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# Analysis of Teacher Assessment on the Effectiveness Of Problem-Based Learning in Improving Student Learning Outcomes at MA Putri Al-Ishlahuddin Kediri Lombok Barat

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#### Abstract

Physics is a subject that has a relatively small number of enthusiasts—caused by the factors that influence student achievement in learning physics, which are considered less attractive or do not significantly impact learning outcomes. This study aimed to determine the effectiveness of the Problem-Based Learning (PBL) learning model on student performance in improving psychomotor aspects and student learning outcomes in physics lessons. The method used in this research is descriptive quantitative with the sampling technique using simple random sampling. The data collection technique uses a questionnaire filled out by the teacher during teaching and learning activities in class. The results showed that based on the theory put forward by Arikunto, the resulting percentage value was 90.4% with a good predicate based on its effectiveness in improving student performance in learning. The conclusion from this research is the high level of student performance in the learning process. Because students are required to always be active in working together to solve and make solutions to problems set by the teacher, this research is considered suitable and recommended to be applied to further studies that have constraints on students' performance and learning outcomes.

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# **INTRODUCTION**

Education as a system plays an essential role in reconstructing the character of Indonesian children following the culture of the Indonesian nation itself, based on the Pancasila precepts, the law of the Unitary State of the Republic of Indonesia. To achieve the goals in an academic unit system, it must apply to the education and learning process in schools, including elements in teaching and learning activities as well as education, such as teaching staff, educational staff, and students, adjustments to the curriculum that has been set in when carrying out the educational process. The current curriculum is the 2013 curriculum.

Based on the Permendikbud written in Number 81a of 2013 regarding Curriculum Implementation, K-13, or the 2013 curriculum, follows the fundamental premise that knowledge is not easily transferred from teacher to students. The learning process incentivizes students to think critically and become problem solvers, not a pure banking or knowledge transfer model. Learning and learning is a component that is subjective and able to actively seek, process, construct, and use knowledge.[1]

Therefore, problem-based learning is very appropriate because it can create an active, regular, and synchronized learning process with the goals of education, learning models, and the curriculum used. Therefore, it is necessary to have an assessment tool that can help educators conduct

assessments of students during the learning process. Conducting assessments helps educators in their efforts to find strengths and weaknesses in ongoing or ongoing learning activities.

Performance appraisal is a complete assessment that can assess students' practical abilities in everyday life. The two main components of performance evaluation are assignments and rubrics. Giving assignments (assignment) is the main requirement for assessing the appearance and performance of students and is an assessment guide in the form of a scale used as a guide by assessors to assess student work. [2]

So it is necessary to hold an assessment to obtain information related to the development of students in carrying out teaching and learning activities using the PBL model. Then when the assessment has been carried out, the information from the assessment results can be processed to be used as a reference in conducting interventions with students. However, before carrying out the assessment, it is also necessary to know about certain factors that can change the control of the assessment results.

So teachers are required to be able to create and develop learning assessments of students to improve student learning outcomes. Because in improving learning outcomes, it is not only cognitive abilities that must be considered, but the attitudes and motor skills of students also need to be sharpened so that they can optimize students in learning. However, it is not impossible that this ability also has its own problems, so developing an assessment instrument for students' attitudes and psychomotor skills is necessary. It aims to obtain information about the problems encountered and follow up so that these problems can be resolved.[3]

Previous research following this is entitled Assessment Instruments For Students In The Problem-Based Learning (Problem-Based Learning), written by Rika Aprianawati et al. This study explains the use of problem-based learning models in assessing student performance. This article explains that the problem-based learning model is applied to the assessment instrument in assessing student performance. Then based on calculations based on the practicality of the instrument, a value of 88% was obtained so that it was declared very practical.[4]

Then in the second previous study and following this research entitled Development Of Performance Assessment In Scientific Approach Based Science Practicum In Improving Critical Thinking Ability Of Students In Class VII, SMP explained that student performance assessment instruments were able to improve student performance and abilities in terms of effectiveness. Therefore this assessment can increase students' critical thinking skills in science subjects. [5]

The link between this research and previous research is the use of problem-based learning models in their application to assessment instruments and student performance. Students are given treatment in the process of teaching and learning activities using this model so that it requires students to be active in problem-solving and teamwork to improve their abilities in solving problems given by the teacher. This research is deemed necessary to increase the effectiveness of students in teaching and learning activities.

In this study, the researcher hypothesized whether there was a significant change in student performance in student learning activities using the Problem-Based Learning model. Based on a survey of students at MA Putri Al-Ishlahuddiny, problems were found related to several students who had problems related to the learning outcomes of these students. Therefore the authors conduct an assessment related to student learning performance which aims to determine the effectiveness of student performance on the results of student learning based on problem-based learning methods (PBM) so that intervention is needed to achieve the desired learning objectives.

Various previous studies have demonstrated strong support for renewal in the effectiveness of problem-based learning in this study. One study that showed positive results was research conducted by Merda Agustina et al. (2022), which explained a significant increase in students' speaking skills. Refers to the data analysis results on testing the instruments' efficiency developed at 93.7% with an average student response of 95.5%.[6] another study by Widia Rahmi and Ike Sylvia (2021) also found that students who took part in problem-based learning had an effective test result using instruments that obtained a dominant score above B with a percentage of 77% and an A predicate of 5%. From the results of this study, it can be concluded that problem-based learning is

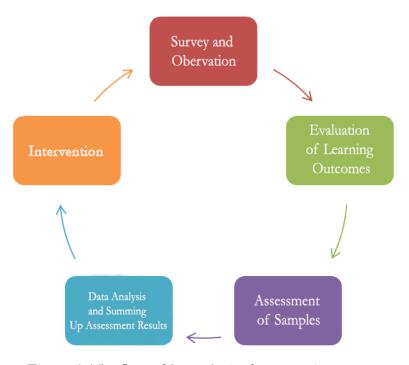
an effective method for improving student learning outcomes. Therefore, reforms that include the implementation of problem-based learning in schools are considered very important to consider.[7]

#### **RESEARCH METHODS**

The method applied in this study uses descriptive quantitative research with a phenomenological approach based on the experimental research method with the Pre-Experimental Design of student performance assessment instruments. This study focuses more on assessing student performance based on performance assessed through assessment instruments so that the results of this assessment can be used as a reference by the teacher in the consistency of students in the learning process so that it is expected to be able to improve student results in learning through these references. This method is used to determine the effect of the PBL model treatment on students and is combined with student performance assessment instruments.[8]

The object of this study used students at MA Putri Al-Ishlahuddiny as a population, with a sample of five students in class XI IPA 2. The sampling method used systematic random sampling to facilitate sampling. The sample is determined based on the performance of students who are stated to have poor learning performance still.

The stages in this research began with surveys and observations on students in monitoring the learning process. Then evaluate the learning outcomes of students. Then the researcher assessed the sample students by filling out the assessment instrument directly from the subject teacher. Then the researchers conducted data analysis and concluded the results of the assessment. Finally, determine interventions for students based on the results of the assessment.



**Figure 1.** The flow of Stages in Performance Assessment

#### **RESULTS AND DISCUSSION**

Student performance or assessment is the process of assessing student learning achievement, including assessing the skills, knowledge, and attitudes needed by students in completing assignments or achieving learning goals. Student performance assessments can be carried out using a variety of assessment instruments, such as tests, observations, portfolios, and others. The purpose of assessing student performance is to determine how far students have understood the material that has been taught and to provide feedback to students and teachers regarding student learning progress. Student performance assessments can also be used to evaluate the effectiveness of the learning methods and to develop more effective lesson plans. This assessment is the most suitable

alternative for teaching and learning activities because it meets the assessment standards stated in the 2016 Permendikbud number 23.[9]

Problem-Based Learning (PBL) is a learning method that emphasizes problem-solving and learning based on context. In PBL, students are challenged to solve problems relevant to the material being taught by using their knowledge and looking for additional information as needed. In assessing student performance, PBL can be used to assess students' ability to solve problems, use the knowledge they already have, and find additional information needed. In addition, PBL can also be used to assess students' ability to work together with group mates, communicate ideas and opinions effectively, and process the information obtained into meaningful solutions. Thus, PBL can provide a more complete and thorough assessment of student performance because it assesses students' ability to answer written questions and their ability to apply the knowledge they already have to solve real problems. So that in its application, it requires additional natural critical thinking skills from students or Higher Order Thinking Skills (HOTS) in solving these problems. [10]

This research is based on student performance assessment by applying the Problem-Based Learning model to the instruments and teaching and learning activities of students in class. Based on the discussion above, the final value and mean of each sample are obtained;

No	Name of Student	Total Final Assessment Score
1	Ilhawa Awlia	960
2	Baiq Ristia Amalia	960
3	Nurul Alya	880
4	Aulia Umami	840
5	Anniza Nurul Fatiha	880
Amount		4520
	Average	904

Table 1. Student Assessment Results from Data

From the results above, several data calculations were based on the theory using the predetermined formula. It produces a percentage value of 90.4%. Then the value is converted based on the theory in Arikunto's book [11] so that it can be concluded that the feasibility value of the learning model applied is stated to be Good.

In this study, several things were found that are often found in the assessment process of student assessments. Among them is the observation of the performance of pre-research students. Such is the concern written in the article entitled Cooperative Learning intervention promoting student involvement in the class written by moesarofah. Here is explained the author's concern for teaching and learning activities. It was explained that in the teaching and learning process, students show their presence in class but do not involve themselves in the learning process; this proves that what the students have done is very passive.[12]

In different cases, such as in practicum activities that require students' activeness in participating. Even this becomes a problem in research as written by Any Fatmawati and Siti Murdiyah entitled application of performance assessment in biology practicum activities to improve science process skills and student cognitive learning outcomes. In this study, it was explained that in improving student performance, innovation and development of practical methods were needed to improve students' skills in practice and increase students' understanding based on the practicum results earlier.[13]

A question from some of the above cases will arise: why did the above cases occur? Because students' awareness of the importance of learning is lacking. So that in some cases, it is stated that students' awareness and interest can affect their performance in learning. Cases like these should be given more attention related to student performance in the learning process. so things like this become homework in the world of education. Because as we know that education is a form of conscious effort that is planned and structured to create a learning and educational environment as well as learning activities that enable students to be active in developing religious spirituality, self-

control, morals, intelligence, noble character, and their ability to be recognized. By himself, society, nation, and nation[14]

In general, teachers are required to be able to be creative in carrying out teaching and learning activities in class. It is intended so that students can learn and process well at school, so it is hoped that these students can improve abilities that support their future, such as their cognitive, affective, and psychomotor abilities. So this research is needed to support these things, and it is proven that one of the relevant learning models is PBL. Then, even this PBL is used to measure student performance and produce the above data. So it can be concluded that performance assessment provides opportunities for students to participate in the learning process actively. It can increase the involvement and activeness of students in learning activities in class, which in turn can motivate students to understand the learning material better. Thus, using performance assessment can help students improve their abilities more effectively.[15]

Based on the research results above, several positive impacts were caused by applying PBL in research. One of them is the increased ability of students to think critically and solve problems. It is a development that is quite influential in increasing students' cognitive abilities. With the ability to think critically, students can analyze a problem and simultaneously find the right solution to the problem along with the process. [16] The ability to improve in addition to critical thinking skills is the ability of students to work together. This ability is not only applied when students are in class but can also be applied outside the classroom. Regardless of the method students use in collaborating to solve problems, it all depends on each student's creativity and the teachers' guidance. [17]

PBL itself is not only able to improve students' ability to think critically and work together but also has specific goals and results in increased student interest and motivation in learning. Students' interest and motivation in learning will increase based on the students themselves, but PBL triggers this increase. So that PBL is open for teachers to develop their creativity in developing PBL to be applied in the learning process. [18] But if we look through the point of view of the development of student discipline. This research covers this. Analyzing student performance in solving problems with well-structured processes proves that student discipline is trained and developed. So that later, when students are faced with problems in everyday life, they can solve them well. Because they have been trained to be disciplined early, they have provisions and life experiences that they can use in the future. [19]

Even in this study, certain factors did influence the results, including the respondent and environmental factors. Factors of the respondents themselves may include motivation, interview results, and the ability of respondents to participate in the research process. Then environmental factors such as the comfort of students during the research process and a pleasant research atmosphere can also influence the results of this study. In addition, several other factors may influence the results of the study, some of which focus on the research instruments used. [20]

In carrying out the assessment, it can be done through various media, and one example is using the WhatsApp messenger application. However, this study uses more direct communication media in its delivery and uses written media in applying its research instruments. [21]

Intervention or follow-up of the results of this study is the application of this assessment to subjects that require an assessment of student performance, as is the case with subjects that require student activity and cooperation. So that this also aims so that other subjects are also able to achieve the expected learning targets.

#### CONCLUSION

From the results above, several data calculations were based on the theory using the predetermined formula. It produces a percentage value of 90.4%. Then the value is converted based on Arikunto's theory so that it can be concluded that the feasibility value of the learning model applied is stated to be Good. So based on the calculations that have been done show a high level of student performance in the process of learning activities in class because the problem-based learning model requires students to be more active in teaching and learning.

Based on the research results above. The researcher will follow up to apply this assessment to subjects requiring student performance assessment, as is the case with subjects that require student activity and cooperation.

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