

Implementation the Problem-Based Learning Model Based on Socio-Emotional Competence to Improve Science Learning Activeness in Grade IV Students

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1. Abstract

This study aims to describe the increase liveliness learning of students in science learning through the application of the Problem Based Learning model based on Social Emotional Competence in class IV of SD Negeri A in Yogyakarta, Indonesia. The method used in this study is the Classroom Action Research method. Research is carried out as an effort to overcome problems that arise in the classroom. This method is carried out in 4 (four) stages, namely planning, implementation, observation, and reflection. The four stages are cycles that take place repeatedly and are carried out with the same steps and are focused on increasing activity learning of students in science learning as the aim of the research conducted. This research was conducted in May 20 23 with 22 students in class IVa SD Negeri A Yogyakarta as the subject. The research was conducted through 2 (two) cycles with each cycle consisting of 2 (two) meetings. The research instrument used included observation sheets of students' active learning. The results of this study indicate that the active learning of students in cycle I was 64.63% and became 83.66% in cycle II, so that an increase of 19.03% was obtained.

Keywords: *Active Learning, Problem Based Learning, Social Emotional Competence*

2. Introduction

The success of an education can be seen from how the learning process takes place. In realizing the success of this education, the teacher needs to prepare a comprehensive and systematic design of learning activities to be used as a guide in carrying out learning activities. Learning activities need to be designed and pursued in such a way by the teacher in order to achieve the learning objectives and make the learning meaningful for students. Therefore, teachers need to have the skills to be able to determine the right type of method or strategy to apply in their class according to the needs and conditions of students.

However, it is often found that teachers are not aware of the importance of selecting student-oriented teaching methods and strategies. The teacher still tends to use the teaching method that he thinks is most comfortable for himself without paying attention to the needs of students. This of course will make learning activities become monotonous, so students will feel bored and students' learning activities tend to be passive. Therefore, a teacher needs to pay attention to the focus and active learning of his students in class. This is done so that student learning outcomes can be achieved optimally.

According to Sardiman (Andika, 2018: 288), active learning is a physical or mental activity in thinking and acting in a series that cannot be separated. Meanwhile, according to Maharani & Kristin (2017: 4), active learning is an effort made by students in the learning process, where students participate actively in class learning, so that these students gain experience, knowledge, understanding and other aspects. about what was done. Based on this understanding, it can be concluded that student learning activeness is a learning process that makes students active in learning activities. So, they are not only recipients of what the teacher gives, but also participate both physically and mentally.

One alternative learning model that can be used as an option to encourage students to be actively involved in learning activities is the *Problem Based Learning* (PBL) model. According to Anugraheni (2018: 11) the *Problem model Based Learning* or a problem -based learning approach is a learning model that involves participants in learning activities and uses real problems from the environment as a basis for acquiring knowledge and concepts through the ability to think critically and solve problems.

Through the *Problem model Based Learning* In this case, students are invited to be actively involved in every learning syntax that is carried out. As stated by (Nafiah

& Suyanto, 2014: 132) the Problem Based Learning learning model has several syntaxes in its learning activities, including: 1). provide problem orientation to students, 2). organizing students to learn, 3). assisting investigations independently and in groups, 4). developing and presenting the work, and 5). analyze and evaluate the problem-solving process.

In addition to active learning through the application of the Problem Based Learning model, to support the success of learning it also requires good concentration when participating in learning activities. Dimiyati (2009 : 239) explains that , learning concentration is the ability to focus on the lesson. The ability to focus attention among students is not the same between one another. This is in line with the opinion of Mutia (2018: 75) which states that the concentration of students' learning is influenced by the ability of each individual's brain to focus on what is being learned. The focus of this attention is to increase the possibility of students being able to absorb and understand the information obtained.

The concentration of students in participating in learning activities can be trained by integrating Social Emotional Competence. The Social Emotional Competence that is developed is *self*-management competence , namely by training the focus or concentration of students. This concentration exercise is carried out so that students

can restore their focus on learning and be more ready to accept the material presented by the teacher.

Based on idea As described above , the Problem Based Learning Model based on Social Emotional Competence is relevant to be applied as a science learning strategy for the material "Energy Change" . With the application of the PBL model , it is assumed that learning science will become more interesting because the objects learned occur in real -world situations that are close to the lives of students. In addition, the concept of essential knowledge that is learned will drive higher-order thinking skills, and by itself will encourage students to actively learn . In this regard, the researcher feels the need to conduct research with the title "**Implementation of the Social Emotional Competency-Based Problem Based Learning Model to Increase the Learning Activeness of Class IV Students at SD Negeri A Yogyakarta**".

3. Methods

3.1. Participants and context

The subjects in this study were 22 class IVa students at SD Negeri A Yogyakarta in Semester II of the 2022/2023 academic year. The research was conducted in May 2023 according to the PPL II program PPG Pre-service Batch 1 of 2022. The research method used was Classroom Action Research, using the model proposed by Kemmis and Mc Taggart, Ministry of National Education (2006). This

research model has 4 stages, namely planning, implementation, observation and reflection. The four stages of this research model are in the form of a spiral and are continuous, so that if the target of the results of the action has not been achieved, it can be continued with carrying out the next cycle. This research was conducted to observe the increase in student learning activeness when participating in learning activities in natural sciences subject matter of energy changes.

3.2. Material

The instruments used to support data collection in this study were observation sheets of learning implementation activities and student learning activity questionnaire sheets . This questionnaire contains statements that can describe the focus and active learning of students when participating in learning activities by applying the Problem Based Learning model based on Social Emotional Competence. The questionnaire is filled in by marking a check list (√) on a score of 1 "Not Good", 2 "Enough Good", 3 "Good" or a score of 4 "Very Good" according to the conditions of the students observed while participating in learning activities.

3.3. Data Collection and analysis

Data collection was carried out by filling out observation sheets that were used to see the situation and conditions of students' learning activities when participating in learning activities in class. In addition, the questionnaire sheet was also given to the observer to then fill in the score according to the state of focus and active learning of the students found when the learning activities took place at

the end of each cycle. In this case the researcher used data analysis techniques with quantitative descriptive and qualitative descriptions to describe the increase in activity student learning when participating in science learning activities on energy materials using the Problem Based Learning model based on Social Emotional Competence.

3.4. Ethical Considerations

This classroom action research was carried out to determine the increase in student learning activeness which was observed starting from cycle I. At the end of cycle I the researcher reflected on the advantages and disadvantages that had been carried out in learning practices. The results of this reflection are then used as material for lesson planning in the next cycle. If the expected results have not been achieved, then improvements need to be made until the indicators are achieved.

3.5. Limitations to the Study

This research is limited to efforts to increase student learning activeness by applying the Problem Based Learning model based on Social Emotional Competence in the science subject on energy change in class IVa SD Negeri A Yogyakarta.

4. Results and Discussion

Classroom action research in class IVa SD Negeri A Yogyakarta was carried out in 2 cycles and each cycle consisted of 2 meetings. The research was carried out by applying the Problem Based Learning model based on Social Emotional Competence. This model is used to improve and increase student learning activeness in natural science subjects on energy changes.

The active learning of students can be seen from several indicators of student involvement in learning activities, such as: 1) participating in carrying out learning tasks, 2) being involved in problem solving, 3) asking other students or the teacher if they do not understand the problems they face , 4) trying to find various information needed for problem solving, 5) carrying out group discussions according to the teacher's instructions, 6) assessing his own abilities and the results he gets, 7) training himself from solving questions or similar problems, and 8) the opportunity to use or apply what has been obtained in completing the task or problem it faces.

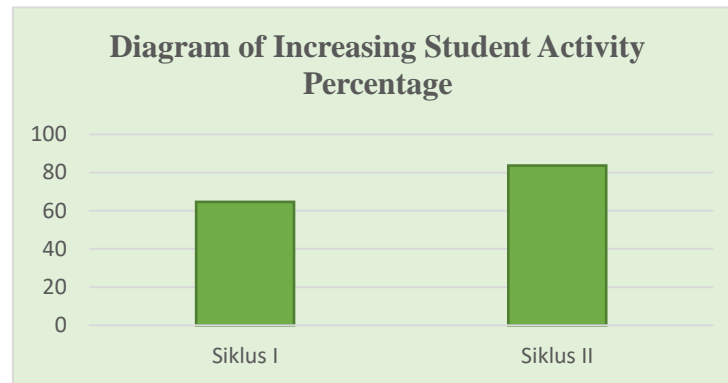
Based on the data that has been obtained, the results of data processing can be presented as follows:

Table 1. Results of Student Active Learning Data Processing

Results	Cycle I	Cycle II	Enhancement
Total score	455	589	134
Percentage	64.63%	83.66%	19.03%

The results of the data processing questionnaire on student learning activeness above show that in the first cycle the percentage of learning activeness was 64.63% and in the second cycle a percentage of 83.66 was obtained. So that it can be seen that the percentage of increased learning activity is 19.03%. When visualized in a bar chart, the results are as follows:

Figure 1. Bar Chart of Increasing the Percentage of Student Activeness in Learning



5. Conclusion

Based on the results of the research and discussion, it can be concluded that the learning activeness of class IVa students at SD Negeri A Yogyakarta in learning natural science on the subject of energy changes can be increased by applying the Problem Based Learning model based on Social Emotional Competence. This can be shown by an increase in the average percentage of students' active learning in cycle I, which was 64.63% to 83.66% in cycle II, an increase of 19.03% was obtained. This percentage has reached a predetermined indicator of success, so the researcher decided to stop the research in cycle II.

6. Confession

The implementation of this research would not have been completed properly without prayers, guidance, assistance, and support from various parties. Therefore, with all humility and sincerity, on this occasion the researcher would like to thank Mr. Zainnur Wijayanto, M.Pd as the Field Supervisor (DPL) and Mrs. Faridha Khuril Maknun, S.Ag., S.Pd. as the principal and Teacher Pamong (GP) who have been

willing to spend their time, energy and thoughts to provide guidance and direction in conducting research. To Mr. Agus Supriyanto, S.Pd. as the class teacher who has provided a lot of guidance and assistance during conducting research in class. Mr. and Mrs. lecturers of PPG PGSD Study Program FKIP Universitas Sarjanawiyara Tamansiswa Yogyakarta who have provided knowledge. Teachers and employees of SD Negeri A Yogyakarta who have provided support, assistance and direction in carrying out PPL activities at school. All students of SD Negeri A Yogyakarta for the 2022/2023 academic year, especially class IVa students who are willing to help run the research smoothly . PGSD005 class friends especially for the PPL group for all the joys, sorrows and struggles that we have gone through together while taking the Teacher Professional Education. May God Almighty give rewards and good rewards to all parties for the guidance, assistance and support that has been given to researchers.

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