UNIVERSITAS MUHAMMADIYAH SIDOARJO

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DARI SINI PENCERAHAN BERSEMI

IMPLEMENTATION OF PROBLEM BASED LEARNING : WHAT IS THE INFLUENCE ON STUDENTS' REASONING ABILITY IN ELEETARY SCHOOLS ?

Proposal Seminars

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Introduction

1. Not enough optimal Reasoning ability of students class V SD Muhammadiyah 1 Krian
2. The learning model used only use method lecture so that Not yet Can optimizing students'

Problem Formulation

How influence Application of Problem Based Learning: What Influence To Ability reasoning Students In School Basic ?

Objective Study

Know Application of Problem Based Learning: What Influence To Ability reasoning Students In School Basic ?

Researcher Previously

1. N . Shofiyah and FE Wulandari, "Problem Based Learning (P BL) Models in Training Students ' Scientific Reasoning " .
2. P BL) Models on Students' Scientific Literacy Ability ,"
3. Eviani, S. Utami, and T. Sabri, "The Effect of Problem-Based Learning Models on Science Literacy Skills in Class V Elementary School ,"
4. U. Aiman And R. Amelia Ramadhaniyah Ahmad, "Problem-Based Learning Model (P BL) Against Science Literacy of Class V Elementary School Students,"

Indicator Literacy Science

As for indicator L iteration science _ according to TIMSS ie

1. Knowledge *(knowing)* consists from the sub- indicators recognize, describe, provide examples.
2. Apply *(Applying)* consists from sub indicators compare, relate, interpret models, interpret information, explain.
3. reasoning *(Reasoning)* consists from sub indicators predict, design, evaluate, draw conclusions, analyze, synthesize, generalize, justify.

PBL models

1. In the learning model This *Problem Based Learning* is to develop students' ability to solve a problem through scientific literacy
2. syntax in *Problem Based Learning* This there are 5 phases among them that is :
   1) orient student in A problem ,
   2) organize student in learn ,
   3) help in the process of investigation in a manner independent nor group ,
   4) develop And serve results work as well as flaunt it And
   5) analyze And evaluate breaking process A problem .

Draft Study

Pretest	treatment	Posttest
O_1	X	O_2

Draft method study use *one group pretest- posttest design* chosen Because consists from One group so that No There is comparison with group control. The independent variables are shown by treatment ie PBL method whereas variable dependent is ability literacy science students who can showed difference between pretest and posttest (O_1 -O_2)

Population And Sample

- Population in study This is student class V SD Muhammadiyah 1 Krian .
- Whereas sample saturation used _ in study This is student class V SD Muhammadiyah 1 Krian .
- Researcher use saturated sampling technique Because all amount relatively small population , ie not enough of 30 students .

Technique Data

1. Technique data collection with use test Reasoning
2. The test will be given to student class 5 consists of 2 parts that is *pretest* And *posttest*

Instrument Study

1. Test Reasoning ability of students
2. Consists out of 20 appropriate questions with Reasoning student

Technique Data

Based on the data that has been obtained results mark student on this pretest and posttest scores , technique analysis data using N-Gain

$$\text{N-Gain} = \frac{S_{post} - S_{pre}}{S_{Maks} - S_{pre}}$$

Description :

N-Gain : Saying test gain normality

Spost : Declare posttest value

Spre : Declare pretest value

Smks : Declare score maximum

Results

- Based on implementation research conducted _ on student class V SD Muhammadiyah 1 Krian totaling 23 students May 15th in the form essay questions with reasoning indicators already tested validity construct obtained the result is 3.42 which means well , then validity content obtained with mark the highest is 0.770 which means it is valid to use , and test reliability with result of 0.851 classified reliable or category high . Then on May 16, 2023 then obtained *pretest* data And *post test* .

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
N_Gain_Score	23	.18	.83	.5266	.18559
N_Gain_Persen	23	18.18	83.33	52.6611	18.55866
Valid N (listwise)	23				

•**Figure 3.** Chart N-Gain

Results the N-Gain calculation shows that part big student experience enhancement in ability *reasoning* after follow the Learning Model *Problem Based Learning* (PBL), though level the increase varied between students whose N- Gain scores high , medium , and low . kindly overall , the average N-Gain score for whole student is 0.52, which is in in category " Medium ". Where is this Problem based learning learning model of course belong very influence in the learning process the .

Discussion

- Based on results observation activity student with using the *problem based learning* (PBL) model on results calculation of the average indicator This very Good And Also varied on every results from indicator the . Can seen that between the mean values *pretest* (63,26), before given a learning model . Then obtained mark *posttest* (82.74), p the show that this *problem based learning* (PBL) model based problem that makes student active in learning , because learning This can study in a manner independent nor group And student can give various opinion about material influence heat to change temperature And exists object in life everyday .

Benefit Study

Learning models *Problem Based Learning* This own excess to student in understand concept , involves student in a manner active For solve something problem And demand For think in a manner high . So that student more tend independent in the learning process , because can Study in a manner independent nor group . As for lack in *Problem Based Learning* This that is for inclined students _ lazy objective the formation of learning models This No achieved with Good And efficient . this _ caused Because required PBL implementation time longer than _ learning conventional .

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