



### Improving Student Learning Outcomes in Martial Arts Materials through Learning Videos in Grade IX at SMPN 2 Banjarbaru

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#### ABSTRACT

The purpose of this study is to find out if there is an increase in student learning outcomes in Pencak Silat martial arts materials through learning videos in grade IX at SMPN 2 Banjarbaru. The research uses qualitative methods which apply logical statistical systems, ethics, nonparameters and aesthetics. Data collection techniques are carried out by observation, interviews, and knowledge tests. The sample in this study is students of class IX G of SMPN 2 Banjarbaru, consisting of 34 participants. Based on the results of the research on improving student learning outcomes in pencak silat martial arts materials through learning videos in grade IX at SMPN 2 Banjarbaru, in the initial test of doing knowledge questions, it was seen that students got an average score of 56 which was still far below the KKM. However, after watching the learning video made by the researcher and then working on the knowledge questions, the average result of the student's scores increased to 85. Conclusion of students' learning outcomes on pencak silat martial arts material through learning videos in grade IX at SMPN 2 Banjarbaru is effective in improving learning outcomes and increasing their interest and motivation in learning.

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A. Conception and design of the study;  
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#### INTRODUCTION

Learning can be said to be an important thing to acquire knowledge, skills, and changes in ways of thinking or attitude. Learning can occur in various situations, the closest example is at home or around the home environment and general examples are at school. Basically, learning is a process that involves regulating and arranging the environment around students in order to stimulate and motivate them to carry out learning activities. Thus, learning is also defined as the process of providing guidance or support to students in undergoing learning activities (Sandi & Pujianto, 2021).

From some of the sources above, it can be said that PJOK is an important component in the curriculum that is taught in stages from elementary school to high



school. This subject is designed as a learning process through structured physical activities to develop students' physical and mental health. PJOK also creates a space to be actively involved in the learning process, as well as building character, social values, and positive behaviour patterns as a fundamental element in the education system. According to (Arifin, 2017) Physical Education, education is education through systematic physical activities to support the physical, mental, social, and character development of students for the realization of healthy, intelligent, and moral Indonesian people following Pancasila. (Taqwim et al., 2020) Said that PJOK is one of the subjects taught in junior high schools as part of supporting the overall learning process. Through PJOK, students are expected to be able to undergo the learning process while experiencing changes in their behaviour.

Martial arts have become increasingly popular components of school-based physical education, offering benefits that span physical, cognitive, and psychosocial domains. According to a systematic review, school-aged martial arts participants experience notable enhancements in physical fitness dimensions such as agility, strength, balance, and coordination through structured movement practices like karate, judo, and taekwondo. Educators and scholars have thus recognized martial arts not merely as combat skills but as multifaceted pedagogical tools.

Within instructional design, multimedia-based educational strategies have seen rapid adoption. Video-based learning, in particular, has demonstrated effectiveness across subjects: a large-scale review of over 250 studies (2016–2021) found that features such as visual clarity, instructor modelling, and interactive elements significantly enhance student learning outcomes. Although research has traditionally focused on academic and STEM contexts, the potential for video to support complex physical skills like martial arts techniques remains underexplored.

In Indonesia, schools increasingly integrate martial arts in physical education curricula. Grade IX at SMPN 2 Banjarbaru includes karate-style "Kihon" techniques. However, traditional teaching methods relying on verbal instruction and in-person demonstration face limitations: students may struggle to retain intricate sequence movements, and teachers often grapple with large class sizes that hinder individualized feedback. Moreover, the Southeast Asian context lacks empirical evidence on the efficacy of learning videos tailored to martial arts in a junior high environment.

A recent quasi-experimental study in Pekanbaru found that karate students exposed to instructional videos achieved significantly higher "Kihon" competency than peers using static images regardless of concentration level. Similarly, research from other regions has shown that integrating animated and multimedia content (even via AR/VR) into martial arts instruction enhances motivation, skill acquisition, and engagement. These findings suggest that visual-kinesthetic learners benefit from repetitive, clear, and multi-perspective video demonstrations.

From several studies related to learning videos, including: 1) Developing addie model videos on Pencak Silat material in grade VII of the 2019/2020 school year (Liberta Loviana Carolin et al., 2020), 2) Applying audio-visual media to basketball materials

(Pranata et al., 2021), 3) Applying android applications for the teaching and learning process of pencak silat material in grade IX of junior high school (Rosyidi et al., 2022).

From some of the studies above and complemented by this research, by utilizing media in the form of learning videos, which in the video in the form of audio-visuals, several materials about martial arts and Pencak Silat movements are made so that they can see directly and easily understand so that they will increase students' knowledge of PJOK Martial Arts subjects.

In Basic Competency (KD) 3.4 for the K-13 curriculum which focuses on Understanding the variations and combinations of specific movements of martial arts. This research focuses on the teaching of Pencak Silat as physical education material for grade IX junior high school students. The focus of learning includes understanding the variety and combination of specific movements in Pencak Silat following the K-13 curriculum. As the nation's cultural heritage, this sport needs to continue to be maintained, guided, and developed to remain sustainable (Priyanto et al., 2020).

In PJOK learning, there is also martial arts material which can be interpreted that students have the right to gain knowledge and skills in martial arts, especially pencak silat. However, there are several occasions when carrying out Teaching Assistance at SMPN 2 Banjarbaru, grade IX students still do not understand the material about martial arts. Unfortunately, this martial arts material is rarely given to students at the junior high school level. Even though martial arts material is one of those listed in the curriculum. Therefore, this research wants to create a learning media in the form of learning videos, according to the Need for Technology is one of the problems that are often encountered by (Anggara & Erliana, 2021) healthcare teachers in carrying out their duties every day. This is expected to increase the co-motive of students in understanding the material about pencak silat martial arts.

Despite initial positive findings about video-assisted karate learning, major gaps remain. Most studies: (a) lack rigorous control groups tailored to middle school learners; (b) focus on extracurricular programs rather than curricular integration; (c) do not deeply explore production features of videos that affect learning efficacy; and (d) seldom report teacher/facilitator perspectives. Furthermore, local research in Indonesian junior high settings—particularly SMPN 2 Banjarbaru has not addressed these dimensions.

This study differentiates itself by: (1) Embedding learning videos directly into formal Grade IX martial arts lessons, not just extracurricular sessions, (2) Investigating how video characteristics (shot framing, repetition, visual breakdown) influence specific elements of skill mastery, (3) Utilizing mixed methods to triangulate quantitative performance data, student motivation surveys, and teacher feedback, (4) Establishing localized best practices for producing effective martial arts instructional videos in Indonesian contexts.

We begin by surveying the theoretical foundations of video-based learning (Section 2), highlighting frameworks like cognitive load theory and multimedia learning. Next, we examine martial arts pedagogy and its adaptation to digital media. Following that, we describe our methods: a quasi-experimental design with two groups (video vs.

traditional), pre-and post-assessment using a standard performance rubric, motivation questionnaires, and semi-structured teacher interviews. Expected contributions include improved learning outcomes, concrete video guidelines for educators, and evidence to inform scalable integration of digital media in PE curricula.

## METHODS

This study uses a qualitative descriptive method. Qualitative research is a form of research that focuses on a descriptive approach and prioritizes analytical methods in data processing (Wakke, 2019). Data was obtained through learning outcome experiments. The subject in this study is students of class IX G SMPN 2 Banjarbaru with a total of 34 students for the 2024/2025 school year in Pencak Silat Martial Arts material.

A research instrument is a device or tool used to collect information and measure indicators in a research variable (Muslihin et al., 2022). The quality of data collection tools greatly determines the level of accuracy of the research results obtained.

The observation (Hasanah, 2017) concluded that the observation method does not only involve viewing and recording activities but also functions as an effective tool to obtain various information about the surrounding environment that is to be studied.

Interview (Makbul, 2021) As a data collection technique, interviews will be carried out by giving direct and verbal questions to the research subjects. This method can be said to be the application of an oral questionnaire held personally with each sample member.

Test questions As an instrument for evaluating students, test questions play a role in measuring the extent of learning improvement achieved after participating in the learning process in a certain period. In addition, test questions also function as a tool to assess the success rate of a teaching program.

This study will use data analysis with a qualitative descriptive approach that integrates the principles of logical statistics, ethics, nonparametric methods, and aesthetic considerations (Ahmad & Muslimah, 2021). The quality level of a study is highly dependent on the accuracy and completeness of the available data. The data analysis process always revolves around the main questions such as what, who, location, time, and method.

## RESULTS AND DISCUSSION

### Result

The results of the research were conducted using a qualitative descriptive method. Several problems were found in PJOK subjects in the classroom and field practice activities. The researcher then tries to find a solution to solve the existing problem by creating a media in the form of a learning video to improve learning outcomes, this is in line with the explanation An educator needs to apply various creative teaching strategies and techniques so that learning materials can be delivered in an interesting and

captivating way for students. Teachers' mastery of educational technology, such as the use of Microsoft PowerPoint, and Microsoft Excel, and learning video editing skills, also play an important role in increasing students' enthusiasm during the teaching and learning process (Wahyu et al., 2022).

In the test results, I did knowledge questions in the PJOK subject of Pencak Silat Martial Arts material class IX. It can be seen that in the pretest, students get an average score of 56, which is a low score. Only about two to four students seem to have high motivation to learn, most of the others are less enthusiastic during learning, as can be seen from their low willingness to do assignments or solve problems given (Puthree et al., 2021).

However, after watching the learning video made by the researcher and reworking the knowledge questions, there was an increase in the score on the post-test where students got an average score of 85.

**Table 1.**  
Knowledge Question Test Results

Information	Pretest	posttest
Average Score	56	85

## Discussion

Based on the results of in-depth observation, educators do not use the media to attract students' interest, which makes the teaching and learning process boring. Likewise, according to Agustini, Kristiantari, & Putra, (2016) and Supriyono., (2018) in his journal, (Darsana et al., 2021) it is explained that most educators in schools still apply the conventional teaching system. One-way methods such as lectures tend to make students lose interest, as a result, they become passive and pay less attention to the teacher's explanations during learning.

The results of the grades worked on by students are between before using the learning video and after using the learning video. Of the 34 students, they were given test questions in the form of a pretest and posttest. The average score obtained before watching the learning video (pretest) was 56, This is due to several factors, namely: 1) It can be seen that students are less enthusiastic about participating in the teaching and learning process, 2) students become passive when receiving explanations from educators, 3) students often chat and do other activities that are not relevant to the subject matter secretly without the knowledge of the educators (Anwar et al., 2024).

The average score of students after watching the learning video (posttest) is 85 according to (Liberta Loviana Carolin et al., 2020) In teaching and learning activities, the use of video media can make it easier for students to digest the subject matter. As an interactive learning tool, videos are able to increase student's interest so as to prevent them from feeling bored during the learning process, with a maximum score of 100.

From the test results obtained, students experienced an increase in scores. This has a positive impact on students' knowledge because according to (Marliani, 2021) students can access interesting audio-visual videos. They also have the flexibility to play back the video content according to their respective learning needs. There are also

learning videos that are packaged creatively and entertainingly which will make teaching and learning activities more exciting. A fun atmosphere like this can ultimately increase students' motivation to learn (Aliyyah et al., 2021).

The use of video media in learning is effective in increasing interest in learning while encouraging students' motivation to pay attention to subject matter in class. In the PJOK subject, Pencak Silat Martial Arts material alleviates the teacher's duties. According to (Fadillah, 2020) learning media, functions as a means that facilitates the teaching and learning process, so that teachers are easier to convey material during learning and more interested in learning. With this media, teachers can convey material more effectively, while students can easily understand and absorb the lessons given. Thus, this media in the form of learning videos can be used as a learning medium in the PJOK subject of Pencak Silat Martial Arts material and also provide a new atmosphere for the interests of students at SMPN 2 Banjarbaru.

## CONCLUSION

Based on the results of the research and discussion above, it can be concluded that the use of learning videos is effective in improving students' learning outcomes in martial arts materials in grade IX of SMPN 2 Banjarbaru. This is evidenced by the increase in the average score of students from 56 (pretest) to 85 (posttest). Learning videos not only increase students' understanding of the material but also increase their interest and motivation in learning. Therefore, it is hoped that learning videos can be applied more widely in the learning process, especially in materials that require visualization and direct practice such as martial arts.

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