



Differences with Problem based Learning Models, Project based Learning Models And Interest in Learning Material Junior High 36 Football Terrain

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Abstract

The purpose of this study is to analyze the difference between problem-based learning models, project-based learning models, and learning interests in football dribbling learning outcomes. The research method is experimental. The design of this study is an experimental design with a level of 2 x 2. Data collection techniques use observation, questionnaires and documentation. The number of research samples was 40 people with each group totaling 10 people. The data analysis techniques used were normality test, homogeneity test, anova test and tukey test. Based on the results of the research, $F_h > F_t$ was obtained which was $4.17 > 4.06$. So the overall conclusion can be drawn that there is an influence of dribbling learning outcomes in football games between problem-based learning and project-based learning. 2) $F_h > F_t$ obtained is $78.37 > 4.06$. Therefore, it can be concluded that there is an interaction between the learning model and learning interest on the learning outcomes of dribbling 3) It is obtained that $Q_h = 20.47$ and $Q_t = 2.81$ can be concluded that students taught with problem-based learning with high student learning interest are better than students taught with project-based learning with high student learning interest. 4) $Q_h = 13.65$ and $Q_t = 2.81$ were obtained and based on these results, it can be concluded that students taught with project-based learning with low student learning interest are better than students taught with problem-based learning with low student learning interest.



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INTRODUCTION

Education is a human need. Education always experiences changes, developments and improvements in accordance with developments in all areas of life. Changes and improvements in the field of education include various components involved in it, including implementing education in the field (teacher competency and quality of teaching staff), quality of education, curriculum tools, educational facilities and infrastructure and the quality of educational management including changes in learning methods and strategies. more innovative. These changes and improvements are aimed at bringing the quality of Indonesian education to a better level. A teaching model is a plan or pattern that can be used to shape the curriculum, design instructional materials and guide the teaching process in the classroom or in different settings. (Huda, 2017, hal. 73). The national education system must always be developed in accordance with the needs and developments that occur at the local, national and global levels (Mulyasa., 2016, p. 31).

Physical education is an inseparable part of education as a whole, physical education contributes to developing students' potential. In fact, physical education is a very broad field of study. More specifically, physical education is concerned with the relationship between human movement and other areas of education. This is as stated by Samsudin (Agustriyani, 2014, p. 9) means that suggests that: Physical education is an educational process through providing learning experiences to students in the form of physical activities, playing and exercising which are planned systematically to stimulate physical, skill, motor, thinking, emotional, social and moral growth and development. Students'

learning experiences and concepts are built on products produced in the project-based learning process. (Herowati, 2023). Projects vary in scope and time frame, and end products vary widely in the level of technology used and sophistication, 4) Learning outcomes are in the form of products (models, prototypes, art posters, performances, etc.) (Dinda & Sukma, 2021)

Physical education is not only an important part of human life, but exercising can improve a person's physical fitness and physical condition. (Muhardi, M., & Wijayanti, 2017, p. 3), so that to carry out daily activities without experiencing significant fatigue. Physical education has many problems that arise during the teaching and learning process, such as students who are too lazy to do physical activities (Rosdiani, 2016, p. 8). Learning is a process of changing behavior through experience and practice. This means that the goal of learning is a change in behavior, whether it concerns knowledge, skills or attitudes, even covering all aspects of the organism or person. One modern definition of learning states that learning is "a planned experience that brings about changes in behavior" (Zamroni, 2012, p. 34).

Learning is a process to achieve various abilities, skills and attitudes. Learning is an interaction between individuals and their environment. The environment in this case can be humans or other objects that allow individuals to gain experiences or knowledge, either new experiences or knowledge or something that has been obtained or found before, thus allowing interaction to occur. (Aunurrahman, 2012, hal. 36). This ability to act positively is called human potential and humanistic educators usually focus their teaching on developing this positive ability. (Desmita., 2017). Educational goals are ideal, while learning outcomes are actual. Learning outcomes are the

realization of achieving educational goals so that the learning outcomes measured are very dependent on educational goals. Learning outcomes need to be evaluated as a mirror to see again whether the goals set have been achieved and whether the teaching and learning process has been effective in obtaining learning outcomes. (Ngalim Purwanto, 2017, hal. 48).

Learning is an activity that someone does to get changes in themselves through training or experiences. Experts emphasize experience and training as mediating activities for learning activities. (Trianto, 2018). In contrast to the above opinion, Woolfolk (Djamarah, 2011, p. 14) States that "learning occurs when experience causes a relatively permanent change in an individual's knowledge or behavior". Learning causes permanent behavioral changes in an individual's knowledge and behavior. The Problem Based Learning (PBL) learning model has been proven to improve student learning outcomes in various subjects, including PJOK (Physical Education, Sports, and Health) (Silviyani et al., 2023). For example, studies have reported increased student completion rates and knowledge acquisition when using a PBL approach. (Fatwa et al., 2023). In addition, the PBL model fosters a collaborative learning environment, where students take more responsibility for their education, leading to increased learning activities and outcomes. (Ristyawati, 2023). Research has shown that implementing many ways to increase interest in learning dribbling in soccer games can motivate students to learn independently and creatively, reducing boredom in learning. (Nawawi et al., 2019) The study also showed that problem-based learning models can improve students' dribbling abilities, leading to improved learning outcomes and learning interest in soccer games. (Hardinata et al., 2023).

Based on observations conducted on Thursday, February 15, 2024 on class VIII students of SMP Negeri 36 Medan, where in dribbling learning it was seen that some students were enthusiastic about participating in learning, while some who were dominated by female students tended not to want to do dribbling seriously, this shows that some students have a low interest in learning PJOK. Learning models are ways or techniques of presenting learning materials that will be used by teachers when presenting learning materials, either individually or in groups. In order to achieve the learning objectives that have been formulated, a teacher must know various models. (Ahmad, 2017). Project-based learning can be achieved well by building learning communities. The emphasis in this concept is the focus of attention on the social context of learning. (Dwi Sulisworo, 2019, hal. 16). Project based learning (PjBL) is a teaching approach that is built on real learning activities and assignments that provide challenges for students related to everyday life to be solved in groups.

Project based learning is one of the learning models that uses real-world problems as a context for students to learn about critical thinking and problem-solving skills and to acquire essential knowledge and concepts from the subject matter. Project based learning is expected to be able to provide solutions in solving problems that occur by creating an idea or product by utilizing the existing environment. (Endah Rita S.D., 2020). Students' learning experiences and concepts are built on products produced in the project-based learning process. (Eti & Bano, 2022). Therefore, the author wants to test two learning models, Project Based Learning and Problem Based Learning, on high interest and low interest. Based on the description of the problem above, the researcher conducted a study entitled "Differences between the

Problem Based Learning Model, the Project Based Learning Model, and Learning Interests on the Learning Outcomes of Dribbling Football Material".

The Project Based Learning (PJBL) learning model has shown a significant increase in the interest and learning outcomes of Physical Education, Sports, and Health (PJOK) students. Research studies have shown that implementing PJBL in PJOK classes leads to improvements in cognitive, psychomotor, and affective aspects of learning (Ristyawati, 2023). In addition, the use of PJBL in Mathematics subjects has resulted in improved student learning outcomes, including attitudes, skills, and knowledge acquisition. Furthermore, the application of the PJBL model using comic media has significantly improved student learning outcomes, increasing student engagement, motivation, and activity in the learning process (Raaiyatini & Arifin, n.d.). Overall, these findings highlight the effectiveness of the PJBL model in improving student interest and learning outcomes in various subjects, including PJOK. The research gap in this study, namely Problem Based Learning (PBL) and Project Based Learning (PJBL) have shown a significant impact on students' soccer dribbling learning outcomes. PBL, as shown in (Hardinata et al., 2023) (Kuswati, 2022), has been shown to be effective in improving dribbling skills, with a marked increase in learning outcomes from 25.6% to 89.7% through a problem-based learning model. On the other hand, PJBL, as highlighted in (Hasbillah et al., 2022), has also led to an increase in learning outcomes, with an increase in the average score from 66.94 to 85.61, indicating the effectiveness of online-based learning media in improving dribbling skills. Both PBL and PJBL provide a structured approach that actively engages students in the learning process,

leading to increased understanding and mastery of soccer dribbling techniques (Kurniawan, 2023). The research gap above states that PBL and PJBL are able to improve student learning outcomes in soccer dribbling material. The difference with this study is that the study was conducted with two models, namely PBL and PJBL, this is not only to see the results of learning dribbling but also to monitor students' learning interests.

METHODS

The methodology of this study uses experimental techniques with randomized group design. The research subjects were randomly divided into different groups based on the value of the independent variables studied. This procedure ensures equal distribution of subjects on relevant variables to minimize variation in the dependent variable (Sugiyono, 2017), (Riduwan, 2004).

Participants

students of class VIII at SMP Negeri 36 Medan. From five classes, two classes were randomly selected to be the research samples: class VIII-2 and VIII-5, each with 38 students.

Sampling Procedures

Sampling was done using the randomized group design technique. The sample selection process involved a lottery where each class leader took a ball from a basket. Two red balls determined the class that would be the research sample. After being selected, a learning interest test was conducted to arrange groups based on the highest and lowest scores Winer (1971).

Materials and Apparatus

The instruments used in this study included basic motor skills tests for kicking, holding, and dribbling the ball.

The assessment was carried out for 30 seconds for each skill, with the number of repetitions performed correctly counted and converted into a score.

Procedures

Implementation of Measurement:

- Assessment of basic movements of kicking and holding the ball is carried out for 30 seconds, where students kick and hold the ball to the left and right.
- Assessment of basic movements of dribbling the ball is carried out by students dribbling the ball through zigzag obstacles within 30 seconds

Remedial:

- Remedial is carried out if the value achieved by the student does not meet the Minimum Completion Criteria (KKM). The remedial format is adjusted for the three students with the lowest scores

Design or Data Analysis

Data analysis was performed using homogeneity test and analysis of variance (ANOVA) to determine significant differences between treatment groups. The homogeneity test showed homogeneous data, while ANOVA was used to test differences between groups on the measured variables.

RESULT

The results of the study indicate a significant influence between the problem-based learning (PBL) and project-based learning (PJBL) learning models on dribbling learning outcomes in soccer games. Analysis of variance at a significance level of $\alpha = 0.05$ produces a value of $F_h = 4.17$ which is greater than $F_t = 4.06$, indicating that there is a significant

difference between the two learning models. There is also a significant interaction between the learning model and students' learning interest in learning dribbling outcomes in soccer games. Analysis of variance shows a value of $F_h = 7.837$ which is greater than $F_t = 4.06$, indicating a significant interaction.

Learning outcomes based on learning interests are that students with high learning interests who are taught using PBL have better learning outcomes compared to students with high learning interests who are taught using PJBL ($Q_h = 20.47$, $Q_t = 2.81$), while students with low learning interests who are taught using PJBL have better learning outcomes compared to students with low learning interests who are taught using PBL ($Q_h = 13.65$, $Q_t = 2.81$).

Tables & Figures

Table 1. Research Interactions

	Height	Poor
Int	22.60	20.30
Cont	16.20	24.30

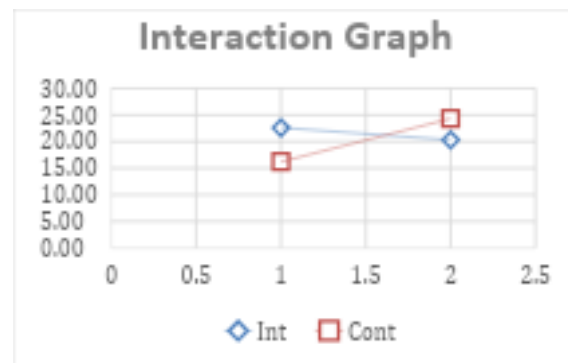


Fig 1. Interaction Graph

The interaction graph shows the differences in learning outcomes between students with high and low learning interests in both learning models. Students with high learning interests who use PBL show the highest learning outcomes, while students with low

learning interests who use PJBL show better results compared to PBL.

DISCUSSION

The results of the study showed that the PBL learning model was more effective than PJBL in improving dribbling learning outcomes in soccer games. This can be caused by the characteristics of PBL which emphasizes more on direct problem solving, so that students are more actively involved and motivated to learn. Students' learning interests have a significant role in influencing their learning outcomes. Students with high learning interests tend to have better learning outcomes because they are more focused and motivated to learn.

These results and discussions provide a comprehensive understanding of the effectiveness of various teaching models on student learning outcomes, especially in dribbling the ball in soccer. The learning outcomes of students who have high learning interest abilities taught with the PJBL model are better than students who have low learning interest abilities taught with the PBL model. Project Based Learning (PJBL) is a learning model whose goal is to emphasize students' focus on complex problems where an investigation process is needed and to understand the lesson itself through investigation. (Mulyasa., 2016b). This model facilitates students to carry out collaborative activities that integrate various curriculum subjects (materials), providing students with experiences to explore learning content using various ways that are meaningful to them. Furthermore, (Daryanto & Rahardjo, 2012) stated that Project Based Learning, or PJBL is a learning model that starts from problems and the collection and processing of information related to problems based on real experiences and activities. Project-based learning emphasizes contextual

problems that may be experienced by students directly, so that project-based lessons make students interested in learning and are able to develop their creativity. (Asis & Berdiati, 2014).

CONCLUSION

Based on the results of the research and discussion in this thesis, it can be concluded that there is a significant influence between the Problem Based Learning (PBL) and Project Based Learning (PJBL) learning models on dribbling learning outcomes in soccer games. The analysis shows that PBL is more effective than PJBL in improving dribbling learning outcomes in students with high learning interests. Meanwhile, students with low learning interests show better results when taught with PJBL compared to PBL. In addition, there is a significant interaction between learning models and learning interests on soccer dribbling learning outcomes. The implications of this study include improving the quality of physical education learning through the use of PBL and PJBL models, as well as providing positive contributions to the development and improvement of school quality and teacher abilities in the physical education teaching and learning process.

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