



The Development of Pencak Silat Teaching Materials Based on Google Sites For Eighth Grade Students at SMP Negeri 4 Bandar Lampung

Fiter Wijaya¹, Heru Sulistianta², Muhammad Fajril Rifaldo³

^{1,2,3,4}Physical Education Study program, University Of Lampung, Prof. Dr. Ir. Sumantri Brojonegoro Street No. 1, Lampung, 35141, Indonesia

Abstract

This study aims to produce learning media products in the form of pencak silat teaching materials based on Google Sites for eighth grade junior high school students and to describe the feasibility of these teaching materials. The method used in this study is the ADDIE development research method. The research procedure consists of five steps, namely analysis, design, development, implementation, and evaluation. This study was conducted at SMP Negeri 4 Bandar Lampung. Data collection techniques in this study included interviews, observations, and questionnaires. The results of the study were e-learning teaching materials based on Google Sites as teaching materials for pencak silat lessons. The teaching materials developed in this study were deemed suitable based on the results of validation and revision by subject matter experts with a percentage of 96%, language experts with a percentage of 90%, learning media experts with a percentage of 97.5%, physical education teachers with a percentage of 95%, small-scale student trials with a percentage of 90%, and large-scale student trials with a percentage of 89%. Therefore, it can be concluded that the e-learning teaching materials developed are suitable as PJOK teaching materials at SMP Negeri 4 Bandar Lampung.

Keywords: *Development, E-Learning, Google Sites, Pencak Silat*

Correspondence author: Fiter Wijaya, Universitas Lampung, Indonesia.
Email: tasyadwishinta13@gmail.com



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INTRODUCTION

Education is very important in life and plays a role in improving the quality of human resources. According to (Rahman et al., 2022) Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and the skills needed by themselves and society. Education can also be defined as an academic process that aims to improve social, moral, cultural, and religious values (Hamdani, 2021). Education in Indonesia continues to undergo changes in line with the times. Along with the rapid development of technology in this digital era, the world of education has undergone significant transformations.

Technology in education is used as a means to support the learning process, both as a means of accessing information and as a support for learning and completing assignments (Permana, 2024). Technology provides various conveniences and unlimited access, so

traditional learning methods must adapt to these advances. According to (Iskandar, 2023) technology as a learning tool offers various ways to accommodate diverse learning styles and abilities, thereby providing an inclusive and personalized educational experience for all students. The use of technology also helps introduce concepts that are more flexible and tailored to the needs of each student.

Educators or teachers are required to have digital skills; teachers must understand and master technology. School learning needs to keep up with technological developments to improve the quality of education. This is in line with Indonesian government regulations that encourage the use of technology in education, namely Government Regulation No. 13 of 2020 concerning Higher Education, which also emphasizes the importance of utilizing technology in learning. However, the fact is that currently, the use or application of technology-based competencies is not yet optimal and is still ineffective.

The use of technology in the learning process plays a very important role in overcoming various problems that occur in education, such as limited learning media. Physical education is a type of learning that emphasizes practical activities. In practice-based learning such as physical education, it is very important to use learning media that can clearly visualize movements. For example, in pencak silat material that involves physical skills. The use of technology can be used as a supporting interactive learning medium in schools (Rifaldo, 2024). Technology allows teachers to include video demonstrations of movements, simulations, or interactive exercises that help students understand and practice movements better.

According to (Setianingsih et al., 2024), one type of learning media created using technology, with the advantage of being able to store learning materials in various formats, including text, images, video, audio, and audiovisual, is web-based learning media (Google Sites). Google Sites is an online platform provided free of charge by Google to create structured websites with attractive accessories easily without using programming languages, so that they can be created by novice users. The main advantage of using Google Sites as a learning medium is ease of access. Students can access the site anytime and anywhere, as long as they have an internet connection. The use of Google Sites also supports learning based on individual student needs. By providing material in a more flexible and accessible form, teachers can cater to different learning styles, such as visual, auditory, or kinesthetic. Students who prefer to learn through videos can watch the material uploaded by the teacher, while students who prefer to read can take advantage of the available text. That way, Google Sites provides an opportunity for each student to learn in their own way. In addition, Google Sites enables more efficient teaching in terms of material management. Teachers do not need to print physical materials, as

all information can be accessed online, reducing the cost and time required for distributing learning materials. This also makes it easier for teachers to update materials, as changes or additions can be made directly on the site without having to redistribute printed materials to students

The results of the study by (Rahayu et al., 2022) show that the use of Google Sites learning media containing chemo-entrepreneurship content can be used as a solution to improve the quality of learning. The results of the study obtained a score of 89.28% from subject matter experts, 87.5% from media experts, and 94.41% from practitioners. It also received positive responses from 97.5% of students. Furthermore, the results of Widad's research show that the PjBL model with Google Sites media can improve student learning outcomes in pencak silat learning. With a percentage on the N-Gain test of 68.47%, it can be said to be quite effective. Then, the results of the study (Aprilia et al., 2025) show that the use of Canva videos in increasing learning motivation has a hypothesis test value of $0.000 < 0.05$. These findings prove that the use of technology-based learning media and interesting learning methods are needed to increase student motivation, participation, and skills (Putra, 2025). Thus, the use of Google Sites as website-based teaching materials not only enriches the learning experience but also increases the effectiveness of learning management in a digital context.

Based on preliminary research conducted by the researcher on January 30, 2025, at SMP Negeri 4 Bandar Lampung, it was found that teachers more often teach theory than practice pencak silat movements. One of the main obstacles is the physical condition of the teachers themselves, especially those who have stiff or inflexible muscles. This certainly affects their ability to teach techniques correctly and demonstrate the correct movements to students. In addition, there is a lack of variety in interactive learning media. With technology, such as the use of digital platforms, learning applications, or interactive media, teachers can present material in a more interesting and effective way. Based on the background supported by theory and previous research, the purpose of this research is to produce learning media products in the form of Google Sites-based pencak silat teaching materials for eighth grade junior high school students and to describe the feasibility of these teaching materials.

METHOD

The type of research used in this study is the Research and Development (R&D) method. (Sugiyono, 2015) explains that Research and Development is a research method used to produce a specific product and test its effectiveness. The model design used in this study is the ADDIE model. According to Robert Maribe Branch (2009), the ADDIE model is a

framework used in the instructional design process. ADDIE consists of five stages, including analyze, design, development, implementation, and evaluation.

This study was conducted at SMP Negeri 4 Bandar Lampung in the even semester of the 2024/2025 academic year. The subjects of the pencak silat teaching material trial based on Google Sites were eighth-grade students at SMP Negeri 4 Bandar Lampung, consisting of 10 students in the small-scale trial and 30 students in the large-scale trial. The data collection techniques in this study used interviews and questionnaires with a Likert scale. The Likert scale was used to measure the attitudes, opinions, and perceptions of an individual or group about social events or phenomena (Riduwan, 2015). This study used a checklist-type questionnaire that was adapted and modified from a previous development evaluation used by (Marselinda, 2022), which covered aspects of content feasibility, graphic design, language, technical aspects, as well as attractiveness and engagement.

The data obtained from the questionnaire responses will be analyzed descriptively using the following formula.

$$\text{Feasibility percentage} = \frac{\text{obtained score}}{\text{maximum score}} \times 100\%$$

The percentage of results obtained was then presented in a categorization table based on guidelines from (Marselinda, 2022) that had been modified, as follows:

Tabel 1. Feasibility Level Criteria

No.	Score Range	Criteria
1.	21%—40%	Not Feasible
2.	41%—60%	Fairly Feasible
3.	61%—80%	Very Feasible
4.	81%—100%	Feasible

RESULTS AND DISCUSSION

Result

This study uses the ADDIE development model, which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation (Branch, 2009). The final product of this research is e-learning teaching materials on pencak silat that can be accessed anytime and anywhere via the link <https://sites.google.com/view/pencaksilat-karyafiterwijaya/home> or by scanning the following barcode.



Figure 1. Barcode for E-learning Teaching Materials for Pencak Silat Learning Materials



Figure 2. Published Website Display

Discussion

During the analysis stage, researchers conducted performance and needs analyses to identify problems occurring in schools and find solutions to overcome these problems. Based on interviews conducted, it can be concluded that teachers strongly support the development of e-learning teaching materials for pencak silat based on Google Sites. Current learning methods are considered suboptimal due to time constraints, weather, and the lack of adequate teaching materials. Meanwhile, students face difficulties in memorizing movements and understanding the correct body positions. Therefore, e-learning teaching materials containing videos, texts, and images are urgently needed. E-learning teaching materials can be a practical and modern solution to improve the quality of pencak silat learning in schools.

The design stage aims to develop e-learning teaching materials for Pencak Silat that are suitable for school needs. The design stage is carried out in two stages, namely compiling Pencak Silat material in accordance with the applicable curriculum and designing the visualization of e-learning teaching materials.

The development stage involves realizing the design plan so that it becomes e-learning teaching material using the Google Sites platform so that it can be implemented for students. This stage is carried out after the design stage. This stage is carried out in two stages, namely the development of pencak silat e-learning teaching materials and validation with experts. During the product validation stage, the researcher conducted validation with subject matter experts, media experts, language experts, and physical education teachers. The results of the product validation are shown in the table below.

Table 2. Expert Validation Results

No	Subjects	Average Percentage	Criteria
1	Learning Material Expert	91.42%	Very Feasible
2	Learning Media Expert	97.14%	Very Feasible
3	Language Expert	97.14%	Very Feasible
4	Physical Education Teacher	94.28%	Very Feasible

The implementation stage or field trial stage related to the developed e-learning teaching materials for pencak silat lessons. This implementation was carried out to determine the students' response to the developed product. The results of this testing are used in product evaluation so that researchers can determine the progress of students in mastering Pencak Silat.

The trial phase in this study was conducted twice, namely a small-scale trial and a large-scale trial.

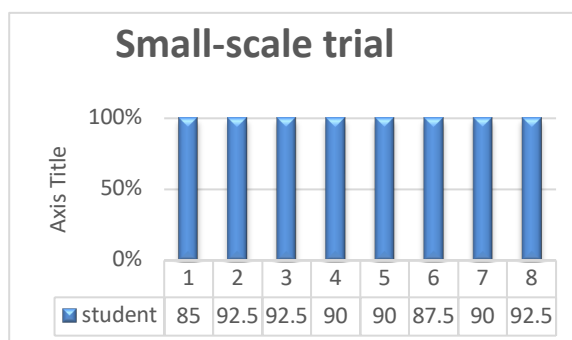


Figure 3. Histogram of small-scale trial

Based on Figure 3, Histogram of Small-Scale Trial Data, the questionnaire consisted of eight assessment indicators. The results of the trial involving ten eighth-grade students at SMP Negeri 4 Bandarlampung obtained an average score of 3.6 on a scale of 4 with a feasibility percentage of 90%. Therefore, it can be concluded that the Google Sites-based teaching materials are very feasible to use

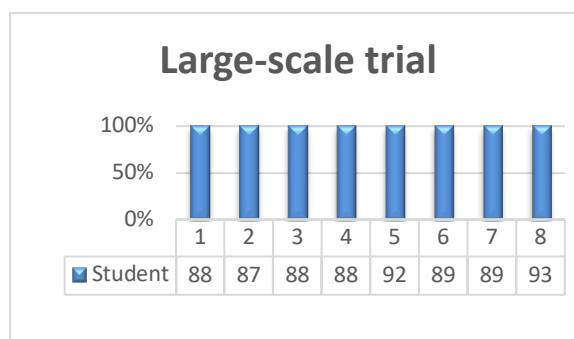


Figure 4. Histogram of large-scale trial

Based on Figure 4, Histogram of Large-Scale Trial Data, the questionnaire consists of 8 assessment indicators. The results of the trial were conducted on 30 eighth-grade students at SMP Negeri 4 Bandarlampung, obtaining an average score of 3.56 on a scale of 4 with a feasibility percentage of 89.06%. Thus, it can be concluded that the Google Sites-based teaching materials are very feasible to use.

The evaluation stage is carried out on the teaching materials that have been developed. The evaluation of e-learning teaching materials on Pencak Silat is carried out by improving the product based on the suggestions and input from experts during validation. The following is a

discussion of product revisions based on input from language experts and media experts. Language experts provided two types of input on the e-learning media developed, namely 1) correct punctuation errors and add good explanatory diction at the beginning of each subchapter before explaining, 2) the home icon should be removed or replaced with learning instructions. The learning media expert provided several suggestions, namely 1) navigation needs to be added, 2) the logo is not clearly visible, so it should be moved down so that it is clearly visible, then add the logos of the ministry, Unila, and FKIP, 3) the initial letters “Pencak silat” should use lowercase letters. After receiving input and suggestions from experts, the researcher made improvements or revisions in accordance with the criticism and suggestions.

CONCLUSION

This study produced learning media products in the form of e-learning teaching materials based on Google Sites for eighth grade students. The method used was the ADDIE development research method, which consists of five steps, namely analysis, design, development, implementation, and evaluation. This research was conducted at SMP Negeri 4 Bandar Lampung. The result of this research is e-learning teaching materials based on Google Sites as teaching materials for pencak silat lessons that can be accessed anywhere and anytime at the link ([Click Here](#)) or by scanning the barcode in Figure 1. The teaching materials developed in this study were deemed feasible based on the results of validation and revision by subject matter experts with a percentage of 96%, language experts with a percentage of 90%, learning media experts with 97.5%, PJOK educators with 95%, small-scale student trials with 90%, and large-scale student trials with 89%. Therefore, it can be concluded that the e-learning teaching materials developed are suitable as PJOK teaching materials at SMP Negeri 4 Bandar Lampung.

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