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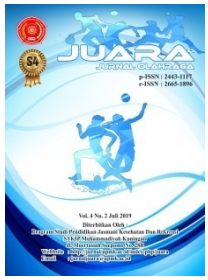

Implementation of the Project-Based Learning Model in Improving Football Learning Outcomes

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Abstract

This study aims to determine the effectiveness of applying the project-based learning model to football learning outcomes. The research method used is a True experiment with a randomized posttest-only control group design. The research sample was 60 grade IX students of SMPN 4 Ciawigebang, Kuningan Regency, divided into two groups an experimental class of 30 students and 30 students for a control group. The sampling technique uses random cluster sampling. Research instruments to measure student football learning outcomes with passing-stoping tests (skills), attitude scales (affective), and knowledge tests in the form of questions (cognitive). The data analysis technique used is the independent sample test. The results showed that the application of the project-based learning model positively influenced student football learning outcomes in both psychomotor, affective, and cognitive aspects.

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INTRODUCTION

One of the main characteristics of the independent curriculum is project-based learning to develop soft skills and character according to the profile of Pancasila students (Kemdikbud, 2022). Implementing the independent curriculum in physical education, sports and health subjects certainly needs strengthening in the use of learning models to deliver teaching materials by teachers to students.

The recommended learning model in the independent curriculum is project-based learning. Project-based learning (project-based learning) is a learning model that implements an activity or project as a medium to achieve student competence in attitudes, knowledge, and skills (Kemdikbud, 2013). The emphasis on learning lies in the activities of students to produce products by applying the skills of researching, analyzing, and making to presenting learning products based on experience. The product in question is the result of a project in the form of designs, schemes, written works, works of art, technological works, and others. This approach allows students to work independently or in groups to construct actual products (Komarudin, 2014)

Project-based learning is a learning model that uses projects as a first step in integrating new knowledge and skills based on real experiences. Project-based learning is carried out systematically and involves students in learning attitudes, knowledge, and skills through investigations in product design. Project-based learning is an innovative approach emphasizing contextual learning through complex activities. Implementation of project-based learning provides opportunities for students to think critically and be able to develop their creativity through developing initiatives to produce natural products in the form of goods or services (Komarudin, 2014).

Uses a project-based learning model, students design a problem and find their solution (Kristanti, Subiki, & Handayani, 2016). The project-based learning model has the advantage of its characteristics, namely helping students design a process to determine an outcome, training students to be responsible for managing information carried out on a project and finally, students who produce a natural product of the student's results which are then presented in class. (Amirudin, 2015)

Based on research conducted by Sastrika (2013), the results show that the project-based learning model is quite helpful in designing effective learning so that it has enough potential to meet learning demands. The project-based learning model assists students in learning: (1) knowledge and skills that are solid and meaningful (meaningful use) that are built through authentic assignments and work; (2) expanding knowledge through the authenticity of curricular activities which are contained by the learning process of planning (designing) or open-ended investigations, with results or answers that are not predetermined by a particular perspective; and (3) building knowledge through real-world experiences and interpersonal cognitive negotiations that take place in a collaborative work atmosphere (Santi, 2011).

The material taught in sports and health physical education subjects is one of the big ball sports games, namely football. Football learning developed in the physical education curriculum, both through extracurricular and extracurricular programs, not only teaches students to learn about various basic techniques or how to play soccer but more than that, students can develop various social attitudes within themselves. Therefore, football has an important position in the physical education curriculum at school (Qohhar & Pazriansyah, 2019).

Football is a team game, each team consisting of eleven players, and one is the goalkeeper. The game is almost entirely played using the legs, except for the goalkeeper, who can use his arm in the kick area. In its development, this game can be played outside the field (outdoor) and in a closed room (indoor). The main goal of the game of football is to put the ball into the opponent's goal as much as possible with sportsmanship by the agreed rules and try to prevent the opponent from entering. The ball into the guarded goal (Sucipto, Bambang Sutiyono, Indra M. Tohir, 2000).

The importance of learning football which has become one of the mandatory materials for students, in practice is influenced by various factors that can support learning football to be more effective. These factors include teachers, facilities and infrastructure and the students themselves. The teacher is an essential foundation in achieving learning success. Learning will run well and effectively if the teacher has broad insight and creativity and uses a suitable learning model (Qohhar & Pazriansyah, 2019).

Based on observations made on students when participating in soccer lessons, it was seen that they did not understand the specific movement combinations that had to be produced in soccer learning, such as basic techniques of passing, dribbling, shooting, playing skills in decision making, execution skills, and support. Another problem is that students tend to be passive and need more creativity in developing learning. The results of learning football in attitude, knowledge, and skills should be maximized. Seeing these conditions, a strategy or approach to a learning model is needed that can develop creativity to produce a product of the student's learning outcomes. The appropriate learning model that can be used in project-based learning.

Learning football using a project-based learning model makes students actively involved in solving practical problems on the field assigned by the teacher in the form of a project. Students actively manage their learning to work in real terms to produce a product from the learning that is carried out. Project-based learning can reduce competition in the classroom and direct students to be more collaborative than working individually. Besides that, learning can also be carried out independently by constructing teaching materials with the knowledge and new skills to realize a product (Komarudin, 2014).

The common goals of project-based learning include; (1) acquiring new knowledge and skills in learning, (2) improving students' ability to solve project problems, (3) making

students more active in solving complex project problems with accurate product results in the form of goods or services, (4) develop and improve student skills in managing resources/materials/tools to complete assignments/projects, (5) increasing student collaboration, especially in group learning (Komarudin, 2014).

The results of research conducted by Rati, Kusmaryatni, & Rediani (2017) Through learning activities by implementing project-based learning impact student creativity tall. As expected, producing a meaningful project requires not only knowledge but also high creativity. The balance between the two will support a project's future success. The results of this project will show how the learning outcomes of an individual. In other words, creativity and learning outcomes are two things that are interconnected and influence each other.

From some of the literature we reviewed, no research has specifically examined the effectiveness of using project-based learning models to improve soccer learning outcomes in cognitive, affective, and psychomotor aspects. This study aims to determine the effect of the project-based learning model on soccer learning outcomes.

METHODS

The method used in this research is an actual experiment with the randomized posttest-only control group design (Jack R. Frankel., Norman E. Wellen., 2012). The research design constellation can be seen in the following figure:

Project-Based Learning Model	R	X	O
Conventional Model	R	C	O

Figure 1. Design Research

The research population was all class IX students of SMP Negeri 4 Ciawigebang, Kuningan Regency, totalling 122 students from 4 class groups. The research sample consisted of 60 students taken from 2 classes randomly. The sampling technique uses cluster random sampling (Ali Maksum, 2012). The sample was divided into 2 groups, 1 group was given the project-based learning model treatment as the experimental group, and 1 group was given the conventional model treatment as the control group. Students are given different learning programs for the two groups for four meetings by the provisions of the school curriculum. Each group of students carry out the program according to the learning scenario that has been prepared. After the learning program is finished, students are given a final test. The instruments used in this study were knowledge tests, attitude scales, and football passing-stoping skill tests (Nurhasan, 2007). The data analysis technique in this study is the independent sample test (Gozali, 2013).

FINDINGS AND DISCUSSION

Findings

The results of the two experimental and control groups for football learning outcomes in the realm of knowledge, attitudes, and skills can be seen in the following table:

Table 1. Learning Outcomes Project-Based Learning Model

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Psikomotor	30	30	45	1175	39,17	5,266
Afektif	30	20	30	710	23,67	3,198
Kognitif	30	15	20	595	19,83	,913

Based on table 1 above, the results of learning football from 30 students using the project-based learning model, the average value for psychomotor aspects was 39.17, the average affective aspect was 23.67, and the average cognitive aspect was 19.83. The total value for psychomotor aspects is 1175, affective aspect 710, and cognitive aspect 595. The psychomotor aspect maximum score is 45, the affective aspect maximum value is 30, and the cognitive aspect maximum value is 20. The psychomotor aspect minimum value is 30, the affective aspect minimum value is 20, and the cognitive aspect minimum value is 20. While the standard deviation for the psychomotor aspect is 5.266, the standard deviation for the affective aspect is 3.198, and the standard deviation for the cognitive aspect is 0.913.

The research results from the conventional model can be seen in the following table:

Table 2. Conventional Model Learning Outcomes

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Psikomotor	30	20	40	1005	33,50	6,453
Afektif	30	15	25	570	19,00	3,572
Kognitif	30	15	20	575	19,17	1,895

Based on table 2 above, the results of learning football from 30 students using the conventional model, the average value for the psychomotor aspect was 33.50, the average affective aspect was 19.00, and the cognitive aspect average was 19.17. The total value for the psychomotor aspect was 1005, the affective aspect was 570, and the cognitive aspect was 575. The maximum score for the psychomotor aspect was 40, the maximum for the affective aspect was 25, and the maximum for the cognitive aspect was 20. The minimum score for the psychomotor aspect was 20, the minimum for the affective aspect was 15, and the minimum for the cognitive aspect was 15. While the standard deviation for the psychomotor aspect is 6.453, the standard deviation for the affective aspect is 3.572, and the standard deviation for the cognitive aspect is 1.895.

The results of research between student groups using the project-based learning (PjBL) model and the conventional model can be seen in the following table:

Table 3. Football Learning Outcomes with PJBL and Conventional Models

	Kelas	N	Mean	Std. Deviation	Std. Error Mean
Football Learning Outcomes	PJBL	30	82,67	6,261	1,143
	Conventional	30	71,67	9,034	1,649

Based on table 3 above, the results of the analysis and processing of data from the results of learning football from 30 students can be seen that the average value of the PjBL model is 82.67, while the average value of the conventional model is 71.67. The standard deviation for the PjBL model is 1.143, while the standard deviation for the conventional model is 1.649. These data provide information that the group of students who use the PjBL model has a more significant impact than the conventional model on overall soccer learning outcomes in psychomotor, affective and cognitive aspects.

The effectiveness of using the project-based learning model will be seen based on the analysis results using the different tests. The results of data processing using the independent sample test are as follows:

Tabel 4. Football Learning Outcomes

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Hasil Belajar Sepakbola	Equal variances assumed	8,475	,005	5,482	58	,000	11,000	2,007	6,983	15,017
	Equal variances not assumed			5,482	51,635	,000	11,000	2,007	6,973	15,027

From the data table 4 above, the results of the calculation of the independent samples test analysis regarding the difference in influence between the PjBL learning model and the conventional model on student soccer learning outcomes at SMPN 4 Ciawigebang, Kuningan Regency, show that the Sig. (2-tailed) value is 0.000 <0.05. This means that there are significant differences in the influence of football learning outcomes in psychomotor, affective, and cognitive aspects. This can also be seen from the average score of the experimental class using the PjBL learning model, which is higher than the average control class using the conventional learning model.

Discussion

Project-based learning on football material positively impacts student learning outcomes in psychomotor, affective, and cognitive aspects. The findings in our research on students encourage the growth of creativity, independence, responsibility, self-confidence, and critical and analytical thinking. This study's findings align with the opinion expressed by Satiadarma (2003)that creativity

is one of the assets that must be possessed to achieve learning achievement. Student creativity should not be interpreted as the ability to create something entirely new but as the intelligence students possess in combining existing ideas or changing them according to existing needs and facilities and then implementing them.

The first step taken by students is to determine the project. At this stage, students determine the theme/topic with the teacher. Students can choose/determine the projects they will work on in groups or independently, provided they stay consistent with the theme. The project specified in learning football is to pass with various variations and combinations. Students in groups discuss with each other to determine the variations of passing that they can do and present. Of course, it differs from students who learn soccer using conventional models. Students work on assignments according to teacher instructions from the beginning to the end of learning. In line with research conducted by Jagantara, Adnyana, & Widiyanti (2014), project-based learning models provide better student learning outcomes than direct/conventional learning models.

The following steps are the project completion steps. Students design the steps for project completion activities from start to finish and their management. This project design activity contains the formulation of objectives and expected results, selection of activities for project completion, design of resources/materials/tools that can support the completion of project tasks, and collaboration between groups. At this stage, students divide their respective tasks to complete the project to make products for variations and combinations of passing in football. Of 30 students divided into six groups where one group consists of 5 people. The findings in designing project completions from their students created one variation and combination of passing for each individual in line with research conducted by Octariani & Rambe (2020) which stated that students who use the Project Based Learning model have a positive influence, namely able to improve creative thinking skills.

The next step is to prepare a project implementation schedule. Students, with teacher assistance, schedule all the activities they have designed. How long does the project have to be completed step by step. Students arrange a schedule by dividing the time for each person to present 1 variation and a combination of passing for 1 minute so that each group is given 5 minutes to complete the project.

The next stage is project completion with teacher facilitation and monitoring. This step is the implementation of the project design that has been made. Activities that can be carried out in project activities include reading literature, making designs, interviewing, and creating. The teacher is responsible for and monitors student learning activities in project assignments starting from the process to project completion. In monitoring activities, the teacher creates a rubric that will be able to record student activities in completing project assignments.

The next stage is the preparation of reports and the presentation/publication of project results. The project results are in the form of products, in

this case, variations and combinations of football passing, which are presented or published to other students and teachers or the public in the form of presentations, publications and exhibitions of learning products. Students in their groups take turns presenting the results of the completion of the project.

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CONCLUSION

Based on the analysis results, the project-based learning model significantly impacts student soccer learning outcomes in psychomotor, affective, and cognitive aspects.

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