <https://doi.org/10.1016/j.tate.2021.103346>
- Scott-Barrett, J., Johnston, S.-K., Denton-Calabrese, T., McGrane, J. A., & Hopfenbeck, T. N. (2023). Nurturing curiosity and creativity in primary school classrooms. *Teaching and Teacher Education, 135*, 104356. <https://doi.org/10.1016/j.tate.2023.104356>
- Shemshack, A., & Spector, J. M. (2020). A systematic literature review of personalized learning terms. *Smart Learning Environments, 7*(1), 33. <https://doi.org/10.1186/s40561-020-00140-9>
- Sivakumar, A., Jayasingh, S., & Shaik, S. (2023). Social Media Influence on Students' Knowledge Sharing and Learning: An Empirical Study. *Education Sciences, 13*(7), 745. <https://doi.org/10.3390/educsci13070745>
- Smiderle, R., Rigo, S. J., Marques, L. B., Peçanha De Miranda Coelho, J. A., & Jaques, P. A. (2020). The impact of gamification on students' learning, engagement and behavior based on their personality traits. *Smart Learning Environments, 7*(1), 3. <https://doi.org/10.1186/s40561-019-0098-x>
- Soares, F., Lopes, A., Serrão, C., & Ferreira, E. (2024). Fostering humanization in education: A scoping review on mindfulness and teacher education. *Frontiers in Education, 9*, 1373500. <https://doi.org/10.3389/feduc.2024.1373500>
- Suri, A., Novriana, N., & Susanti, D. (2022). Improving Student Learning Outcomes With Educational Game-Based Interactive Learning Media. *International Journal of Education and Teaching Zone, 1*(1), 16-19. <https://doi.org/10.57092/ijetz.v1i1.5>
- Syamsidar, S., Silalahi, R. M. P., Rusmardiana, A., Febriningsih, F., Taha, M., & Erniwati, E. (2023). Wordwall on Mastery of Vocabulary in English Learning. *AL-ISHLAH: Jurnal Pendidikan, 15*(2), 1801-1806. <https://doi.org/10.35445/alishlah.v15i2.3466>
- Van Aswegen, E. C., & Pendergast, D. (2023). The impact of interest: An emergent model of interest development in the early years. *Early Child Development and Care, 193*(13-14), 1335-1349. <https://doi.org/10.1080/03004430.2023.2245575>
- Winter, E., Costello, A., O'Brien, M., & Hickey, G. (2021). Teachers' use of technology and the impact of Covid-19. *Irish Educational Studies, 40*(2), 235-246. <https://doi.org/10.1080/03323315.2021.1916559>
- Yanuarto, W. N., & Setyaningsih, E. (2024). A learnability study on Wordwall.net: Online educational tool for mathematics learning. *Al-Jabar: Jurnal Pendidikan Matematika, 15*(1), 119. <https://doi.org/10.24042/ajpm.v15i1.20806>