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The Influence of Learning Models and Student Interest on Learning Outcomes of Physical Fitness at SMP Negeri 35 Palembang

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Abstract: This study aims to determine the effect of learning models and student interest on learning outcomes of Class VII students at Junior High School 35 Palembang on physical fitness material. The population in this study were all class VII students of Junior High School 35 Palembang consisting of 7 classes with a total of 137 students for the 2023/2024 school year, 62 female students and 75 male students. Determination of the sample using random and selected class VII.5 and VII.6. This research is a quasi-experimental study using a 2 x 3 factorial design with data collection techniques through student interest questionnaires and learning achievement tests. The data obtained were analyzed using descriptive statistical analysis and inferential statistical analysis using Two Way Anova with an error rate of 5% (= 0.05). The results of the descriptive statistical analysis obtained that the average value of the learning outcomes of students who were taught with the PBL learning model was higher than the PJBL learning model. The results of inferential statistical analysis show that (a) the learning model influences the learning outcomes of class VII students of Junior High School 35 Palembang; (b) interest in learning affects the learning outcomes of class VII students of Junior High School 35 Palembang; (c) There is no interaction between the learning model and student interest in influencing the learning outcomes of class VII students of Junior High School 35 Palembang.

Keywords: Learning Models, Student interest, Learning Outcomes

A. Introductions

Education is a learning activity by sharing knowledge and skills carried out by a group from generation to generation. The implementation of a good education requres an in-depth study of a science about how a science is implemented and applied as it should. Therefore, this knowledge must really have proven its truth and validity (Abdullah, 2014).

The presence of education has become a common phenomenon in society and has become a benchmark for the development of a civilization in various countries. In Indonesia itself, it has implemented compulsory education for its citizens to pursue education for twelve years which has been established since 2015 (Dahar, 2011).

According to what is stated in the levels of education that must be taken include elementary, junior high and high school/vocational school levels.

Everyone has a different level of physical fitness because the activities they do are also different, including the diet and exercise they do. In addition, the level of physical fitness is also different because everyone has the ability to accept different physical loads (Aksara, 1993). There are three important things in physical fitness, namely: Physical, with regard to muscles, bones, and parts of fat. Organ function, with regard to the efficiency of the cardiac, vascular, and respiratory systems. Muscle response, with respect to flexibility, strength, speed, and weakness (Djaali, 2000). In this case the teacher's role is very influential in encouraging student interest in order to improve student learning outcomes on physical fitness material.

The way that can be done by the teacher to maximize the teaching and learning process is to participate in presenting models, learning models and innovative learning models. The PBL (Problem Based Learning) Learning Model is the right answer to be applied in the learning process, especially to increase students' interest in learning about physical fitness (Ari, 2015). They presence of a model in learning activities will certainly not run optimally if it is not paired with media that can also support the sustainability of the model in learning. In this day and age, there are many innovative learning media that teachers can apply to liven up the classroom atmosphere in the learning process. One of the sutable media to be applied to test students' writing skills is video media or commonly known as audio-visual media (Djamarah, 2002). In the opinion of audio-visual media is media that focuses on attracting students' attention through the senses of hearing and sense of sight. This media directs students to be able to observe every colour, motion, sound, object and various factual events so that students can understand a given concept and make it possible to change it textually (Eggen & Kauchak, 2012).

Based on the results of the observations that the researchers made at the school which was the object of research, it was found that student learning outcome is in the subject of physical fitness, both knowledge and skill values, were less than optimal. From the survey results, class VII students at Junior High School 35 Palembang were les interested in learning physical fitness material. So that learning outcome is are less than optimal both in the realm of knowledge and skills. Because of this disinterest, students seem to be forced to carry out these learning practices and also make students' knowledge of Physical fitness material very lacking, so that it has an impact on the own learning outcome is due to a lack of understanding and knowledge of the material (Jufri, 2013).

These problems certainly requre solutions that can change student learning styles so that they are more enthusiastic and play an active role in the learning process. One way that can be applied by the teacher is to apply the right learning model. They

application of the Problem Based learning model is more effective for increasing students' interest in learning and activeness and student learning outcome is (Nasution, 1998). However, the learning model will not run optimally without learning media. With the development of technology in today's Era, the use of media is the right steep to be applied according to the nereds and characteristics of students (Mulyasa, 2008).

This research is very important to carry out because through the right learning model there are many benefits to students. Among them can encourage students to improve the learning outcome is on physical fitness material (Johari & Rachmawati, 2006). From these various reasons researchers found compatibility from the use of learning models and students' student interest abilities can improve student learning outcome is on physical fitness material (Mansyur, et al., 2015). It is hoped that later it can give a big influence to realize the expected teaching and learning activities. Therefore, the researcher was ultimately very interested in conducting research with the title "The Influence of Learning Models and Student Interest on Learning Outcomes of Physical Fitness at SMP Negeri 35 Palembang". The problem in this study is: the interaction between learning models and student interests in influencing student learning outcome is at Junior High School 35 Palembang, and from each model.

B. Methods

This research is quasi-experimental research. The variables in this study consisted of PBL, PjBL, student's interest, and learning outcome is. The design used in this study is a 2 x 3 factorial design as shown in the following table.

Table 1. Research Design

	B1	**B2**	**B3**
A1	A1B1	A1B2	A1B3
A2	A2B1	A2B2	A2B3
Dependent variable: Learning outcomes			

Information:
A = Learning model
B = Student interest
A1 = Group of students who Take part in learning using the PBL learning model (Experimental Class I)
A2 = Group of students who Take part in learning using the PJBL learning model (Experimental Class II)
B1 = Group of students who have a high student interest
B2 = Group of students who have moderate student interest
B3 = Group of students who have low interest student interest

They population in this study were all students in class VII Junior High School 35 Palembang in the academic year 2022/2023, totalling 7 classes with a total of 137 students. They class selected as the sample was class VII.5 which was taught using the PBL learning model and class VII. 6 taught with the PJBL learning model. Sampling was done randomly. In this study, several instruments were used, namely student interest questionnaires, learning achievement tests and observation sheets on the implementation of learning models.

Data analysis using descriptive statistical analysis and inferential statistical analysis. Descriptive statistical analysis includes the average (mean), meridian, standard deviation, highest and lowest scores. They inferential analysis includes first, the prerequsite test, namely the normality test using SPSS 20 for Windows with One-Sample-Kolmogorov-Smirnov Thest analysis and this homogenety test is calculated using SPSS 20 for Windows with Two-Way ANOVA analysis. They statistical hypothesis in this study is as follows:

Hypothesis 1:

H0: $\mu A1 = \mu A2$

H1: $\mu A1 \neq \mu A2$

Hypothesis 2:

H0: $\mu B1 = \mu B2 = \mu B3 = \mu B4$

H1: one marked ≠

Hypothesis III:

H0: $(\mu A1B1 - \mu A2B1) = (\mu A1B2 - \mu A2B2)$

$= (\mu A1B3 - \mu A2B3) = (\mu A1B4 - \mu A2B4)$

H1: one marked ≠

C. Result and Discussion

Table 2. Statistical Scores of Students' Interest in Learning with the PBL and PJBL Learning Models

Descriptive	Class with Learning Models	
	PBL	PJBL
N	35	34
Median	93,06	92,35
Meridian	102,00	101,00
Divian standard	28,329	26,824
Varian's	802,526	721,690
Range	100	80
Minimum value	36	51
Maximum value	136	131

Based on Table 2, it shows that the description of students in experimental class I, namely class VII.5, before beng taught with the PBL learning model, had a mean or average student interest of 93.06 higher than the average value of students' student interest in experimental class II, which taught with the PJBL model, namely 92.35. For the distribution of high, medium, and low student interest categories for students from experimental class I and experimental class II, the category division formula was used to obtain a description of student interest data for each cel of the research design shown in Table 2.

The description of the PJOK learning outcomes data of students with the PJBL and PBL learning models can be seeng in table 3:

Table 3 Statistics of PJOK Learning Outcomes of Students with PBL and PJBL Learning

Descriptive	Class with Learning Models	
	PBL	PJBL
N	35	34
Median	83,60	77,65
Meridian	84,00	76,00
Divian standard	5,220	6,080
Rangie	24	20
Minimum value	68	68
Maximum value	92	88

Based on Table 3, the descriptive PJOK learning outcomes show that the experimental class, namely class VII.5, after beng taught with the PBL learning model, has an

average value of learning outcomes of 83.60 higher than the average value of student learning outcomes in the control class, namely class VII.6 after beng taught with the PJBL learning model of 77.65. The learning outcomes (post-test) category of students after beng taught using both learning models, the learning outcomes are divided into three groups, namely the learning outcomes of students who are interested in high, medium, and low. The normality test is used to determine whether the data under study comes from a normally distributed population. Testing the normality of student learning outcomes data is calculated using SPSS 20 for Windows with the One-Sample Kolmogorov-Smirnov. If the significance (sig) obtained is greater than = 0.05, then the data comes from a normally distributed population and vice versa. They homogenety test is used to determine whether the two samples taken are homogeneous (have the same variance). This homogenety test calculated using SPSS 20 for Windows with Two-Way ANOVA analysis. With the testing criteria: if the significance value (sig.) obtained is greater than " = 0.05, then the data is homogeneous. Based on the results of the homogenety test, a significance value of 0.081 was obtained. This shows that the significance is > 0.05, so it can be concluded that the data of the two groups come from a homogeneous population.

The result of hypothesis testing I show that the significance value of the model on student learning outcomes is 0.000. So, for " = 0.005 it is known that the significance (sig.) < ". That is, H0 is rejected and H1 is accepted so that it can be concluded that there is an influence of the learning model on student learning outcomes in the material for physical fitness at Junior High School 35 Palembang.

The result of hypothesis testing II show that the significance value of interest in learning is 0.005. So, for " = 0.05 it is known that the significance (sig.) < ". That is, H0 is rejected and H1 is accepted so that it can be concluded that there is an influence of interest in learning on student learning outcomes in the material for physical fitness at Junior High School 35 Palembang.

The result of hypothesis testing III show that the significance value of the learning model interest in learning is 0.669. So, for " = 0.05 it is known that the significance (sig.) > ". That is, H1 is accepted and H0 is rejected so that it can be concluded that there is no interaction between the PBL learning model and student interest in achieving student learning outcomes on physical fitness material at Junior High School 35 Palembang.

The selection of the learning model that will be used has several considerations that moist be made, including educators moist be able to know the characteristics of each student they will teach, where each individual has different ways of learning, interests and abilities (Sugiyono, 2012). Furthermore, educators are requred to make a learning plan that is adjusted based on the material to be provided in order to make it easier for students to understand the teaching material to be delivered (Muhibbin, 2004). The

success of a learning activity can be seeng from the achievement of a desired learning goal, one of which is increased learning outcomes due to the provision of appropriate learning models. So, it becomes the educator's task to be able to determine what learning model is sutable for giving (Rahardjo, 2015).

The learning models in this study include using the PBL learning model and the PJBL learning model, which are two ways of delivering teaching materials given to obtain learning outcomes in physical education, sports and health. Learning that uses the Problem Based Learning model is a learning activity that demands student activity and the ability to analyse a problem because this method is student-centred. They Problem Based Learning (PJBL) learning model is a way of carrying out learning activities through a project carried out by students in groups. This is in accordance with the opinion (Artana, 2015) that learning activities that use a problem-based learning approach in learning activities requre students to work independently or in groups in solving problems. So that students carry out active learning activities and can practice skills in physical education learning sports and health (Joyce, et al., 2011). Through problem-based learning can improve the learning experience of students, this is said because students are given a real problem in the form of a learning topic and are then asked to find solutions and do it in the form of group activities to solve problems (Sanjaya, 2006). The learning process of the PBL model basically requres active students to search for material independently. The application of PBL brings many undoubted benefits to students and teachers. With new challenges in learning activities can increase curiosity so as to add to the experience of students in the learning process in a better direction (Shoimin, 2014). That way, the learning outcomes achieved by the group given the PBL learning model have a higher value than students who learn using the PJBL learning model as the results obtained from this research data (Ismawati, 2013).

The learning group that is given the PJBL model only requres students to simply be able to carry out the task orders instructed by the teacher so that the student's experience is limited by the material assignments given. Sports and health physical education learning using the PJBL model is marked by the implementation of learning activities by giving assignments in the form of motion exercises explained by the teacher then carried out by students according to the instructions on the assignment sheet (Slameto, 2010). Learning activities like this also make students not fully active, because they only follow the examples taught and have the goal of simply beng able to do and practice the assignments they receve, both individually and as a group (Mustachfidoh, 2013). This means that students only receve teaching assignments given. They advantage of applying these two learning models greatly determine the success of a given lesson (Sudjana, 2005). Based on the explanation and research results, the scores for the PBL and PJBL learning models both show that they have an influence on the learning outcomes of physical education, sports and health (Sutresna, 2007).

The result of this study proves the proposed research hypothesis that there is no interaction between the learning model and student interest on the learning outcomes of physical education and sports. This means that the conclusion of the hypothesis is rejected, the statistical results show that the learning model and interest in learning together do not influence the learning outcomes of sports and health physical education (Syaodih, 2008). The interaction hypothesis in this study was not accepted, allegedly due to several things, including when the implementation of research in the field when the treatment of learning models using problem-based learning was not optimal due to limited time conditions, so that the learning activities carried out by students as the research sample were not to give a permanent influence on student learning outcomes. In addition, no interaction can occur because the learning model used during the teaching and learning process usually does not use problem-based learning models so students are not used to learning independently (Trianto, 2013).

In learning activities, usually the form of assignments receved so far is only in the form of worksheets regarding teaching materials which Take place without any direct application through motion assignments which are directly instructed through task sheets (Usman, 2013). In addition, the measurement tools used by researchers to see learning outcomes in this study are only limited to the skills aspect, where learning outcomes can be obtained from the knowledge and attitude aspects. Rejected hypothesis can occur in research, as stated by (Uno, 2007) saying that a hypothesis cannot be accepted due to imperfect procedures carried out, as Well as equpment used and because the theoretical framework as a support in submitting hypothesis does not support it. This it is clear, from the results of this study that the hypothesis was rejected and recognized as a limitation in the study so that it was suggested not to be carried out in further research. It can be seeng that in the treatment of the PBL learning model, the PJBL learning model in the high student interest group and the treatment with the PBL learning model, the PJBL learning model in the low student interest group did not experience interaction. This, it states that there is no interaction effect between the learning model and students' student interest on the learning outcomes of sports and health physical education (Al-Tabani, 2014).

The learning model given as a treatment in this study is limited to the two models that will be given, namely the PBL learning model and the PJBL learning model. Eleen though in its direct application in the field or in the classroom you cannot only use two models, the models neredid can be exchanged according to the learning conditions and educators can combine several models in delivering teaching material, especially in learning Physical Education Sports and Health where students are requred to be able to directly practice techniques or movements in physical education learning (Rosmah, 2014). This is because not all practical material in PJOK can be easily understood by students by using the method of delivering material which is limited by only one learning model (Aldabbus, 2018). They learning model has a good impact

on the success of children in achieving learning goals with the interest in student learning. This means that students' interest in learning is an initial potential that moist be owned by each individual as a supporter to be able to carry out physical activities (Aliriad, et al, 2020). Each individual has an interest in learning and to be able to Take advantage of students' interest in learning, to be successful in learning PJOK learning material techniques requres the provision of an appropriate learning model (Yusuf, 2014). This it is clear, the use of appropriate learning models in physical education in schools, can not only improve student learning outcomes, of course it can also increase student interest. Students who have a high student interest will get better learning outcomes and vice versa for students who have a low student interest will get different learning outcomes (Alnedral, 2016).

Azizcha & Komaini (2019), says that learning outcomes are influenced by internal factors which include the spiritual condition or condition of the students themselves, then external factors such as the environment around students which can have an impact on study habits. Furthermore, student learning outcomes are affected because the model approach and learning strategies used are different for each individual in carrying out learning activities (Le, 2018).

Based on the explanation above, it shows that in order to get the learning outcomes to be achieved based on learning objectives, in the implementation of learning, especially sports and health physical education, do not only apply one learning model, it is better to combine several learning models to produce effectiveness in the teaching and learning process so that results can be obtained. Based on the results of the third hypothesis test, it shows that overall, the average score in the group that has a high interest in learning through a descriptive statistical approach shows that the average difference in physical education, sports and health learning outcomes between groups of students who are given the PBL learning model is greater than the PJBL learning (Irianto, 2010).

Improvement in learning can be seeng from the learning outcomes obtained by students, this means that students moist show changes in the learning process such as beng able to do something, besides that the, role of the educator is demanded when providing the right learning model, among the models used in learning, namely Problem Based Learning (PBL) and Project based learning models (Bachtiar, et. al., 2021).

However, in its application there are several things that are seeng in PJOK learning, namely the interest in learning that students have. Different things were shown in the learning outcomes of physical education, sports and health in the low student interest group, where the learning outcomes scores given by the PBL learning model and the PJBL learning model were based on the results of research that had been carried out, namely 83.60 and 77.65, respectively, indicating scores that were not much different,

however, the score of the learning outcomes of the PBL learning model group with low student interest was higher than that of the PJBL learning model group with low student interest. Judging from the size of the average score produced by the two learning models, namely 83, 60 and 77.65, it can be said that the learning model with the PBL learning model produces scores of physical education, sports and health learning outcomes that are not much different compared to the learning model with the PJBL model.

This as a whole the learning model using the Problem Based Learning (PBL) learning model equally influences learning outcomes compared to the assignment learning model in groups that have low motor skills. In applying the assignment learning model with the PBL learning model to the learning outcomes of sports and health physical education, it moist be supported by a high interest in learning, because if you have a high student interest, it is easier for students to carry out a series of physical activities in learning activities (Habók & Nagy, 2016). A person's student interest describes the level of a person's ability to accept and respond to a new skill they have acqured. They higher the interest in learning, it means that the level of mastery of new movements becomes easier. This is in line with what was said (Sujana & Sopandi, 2020) explaining that the quality of motor skills will provide a trigger for a person's ability to be able to accept new movements more easily. In the process of learning motion, a person's motor skills also support the achievement of the goals of the learning process to be studied. Based on all the results of the analysis that has been described both by descriptive analysis and inferential analysis, it is very reasonable to say that the use of problem-based learning models is more effective for the learning outcomes of physical education, sports and health of students.

In applying the learning model using problem-based learning in learning activities, it is necessary to pay attention to the student interests of students, this is said to be because this model gives higher scores in groups of students who have a high student interest. Whereas for groups who have a low interest in learning, it can be given using a combined learning model through Problem Based Learning and structured project based learning to make changes to the process and learning outcomes bult it would be better if the implementation of learning activities to prepared students to face future progress should learning in elementary schools uses the Problem Based Learning model because this is recommended if it is based on the average score obtained, as Well as fulfilling the necessary prerequsites as discussed previously (Sumatri, 2015).

Interest is one of the main factors in achieving goal, because the interest that arises in a person will attention to carry out an activity enthusiastically in the learning process. Interest to be the driving force of the learning process in order to achieve the goal what you want, if there is no interest then the goal is difficulty in achieving a learning goal. Interest itself means a tendency someone to focus on and act with feeling of pleasure

towards a person, situation, or activity be the focus of that interest. In this discussion there is an understanding that in interest there is focusing attention, there is an effort to master, know, approaching, possessing an object with a feeling of pleasure (Syah, 2011).

From several definitions of interest, the researcher concludes that interest is increasing attention, and focus the individual's mental activity on an obsecrated to him. In other words, interest can increase an individual's strength or drive to focus on what he wants. They understanding of learning according to Rohm Alina Wahab in his book psychology of learning is an activity that is carried out consciously by someone who produces change behaviour on himself, both in the form of knowledge and new skills as Well as in the form of new attitudes and values positive. Learning is a process that is carried out individuals to acqure new knowledge and experiences manifested in the form of changes in behaviour relatively permanent and settled due to the interaction individual with the learning environment. So, it can be concluded that learning is an individual process in obtaining knowledge, experience and skills and available interaction between the individual and the learning environment so that produce changes in attitudes and behaviour of individuals (Abdul, 2019).

Interest has a major influence on learning, because if learning materials, methods, learning situations, and facilities are not in accordance with the interests of students, then the student cannot learn as well as possible, this is because there is no attraction obtained by these students (Carol, 2020). Therefore, teachers are expected to be able to design and manage learning mathematics so that learning materials, methods, learning situations (Muhammad, 2016), and facilities according to the interests' students so that students' interest in learning mathematics will continue to increase (Rohmalina, 2016).

D. Conclusions

Based on the results of the previous research and discussion, it can be concluded that, there is an influence of the learning model on student learning outcomes on physical fitness material at Junior High School 35 Palembang, there an influence of interest in learning on student learning outcomes on physical fitness material at Junior High School 35 Palembang and no interaction between the learning model and student interest in influencing student learning outcomes on physical fitness material at Junior High School 35 Palembang.

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