

# Development of Interative Teaching Materials for Pencak Silat Defense Courses

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**Abstract.** Teaching media is a curriculum component which is often referred to as the content of the curriculum. With the presence of teaching materials, lecturers will be more coherent in conveying the essence of the material to students and achieve all the competencies that have been determined previously. The role of the use of technology in existing curriculum components. This is quite a significant development, this technological development influences learning in pencak silat courses, including practical and theoretical lecture processes. The use of technology aims to increase the transfer of information in the realm of effectiveness of the lecture process independently from lecturers to students. It is hoped that interactive media can be an alternative for lecturers who teach pencak silat courses, so that they can easily convey the material, so that learning in lectures can run continuously, so this situation is expected to provide feedback in the learning situation of pencak silat course material from the lecturer to student.

**Keywords:** Teaching, Interactive, Pencak Silat, Implementation, Independent Curriculum

## 1 Introduction

The educational process is of high quality if it is able to create an active, creative and enjoyable atmosphere. The output is said to be of high quality if the learning outcomes in the academic and nonacademic fields of students are high. While the outcome is said to be of high quality if graduates are quickly absorbed in the workforce, have reasonable salaries, and all parties acknowledge the greatness of their graduates and feel satisfied. Nowadays, the use of technology has developed a lot in society. Technology begins with simple tools made by humans in ancient times. For example, in automotive technology, perhaps wheels are currently considered ordinary by humans, but in ancient times this technology was the most innovative technology, because wheels greatly helped humans to travel. However, when compared to today's technology, wheels may only be history. The development of technology in learning continues over time, with changes also occurring in learning materials. Android device technology is increasingly developing, changing the way learning materials are used in educational contexts. Printed media such as books are still one of the forms of learning materials commonly used in the world of education. (Sutiasih & Saputri, 2019). In the development of technology, every time humans

will experience a revolution or change, technological products that are considered sophisticated today may be left behind by the discovery of new technology or will only change for the better without changing the concept of old technology. Information Technology (IT) refers to the use of computers, mobile phones, software, communication networks, and electronic systems to process, store, deliver, and manage information. (Anshori, 2018) Information Technology has driven many changes, including in the field of education which has given birth to the concept of e-learning. Pencak Silat is a traditional martial art that not only teaches physical techniques, but also contains deep cultural, ethical and philosophical values. In Indonesia, Pencak Silat has become an integral part of physical education at various levels of education, including in universities. The Pencak Silat course aims to introduce, preserve, and develop this cultural heritage to the younger generation. However, teaching Pencak Silat in universities often faces various challenges, especially related to limited face-to-face time, lack of adequate teaching resources, and variations in students' abilities in understanding the techniques taught. We can choose various types of sports as a way to achieve the quality of life we want, and one of them is the martial art of pencak silat. Pencak silat is one of the original cultures of Indonesian society born from the Malay community and then developed in the midst of the wider community (Erwin Setyo. K, 2015). The author obtained findings in the form of learning problems that are currently still felt to be lacking in utilizing advances in science and technology in Pencak Silat lecture activities, learning so far still uses videos and theories about learning Pencak Silat in online learning conditions which sometimes make students bored and lazy to follow the learning. In addition, traditional teaching methods that tend to be monotonous and lecture-based are less effective in attracting student interest, most of whom come from the digital generation who are more accustomed to using technology in learning. Pencak silat is a martial art originally from Indonesia, initially pencak silat was created by humans to defend themselves from the threat of wild animals. No one knows when, where, and how the first development process of pencak silat took place, this is because the information available is still very limited. However, according to historical records, pencak silat developed in the Indonesian region as expressed by Dreager, Maryono Along with the development of information and communication technology, there is a great opportunity to integrate technology into the learning process, including in teaching Pencak Silat. The use of interactive teaching materials can be a solution to increase the effectiveness of learning by presenting materials that are more interesting, easily accessible, and can be adjusted to students' learning needs. Learning media can be in the form of printed media such as books and magazines, visual media such as pictures and diagrams, audio media such as sound recordings, and digital media such as videos, multimedia presentations, and interactive learning software. This research is expected to provide a positive contribution to the world of education, especially in Pencak Silat learning. Academically, the results of this study can be a reference for teachers in developing technology-based teaching materials for other practical courses. Practically, the teaching materials developed can be directly used in the teaching process, helping to improve the quality of pencak silat education in universities. Pencak Silat is a type of sport that is suitable for everyone, from men or women, children or adults, including people who want to practice martial arts or want to increase muscle mass. In the world of sports, not only training methods or talents will determine the achievements that can be achieved by an athlete, but the consumption of proper nutrition on a daily basis will also directly have a positive effect on improving performance and achievements that can be achieved by an athlete.

Teaching materials are one component of the curriculum that is often referred to as the content of the curriculum. The teaching materials in question are usually in the form of student books developed in accordance with the current curriculum. The type of teaching materials used by students depends on the objectives and types of skills to be taught so that the teaching materials

are in accordance with the needs of students. Teaching materials are external factors of students that can strengthen internal motivation to learn. Interactive learning is a learning technique that is commonly used by teachers when presenting teaching materials. Teachers play an important role in creating an interactive, educational atmosphere with interactions between teachers and students, students with students as well as students with learning resources to support the achievement of learning goals. Interactive learning also includes a learning process that involves students with students, students with teachers or between students and their environment. Based on this background, this study is how to develop effective and appropriate interactive teaching materials for use in Pencak Silat courses, so that it can improve students' understanding and skills in learning this martial art. The function of learning the subject of pencak silat has many points of view that must be seen where the function of learning pencak silat for students is to provide the ability, skills, and stability in defending and defending themselves against a threat of danger both from within and outside, and to ensure harmony with the surrounding nature. By learning the subject of pencak silat in the Physical Education, Health and Recreation Study Program (PJKR) of the State University of Medan, they have better knowledge before they enter the world of work.

## **2 Method**

The research currently used is ADDIE research and development, which is a research that is widely used in the world of education. This research aims to develop interactive teaching materials specifically designed for Pencak Silat courses in college. This teaching material is expected to help students understand Pencak Silat techniques in more depth, as well as increase their motivation in learning this martial art. The development method in this research is for product validation and development so that the resulting product can achieve the expected quality improvement effect.

## **3 Results and Discussion**

### **3.1. Result**

The development of interactive teaching materials for the Pencak Silat martial arts course resulted in a digital platform that combines visual, text, and interactive elements to facilitate learning. These teaching materials consist of modules that include demonstration videos of techniques, movement simulations, evaluative quizzes, and online discussion forums. Trials conducted on a number of students showed that these teaching materials were well received, with the majority of participants finding it easier to understand Pencak Silat techniques through the use of this digital media compared to traditional teaching methods. The increase in students' understanding of data analysis from the pre-test and posttest showed a significant increase in students' understanding after using these interactive teaching materials. Before using the teaching materials, most students had limited understanding of Pencak Silat techniques and philosophy. Afterwards, the post-test scores showed a significant increase in understanding of techniques, with an average score increasing by around 30% compared to the pre-test. These results indicate that the integration of interactive technology in Pencak Silat learning is effective in improving the quality of students' understanding. The level of student involvement in the use of interactive teaching materials also has a positive impact on student involvement in the learning process. Features such as interactive simulations and discussion forums encourage

students to be more active in learning and participate in group discussions. Lecturers noted increased participation in class, both in practical and theoretical sessions. Students were more encouraged to explore the material independently and collaborate with their peers, indicating that the teaching materials successfully increased motivation and engagement in learning. Challenges in Implementation. Although the results were positive, there were several challenges faced in implementing this teaching material. One of the main obstacles was the limited access to technology and the internet experienced by some students. The development of effective and appropriate interactive teaching materials for use in Pencak Silat courses is carried out in accordance with the existing research design, first of all knowing the potential and existing problems, followed by data collection, after the two stages a design is made based on validation by design experts, and when the design is declared feasible, validation is then carried out by application experts by obtaining a feasibility percentage of 85.76% and material experts get a feasibility percentage of 90.20%. The application of effective and appropriate interactive teaching materials media for use in Pencak Silat courses has also gone through direct testing by users containing three aspects of assessment, namely aspects of ease, usefulness, and acceptance. The results of the main field test tested on 120 students in the physical education, health and recreation study program at the State University of Medan obtained a percentage value of 87.50% with the criteria of "Very Appropriate Based on the data from the main field test tested on 120 students in the physical education, health and recreation study program at the State University of Medan, it can be concluded that the interactive teaching material media is effective and appropriate for use in the Pencak Silat course "Very Appropriate" Student motivation in the pencak silat material course also increased significantly after using interactive teaching materials, from 76.34% to 93.56%. Of the 120 student respondents, this interactive teaching material can be considered as an alternative to increase student motivation and interest in the pencak silat material course.

### **3.2. Discussion**

For students who are in areas with low internet connectivity, accessing video content and interactive simulations is difficult. In addition, adapting to the use of this new technology takes time, especially for students who are not yet familiar with digital platforms in learning. Therefore, additional assistance and training are needed to ensure that all students can make optimal use of this teaching material. This research is expected to provide a positive contribution to the world of education, especially in learning pencak silat. Academically, the results of this study can be a reference for teachers in developing technology-based teaching materials for other practical courses. Practically, the developed teaching materials can be directly used in the teaching process, helping to improve the quality of Pencak Silat education in universities.

## **4 Conclusion**

The development of interactive teaching materials for the Pencak Silat Self-Defense course has shown significant results in increasing the effectiveness of the learning process. The use of interactive technology in the form of animation, video, and simulation allows students to understand pencak silat techniques and strategies better than traditional learning methods. These interactive teaching materials offer clear visualizations of movements and techniques, as well as simulation-based exercises that provide direct feedback to students. Evaluations show that students feel more engaged and motivated thanks to these dynamic and engaging materials.

They are able to master techniques more quickly and effectively, and experience increased practical skills. However, technical challenges such as device compatibility and internet access speed still need to be overcome to ensure optimal accessibility for all students. Overall, interactive teaching materials make a positive contribution to pencak silat learning, by enriching the learning experience and accelerating the understanding of techniques. Recommendations for further development include the use of the latest technology and a more universal platform, as well as maintaining the materials to remain relevant to the development of techniques and the needs of students.

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