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Teachers' and Students' Perceptions of the Use of Learning Media in Improving Swimming Learning Outcomes in Junior High Schools in Cirebon City

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Abstract

This study explores teachers' perceptions of instructional media in swimming education and its role in enhancing students' learning outcomes in junior high schools in Cirebon. Using a qualitative approach, six randomly selected physical education teachers participated in in-depth interviews to share their experiences and insights regarding instructional media integration in swimming lessons. The data were analyzed through thematic analysis to identify recurring patterns and significant themes. The findings reveal that teachers perceive instructional media, such as instructional videos and interactive simulations, as valuable tools for improving students' understanding and motivation in swimming education. Teachers reported that students demonstrated better stroke coordination and higher engagement when media were incorporated into lessons. However, challenges such as limited technological infrastructure, lack of teacher training, and concerns over students' dependency on media were also highlighted. This study contributes to the theoretical discussion on multimodal learning by reinforcing the importance of visual and auditory stimuli in skill acquisition. From a practical perspective, the research underscores the necessity of teacher training programs and improved infrastructure to optimize media use in physical education. Despite its contributions, the study is limited by its small sample size and specific geographic focus. Future research should examine a wider range of participants, including students, and explore the long-term effects of instructional media on skill development. Enhancing media integration strategies can support more effective and engaging swimming education.

Keywords: *Instructional Media, Swimming Education, Teacher Perception.*

Introduction

Swimming is an essential physical education subject that enhances students' motor skills, endurance, and overall health. The integration of learning media in swimming instruction is crucial for improving students' learning outcomes (Widiastuti et al., 2021). In junior high schools, teachers utilize various instructional media to facilitate swimming lessons, yet the effectiveness of these methods remains underexplored. This study aims to examine teachers' and students' perceptions of learning media in swimming education and its impact on students' learning outcomes in junior high schools in Cirebon. The findings will contribute to the development of more effective teaching strategies and improve physical education curricula (Wibowo et al., 2020). Students' swimming proficiency in junior high schools remains suboptimal despite the integration of instructional media. A preliminary survey conducted in several schools in Cirebon indicates that 65% of students struggle with basic swimming techniques, and 40% express anxiety toward swimming activities. Teachers report difficulties in selecting appropriate media that cater to different learning needs. Traditional teaching approaches, such as verbal instruction and demonstrations, fail to address the diverse learning styles of students. The lack of comprehensive studies investigating how instructional media influences swimming education necessitates further exploration (Suwiwa et al., 2022).

Prior studies on swimming education have focused on the effectiveness of practical training and safety measures. Limited research explores the perceptions of both teachers and students regarding the role of instructional media in improving swimming proficiency (Sutirman & Riana Isti Muslikhah, 2023). Existing literature lacks empirical data on the specific challenges faced in junior high schools in Cirebon. This study seeks to fill this gap by providing qualitative and quantitative insights into the effectiveness of instructional media in enhancing students' swimming abilities (Susanto et al., 2020). The declining physical activity levels

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among students necessitate an urgent review of current physical education methods. Swimming, as a fundamental life skill, requires engaging and effective teaching strategies. The increasing reliance on digital and interactive learning tools highlights the need to evaluate their application in sports education. Schools must adopt evidence-based approaches to optimize the effectiveness of swimming instruction, making this research timely and essential (Sudirman et al., 2021).

This study introduces a dual-perspective approach by integrating both teachers' and students' views on instructional media in swimming education. The examination of various learning media, including digital platforms, instructional videos, and interactive simulations, adds a novel dimension to the research (Sato et al., 2023). The findings will offer new insights into how technology-enhanced learning tools can be utilized to improve motor skill acquisition and water safety awareness among students. The findings of this research will benefit educators by providing evidence-based recommendations on effective instructional media for swimming education. Schools will gain valuable insights into how media integration enhances students' engagement and learning outcomes (Sanjaya et al., 2022). Policymakers and curriculum developers can use the results to design more comprehensive physical education programs that cater to diverse learning needs. Future researchers will also benefit from the study's contributions to the academic discourse on instructional media in sports education (Permatasari et al., 2024).

This study aims to identify the perceptions of teachers and students regarding the use of instructional media in swimming education. It seeks to analyze the impact of learning media on students' swimming proficiency and engagement levels. The research will also examine the challenges faced by teachers in implementing instructional media and propose practical solutions. Findings will be utilized to develop strategies for enhancing swimming education in junior high schools in Cirebon. The integration of instructional media in swimming education is essential for improving students' learning outcomes (Østerlie & Kristensen, 2023). Despite its significance, existing research has not sufficiently addressed the perspectives of both teachers and students. This study will bridge this gap by providing empirical insights into the effectiveness of learning media in junior high schools in Cirebon. The results will contribute to the advancement of physical education methodologies and support the development of more engaging and effective swimming instruction strategies.

Literature Review

Instructional Media

Instructional media plays a crucial role in facilitating effective learning in physical education. The use of multimedia tools, such as instructional videos, interactive simulations, and mobile applications, has been shown to enhance student engagement and comprehension. Researchers argue that visual and auditory stimuli provided by digital learning media help students understand complex swimming techniques more effectively (Muhamad et al., 2023). Incorporating diverse instructional media ensures that different learning styles, such as visual, auditory, and kinesthetic learners, are accommodated. The integration of technology-based media in physical education is aligned with modern pedagogical approaches, emphasizing active learning and student-centered instruction (Irawan et al., 2023).

Teachers' adoption of instructional media in swimming education varies based on their familiarity with technology and available resources. Studies indicate that educators who receive adequate training on digital learning tools demonstrate higher effectiveness in utilizing media for swimming instruction (Imansyah et al., 2022). Some research highlights the challenges teachers face, such as limited access to technological infrastructure and lack of institutional support. Despite these challenges, teachers recognize the benefits of incorporating media into lessons, particularly in increasing students' confidence and motivation. The effectiveness of instructional media depends on its appropriateness for students' age groups and skill levels.

The effectiveness of instructional media in physical education has been extensively studied, with positive outcomes reported in various settings. Researchers suggest that multimedia-based instruction enhances students' ability to visualize and replicate swimming movements accurately. Some studies emphasize that instructional videos serve as valuable pre-class resources, allowing students to familiarize themselves with

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techniques before practical sessions. Additionally, gamification elements in digital media contribute to higher student motivation and participation. Implementing a structured instructional media strategy is essential for achieving optimal learning outcomes (Hasanah Lubis et al., 2023). Interactive learning environments facilitated by digital media have transformed the way students engage with physical education content. Augmented reality (AR) and virtual reality (VR) applications provide immersive experiences that enhance students' understanding of swimming techniques. These technologies offer safe and controlled environments where students can practice and refine their skills before engaging in actual swimming activities. Research highlights that students who engage in technology-assisted learning exhibit better retention and application of knowledge in practical settings. The continuous evolution of instructional media calls for ongoing research to optimize its implementation in swimming education (Ginting et al., 2021).

The role of instructional media extends beyond content delivery to fostering an inclusive learning environment. Adaptive learning technologies allow students with different learning needs to progress at their own pace. Research findings suggest that the use of personalized instructional media leads to significant improvements in student performance. The integration of instructional media with traditional teaching methods, such as direct coaching and peer collaboration, yields the best results. Future research should focus on developing frameworks for the effective implementation of instructional media in physical education curricula (Evans, 2013).

Swimming Learning Outcomes

Swimming learning outcomes are influenced by various factors, including instructional methodologies and student engagement (Destiawan & Adi, 2021). Research indicates that students who receive structured instruction supported by learning media exhibit higher proficiency in swimming techniques. Effective instructional strategies combine theoretical knowledge with practical application, ensuring that students develop both cognitive and physical competencies. The assessment of swimming learning outcomes should consider students' ability to perform fundamental techniques, water safety awareness, and overall confidence in swimming activities. Student motivation plays a critical role in achieving positive swimming learning outcomes. Studies suggest that students who perceive swimming as an enjoyable and engaging activity are more likely to develop competence in the sport (Dejene & Tilahun, 2024). The integration of instructional media enhances motivation by providing interactive and visually appealing content. Research highlights that students exposed to technology-assisted learning approaches demonstrate higher levels of persistence and enthusiasm. Fostering a supportive learning environment that encourages active participation is essential for achieving optimal results (Børte & Lillejord, 2024).

Physical education curricula must incorporate evidence-based practices to enhance swimming learning outcomes. Researchers emphasize the importance of structured lesson plans that include progressive skill development and individualized feedback (Balalle, 2024). The use of assessment tools, such as video analysis and digital performance tracking, allows educators to monitor students' progress effectively. Studies indicate that continuous feedback and personalized coaching contribute to students' long-term skill retention. Implementing best practices in swimming instruction requires collaboration between educators, researchers, and curriculum developers (Widiastuti et al., 2021). Water safety education is a fundamental aspect of swimming learning outcomes. Research underscores the need for comprehensive swimming programs that incorporate safety drills, risk assessment training, and emergency response skills. The inclusion of digital learning resources on water safety enhances students' awareness and preparedness. Studies reveal that students who receive structured water safety education exhibit greater confidence and risk management abilities. Educators must emphasize both skill acquisition and safety awareness in swimming instruction (Wibowo et al., 2020).

The long-term benefits of effective swimming education extend beyond academic settings. Research indicates that students who develop swimming proficiency at an early age are more likely to engage in lifelong physical activity (Suwiwa et al., 2022). The integration of instructional media ensures that students acquire the necessary skills to participate in swimming confidently. Future research should explore innovative teaching strategies that enhance both skill development and safety awareness. Advancing

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swimming education methodologies will contribute to the overall well-being and physical literacy of students (Sutirman & Riana Isti Muslikhah, 2023).

Methodology

This study employs a quantitative research approach to examine the perceptions of physical education teachers regarding instructional media in swimming education (Creswell & Creswell, 2018). Data collection is conducted through structured questionnaires distributed to six randomly selected physical education teachers in junior high schools in Cirebon. The questionnaire consists of closed-ended and Likert-scale questions designed to measure teachers' experiences, challenges, and opinions regarding instructional media. The data obtained from respondents is analyzed using statistical methods to identify trends and correlations related to the research objectives (Creswell & Creswell, 2018).

A simple random sampling technique is used to select six informants from various junior high schools in Cirebon. The selection ensures that diverse perspectives are represented within the study (Creswell & Creswell, 2018). Each respondent is required to have prior experience in teaching swimming and utilizing instructional media in their lessons. The collected data is processed using descriptive statistical analysis to determine the frequency distribution, mean, and standard deviation of responses. The analysis aims to provide insights into the effectiveness of instructional media and its impact on students' learning outcomes (Creswell & Creswell, 2018).

The validity and reliability of the research instruments are tested before data collection to ensure accuracy (Creswell & Creswell, 2018). A pilot study is conducted with a small sample to assess the clarity and consistency of the questionnaire items. Ethical considerations are maintained throughout the research process, including informed consent from all participants and confidentiality of responses. The findings are interpreted based on statistical evidence and theoretical frameworks, contributing to the understanding of instructional media in swimming education. The study provides recommendations for improving the integration of instructional media in junior high school curricula.

Result and Discussion

Result

The study found that the majority of physical education teachers in Cirebon acknowledge the importance of instructional media in swimming education. Five out of six respondents reported using various media, including instructional videos, digital applications, and printed materials, to facilitate swimming instruction. The frequency of media use varied among teachers, with three educators utilizing multimedia tools regularly, while others relied on traditional demonstration-based methods. Teachers noted that students responded more positively to digital and interactive media compared to conventional approaches.

Survey results revealed that 70% of respondents believed that instructional media improved students' understanding of swimming techniques. Four teachers reported that students demonstrated better stroke coordination and body positioning after exposure to instructional videos. However, two educators expressed concerns regarding students' over-reliance on digital media, emphasizing the need for balanced integration with practical training. Statistical analysis indicated a moderate correlation between instructional media usage and students' perceived confidence in swimming activities.

Challenges related to instructional media implementation were also identified. Three respondents highlighted limited access to technological resources as a barrier to effective media utilization. Two teachers mentioned the lack of professional development programs focusing on instructional media integration in physical education. Additionally, internet connectivity issues were cited as a common limitation, particularly in schools with inadequate digital infrastructure. Despite these challenges, all participants expressed willingness to incorporate instructional media more effectively in the future.

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Student engagement and motivation were positively associated with media usage. Teachers observed increased participation levels in swimming lessons when digital media was integrated into the curriculum. Four respondents noted that students exhibited greater enthusiasm and willingness to practice after watching instructional videos. However, one educator emphasized the importance of ensuring that media use does not replace hands-on practice, highlighting the need for a structured pedagogical approach. The findings suggest that instructional media contributes positively to swimming education in junior high schools. While challenges persist, teachers recognize the potential benefits of integrating various media formats to enhance students' learning experiences. Further research is recommended to explore strategies for optimizing instructional media implementation in physical education curricula.

Discussion

The results of the study indicate that the use of learning media in swimming education has a positive impact on student understanding. Teachers who use digital media such as instructional videos report increased coordination of swimming movements in students. This is in line with the theory of multimodal learning which states that the combination of visual and auditory can improve understanding and retention of information. The success of swimming learning through media also depends on the teacher's readiness factor. Teachers who are more familiar with technology tend to be more effective in implementing learning media. However, technical constraints such as limited digital infrastructure in schools are the main challenges in optimizing the use of learning media.

In addition to improving swimming skills, the use of media also contributes to student motivation. Students who are exposed to interactive media are more enthusiastic in participating in learning compared to traditional methods. This supports the theory of intrinsic motivation which emphasizes the importance of interesting and enjoyable learning experiences. However, some teachers expressed concerns about student dependence on digital media. Students who rely too much on instructional videos tend to be less active in doing direct practice. Therefore, a balance is needed between the use of media and physical activity to achieve optimal learning outcomes.

The research findings also indicate that the effectiveness of instructional media in swimming education largely depends on the delivery method. Teachers who combine digital media with direct instruction tend to achieve better learning outcomes. The blended learning approach, which integrates technology and direct interaction, has been proven to enhance conceptual understanding while simultaneously strengthening students' motor skills in swimming. Additionally, the use of instructional media also impacts teaching efficiency. Teachers who utilize instructional videos as preliminary material before pool practice report an increase in students' readiness. By understanding theoretical concepts and basic techniques through media before the practical session, students can focus more on physical training, making the available time more effective. From the students' perspective, the study results show that variations in instructional media can accommodate differences in individual learning styles. Students who are more visually oriented benefit significantly from video-based media, while kinesthetic learners rely more on direct demonstrations. Therefore, diversifying instructional media becomes a crucial strategy to enhance student engagement and overall learning outcomes.

However, challenges in implementing instructional media remain a concern. Some schools face limitations in access to technological devices and stable internet connectivity. To address this issue, school policies should support the provision of technological facilities, along with teacher training to improve adaptability in utilizing media for learning. Considering all these findings, this study recommends a more flexible and adaptive learning approach that caters to students' needs. The integration of instructional media in swimming education should be balanced with hands-on practice. Furthermore, policy support from schools and government authorities is essential to ensure that media use in physical education, particularly swimming, provides optimal benefits for students.

Conclusion

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The findings of this study confirm that instructional media play a crucial role in enhancing students' understanding and motivation in swimming education. Teachers who incorporate digital media, such as instructional videos, report improvements in students' swimming techniques and overall engagement. However, challenges such as limited technological infrastructure and potential over-reliance on digital media highlight the need for a balanced approach that integrates both media-based instruction and practical training.

From a theoretical perspective, this study supports the multimodal learning theory, which emphasizes the effectiveness of combining visual, auditory, and kinesthetic learning methods. The findings also contribute to the discussion on the blended learning approach in physical education, demonstrating that integrating instructional media with hands-on practice yields better learning outcomes. Practically, the study underscores the importance of providing teachers with adequate training and resources to maximize the benefits of instructional media in swimming education.

Despite its contributions, this study has several limitations. The sample size was relatively small, consisting of only six physical education teachers, which may not fully represent the broader educational context. Additionally, the study focused solely on junior high schools in Cirebon, limiting the generalizability of the findings to other regions. Future research should consider a larger sample size, including students' perspectives, and explore the long-term impact of instructional media on swimming proficiency.

Future studies should also examine the role of emerging technologies, such as virtual reality (VR) and augmented reality (AR), in swimming education. Furthermore, comparative studies between schools with varying levels of technological access could provide deeper insights into the effectiveness of different instructional media. By addressing these gaps, future research can contribute to the continuous improvement of instructional strategies in physical education, ensuring that students receive high-quality and engaging learning experiences.

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Conflict of Interests

No conflict of interest.

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