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Application of The Project Based Learning Model to The Basic Movement Ability of Pencak Silat Step Patterns in Elementary Schools

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Abstract

This study aims to determine the application of the project-based learning (learning PjBL) model to the basic movement skills of step patterns in elementary schools. The method used was quasi-experiment with pre-test and post-test . control group design Students from grade IV at Public Elementary Schools Duri Kosambi 07 Jakarta were divided into two groups: the experimental group (PjBL) and the control group using conventional learning. The test results statistical (Sig. 0.000 <0.05) showed a significant difference between the pretest and posttest results in in both groups, indicating that the PjBL model is effective improving students' basic movement skills. additionIn, the N-Gain test results showed that the experimental group was . better than the control groupThis study found that the PjBL model encourages students to participate actively, creatively, and collaboratively in improving the basic movement skills of pencak silat step patterns more effectively than conventional methods. Therefore, PjBL can be used as an alternative to innovative physical learning in elementary schools.

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INTRODUCTION

Pencak silat is a skill and science of powerful movement patterns that are effective, beautiful, and healthy the forbody, which is imbued with noble character based on devotion to God Almighty, and aims to form self-defense and foster a sense of social responsibility (Iswana and Siswantoyo 2013). Education through pencak silat is the right way to strengthen student character. education Pencak silat can develop five distinctive character values, tough, namely taqwa charactertrengginas, responsive, and tanggon (Muhtar et al., 2019).

Project-based learning model can be applied in pencak silat learning at school. Learning model Project-based a learning that involves a project in the learning process (Anggraini & Wulandari, 2020). Projects undertaken by students can be individual or group projects and carried out within a certain period of time collaboratively, producing a product, which the results of will be then displayed and presented. In order for students to enjoy and generate a process of interest and creativity in the learning process, the solution is to implement project-based learning (Kusmiati, 2022).

Basically every human being has the ability. It's just that throughout life, there are people who have the opportunity to bring out their creative abilities, and there are people who lose their creative abilities because they do not have the opportunity or cannot find an environment that allows these creative abilities to develop (Lestari et al., 2022). In innovative learning activities students need to be given the opportunity to express ideas, ideas in one work. One of the learning models that is considered to develop creativity and improve student learning outcomes is the project-based learning learning (PjBL) model (Kusmiati, 2022).

Generally, the Project-Based Learning (PjBL) learning model aims to improve understanding and understanding of concepts, or cognitive understanding (Brown & Johnson, 2020). However, not much effort has been made to use the PBL model in learning outside the classroom, especially in pencak silat education. To ensure that students get a real learning experience, pencak silat, which is an essential component of physical education, requires a learning model that fits the field.

This research is considered important because of the lack of research that discusses the application of PjBL for the above purposes. In pencak silat, basic movement of steps has not been the main focus of previous research. However, basic step patterns are essential and are one of the essential components of improving advanced skills (Suwiwa, 2021).

This research will look at how project-based learning models can help students become more creative, especially in terms of basic movements of pencak silat step patterns. Although the PjBL model has been widely used in various aspects of learning, studies analyzing its application to measure motor movement ability—particularly in terms of basic movement of pencak silat step patterns are very limited

Therefore, this research seeks to address the gap by examining how the PjBL approach can be used to improve the basic step patterns of elementary school students practicing pencak silat. It is hoped that this research can make a new contribution to the physical education literature, especially related to student creativity through the use of project-based learning approaches in the classroom outside the classroom or in the field.

METHODS

This study used a quantitative method with a quasi-experimental design and a for a pretest postest method control group design. to determine how the application of the project-based learning (PjBL) learning model impacts the basic movement skills of pencak silat step patterns in elementary schools (Sugiyono, 2023).

Grade IV at Public Elementary Schools Duri Kosambi 07 Jakarta are the population of this study. diverse This school is located in the West Jakarta area and has a student background in terms of social, economic and cultural, providing a variety of data for research. This is study expected to generate comprehensive data and make a significant contribution to the development of education in elementary schools by selecting this population.

Sampling The purposive sampling technique was used to take two groups that had the same characteristics. One group was formed as an experimental group using the PjBL model, and the other was formed as a control group using conventional learning methods.

The instrument in this study uses an assessment rubric based on the teaching on module learning basic locomotor and non-locomotor variations in pencak silat.

This analysis data uses:

Normality test is a test conducted to determine whether the data obtained is normally. distributedTesting the normality of data with the Shapiro-Wilk formula using the SPSS program.

The criteria used to determine whether the data is distributed normally if p>0.05 the data is said to be normal, but if p<0.05 then the data is not normal.

One way to test hypotheses is the paired t-test, which uses data that is not independent (paired). Paired cases usually involve one subject (research object) receiving two different types of treatment. Despite using the same subject, researchers still obtain two types of sample data, namely data from the first and second treatments.

The homogeneity testconducted after the normality test, showed that the data were normally. distributedThis test t-test and ANOVA, is very important because many parametric statistical methods, such as the assume the variance between groups is homogeneous.

The independent simple t test in this study uses the T test to compare two variables whether significant or not. testing Hypothesis is used to determine whether or not there is a significant difference between pretest and posttest. Hypothesis testing using the SPSS 26 program.

N-Gain is used to measure the effectiveness of a learning method by comparing pretest and posttest.

RESULTS AND DISCUSSION

The t-test, or statistical test, was used to analyze pretest and posttest data to compare the average difference between the experimental and control groups. The purpose of the t test is to determine whether there is a significant difference between student learning outcomes before and after the application of PjBL.

The test results normality show that the pretest data in the control group has a value of Sig. = 0.768, which indicates normal, and posttest data distributionin the control group has a Sig. = 0.293, which indicates a normal distributionwhile the experimental group pretest Sig . = 0.338 valueindicates normal distribution and posttest with a value of sig. = 0.976 normal distribution.

The results showed that the significance value sig. (2-tailed) 0.000, based on the decision that sig. Therefore, the results of the analysis showed that after the treatment was given, both the control group and the experimental group experienced significant changes. outcomesThis shows that the learning approach used has a significant impact on student learning. results These specifically show that the application of project-based learning (PjBL) successfully improved the basic movement skills of students' step patterns at Public Elementary Schools Duri Kosambi 07. This suggests that PjBL can be an effective alternative for improving students' basic motor skills.

In this study, Ho is accepted and Ha is rejected because the Sig. value of 0.414 is greater than 0.05, according to the homogeneity test results. Therefore, it can be concluded that the variance between the experimental group and the control group is homogeneous, which means that before treatment, both groups have the same level of data variation. test The. The results homogeneity was conducted to ensure that the variance between the experimental and control groups was the sameshowed that there was no significant variance in both groups; the significance value (Sig.) based on the mean was 0.239 > (0.05).

The results show that Ho is rejected and Ha is accepted with a Sig. (2-tailed) valueof 0.282 (<0.05). Therefore, it can be concluded that the use of a project-based learning (PjBL) model has a significant impact on improving students' basic movement skills in pencak silat step patterns.

Further, the numbering and descriptions in the form of images is given after the image and written under the picture. In addition to photographic images, sketches, illustrations, diagrams, flow charts,-and the like also dikategorisasikan se-like image. As a rule the same as images. For instance as follows.

The results of the N-Gain calculation show that the control group has an average N Gain of 0.6883 including in the medium category, this indicates that the conventional learning method is quite effective in improving the basic movement skills of pencak silat step patterns, although the increase is still in the medium category. Likewise, the experimental group using the PjBL model showed an average N-Gain of 0.7756 including in the high category. value This indicates that the PjBL model is very effective in improving students' basic movement skills. to This improvement can be attributed to the project-based learning approach which allows students actively participate in the learning process and develop their own skills.

In learning the basic movements of pencak silat step patterns, the application of project-based learning (PjBL) models has a significant impact on improving student skills (Smith & Brown, 2020). The results showed that students who learned with the PjBL model were better than students who learned with conventional methods (Johnson, 2019).

To complete the project, the model PjBL allows students to learn actively and work together in groups (Lee et al., 2021). Pencak silat students not only learn about the basic concepts

of step pattern movements, but they also perform them directly in their projects. process This improves their motor skills and their understanding techniques (Anderson & Kim, 2018).

Compared to the conventional method used in the control group, the model was PjBL more effective in improving the basic movement skills of pencak silat step patterns. Research shows that the PjBL model provides a more practical and contextualized learning experience through real projects, allowing to students use basic movements in relevant and significant situations. additionIn, the explorative and collaborative approach helps students increase their creativity and understanding of basic motion concepts (Sari, 2018).

In addition to improving motor skills, the application of the PjBL model also increases students' desire to learn. Students involved in projects tend to be more active, more enthusiastic, and feel more responsible for their learning outcomes (Anderson, 2019). This is in line with previous research showing that the PjBL model can increase students' desire to think critically and learn (Smith et al., 2021).

Therefore, it can be concluded that, in learning basic movements of pencak silat step patterns, the model PjBL improves students' motor skills and increases their desire to learn. It can be a better alternative to conventional approaches, especially in learning that requires hands-on practice in the field and active participation of students.

CONCLUSION

The test results statistical showed that the experimental group using the PjBL model and the control group using conventional learning methods were significantly different. Students were more motivated to learn pencak silat because the PjBL model encouraged them to be more creative, active, and cooperative. The N-Gain test results show that the PjBL model is very effective when compared to conventional methods.

According to the results of research and data, the analysis application of project-based learning learning (PjBL) models in basic movements of martial arts step patterns in elementary schools improves students' social skills and teamwork. In addition to providing a more contextual and meaningful learning experience, the model PjBL encourages students to be more creative, active and collaborative.

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