

Enhancement Activity Study Student Through the Project Based Learning (PjBL) Learning Model for Primary School Science Subjects 62 Mukai Mudik

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Abstract : Research This aim For increase activity student in science learning uses a learning model *Project Based Learning* in class IV SDN 62 Mukai Mudik. Study This is study action covering classes planning , implementation , observation and reflection . Subject study is class IV at SDN 62 Mukai Mudik, totaling 23 people. Instruments used in study This is sheet observation teacher activities and sheets activity student . Data analyzed use formula percentage activity . Research result show that application of learning models *Project Based Learning* can increase activity student . This matter proven with enhancement activity from cycle I to cycle II, where the average activity in cycle I is the indicator discuss group 68.1% increased in cycle II 80.4%, indicator finish projects in cycle I increased 82.5% to 86.9% in cycle II, indicator make reports in cycle I increased 47.7% to 71.7% in cycle II. Can concluded that happen enhancement activity students at SDN 62 Mukai Mudik learn science using a learning model *Project Based Learning* , for That It is recommended that teachers can using a learning model *Project Based Learning* in the learning process .

Keywords: Activity students, Science project based learning model science

1. INTRODUCTION

Education own role important inform source Power man Which intelligent, capable, creative, faithful and of noble character. In world education Teacher must Can inmake the learning atmosphere enjoyable, attractive, gives a sense of security, provides space on student For think active, as well as creative. (Mudiono, 2021)Increased student learning achievement greatly depends on choosing the right strategy and effective in students' efforts to develop creativity, ability and innovative attitude of participants educate. For this reason, it needs to be nurtured and developed program management with methods and strategies learning Which appropriate with method varies AndTeachers must master teaching skillsGood.

Wrong One problem Which faced world education moment This is problem lack of increasing process skills in learning. So that process learning Which occurred during this time, there was a lack of ability to develop ability student. Reason main weakness learning the is most Teacher who do not carry out learning activities, namely with focus on development Skills process science child. So that on Finally, circumstances sort of This Which create activities learning only centralized on delivery material in book text just. Matter This kind of thing also encourages students to try memorize every time there is a learning results test. So that condition This Also override on learning Knowledge Science (IPA).

Learning IPA aims to enable students to carry out analysis to What Which He learn, carefully And thorough When making decisions, be able to write them down phenomenon Which observed And able to reason relationship between an event or natural phenomenon One with Which other, so that capable creating a critical scientific mindset since early (Fahrurrozi, Sari, & Rahmah, 2022). One of the main challenges in basic education, especially in Natural Sciences (Science) subjects, is increasing student learning activities (Rahmi, Meli, & Kusdar, 2022). Science learning is often perceived as a difficult subject because there is a lot of abstract material, requiring teachers to look for methods that can stimulate students' interest and active participation in teaching and learning activities.

Based on results observation Which carried out, there are various activity problems Study student class IV in SDN 62 Homecoming in among them, Teacher use media Which not enough interesting motivation Study student, lack of activity student in science learning, during the process learning only a number of person student Which notice Teacher moment explained learning and there are also students doing other activities at the moment Teacher explained learning for example speak with his next door friend, asked permission to leave, did not respond to the teacher's questions and rarely recorded the information provided by the teacher. This shows that student not enough involved in a way physique and mental, so that student seen not enough active in learning. It's not just student activities that tend to be passive. Student learning outcomes also experienced a setback. Based on the data obtained, around 8 students paid attention to the teacher's explanation out of 15 students. Seeing the problems

faced, they must be addressed immediately in order to improve the learning process. Analyzing the problems of students who tend to get bored with monotonous strategies and low processing skills, it is necessary to carry out a learning process that activates students in learning. One way to implement a learning model that is oriented towards student activities from learning to the end is the project-based learning model (PjBL).

The project-based learning model or Project-Based Learning (PjBL) has been identified as an effective approach in increasing student learning activities. (Pearlman & Thomas, 2000) PjBL is a learning model that places students at the center of learning by involving them in real projects that are relevant to everyday life. This approach not only integrates theory with practice, but also develops 21st century skills such as critical thinking, collaboration, communication, and creativity. The teacher acts as a facilitator who provides facilities for students when asking questions about theory and provides motivation for students to be active in teaching (Rani, Lestari, Mutmainah, & ..., 2021).

Various studies show that PjBL can increase students' learning motivation and make learning more meaningful. Students involved in project-based learning show a higher level of conceptual understanding compared to students who take part in conventional learning (Renggana & Samsudin, 2023; Wang, 2023). (Taufek, 2023) This (Syukur & Farida, 2022) is caused by an active and contextual learning process, where students are directly involved in exploring and solving problems around them.

In Indonesia, the PjBL learning model has been implemented starting to do so, however For level education base Still classified A little. A number of studies has done For see effectiveness method This. For example, research conducted by (Nisah, Widiyono, Milkhaturohman, & ..., 2021),,,, (Irfana, Attalina, & ..., 2022) revealed that (Farhin, Setiawan, & Waluyo, 2023) PjBL (Ramadiani, 2021) can increase student involvement in the learning process and improve student learning outcomes. Furthermore (Winarti, 2018) (Aflah, Ananda, Surya, & ..., 2023; Aulia, 2023; Kibtiyah, 2022; Rahayu, 2012; Yuniasih, Hadiyanti, & Zaini, 2022), research revealed that the learning model is based on project No just increase ability cognitive students, but very good for increase ability Skills 21st century students covers think critical, creative, collaborative and communicative. Based on description above so formulated objective study for describe enhancement activity students in science learning use learning models based project at school base.

2. METHODS

Type of research used is study action class (PTK). Study action class is study Which done with method discernment to strength Study similar A action, Which intentional appeared And happen in something class in a way together The same. With do study action class can increase activity And results Study student as well as can develop teachers' professional potential as educators. This research was carried out in collaboration between the researcher and the class VI teacher at SD 62 Mukai Mudik, totaling 23 people, consisting of 11 men and 12 women. The focus of the research is student activity in science lessons by implementing a project-based learning model. The researcher chose to use the model from Kemmis & McTaggart contained in the book (Farnawi, 2020).

The steps in this model consist of four main steps in implementing classroom action research in one cycle, namely 1). Stage planning, 2) implementation stage, 3) observation or observation stage , 4) stage reflection . In research this , researcher using quantitative and qualitative data. Data sources were obtained from students and teachers through observation and interviews. Data collection techniques include observation, tests, documentation and interviews, with triangulation used to test the validity of the data. The data analysis technique in this classroom action research involves descriptive analysis for quantitative data and qualitative data analysis from learning outcomes and observation results.

Table 1. Presentation qualification activity student

Percentage which is obtained (x)	Qualification
85.01 % - 100%	Very Good
70.01 % - 85 %	Good
50.01 % - 70%	Enough
0.01 % - 50 %	Not enough

3. FINDINGS AND DISCUSSION

Pre Action: Based on initial data obtained at the time observation of the 23 students , only 8 students were active during the learning process , while 15 people have not capable show liveliness they in Study . They are in general Busy bother friend , just sit still , no notice even No take notes inform the teacher , sometimes No do task independent nor discussion group.

3.1. Cycle I Results

Implementation of Research Actions action class This implemented at SDN 62 Mukai Mudik District Siulak . Subject study student class VI totaled 23 people. Cycle I, meeting I was held on the day Tuesday January 23, 2024, begins 07.00-09.20 WIB. Meeting II will be held on Thursday 25 January 2024 07.00-09.20 WIB. The material studied is change form object . Observed activity is discussion group , carry out project and create report. **Observation** After do action , continue done observation about implementation learning . The results of teacher activities in cycle I with material change form object in accordance with plan implementation learning (RPP) and teachers have also carry out the learning process in accordance with the model used namely Project based learning (PJBL). Obtained activity students in cycle I in table I.

Table 2. Assessment Activity Student Cycle I Meeting I and Meeting II

Information	Activity Student		Percentage		Average
	Meeting 1	Meeting II	Meeting I	Meeting II	
Discussion Group	17	15	73.9%	65.2%	68.1%
Carry out Project	19	20	78.2%	86.9%	82.5%
Make Report	12	10	52.1%	43.4%	47.7%

Source : researcher

Reflection

After do observation researcher do reflection with collaborate with the class teacher results cycle I. Based on results observations made obtained liveliness students in activities discussion group obtain predicate enough , then carry out project obtain predicate good and make report obtain predicate not enough . Viewed from results reflection so concluded next to cycle II because activity student Not yet in accordance hopes and targets.

3.2. Cycle 2 Results

Implementation of Action: Research action class This implemented at SDN 62 Mukai Mudik District Siulak . Subject study student class VI totaled 23 people. Cycle I, meeting I was held on the day Tuesday January 30, 2024, begins 07.00-09.20 WIB. Meeting II will be held on Thursday 2 February 2024 07.00-09.20 WIB. The material studied is Water cycle . Observed activity is discussion group , carry out project and create report .

Observation : Observation results cycle II of activity student experience enhancement . Teachers try repair errors that occurred in cycle I. Weaknesses found in cycle I were Still Lots students who haven't active or not contribute to group . Therefore that , deep cycle II, the teacher will more firm rebuked every visible students silent or No do whatever the moment his group do project during learning taking place . Teachers will too more notice every student before start project group with share assignments for each student during project that , so more regularly and every student can responsible answer on Assigned job to they in group . So does making report results project , teacher more intensive observe work and division task in group . As for the results can seen in the table following This .

Table 3 . Evaluation Activity Student Cycle II Meeting I and Meeting II

Information	Activity Student		Percentage		Average
	Meeting 1	Meeting II	Meeting I	Meeting II	
Discussion Group	18	19	78.2%	82.6%	80.4%
Carry out Project	20	21	86.9%	86.9%	86.9%
Make Report	16	17	69.5%	73.9%	71.7%

Source : researcher

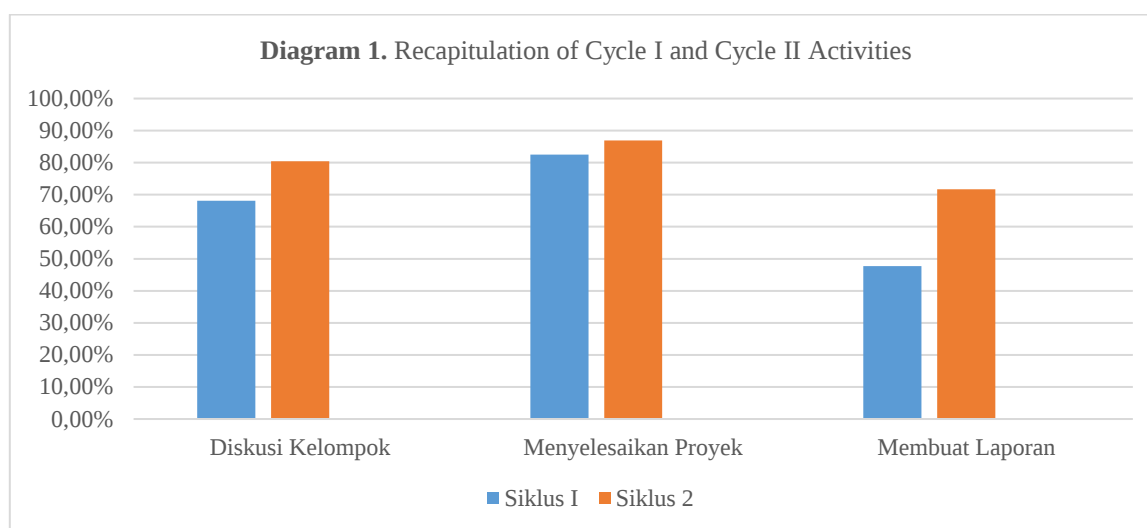
Reflection

During implementation action taken in two cycles , can is known that learning model *Project Based Learning* (PjBL) can increase liveliness participant students in class VI of SD Negeri 62 Mukai Mudik. Although Thus , teachers must always give guidance to participant educate in Study in accordance with need they . Through proper guidance , participants educate can more directed in do project and understand material with more Good . This matter show that the role of the teacher is very important in support success implementation PjBL , confirm every student get sufficient attention and guidance in accordance need individual they.

Discussion: The discussion is highlighted through the title and subtitles of the section when needed

Based on the research data obtained in the field , implementation use of learning models *Project Based Learning* can increase activity Study student . This matter can proven from source of data obtained in a way real from sheet teacher observation sheet activity Study students obtained student .

Activity students in cycle I not yet on target, though indicator finish project obtain predicate Good However indicator discuss group and create report show results enough and less . Then based on results reflection does There is a number of discovery and must fixed , then concluded next cycle II. After done cycle II refers to results reflection cycle I and teachers improve the learning process and more intensive to observed activity , then obtained results in accordance with hope . As for the recapitulation can seen in the following diagram This .



Based on diagram 1, you can seen that happen enhancement activity Study student from cycle I to cycle II. Where in cycle I of activity student at each indicator obtain predicate consecutive that is Good For discussion group , enough For finish projects and less For make report increased in cycle II with predicate good , very good and sufficient . Although experience enhancement will but Still There is indicators that get sufficient predicate that is make report . Make report project is task group , possibility get predicate Enough Because report made only one and is report group , that is why No all they take notes and make them . But seen during the learning process all member group give contribution For finish report the .

Furthermore indicator discussion group and finish project is task member group , so in accordance direction and results reflection they enthusiastic in do it . Apart from that , increasing activity Study student from cycle I to cycle II, namely the teacher recognizes activity Study student with create environment fun learning , students who learn with pleasant tend more succeed increase activity Study student from activity normal study just become more increase become more well , support and feedback come back where the teacher must give that to student For give bait useful feedback For help they in the learning process . So that can concluded that in learning Already there is enhancement activity Study student in a way significant and has been achieve the target already determined with using a learning model *Project Based Learning* . Learning based project give significant impact to collaboration student (Islamiati, Zulfiati, & ..., 2023). agree with (Permana, Gading, & ..., 2023) No only collaboration ability think creative student increase with a learning model based project . According to (Yanti & Novaliyosi, 2023). state that the learning process will activate student if types activities involved more from just

activity hear . The Project Based Learning learning model can increase activity Study students , okay visual, oral listening and mental (Ardiansyah, Hastuti, & ..., 2023)activities .

4. CONCLUSION

Based on results and discussion obtained where is the average activity in cycle I of the indicator discuss group 68.1% increased in cycle II 80.4%, indicator finish projects in cycle I increased 82.5% to 86.9% in cycle II, indicator make reports in cycle I increased 47.7% to 71.7% in cycle II. Ascension percentage in each indicator prove that learning model based project can increase liveliness student in matter discuss group , complete project , create report . With thereby recommended using a learning model based project For increase activity student . Can concluded that happen enhancement activity students at SDN 62 Mukai Mudik learn science using a learning model *Project Based Learning* , for That It is recommended that teachers can using a learning model *Project Based Learning* in the learning process .

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