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The use of the Problem Based Learning as a Model of Learning in Improving Results

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Abstract : *He learning model is one of the factors that affect the learning achievement of students in class. The learning model has an important role because the learning model is a concept that becomes the foundation and guide in designing and implementing every step in the learning process. One of the learning models currently applied in Indonesia is Problem Based Learning (PBL). The purpose of the author in this discussion is to find out what kind of application of the Problem Based Learning learning model in improving learning outcomes. This research method uses a qualitative approach with a literature review method that examines several references from journals. Data collection techniques used interviews, observation, and reviewing several references from journals. The subject of this research is to collect qualitative and quantitative data from various journal reference sources. The results of this study indicate that this learning model shows that the Problem Based Learning learning model in increasing learning outcomes has an influence on the motivation, skills, and learning outcomes of students.*

Keywords: *Program Based Learning, Learning Model, Improved Results Learn*

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INTRODUCTION

The purpose of implementing education through the process of teaching and learning activities in class is to facilitate students to have knowledge and skills in certain fields of knowledge with good academic achievement. However, as a process of determining the level of achievement of each learning goal (Wardoyo, 2013), the process of teaching and learning activities in class is a complex activity process because there are various entities that are systematically integrated in the process. For example, the education system, school management, curriculum, teachers, teaching materials, learning methods, students, school facilities, and other entities vary in their specificity in each learning context. From these various entities, teachers, teaching materials and students become the three basic components in every learning process, and the learning model is the main component that strengthens these three components.

One of the components in the learning process, the learning model has an important role because the learning model is a concept (Abidin, 2014) which is the basis (Alma, 2009) and guidelines (Wahab, 2007) in designing and implementing every step in the learning process. . Mistakes in choosing a learning model will have fatal consequences for the overall learning process, such as not achieving the competency standards that have been determined in the national education system. Selection of learning models should be in accordance with the characteristics of the material and students, in order to achieve the expected competencies. If the learning method used is correct, the learning objectives will be easier to achieve and a pleasant atmosphere is created.

Problem Based Learning (PBL) is an alternative learning model applied in Indonesia in the 2013 curriculum. Problem Based Learning itself is a learning model that requires full student activity in order to solve every problem faced by students independently by constructing their knowledge and understanding. (Wardoyo, 2013).

LITERATURE REVIEW

Problem Based Learning learning model

(problembased learning) is a learning model that is intended to develop student learning motivation, encourage students to be able to think at higher levels, encourage students to optimize their metacognitive abilities, and become meaningful learning so as to encourage students to have high selfconfidence and able to learn independently (Abidin, 2014).

By using this PBL model, it is hoped that students can better understand the concepts being taught because they themselves find the problem. Operationally the teacher can actively involve students to solve problems and demand critical thinking skills. Through this method, the reception of knowledge is embedded based on the schemes owned by students so that learning is more meaningful, makes students more independent and more mature, is able to give aspirations and accept other people's opinions, instill positive social attitudes among students. Students can feel the benefits of learning because problem solving is closely related to daily life. In the end, student conditioning in group learning will make it easier to achieve the expected

learning completeness (Masholekhatin, Handoyo, and Sumarmi, 2012).

RESEARCH METHODS

This research is a descriptive and exploratory study that aims to determine what the application of the Problem Based Learning model is like of Problem Based Learning Model to Improve Primary School Mathematics Learning Outcomes, Problem Based Learning (PBL) Model in Mathematics Lessons in Primary Schools, Increasing Activities and Student Learning Outcomes through Problem Models Based Learning, Application of Problem Based Learning Model in Learning Solar The results of this study examined several journals regarding the Problem Based Learning (PBL) learning model, in this study amounting to 6 journals. The results of research from journal analysis can be described as follows: in improving learning outcomes

Table 1. Application of Problem Based Learning (PBL) Learning Model Based on Field Study

No.	Field of study	Number of Journals	Publication Year
1.	Mathematics	3	2012-2020
2.	IPA	2	
3. IPS	1		

This study uses a qualitative approach with a literature review method that examines several references from journals. The technique of collecting data is by compiling and reviewing several references from the specified journals. The subject of this research is to collect qualitative and quantitative data from various journal reference sources. Data were collected by purposive sampling then reduced, analyzed, then described. The subject of this research is qualitative and quantitative data collected based on journal references.

RESULTS AND DISCUSSION

Application System Material to Improve Student Learning Outcomes, Application of PBL (Problem Based Learning) Model in Science Learning of Class V Elementary School Students, and Improving the Quality of Social Studies Learning (Through Application of Problem Based Learning Methods in Junior High Schools) Negeri 15 City of Yogyakarta. The data in table 1 shows that from the six journals analyzed, the mathematics field of study more often uses the Problem Based Learning (PBL) method in schools. As in the table above, the field of mathematics studies most often uses the PBL method, namely there are 3 journals (Application of Problem Based Learning Model to Improve Primary School Mathematics Learning Outcomes, Problem Based Learning (PBL) Model in Mathematics Lessons in Primary Schools, and Increasing Activities and Student Learning Outcomes through the Problem Based Learning Model). Next are 2 research journals (Application of Problem Based Learning Model in Learning Solar System Material to Improve Student Learning Outcomes and Application of PBL (Problem Based Learning) Model in Science Learning for Class V SD Students) in the field of Science. While the social studies field of study obtained 1 research journal (Improving the Quality of Social Studies Learning (Through the Application of Problem Based Learning

Methods in SMP Negeri 15 Yogyakarta City). Improved Learning Outcomes The Effect of Problem Based Learning (PBL) Learning Models

Table 2. Improved Learning Outcomes The Effect of Problem Based Learning (PBL)

No	Learning Models			Learning Outcomes (%)	
	Field of Study	Tittle	Researcher	Before	After
1	Mathematics	Increase Student Activities and Learning Outcomes through the Problem Based Learning (PBL) Model	Agustin,V.N.	68,14	84,31
2	IPA	Application of PBL (Problem Based Learning) Model in Science Learning for Class V Elementary School Students	Eni,W. dkk	47,62	73,02
3	IPS	Improving the Quality of IPS Learning through the Application of Problem Based Learning Methods in SMP Negeri 15 Yogyakarta City	Muani, W	74,69	77,13
Average Learning Outcomes				**63,5**	**78,15**

Based on the data analysis above, the Learning Based Learning model can improve5 student learning outcomes. The aveYrage increase in learning outcomes before 63.5%, and after implementing the problem-based learning m59J9odel, there was an increase to 78.15%. With the application of the Problem Based Learning model in mathematics lessons can also improve student learning outcomes. The PBL model seeks to enable students to solve problems with higher order thinking. In solving problems, students are expected to have an understanding of what is being learned. Problem-based learning is a learning model designed and developed in order to develop students 'ability to solve problems (Shaputri, Marhadi, Antosa, 2017) by using the Problem Based Learning model to develop students' critical thinking skills in solving a problem given by the teacher. . In addition, the application of this problem-based learning model can foster the motivation of students in learning. One of the advantages of the Problem Based

Learning model is that students can experience the The application of the Pro Based Learning learning m makes students able to ide problems, find cause and e relationships and apply concepts are in accordance with the prob The process is carried out by stu through discussion in their gro This makes students happier so the learning process is meaningful. This result is accordance with the statemen Ashad et al. (2012) that in lea with the PBL model students are trained to rebuild the concepts have learned in solving given sci problems. The results of data analysis in the table above indicate that the student's response to the social studies field of study with the application of the Problem Based Laerning method has increased. With this learning model, it can train students to think critically in solving problems to find alternative solutions. Anisah, et al., (2018) in their journal show that the application of the Problem Based Learning (PBL) learning model combined with Team Assisted Individualization (TAI) improve student learning outcom because the combination of learning model is in accorda with the characteristics of study benefits of learning because the and students. gain learn experience, so as to be able problems faced by children are associated with identify problems that real life, this can increase motivation and interest presented in learning in the material being studied (Santiani, Sudana, and Literature,2017)

CONCLUSION

Based on the results of the above analysis, it can be concluded that the Problem Based Learning (PBL) learning model is often used in mathematics learning, namely that from six samples three selected were mathematics learning. The Problem Based Learning (PBL) learning model can improve student learning outcomes, improve students' problem solving abilities, increase students' learning motivation, train critical thinking, and increase students' interest in learning. Learning outcomes using the Problem Based Learning (PBL) learning model showed a significant increase in results, namely there was an increase in quantitative results of 14.65% from before the Problem Based Learning learning method was applied.

REFERENCE

Abidin, Y. (2014). Learning System Design in the Context of the 2013 Curriculum. Bandung: PT Refika Aditama.

Agustin, V. N. (2013). Increasing Student Activities and Learning OutcomesThrough the Problem Based Learning (PBL) Model. Journal of Elementary Education, 2 (1).

Alma, B. (2009). Professional Teacher. Bandung: CV. Alfabeta.

Anisah, Sumarmi dan Astina, K. (2018). Application of Problem Learning Model Based Learning Combined with Team Assisted Individualization for Improve Student Learning Outcomes. Jurnal Pendidikan: Theory, Research, and development, 3(2),159-164.

Ashad, M.S., Ali, M., dan Pasaribu, M. (2012). The Influence of Learning Models Based on Problems on Learning Outcomes of Physics in Class XI High School Students Negeri 5 Palu. Journal of Physical Education Tadulako, 1(2):39 43.

Eni, W., H. Setyo, B., dan Kartika, C. S. (2012). Application of the PBL (Problem Based Learning) In the Ipa Learning of Class V SD Students. Surakarta. Universitas Sebelas Maret.

Masholekhatin, N. S., Handoyo, B., dan Sumarmi. (2012). Influence Model Learning Problem Based Learning on Geography Learning Outcomes. Journal Education Department of Geography, 1-13.

Muaini, W. (2016). Improving the Quality of Social Studies Learning through Implementation Problem Based Learning Method in Junior High School. Mataram: Jipsindo

Santiani, N. W., Sudana, D. N., dan Tastra, I. D. K. (2017). Influence Model Problem Based Learning with Concrete Media Assisted Learning Againsts Class V SD Science Learning Outcomes. Mimbar PGSD Undiksha, 5 (2).

Wahab, A. A. (2007). Teaching Methods and Models. Bandung: CV Alfabeta.

Wardoyo, S. M. (2013). Constructivism Learning. Bandung: CV Alfabeta.