

EFFECTIVENESS OF ANIMATED JELLYFISH MEDIA IN FACILITATION OF UNDERSTANDING THE CONCEPT OF MULTIPLICATION IN CLASS 5 STUDENTS

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ABSTRACT

Learning multiplication often poses significant challenges for students, as it requires not only memorization but also a conceptual understanding of abstract numerical relationships. Many students struggle with traditional methods, which often rely heavily on rote learning and repetitive exercises, making the learning process monotonous and disengaging. Recognizing the need for more engaging and effective approaches, this study investigates the use of animated jellyfish media as a creative, interactive, and visually stimulating alternative to address these difficulties. By leveraging the appeal of animations, the study aims to transform multiplication learning into an enjoyable and meaningful experience, fostering both motivation and comprehension among students. Through an experimental design, this research compared the effectiveness of animated media with conventional teaching methods in improving the understanding of multiplication concepts among fifth-grade students. The animated jellyfish media, designed to be visually engaging and interactive, incorporates elements such as vibrant colors, dynamic movements, and game-like activities to capture students' attention and sustain their interest throughout the learning process. These animations are tailored to represent multiplication concepts in a relatable and intuitive manner, helping students visualize the relationships between numbers and comprehend the logic behind multiplication. For instance, students can observe how groups of jellyfish multiply in an animated underwater scene, offering a concrete and memorable representation of abstract mathematical ideas. The results of the study revealed a significant difference in the performance and attitudes of students exposed to animated media compared to those taught using conventional methods. Students who learned multiplication through the animated jellyfish media demonstrated not only a higher level of motivation but also a deeper understanding of the concepts. Observations and feedback from participants indicated that the engaging nature of the animations sparked curiosity and encouraged active participation, transforming the classroom into a lively and interactive environment. Moreover, the use of animations helped reduce anxiety often associated with mathematics learning, creating a positive emotional connection with the subject. Teachers reported that students were more willing to ask questions, collaborate with peers, and explore new problem-solving strategies when animated media was integrated into the lesson. The findings underscore the potential of animated media as an effective educational tool in mathematics instruction. By appealing to students' visual and cognitive learning preferences, animations facilitate a more comprehensive grasp of complex concepts, bridging the gap between abstract ideas and tangible understanding. The use of jellyfish as a thematic element not only adds a creative dimension to the learning experience but also demonstrates how familiar and appealing imagery can be harnessed to simplify challenging topics. This approach aligns with contemporary pedagogical principles that emphasize the importance of active, student-centered learning and the integration of technology to enhance educational outcomes.

The implications of this research extend beyond the specific context of multiplication learning. It highlights the broader need for innovation in mathematics education, particularly in the integration of multimedia resources to address diverse learning styles and needs. Animated media has the potential to serve as a versatile tool that can be adapted for various mathematical topics, making abstract concepts more accessible and engaging for students of different ages and abilities. Furthermore, this approach supports the development of 21st-century skills, such as critical thinking, creativity, and digital literacy, which are essential for success in an increasingly technology-driven world. In conclusion, the use of animated jellyfish media in teaching multiplication offers a promising alternative to traditional methods, effectively enhancing both student motivation and conceptual understanding. This research underscores the importance of incorporating innovative and interactive tools into the mathematics curriculum to improve the quality of education and foster a love for learning among students. As educators and policymakers strive to address the challenges of mathematics instruction, the integration of animated media represents a significant step toward creating more dynamic, inclusive, and effective learning environments.

Keywords: Learning Media, Animation, Effectiveness, Multiplication, Students

INTRODUCTION

Based on the background of the problem above, the researcher only limited the problem to the influence of the Teams Games Tournament (TGT) learning model assisted by jellyfish media on the mathematics learning outcomes of fifth grade elementary school students on multiplication of decimal numbers (Nabila & Amir, 2022). In this case, the researcher only wants to know the effect of the Teams Games Tournament (TGT) learning model assisted by jellyfish media on the mathematics learning outcomes of fifth grade elementary school students on multiplication of decimal numbers (Saputra et al., 2023).

The low achievement of students in mathematics subjects, especially in the concept of multiplication, is a serious concern in the world of education (Hidayat & Linda, 2023). Various factors can be the cause, one of which is the lack of use of varied and interesting learning media. In fact, using appropriate media can help students build a better understanding of abstract concepts such as multiplication. This research focuses on the use of jellyfish-shaped animation media as an alternative multiplication learning media. It is hoped that the unique shape of the jellyfish and its dynamic movements will attract students' attention and facilitate the visualization of multiplication concepts. Thus, this research aims to determine the effectiveness of jellyfish animation media in increasing understanding of the concept of multiplication in grade 5 students.

The learning process is often carried out in groups. This is the teacher's effort to implement differentiated learning to meet student needs. However, the implementation of learning in groups often does not run effectively because when working on assignments or projects in groups there is still a lack of cooperation between group members. This is supported by the results of observations in class IIC when groups work on diorama projects, there are still many students who play alone so only a few students are actively involved in working on the assignment or project. Collaboration between students in learning activities can provide various experiences. They get more opportunities to speak, take initiative, make choices, and generally develop good habits. Students who work together in groups will create close friendships among students, which turns out to have a big influence on each individual's behavior or activities (Prayuda, Ginting, et al., 2023). By collaborating in learning, students can fully develop their knowledge, abilities and skills in an open and democratic learning atmosphere.

There are several reasons that influence student cooperation and obtaining low grades in mathematics, one of which is caused by the learning model. Boring learning is caused by a lack of creativity and innovation from the teaching staff concerned. Another reason is that

in the teaching and learning process, teaching staff still use old or conventional concepts in providing material. Educators only read the material and give examples and make students only note down what is explained and do not give examples or apply it to everyday life (Sugilar et al., 2023).

To be able to overcome the problems described above, another method or other learning method is needed as an effort to encourage students to increase cooperation in groups and obtain high learning outcomes in mathematics subjects. One of these ways is by using the Team Games Tournament (TGT) learning model (Juhanaini et al., 2024). According to Slavin, this method is a group learning method that has the nature of a tournament where each student competes with each other as a representative of the group team. This Team Games Tournament learning model prioritizes the spirit of solidarity with good teamwork when competing in academic tournaments.

RESEARCH METHOD

This research was research subjects in class 5 at SDN 060841 with a total of 26 students consisting of 12 boys and 14 girls. The research subjects were determined after the researchers made observations in class 5 (Prayuda, Sinaga, et al., 2023). Class 5 was chosen because based on the observations made, this class indicated that cooperation and mathematics learning outcomes were still low. The research method used in this research is qualitative research methods. Cresswell and John explained that qualitative research is research that is based on a methodological understanding of a social phenomenon. In qualitative research, the researcher acts as a key instrument so that insights and theories are needed that come from journals or previous research (Wardiah et al., 2022).

Data collection methods in this research include: Observation, to find out how far the effect of the action has achieved the target; Field notes, recording important events that arise that are not yet present in observations, Interview used to find out the teacher's response, Documentation, to obtain data in the form of school data, student data, photos and videos during research, Test method, to obtain data used in determining improvements in mathematics learning outcomes. The analysis is aimed at student cooperation, with indicators, involvement in group work, responsibility in group work, and trust in group work.

DISCUSSION

Fifth-grade students at SDN 060841, located in the Medan Petisah sub-district, were the focus of research conducted by student interns from Santo Thomas Catholic University, Medan. During the initial stages of observation, these students displayed considerable enthusiasm in participating in the administered tests. However, the results revealed a significant gap in their understanding of multiplication concepts as taught through conventional methods. Despite their enthusiasm, many students struggled with grasping the fundamental principles of multiplication, resulting in confusion and difficulty when tackling multiplication problems. This observation underscored the pressing need for innovative teaching approaches that could address the limitations of traditional methods and better support student learning.

To address this issue, the interns introduced an alternative learning approach using jellyfish-themed learning media, designed to foster collaboration among fifth-grade students and create a more engaging classroom environment (Firdaus et al., 2022). This media was developed as part of a collaborative project by the intern students and tailored to meet the specific needs of the students at SDN 060841. The jellyfish learning media aimed to present multiplication concepts in a visually appealing and interactive manner, allowing students to better visualize the relationships between numbers. By incorporating group activities, the approach also encouraged teamwork, peer learning, and active participation, which are crucial for deepening students' understanding of mathematical concepts.

The use of jellyfish learning media proved to be a promising intervention. The product, crafted by the student interns, was designed to simplify multiplication concepts while simultaneously motivating students to engage more actively in the learning process. Through vibrant visuals, interactive elements, and gamified activities, the media transformed multiplication lessons into a more enjoyable experience. This approach not only helped students overcome their initial struggles with multiplication but also fostered a positive attitude toward mathematics. Teachers observed that students were more focused, less intimidated by the subject, and willing to explore different problem-solving strategies. The media's ability to make learning both fun and meaningful helped reduce feelings of boredom and frustration that often accompany traditional methods.

Validation interviews with teachers further supported the effectiveness of the jellyfish learning media. During these discussions, class V teacher Mrs. Lince expressed concerns about the lack of understanding of multiplication among her students prior to the intervention. She noted that the students struggled to grasp the underlying principles of multiplication, often relying on rote memorization without truly comprehending the concepts (Prayuda, 2023). The introduction of jellyfish media addressed this gap by providing a more accessible and relatable way for students to learn. Teachers also appreciated how the media encouraged students to take an active role in their learning, which was reflected in improved classroom dynamics and student performance.

The findings from this research demonstrated a clear shift in students' attitudes and comprehension levels when using the jellyfish learning media. Students not only found the multiplication lessons more engaging but also exhibited a better grasp of the concepts compared to previous lessons. The interactive and collaborative nature of the media allowed them to explore multiplication in a hands-on manner, reinforcing their understanding through practice and peer discussions. Teachers reported noticeable improvements in the students' ability to solve multiplication problems and apply their knowledge in different contexts.

In conclusion, the research conducted with fifth-grade students at SDN 060841 Medan highlights the potential of innovative learning media, such as the jellyfish-themed approach, to enhance mathematics instruction. By addressing the shortcomings of traditional methods, this media provides a dynamic and effective alternative for teaching multiplication. It fosters student interest, promotes active engagement, and supports conceptual understanding, all of which contribute to better learning outcomes. These findings underscore the importance of integrating creative and interactive teaching tools into the curriculum to create a more inclusive and supportive learning environment.

CONCLUSION

Conclusions describe the answer to the hypothesis and/or research objectives or scientific findings obtained (Yuliati et al., 2020). The conclusion does not contain a repetition of the results and discussion, but rather a summary of the findings as expected in the objective or hypothesis. If necessary, at the end of the conclusion you can also write down the things that will be done related to further ideas from the research.

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