Implementing an Audiovisual-Based Flipped Learning Model to Increase Interest in Learning Pencak Silat

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Abstract

Interest in learning among students is a crucial element for achieving success in physical education, especially in pencak silat material which requires active participation from students. However, in learning pencak silat at the secondary school level, problems are often found such as low student interest and involvement, which is caused by traditional teaching methods. This research aims to increase students' interest in learning through the use of a flipped learning model with the support of audiovisual technology media in learning pencak silat. This study uses the Classroom Action Research (CAR) approach developed by Kemmis and McTaggart, which was carried out in two cycles with the pre-cycle stage as the initial condition. The subjects in this research consisted of 32 class XII students at State Senior High School 1 Pabuaran. Data regarding student interest in learning was collected through a questionnaire adapted from Budiono (2012) and has been tested for validity and reliability. Data processing was carried out in a quantitative descriptive manner using the overall percentage of success. The findings of this research show a significant increase in students' interest in learning, which rose from 38% in pre-cycle to 72% in cycle I and increased again to 91% in cycle II. The innovation of this research lies in combining the flipped learning model with audiovisual media which is applied in a structured manner in pencak silat learning at the secondary school level. These results indicate that the application of flipped learning supported by audiovisual technology is very effective in increasing students' interest in learning pencak silat.

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INTRODUCTION

Physical education is an educational process that uses physical activity as the primary means to develop physical fitness, motor skills, and social values such as cooperation, sportsmanship, and discipline (Griggs & Randall, 2025). Interest in learning plays a crucial role in determining student success in physical education, sports, and health (Asrar et al., 2024). According to the Big Indonesian Dictionary (KBBI), interest is a strong inclination toward something, passion or desire. Interest in learning is defined as a person›s attraction and drive accompanied by attention and active participation in the learning process, which will influence changes in students› knowledge, attitudes, and skills (Halawa & Malaisari, 2023). When interest in learning is high, it encourages students to be actively involved, thus optimally improving learning outcomes (Arif et al., 2025). Interests can change from external to internal forms over time, depending on how deeply the behavior is integrated within the individual (Østerlie & Mehus, 2020).

In physical education (PE), pencak silat serves not only as a sport but also as a cultural heritage with important values that must be preserved through formal education (Bakti, 2024). Pencak silat, a UNESCO-recognized Indonesian martial art, is increasingly being incorporated into physical education curricula using various learning models and media (A. Putra & Yani, 2023). Physical education develops physical fitness, motor skills, character, and cultural values. Therefore, pencak silat learning needs to be supported by active student participation stemming from a strong interest in learning (Jarniarli & Aisyah, 2024).

However, at State Senior High School 1 Pabuaran, student interest in pencak silat remains relatively low. Based on observations and interviews with PE teachers, several factors contribute to this low interest, including teachers› poor mastery of the material, traditional teaching methods, and the minimal use of engaging media. This results in low student participation in learning and low involvement in extracurricular pencak silat activities. Therefore, innovation is needed in the application of learning models and teaching media. Through the application of flipped learning assisted by audio-visual technology media, there is the potential to increase student motivation, understanding, and interest (Rutkiene et al., 2022).

With technological advancements, innovation in learning has become crucial to increase student engagement. One alternative is the flipped learning model, which focuses on creating opportunities for active engagement (Kari, 2014). The flipped learning model transforms the process of understanding material into an out-of-class activity via digital media, while classroom time is used for interactive activities such as discussions and technical practice. The use of audio-visual media is considered effective in helping students understand pencak silat concepts and techniques in a more engaging way, through a combination of sound and images that strengthen understanding (J. Lubis et al., 2022). Flipped learning has four pillars, namely: 1. Flexible Environment: A learning environment that can be adapted to students› needs and learning styles. 2). Learning Culture: Creating a collaborative, active learning culture that encourages student engagement. 3). Intentional Content: Using carefully prepared content that is relevant to learning objectives. 4). Professional Educator: A teacher who has professional knowledge, skills, and attitudes in facilitating learning. The most important aspect is that teaching can be rethought to maximize the most scarce learning resource, namely time (Bill Tucker, 2012).

Previous studies reveal that the flipped learning model with the support of audiovisual media has the potential to increase student participation and learning achievement in various educational domains, including sports lessons in general. However, there are still very few empirical studies evaluating the application of this learning model in learning culturally based martial arts, especially pencak silat. Most existing research focuses more on outcomes related to cognitive and skills, while aspects of learning interest in the affective domain tend to receive less attention, especially in secondary level physical education environments.

Therefore, this research aims to test the effectiveness of implementing the flipped learning model which utilizes audiovisual media in fostering students› interest in learning about pencak silat subjects in sports classes. The added value of this research lies in its focus on combining the Flipped learning model and the use of audiovisual media in the context of classroom action research to increase interest in learning pencak silat, a traditional martial art that is rich in cultural and psychomotor aspects. It is hoped that this research can provide alternative strategies to increase student interest and serve as a reference for other schools in implementing pencak silat learning in more innovative ways.

METHOD

The method used by the researchers in this study was Classroom Action Research (CAR) (Kemmis & McTaggart., 2014), which includes the following steps: planning, implementation, observation, and reflection. The research project was conducted in two cycles, beginning with a pre-cycle phase to determine students' learning interests at the beginning. Each cycle consisted of two meetings, with a time allocation of 3 x 45 minutes per meeting. This time allocation was adjusted to the school's lesson schedule. According to Utomo et al., (2024), classroom action research is based on the consideration that this method can provide more information by taking direct action based on the problems in the field.

The research began with the planning stage, which involved creating a teaching module, followed by compiling the necessary preparations. Implementation was carried out by implementing the teaching module, actions during the first cycle, observations were conducted during the actions, analytical discussions were conducted after the actions were implemented, and reflections were conducted on the activities that had taken place in the first cycle. This was followed by planning corrections to improve the research implementation in the second cycle.

A research subject is something being studied, whether it be a person, object, or institution, from which conclusions will be drawn (Praktis & Peneliti, n.d.). The subjects in this study were 12th-grade students from State Senior High School 1 Pabuaran, with a total of 32 students consisting of 9 boys and 23 girls. The research method employed the Flipped learning model, which utilizes audio-visual technology for pencak silat material. Students were provided with learning videos to study before the in-person session. During class, activities focused on discussions, skills practice, and conceptual reinforcement of pencak silat.

Research instruments are measuring tools selected and used to assist in the data collection process, making the research activities streamlined and systematic (Makbul, 2021). The measuring tool used in this study was a learning interest questionnaire adapted from Budiono, (2012). The questionnaire uses a Likert 4 scale with answer options, namely "Strongly Agree (SS)," "Agree (S)," "Disagree (TS)," and "Strongly Disagree (STS)." This tool functions to observe changes in student learning interest before the action (pre-cycle), in cycle I, and in cycle II. This questionnaire has been tested as an instrument on subjects in different classes and has been tested for validity and reliability, so it can be used well in this study.

Data analysis is the process of organizing and classifying data into patterns, categories, and basic units. In this way, themes can be identified and hypotheses can be formulated from the data (Octaviani & Sutriani, (2019). For data collection, the techniques used included questionnaires, observations of student learning activities, and documentation of the learning process. The data obtained were analyzed using quantitative descriptive analysis methods, comparing learning interest in the pre-cycle, cycle I, and cycle II to evaluate the increase in student interest after implementing the Flipped learning model based on audio-visual technology. The researchers used a percentage analysis technique.

The data percentage formula used follows the formula according to (Sudijono, 2012)

$$P = f : n \times 100\%$$

Where:
P = Percentage
F = Frequency being sought
N = Number of Cases (Total frequency or number of individuals)

To provide meaning to the existing scores, a form of categorization or grouping is required according to the existing levels. The categories consist of five groups: Very High, High, Medium, Low, and Very Low. This categorization uses the mean (M) and standard deviation (SD).

Table 1. Score classification table with mean and standard deviation

Interval	Category
M + 1,5 SD < X	Very High
M + 0,5 SD < X ≤ M + 1,5 SD	High
M – 0.5 SD < X ≤ M + 0,5 SD	Medium
M – 1,5 SD < X ≤ M – 0.5 SD	Low
X ≤ M - M – 1,5 SD	Very Low

RESULTS AND DISCUSSION

The increase in students' interest in learning pencak silat can be seen through the percentage of students' interest completion, as measured by a questionnaire adapted from (Budiono, 2012).

This **Table 2** illustrates the increase in student learning interest at each phase of the research. In the pre-cycle phase, only 38% of students achieved completion and 62% were incomplete, indicating a lack of enthusiasm, low understanding, and minimal participation in pencak silat

learning. However, after implementing the flipped learning method and instructional videos in cycle I, this interest increased to 72%. This indicates that students began to show interest and actively participate in the learning process.

Table 2. Students Learning Interest Across Pre-cycle, Cycle I, and Cycle II

Research Stage	Students Achieving Interest	Interest Achievement (%)	Students Not Achieving Interest	Interest Achievement (%)	Average Score
Pre-Cycle	12	38%	20	62%	76
Cycle I	23	72%	9	28%	82
Cycle II	29	91%	3	9%	87

Then, in cycle II, there was another increase, reaching 91%, indicating that the majority of students showed a high level of interest in pencak silat learning. This demonstrates that the flipped learning model, supported by audiovisual media, is highly effective in helping students more easily understand pencak silat techniques in a more engaging manner, thus boosting their motivation and participation.

The average learning interest before the cycle was 76%, with classical completion only reaching 38%, leaving many students in the very low to moderate interest category. After using the audiovisual-based flipped learning model in cycle I, the average score rose to 82, with completion reaching 72%. This improvement continued in cycle II, with an average score of 87 and completion reaching 91%, indicating that most students had reached the high and very high interest categories. The gradual increase in classical mastery from 38% to 91% indicates that the flipped learning method supported by audiovisual content was quite successful in increasing student interest in physical education in the context of martial arts.

This increase aligns with previous research showing that flipped learning can enhance self-directed learning, encourage student participation, and deepen their understanding of the material through interactive classroom activities (Julinar & Yusuf, 2019). The use of audiovisual media also plays a significant role in increasing student motivation and helping them understand movements more clearly, which contributes to cognitive and emotional engagement, as expressed by (Y. S. Putra et al., 2022). They assessed that learning media that combines sound and movement can improve student interpretation and attention. Furthermore, the progressive increase in the average score from 76 to 87 indicates that students not only showed interest but also successfully converted that interest into improved performance, further strengthening the understanding that engagement is related to learning quality (R. M. Lubis et al., 2019).

This research applies an audiovisual-based flipped learning model with a mature learning design, combining video materials, modules and classroom activities. Videos showing basic attitudes, basic movements, basic techniques and pencak silat moves are made according to curriculum targets and given to students before class time. This preparation stage gives students the opportunity to explore the material independently and build a basic understanding before studying directly.

This process consists of three parts, referring to national guidelines (Kemendikbud, 2020) and international pedagogical principles (Cambridge University Papers, 2020) During class time, time is used for guided practice, discussion, and collaborative activities; The teacher acts as a facilitator who observes student movements, provides constructive input, and reinforces important ideas that have been conveyed through audiovisual media. After class, students participate in reflection and follow-up activities to improve understanding, as well as receive feedback to support the ongoing learning process. This learning model shifts the delivery of material to preparatory sessions and maximizes class time for active participation, in line with the global Flipped learning principle which emphasizes student-centered learning and efficient study time. In this way, audiovisual media becomes a bridge between independent learning and interaction in class, which can increase students' interest in learning in pencak silat subjects.

CONCLUSION

This study demonstrates that the integration of technology and the Flipped learning approach effectively increases students' interest in learning pencak silat at the high school level. This growth is evident in the consistent increase in the percentage of completion in overall mastery and average achievement scores throughout the cycle, indicating a positive change in student interest. These findings also reinforce constructivist learning theory, which suggests that audiovisual stimuli can enhance interest formation in psychomotor learning contexts. Future research could expand the application of this model to larger sample sizes, different learning materials, or comparative experimental designs for more in-depth empirical validation.

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