Increasing Creativity through the PjBL Model based on the Tamansiswa Teachings among 4th Grade Primary Students

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1.   Abstract

This study aims to increase student creativity through the application of the Tamansiswa teaching-based Project Based Learning (PjBL) model to 4th grade students. The syntax for the PjBL model are: fundamental questions, designing product plans, compiling production schedules, monitoring project activity and progress, testing results, and evaluating learning experiences. The strategy that can be carried out by the teacher in developing a creative attitude is to use Tri N's Tamansiswa teachings. There are three phases to Tri N's teachings, namely Niteni, Niroake, and Nambahake. This research is Collaborative Classroom Action Research with the Kemmis and Mc Taggart research models consisting of planning, action and observation, and reflection. The subjects in this study amounted to 25 students. Data collection techniques using observation sheets. The data analysis used is descriptive quantitative and qualitative. The results of the study show that the application of the Tamansiswa teaching-based PjBL model can increase student creativity. The research was conducted in two cycles. In the pre-cycle, the average student creativity was 52.31%. After the action was carried out in cycle I, the average student creativity increased to 74.46%. In cycle II, the average student creativity reached 83.38% and met the research success criteria.

Keywords: *creativity, tamansiswa, PjBL*

2.   Introduction

Education has an important role in the life of the nation and state. An advanced nation

is seen from the high quality of education. High-quality education is closely related to teacher competence which affects the quality and competitiveness of human resources (Meliani: 2023). The learning process is an activity that reflects teacher performance in improving the quality of education, where the teaching and learning process is expected to achieve national education goals (Winarti: 2023). The learning process must run effectively to be able to create quality learning by involving students directly.

The Covid-19 pandemic that has spread in Indonesia practically makes activities unable to run normally or even stop. The impact is very significant and felt by all levels of society, including the education sector. The effectiveness of the curriculum under special conditions further reinforces the importance of changing the curriculum design and implementation strategy more comprehensively (Alfiah: 2020). The Merdeka Curriculum was developed as a more flexible curriculum framework, while also focusing on essential material and character development and student competencies. The independent curriculum is interpreted by the teacher as a learning design that is not rigid, but can accommodate any learning objectives to be achieved and even local contexts can be included in the learning design (Ardianti and Amalia: 2022). The implementation of the independent curriculum is integrated into every class lesson. The independent curriculum provides a looser yet disciplined reference to achieve student learning outcomes with student outcomes with a Pancasila profile (Lestari et al: 2022).

The Pancasila Student Profile is an ability that is built into everyday life that lives within every student through school culture, learning, Projects to Strengthen Pancasila Student Profiles, and Introduction to Environmental Exploration Exploring the Archipelago (Sulistyawati: 2022). Pancasila students are students who have a character based on the philosophy of Pancasila or the values of the Pancasila precepts as a whole and thoroughly. There are six dimensions in Pancasila Students, namely: (1) Faith, piety to God Almighty, and noble character, (2) Global diversity, (3) Cooperation, (4) Creative, (5) Independent,

and (6) Critical reasoning (Ministry of Education and Culture: 2020). In addition, the implementation of the independent curriculum is aligned with the skills developed in the 21st century which consist of critical thinking and problem-solving, communication and collaboration, creativity and innovation (Hamdi: 2022). Elementary school level schools can choose six main themes of the Pancasila Student Profile Strengthening Project as guidelines for its implementation, namely sustainable lifestyles, local wisdom, diversity in diversity, building their bodies and minds, engineering and technology, and entrepreneurship (Rachmawati: 2022).

Student creativity has an important role to solve a problem faced, especially elementary school students. Creativity is a student's skill to come up with new ideas, ways, or models to solve a problem (Natty et al: 2019). Students learning creativity can be measured based on five indicators, namely fluency, flexibility, originality, elaboration, and evaluation. Fluency is the ability of students to bring up many questions, flexibility is the ability of students to bring up the resolution from different perspectives, originality is the student's ability to generate ideas, elaboration is the student's ability to detail the details of an object, idea, or situation, and evaluation is the student's ability to make decisions in open situations (Komarudin: 2018). These indicators can be used to distinguish the level of creativity between one student and another.

The teacher as a facilitator must be able to guide students in increasing creativity. Various learning models that can be used to increase student creativity are one of them Project Based Learning (PjBL). This model emphasizes projects that students will work on (Rajagukguk: 2023). The strategy that can be carried out by the teacher in developing a creative attitude is to use Tri N's Tamansiswa teachings. There are three phases to Tri N's teachings, namely Niteni: students first observe and pay close attention to the teacher's directions and explanations about the subject being studied. Niroake: the teacher makes sure that the students understand well what is being said. If students

cannot imitate, the teacher needs to provide a re-explanation so that students can imitate well what has been explained. The final phase of this teaching is Nambahake: in this phase, students' freedom of creativity is shown. If these three phases are done well, students can have a good creative attitude (Nisa et al: 2019).

3. Methods

3.1. Participants and context

This research is a Collaborative Classroom Action Research. In this case, the researcher collaborated with the class teacher in acting. The researcher acts as the party taking the action, while the teacher acts as an observer of the ongoing process of action. This study uses the Kemmis and Mc Taggart model research design. The stages start from planning, implementing, and observing, as well as reflecting on classroom action research activities. The subjects of this study were 25 4th students consisting of 15 female students and 10 male students.

3.2. Material

The instrument used is in the form of observing the learning process using the PjBL model based on Tamansiswa teachings and student creativity. The indicator for observing the learning process is the syntax of the PjBL model based on Tamansiswa teachings. Student learning creativity is measured based on five indicators, namely fluency, flexibility, originality, elaboration, and evaluation.

3.3. Data Collection and analysis

Collecting data in this study through observation techniques. The observation used in this research is structured observation. Structured observation according to Sugiono (2019) is an observation that has been designed systematically, about what was

observed, when and where it was. In this case, the observation activity aims to observe student creativity during the learning process through the Tamansiswa teaching-based PjBL model.

The data analysis technique used in this study is descriptive qualitative and quantitative. Qualitative descriptives are used to measure the implementation of learning through the implementation of the Tamansiswa teaching-based PjBL model carried out by the teacher during learning activities. Quantitative descriptive is used to analyze data by calculating the results of observations of student creativity after implementing the Tamansiswa teaching-based PjBL model, so that each cycle will know the percentage of increase. The scores for each descriptor on the observed aspects are then summed up. The observation results are processed in the form of a percentage using the formula proposed by Purwanto (2018) as follows.

$$Achievement = \frac{\text{Total score on student creativity activities}}{\text{Maximum Score}} \times 100\%$$

According to Prastiwi (2017), the observed scores obtained by all students are categorized based on the table below.

Table 1. Category of Acquisition of Student Creativity Score

Score Range (%)	Category
81-100	Very good
61-80	Good
41-60	Enough
21-40	Not enough
>21	Very less

3.4. Ethical Considerations

All research or research involves humans as research subjects. Based on this, in this study, there are basic principles of research ethics, including the first is respect for people, in this case, we must respect and value students, where these students are research subjects. Then the second is the benefits, in this study, there are benefits, namely providing benefits to learning at school. The third is not endangering research subjects, in this study, not endangering research subjects because during teaching and learning activities carried out in the classroom, not outside the classroom.

3.5. Limitations to the Study

Some limitations are owned by researchers related to time, effort, and costs, this research is limited to efforts to increase student creativity through the Project Based Learning model in 4th grade on social science content. The main topic of discussion is to improve students' creative abilities with the rubric that has been provided. The material taught is related to social science content through the application of the Project Based Learning model.

4. Results and Discussion

Based on the implementation of the actions for 2 cycles which were carried out in 4 meetings, it was found that the creativity of 4th grade students had increased. Increasing student creativity is known by applying the PjBL model based on Tamansiswa teaching in learning activities.

Learning Process

The observer observes the implementation of the learning carried out by the teacher during the learning process by applying the PjBL model based on Tamansiswa teachings. Overall, the teacher has carried out learning activities by the Tamansiswa teaching-based

PjBL syntax by the sequence even though there are stages that are less than optimal in its implementation. The results of observations of teacher activity using the Tamansiswa teaching-based PjBL model in cycle I and cycle II are presented in the following table.

Table 2. Teacher Activities Applying the Taman Siswa Teaching-Based PjBL Model

Cycle I		Cycle II	
Meeting I	**Meeting II**	**Meeting I**	**Meeting II**
76,92%	84,62%	100%	100%

Based on the data in the table, the percentage of learning implementation by applying the Tamansiswa teaching-based PjBL model in the first cycle of the first meeting was 76.92% and at the second meeting, it increased to 84.62%. In cycle II meeting I there was an increase in the percentage of 100% and cycle II meeting II the percentage was obtained 100%.

Student Creativity

The results of observations of student creativity in social studies content by applying the Tamansiswa teaching-based PJBL model in the pre-cycle and cycle I activities can be seen in the following table.

Table 3. Observation Results of Student Creativity Cycle I

Information	Pre Cycle	Cycle I
Amount	170	242
Average Score	52,31%	76,46%
Highest Score	84,62%	84,62%
Lowest Score	30,77%	61,54%
Total Studens Completed	5	16
Total Student Incomplete	20	9
Completed Student Precentage	20,00%	64,00%
Incomplete Student Percentage	80,00%	36,00%

Based on the data in the table, it can be seen that the average score of students' creativity in the pre-cycle was 52.31%, and as many as 5 students completed it with a percentage of 20.00%. In the implementation of the first cycle of action, the average student creativity score was 74.46% as many as 16 students completed with a percentage of 64%. If a comparison is made between the average pre-cycle and cycle I score on student creativity, it can be seen in the following table.

Table 4. Comparison of Average Pre-Cycle and Cycle I Student Creativity

Total Student	Average		
	Pre Cycle	Cycle 1	Improvement
25	52,31%	74,46%	22,15%

Based on the table, it can be seen that the application of the Tamansiswa teaching-based PjBL model in learning activities can increase student creativity by as much as 22.15%. In the pre-cycle the average score was 52.31%, then it increased in cycle I to 74.46%. Even though the average student creativity score has increased, this value has

not met the criteria for successful action in this study, namely the average 4th grade student creativity score ≥ 76%, so it still needs improvement.

In observing student creativity in cycle II, it appears that there is an increase in student creativity when compared to the results of observations in the pre-cycle and cycle I. The results of observations of student creativity in cycle II are presented in the following table.

Table 5. Observation Results of Student Creativity Cycle II

Information	Pre Cycle	Cycle I	Cycle II
Amount	170	242	265
Average Score	52,31%	74,46%	81,54%
Highest Score	84,62%	84,62%	100%
Lowest Score	30,77%	61,54%	69,23%
Total Students Completed	5	16	21
Total Student Incomplete	20	9	4
Completed Student Percentage	20,00%	64,00%	84,00%
Incomplete Student Percentage	80,00%	36,00%	16,00%

Based on the table, it can be seen that the average student creativity in cycle II is 81.54%, there is an average increase from pre-cycle and cycle I. It is 100% for the highest score and 69.23% for the lowest score. The minimum complete score set is 76% of students who complete as many as 21 students with a percentage of 64.00%. A total of 4 students did not complete with a percentage of 16.00%. When compared with the pre-cycle and cycle I score for the student creativity variable, it can be seen in the following table.

Table 6. Comparison of Average Student Creativity in Pre-Cycle, Cycle I, and Cycle II

Total Students	Average			
	Pre Cycle	**Cycle I**	**Cycle I**	**Cycle II**
25	52,31%	74,46%	74,46%	81,54%
Improvement	22,15%		7,08%	

Based on the data in the table, it can be seen that the application of the Tamansiswa teaching-based PjBL model in learning activities can significantly increase the creativity of fourth-grade students by as much as a 22.15% score from cycle I. Before the action is carried out the average score is 52.31%, after the action the average score increases to 74.46%. The score in cycle I did not meet the criteria for research success, so cycle II was carried out and the results showed that the average score of students' learning creativity increased to 81.54%. The increase in the percentage of students' creativity scores before the action (pre-cycle), cycle I, and after cycle II can be seen in the following figure.
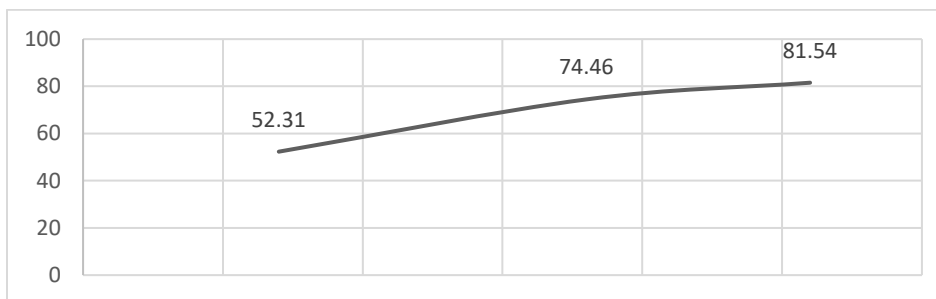

Figure 1. Increasing the percentage of students' creativity

The figure explains that the average 4th grade student creativity score showed an increase, in the pre-cycle the average student score was 52.31% then it increased in cycle I to 74.46% and in cycle II it increased to 81.54%. The average score met the

success criteria in this study, namely the average 4th grade student creativity score ≥ 76% so it no longer needed improvement.

5.   Conclusion

The application of the Tamansiswa teaching-based PjBL model in learning can increase student creativity. The average score of student creativity in the pre-cycle was 52.31%, increasing to 74.46% in cycle I. The implementation of the Tamansiswa teaching-based PjBL model in cycle I had several shortcomings, so it was necessary to make improvements in cycle II. After the repairs were carried out, there was an increase in cycle II in the form of an average student creativity increased to 81.54%.

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