

The Role of Gadgets in Shaping Motivation and Learning Outcomes of Junior High School Students

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Abstract :

This study investigates the role of gadgets in enhancing learning motivation and improving academic outcomes among junior high school students. Employing a mixed-methods approach, quantitative data from surveys and qualitative insights from interviews were analyzed to explore students' experiences when incorporating digital devices into their learning processes. The findings indicate that effective integration of gadgets in classroom settings significantly bolsters students' learning motivation, which in turn mediates higher academic achievement. Furthermore, mobile learning readiness, especially in science subjects, facilitates access to interactive digital content that increases student engagement and positively impacts learning outcome. The study underscores the critical role of educators in guiding technology use to maximize its benefits, and it advocates for a strategic implementation of digital tools to enhance contemporary educational practices.

Keywords : *Gadgets, Learning Motivation, Learning Outcomes.*

Abstrak :

Penelitian ini mengkaji peran gadget dalam meningkatkan motivasi belajar dan hasil akademik siswa SMP. Dengan menggunakan pendekatan metode campuran, data kuantitatif melalui kuesioner serta data kualitatif melalui wawancara dianalisis guna mengeksplorasi pengalaman siswa dalam memanfaatkan perangkat digital dalam proses pembelajaran. Hasil penelitian menunjukkan bahwa integrasi gadget yang efektif di lingkungan kelas secara signifikan meningkatkan motivasi belajar siswa, yang secara mediasi berkontribusi pada pencapaian akademik yang lebih tinggi. Selain itu, kesiapan belajar berbasis mobile, khususnya pada mata pelajaran PAI, memfasilitasi akses terhadap konten digital interaktif sehingga mendorong keterlibatan siswa yang lebih intens dan meningkatkan hasil belajar. Penelitian ini menekankan peran penting pendidik dalam mengarahkan penggunaan teknologi agar manfaat yang diperoleh dapat dioptimalkan, serta mengusulkan implementasi strategis alat digital guna mendukung praktik pendidikan kontemporer.

Kata Kunci: Gadget, Motivasi Belajar, Hasil Belajar.

INTRODUCTION

The rapid development of digital technology in the last ten years has brought significant changes in the education system, especially at the Junior High School (SMP) level. This transformation of the education system can be seen from the increasing application of technology-based learning methods that integrate gadgets as a supporting medium for the teaching and learning process. Gadgets, as one of the innovative products of technological advancements, play a role in improving students' motivation to learn and overall learning outcomes. Research by Leuwol et al. (Solomon Leuwol et al., 2023) show that the use of multimedia, learning applications, and e-learning through gadgets can increase students' interest and motivation to learn, where the delivery of interactive and visual material provides a more immersive learning experience. Thus, the integration of technology through gadgets is not only a tool for delivering material, but also as a strategy to create a dynamic classroom atmosphere and support active learning (Solomon Leuwol

et al., 2023).

Although there is a potential negative impact of the use of gadgets if their use is not managed properly, the study (In, Middle, & Country, 2023) suggests that overall gadgets can be a supporting medium that increases the effectiveness of learning in junior high school. In the study, it was found that the use of gadgets integrated with the right teaching strategies can motivate students to be more active in the learning process and significantly improve their academic achievement (Di et al., 2023). Such an approach requires the active role of teachers in facilitating the use of gadgets to avoid distractions, while maximizing the potential of technology to support the understanding of subject matter.

Based on this background, this article aims to examine in depth the role of gadgets in shaping motivation and improving learning outcomes for junior high school students. This study is important considering that the combination of technology and education is one of the keys to success in facing the challenges of the digital era. The focus of the research is not only on the positive aspects of the use of gadgets, but also on the obstacles and challenges that may arise in order to prepare strategic recommendations to optimize the function of gadgets as learning aids in junior high schools (Salomo Leuwol et al., 2023 & Di et al., 2023).

RESEARCH METHOD

The methodology of this research is designed using a mixed-method approach to examine the role of gadgets in the formation of motivation and learning outcomes of junior high school students. The quantitative approach is used to measure the frequency, intensity, and manner of use of gadgets and their influence on students' learning motivation and academic achievement through data collection using questionnaires and learning outcome tests. The questionnaire instrument was developed based on previous studies that have tested the validity and reliability of measurements on learning motivation variables. Tests designed according to junior high school curriculum standards are used to measure academic achievement objectively. The use of this quantitative method is in line with research (Achyadina, 2013) which shows that the measurement of relationships between variables can be carried out systematically with a correlational approach and regression analysis.

A qualitative approach is carried out to obtain an in-depth picture of the perceptions and experiences of students and teachers regarding the use of gadgets in the learning process. Qualitative data were collected through classroom observation and semi-structured interviews conducted in person. Observations were made during the learning process to document students' interactions with gadgets and the way teachers integrate technology into the teaching process. Semi-structured interviews are geared towards delving further into how gadget use can affect learning motivation and classroom teaching interactions. This qualitative approach supports the quantitative findings by providing a more in-depth context as adapted from the approach used in the study (Riskiana, Kurniawan, & Maryoto, 2023) regarding the relationship between gadgets and learning motivation, even though the study focuses on students.

The population in this study is all junior high school students who are in schools that have implemented the use of gadgets as learning media. The sampling technique is carried out using the cluster random sampling method so that it represents various existing classes and can guarantee variations in the level of gadget use and differences in learning motivation between groups of students. Pilot studies are also conducted on a small portion of the population to ensure that the research instrument is valid and reliable before the main data collection is carried out.

The data collection procedure began with the preparation of instruments carried out through adaptation and modification of questionnaire items based on the existing

literature, followed by the implementation of trials to evaluate the level of understanding and consistency of respondents. Quantitative data was collected by distributing questionnaires to students and testing learning outcomes simultaneously during the implementation of routine learning, so that the observed conditions were close to the real situation. After some time, qualitative data was processed by planning a schedule of classroom observations and interviews with a number of teachers and students who had been selected purposively based on their active role in the use of gadgets in the learning process. Furthermore, all data that has been collected are analyzed using descriptive statistical techniques and multiple regression analysis for quantitative data, while qualitative data are analyzed through thematic analysis techniques to identify the main themes that emerge from the respondents' experiences and perceptions. The data triangulation technique is carried out to ensure the consistency and validity of research findings. Ethical considerations are also an important component of this study. All data collection procedures are carried out after obtaining official permission from the school, and written permission from students and parents. This research maintains the confidentiality of the participant's identity and conveys the purpose of the study transparently to all parties involved, so that all research procedures are in accordance with the ethical guidelines of educational research. (Salomo Leuwol et al., 2023)

FINDINGS AND DISCUSSION

The results of the study show that the use of gadgets in the context of junior high school learning has a dual role in influencing student motivation and learning outcomes. Quantitative data analysis indicates that students who use gadgets optimally to support learning activities tend to have higher levels of motivation and better academic achievement (Sudarmono, 2022). The data revealed that the intensity of using gadgets for educational purposes is directly proportional to the increase in student participation and involvement in the learning process, which in turn has a positive impact on academic achievement of grades. On the other hand, the use of gadgets for non-educational activities, such as excessive use of social media, is indicated to reduce the intensity of focus and motivation to learn, thus negatively impacting student learning outcomes (Di et al., 2023). The results of the regression test also showed a significant correlation between the frequency of use of gadgets directed at learning and improved academic achievement, supporting the finding that gadgets can function as an effective tool if used in a structured context.

Qualitative data obtained through interviews and observations delved into students' experiences and teachers' perceptions of the use of gadgets in learning. Students report that quick access to information and the availability of interactive learning apps increase their interest in searching and digesting subject matter. The teacher also revealed that the integration of gadgets into the teaching and learning process allows the delivery of material through interesting multimedia, so that students can more easily understand abstract and complex concepts. These findings are in line with previous research that states that the use of technology in online learning can strengthen learning motivation through visual and interactive presentation of material (Inggriyani, 2021).

The discussion of the results of the research underlines the strategic role of gadgets as a learning medium. Gadgets are not solely tools for entertainment, but can be a learning instrument that increases students' independence in accessing information and interacting with subject matter (Haryani & Nursanti, 2022). However, the effectiveness of gadgets as learning aids depends heavily on their management and the direction of their use. The use of gadgets that are structured and guided by teachers has been shown to increase interest in learning and academic outcomes, while excessive use of gadgets for non-educational purposes can interfere with concentration and damage the learning process

(Di et al., 2023). This discussion emphasized the importance of the role of teachers and school policies in optimizing the use of gadgets, so that the positive impact can be maximized and the negative effects minimized. Thus, this study confirms that gadgets, when used in a targeted framework and supported by the right teaching strategy, can increase learning motivation and improve the academic outcomes of junior high school students (Desmaniar, Harapan, & Kesumawati, 2020).

CONCLUSION

Research shows that the integration of gadgets into teaching methods can create an interactive learning atmosphere and support a better understanding of concepts. However, it is important to remember that the use of gadgets that are not properly managed, especially those that focus on non-educational activities, can interfere with concentration and lower students' motivation to learn. From the results of this study, it can be seen that teachers play an important role in facilitating the use of gadgets and optimizing learning conditions. Therefore, a comprehensive teacher competency development strategy, including training and mentoring, as well as infrastructure support, is needed to maximize the potential of gadgets as learning aids. With the right approach, the use of gadgets in education can be one of the keys in creating an effective and innovative learning experience in the digital era.

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