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Interactive Learning Assistance with Projector-Based Educational Games to Increase Student Learning Motivation at Madrasah Ibtidaiyah Ngampungan

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Abstract

Conventional learning tends to be monotonous and less interactive, resulting in low student learning motivation. Learning support activities using non-conventional methods are needed. Interactive support based on educational games with projector media is promoted to increase student learning motivation. The implementation of the activity includes planning, socialization, learning support, observation, and reflection. The target of the activity is students of Madrasah Ibtidaiyah (MI) Ngampungan. Data was collected using observation and documentation techniques during the activity. The results of the activity show that during the learning process, students are more enthusiastic and motivated. Students appear more active in asking questions, answering questions, and participating in learning activities. The implementation of projector-based educational games can create an interactive, fun, and competitive learning atmosphere. Projector-based educational games media helps students understand the material more easily. Projector media is an innovative alternative for schools with limited learning facilities. This activity is expected to be one of the interactive learning models that teachers can apply to improve the quality and motivation of students in elementary schools.

Keywords: *Community Service; Interactive Learning; Educational Games; Projectors; Learning Motivation*

INTRODUCTION

Elementary education plays a crucial role in developing students' cognitive, affective, and psychomotor abilities. Education serves as a process of knowledge transfer and as a means of character formation and developing students' overall potential.[1] The learning process in the era of technological development is required to be able to create an active, creative, and enjoyable learning atmosphere so that students have high learning motivation.[2]

The learning process in the era of technological development is required to be able to create an active, creative, and enjoyable learning atmosphere so that students have high learning motivation.[3] Low learning motivation can cause students to lack focus, be passive, and have difficulty understanding learning materials.[4]

Initial observations at MI Ngampangan indicate that student motivation remains low. Students participate less during the learning process, pay less attention when the teacher explains the material, and appear to feel bored due to the monotonous use of conventional learning methods.

The use of technology-based interactive learning media is an alternative effort to increase student learning motivation. Interactive learning media can help create a more interesting learning atmosphere and increase student involvement in the learning process.[5] Educational game media is considered capable of increasing students' interest in learning because it combines game elements with the learning process so that students learn in a fun atmosphere.[6] The use of projectors as supporting media allows for the presentation of educational materials and games in a visual and interactive manner that can attract students' attention during learning.[7]

Interactive learning assistance using projector-based educational games is implemented as a form of community service. The activity aims to help create a more engaging learning process and increase student motivation by utilizing simple, easily applicable technology.

METHOD

Mentoring activities were carried out at MI Ngampungan. Learning assistance is carried out interactively using projector-based educational games. The Community Service lecturer team acts as facilitators and companions in implementing learning. Educational games were chosen because they were proven to be able to increase learning motivation, student involvement, and create a more fun and interactive learning atmosphere.

Activities are carried out in four stages, namely: First, initial observations are carried out to identify learning conditions in the classroom, the level of student learning motivation, and the use of learning media used by the teacher. Second, preparation, including preparing learning materials, selecting educational games that suit the characteristics of MI students, as well as preparing learning devices in the form of laptops and projectors. Third, the implementation of activities is carried out using interactive learning assistance methods using projector-based educational games. Students are actively involved in educational games, discussions, questions and answers, and group collaboration to create a more interesting and enjoyable learning atmosphere. The use of a projector helps to display material and games visually so that all students can participate in learning activities with more focus and enthusiasm. Fourth, evaluation is carried out by observing students' attention, participation, enthusiasm and involvement during learning activities. Data was collected using observation techniques, documentation and field notes. The data is described qualitatively with a focus on observations of the learning process, student involvement, and changes in student learning motivation during the activity.

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RESULTS

Implementation of Interactive Learning Assistance

Interactive learning support activities were implemented at MI Ngampungan through the implementation of projector-based educational games in the classroom. Prior to the activity, the The Community Service team of lecturers coordinated with the class teachers regarding the learning materials to be used during the support activities. Furthermore, learning media, in the form of educational games, were prepared, tailored to the characteristics of Madrasah Ibtidaiyah students.

The learning process began with an apperception session to build students' attention and readiness to learn. Next, the educational game was projected on a projector so that all students could clearly see the game. The game contained questions and challenges related to the learning material.

Throughout the activity, students actively engaged in answering questions, discussing the game, and completing the challenges presented in the game. Learning activities were conducted individually and in groups, fostering interaction among students throughout the learning process. The use of projectors facilitated the visual presentation of material and games, making learning more engaging and interactive.

Student Response and Participation

Based on the results of observations during the mentoring activities, students showed a positive response to the use of projector-based educational games. Students look more enthusiastic and active in participating in learning activities compared to conventional learning which previously used the lecture method.

Student participation can be seen from their activeness in answering questions displayed on the projector screen. Most students showed an interest in being directly involved in educational games and actively discussing with their group friends to determine the right answer.

Apart from that, interaction between students also increases during the learning process. When faced with questions that are considered difficult, students discuss with each other and work together to find the correct answer. These conditions show that interactive learning through educational games is able to create a more communicative and collaborative learning atmosphere.

Increasing Student Learning Motivation

The use of projector-based educational games has shown an increase in student motivation during learning activities. This is evident in increased student attention to the learning material, increased student engagement in class activities, and increased confidence in answering questions.

Students appear more focused and attentive when the educational games are projected. Furthermore, the game-based learning environment encourages students to be more enthusiastic and less likely to become bored during the lesson.

This increase in motivation is also evident in the rise of student confidence in participating in learning activities. Students who previously tended to be passive are now more willing to try answering questions and actively participating in the educational games.

Community Service Activity Findings

Based on the results of the mentoring activities that have been carried out, several benefits were found from using projector-based educational games in the learning process, including: 1) Increasing students' attention and learning motivation; 2) Increasing students' active participation during learning; 3) Helping students understand learning material more easily through visual media; 4) Creating a learning atmosphere that is more enjoyable and less monotonous; 5) Increase interaction and cooperation between students during the learning process. This finding supports the findings of previous research which shows that the use of interactive game-based learning media is known to be able to increase students' interest in learning, participation, and involvement in the learning process;[8] Game-based learning and interactive media have a positive impact on elementary school students' learning motivation, both intrinsically and extrinsically.[9]

Figure 1. Preparation and operation of educational game-based interactive learning support media devices.

Figure 2. Students actively participate in answering educational game questions displayed via a projector during learning activities.

DISCUSSION

Analysis of the Implementation of Interactive Learning Based on Educational Games

The implementation of interactive learning support through projector-based educational games at MI Ngampangan demonstrates a shift in the learning approach from teacher-centered to student-centered. Students not only act as recipients of information, but also actively participate in answering questions, completing challenges, and engaging in discussions throughout the learning process.

The use of projector-based educational games fosters more active two-way interaction between teachers and students, as well as between students. During

learning activities, the teacher acts as a facilitator, providing direction and learning stimuli, while students actively respond through educational game activities. This aligns with interactive learning theory, which emphasizes the importance of active student involvement in constructing knowledge through direct learning experiences.

Observations show that students who previously tended to be passive are beginning to demonstrate the courage to participate in learning. Furthermore, students are seen to be more active in discussions with their group members when solving problems or challenges in the games. This demonstrates that interactive learning based on educational games can increase student participation and collaboration in the learning process.

In terms of learning atmosphere, the use of projector-based educational games creates a more enjoyable and less monotonous learning environment. The engaging visuals encourage students to focus and be more enthusiastic about participating in the learning process. In addition to increasing student engagement, educational game-based learning also helps students understand the material more easily. Students not only passively receive material through teacher explanations but also learn through direct experience (learning by doing). Therefore, the use of projector-based educational games can be an effective interactive learning alternative to improve the quality of the learning process in Islamic elementary schools.

Analysis of Student Responses and Learning Motivation

The results of the mentoring activities showed that students responded positively to the use of projector-based educational games. Students appeared more enthusiastic, active, and focused during the learning process. This increased student engagement was evident in their high level of participation in answering questions, discussing topics, and participating in the educational games.

This increased student response and engagement was influenced by the interactive elements of the educational games, such as challenges and competitions that stimulated students' curiosity. This encouraged students to actively participate in learning without feeling pressured. Furthermore, the more relaxed and enjoyable learning environment encouraged students to express their opinions and attempt to answer questions.

The increase in student learning motivation during this mentoring activity can be analyzed using the ARCS (Attention, Relevance, Confidence, and Satisfaction) model developed by Keller. The ARCS model is one of the learning motivation models widely used in educational research because it explains the factors that influence student engagement and learning success. Various studies have shown that applying the ARCS model to technology-based learning and educational games can improve student motivation, engagement, and learning outcomes.

Based on observations during the activity, the use of projector-based educational games was able to capture students' attention through engaging visual

displays, interactive game activities, and direct engagement in the learning process. Students appeared more focused and enthusiastic in participating in the lesson compared to using conventional lecture methods. This finding aligns with research showing that game-based learning is effective in capturing and maintaining students' attention through the visual elements, challenges, and interactivity contained in educational games.

In addition to capturing attention, the use of educational games also provides relevance between the learning material and the activities students engage in. Material presented in game form helps students grasp learning concepts more easily because they can learn while playing. Thus, students perceive the learning as more engaging, meaningful, and tailored to their learning needs. These results align with research indicating that game-based learning can help students connect subject matter with more realistic and contextual learning experiences.

In terms of confidence, this activity demonstrated an increase in students' willingness to participate in learning. Students who previously tended to be passive began to answer questions, express their opinions, and actively participate in the educational games provided. The opportunity to experiment, receive immediate feedback, and complete challenges in games helps students build confidence in the learning process. Previous research also shows that game-based learning can boost students' self-confidence by providing gradual and measurable experiences of success.[10]

Furthermore, satisfaction was also evident throughout the activity. Students expressed joy and satisfaction when successfully completing challenges, achieving good scores, or answering questions correctly. These positive experiences served as reinforcement, encouraging students to continue participating and engaging in learning. These findings are supported by numerous studies that suggest game-based learning can increase student satisfaction, engagement, and motivation through enjoyable and challenging learning experiences.

Thus, the four components of the ARCS model are interrelated, demonstrating that the use of projector-based educational games can be an effective strategy for increasing student learning motivation at MI Ngampungan.

Learning Support Media

The results of the activity indicate that projectors play a crucial role in supporting the effectiveness of interactive, game-based learning. Projectors help visually display materials and games at a larger scale, allowing all students to clearly see the learning content.

The use of projectors also supports more interactive classroom learning. All students can participate in games together, engage in discussions, and respond to questions displayed on the screen. This creates a shared learning experience that increases student participation and interaction throughout the lesson.

From the ARCS model perspective, the use of projectors also contributes to increased student attention through engaging and dynamic visual displays. Students appear more focused and enthusiastic when learning materials are presented through visual media compared to conventional learning.

However, the use of projectors in learning also requires technical readiness and sound planning. Preparation of equipment, materials, and classroom management are crucial factors for optimal use of learning media. Therefore, ongoing development of technology-based learning support and innovation is essential to support effective learning in Islamic Elementary Schools.

Advantages and Limitations of Interactive Learning Based on Educational Games

The use of projector-based educational games in learning support activities has several advantages. First, it makes learning more engaging and can increase student motivation. Second, students become more active and willing to participate during the learning process. Third, the use of visual media helps students understand the material more easily and creates a more enjoyable learning environment.

Despite these advantages, there are several limitations to implementing educational game-based learning. This activity requires supporting devices such as laptops and projectors, which are not yet evenly available in every classroom. Furthermore, teachers require additional preparation in preparing media and adapting games to the learning material. Technical constraints such as device disruptions can also impact the smoothness of learning activities.

Nevertheless, these limitations do not diminish the effectiveness of using projector-based educational games as an interactive learning alternative. With proper preparation and adequate support facilities, educational game-based learning can be an effective learning innovation to increase student motivation in Islamic elementary schools.

CONCLUSION

Interactive learning support activities through projector-based educational games at MI Ngampangan demonstrated that the use of interactive learning media can create a more active, engaging, and enjoyable learning environment. Learning, which previously tended to be teacher-centered, shifted to a more student-centered approach, enabling students to actively engage in the learning process by answering questions, discussing, and completing challenges within the educational games.

The results showed that the use of projector-based educational games increased students' attention, participation, and motivation to learn. Students appeared more enthusiastic, focused, and confident during the lessons. Furthermore, student interaction and cooperation also improved through discussions and collaboration in completing the educational games.

Based on analysis using the ARCS (Attention, Relevance, Confidence, Satisfaction) model, interactive learning based on educational games was proven to capture students' attention, help them understand the material more relevantly, increase their self-confidence, and provide satisfaction in the learning process. The use of projectors as a supporting medium also plays a crucial role in increasing learning effectiveness through clearer and more interactive visual presentations. Interactive learning support through projector-based educational games can be an effective alternative learning innovation to increase student motivation in Islamic elementary schools. However, the successful implementation of this method still requires supporting facilities, teacher preparedness, and sound learning planning for optimal and sustainable implementation.

REFERENCES

[1] A. Susanto, *Teori Belajar dan Pembelajaran di Sekolah Dasar*. Jakarta: Kencana, 2016.
[2] Rusman, *Model-Model Pembelajaran: Mengembangkan Profesionalisme Guru*. Jakarta: Rajawali Pers, 2018.
[3] Hamzah B. Uno, Teori Motivasi dan Pengukurannya. Jakarta: Bumi Aksara, 2019.
[4] Sardiman, Interaksi dan Motivasi Belajar Mengajar. Jakarta: Rajawali Pers, 2018.
[5] Daryanto, Media Pembelajaran. Yogyakarta: Gava Media, 2017.
[6] Sutarman, dkk., "Pengaruh Game Edukasi terhadap Motivasi Belajar Siswa Menggunakan Model ARCS," *Jurnal Teknologi Pendidikan*, vol. 7, no. 2, pp. 88–97, 2023.
[7] Azhar Arsyad, Media Pembelajaran. Jakarta: Raja Grafindo Persada, 2019.
[8] Evandri. (2024). Development of Interactive Learning Media Based on Wordwall Games to Increase Motivation and Elementary School Students' Learning Interests. Journal of Education and Culture, 4(1). https://journals.ubmg.ac.id/index.php/JEaC/en/article/view/1642
[9] Rakhman, P., Andini, N., Islamiati, A., & Nurrahmah, G. (2024). Elementary School Students' Learning Motivation Through Ludo Education Media. *International Journal of Education, Information Technology, and Others*, 7(4), 133-140. https://jurnal.peneliti.net/index.php/IJEIT/article/view/11113
[10] Ghani, M. T. A., Daud, W. A. A. W., & Manan, K. A. (2024). Integration of the ARCS Motivational Model in Digital Game-based Learning for Sustaining Student Engagement in Communication. *International Journal of Religion*, 5(5), 85–93. https://doi.org/10.61707/sa9ded72