

Jigsaw Type Cooperative Learning Model to Improve Student Learning Outcomes on Various Work Themes in Class IV State Primary School 064986 Medan Amplas

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Abstract. This study aims to determine the effectiveness of the Jigsaw cooperative learning model to improve student learning outcomes in thematic learning theme 4 "Various Jobs". This research was conducted in class IV SD Negeri 064986 Medan Sandpaper. This research is class action research (classroom action research). The subjects in this study were 17 grade IV students at SD Negeri 064986 Medan Amplas. Instruments and data collection techniques used in this study are observation and testing. From the observation results, it was found that only 5 students scored above the Minimum Completeness Criteria (KKM), and 12 students were below the KKM. The percentage of student learning outcomes only reached 29.91%. After taking action in cycle I, there was an increase in student learning outcomes. The percentage of student learning outcomes in the first cycle of the first meeting, namely 41.17%, and the percentage of student learning outcomes in the first cycle of the second meeting, namely 47.05%. There was an increase in student learning outcomes by 17.63% in cycle I, from 29.41% at the time of observation to 47.05% at the end of cycle I. The percentage of student learning outcomes in cycle II at the first meeting, namely 64.70%, and the percentage of student learning outcomes in cycle II at the second meeting, namely 82.35%. There was an increase in student learning outcomes of 52.94% in cycle II, from 29.41% at the time of observation to 82.35% at the end of cycle II. Thus, it can be concluded that the use of the Jigsaw cooperative learning model can improve learning outcomes in theme 4, "Various Jobs," for fourth grade students at SD Negeri 064986 Medan Amplas.

Keywords: Learning Outcomes, Multiple Jobs, Jigsaw Type Cooperative.

I. INTRODUCTION

Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble morals, and skills needed by themselves, society, nation and state (UU No. 20 of 2003). According to Rangkuti & Sukmawarti (2022) conclude that "education is a process in human life as a means of gaining knowledge which will later be useful for sustaining life in the future. Education is one way to improve and improve a person's quality of life. With education a person can increase his or her potential. Education is not only intended to develop individuals but is also the root of a country's development.

A very important tool for educational success is the curriculum. The curriculum is needed to explore students' skills, attitudes and understanding as a whole. The previous curriculum was known as KTSP and has now been refined into the 2013 curriculum. According to Sukmawarti and Hidayat (2020), the 2013 Curriculum Development is a further step towards the Competency-Based Curriculum Development which was initiated in 2004 and the 2006 KTSP which emphasizes the achievement of integrated attitudes, knowledge and skills competencies.

The 2013 Curriculum learning is implemented using a scientific approach. The scientific approach is an approach that requires teachers to be able to develop a learning process that is carried

out in an interactive, inspiring manner, providing sufficient space for students' initiative, creativity and independence according to their talents, interests and physical and psychological development. According to Sukmawarti et al, 2022:202 Learning is needed in order to prepare students to face the era of industrial revolution 4.0 which demands 21st century skills, namely creative thinking, critical thinking, communication and collaboration.

The implementation of the 2013 curriculum can be optimized by having teachers who can design and create innovations in learning and organize learning effectively and meaningfully based on student needs and characteristics. Innovation - Learning innovation that requires educators and students to think creatively and be able to adapt to current developments to produce students who are active, creative, innovative and of course have noble character (Sukmawarti et al., 2021) .

In the 2013 curriculum there is thematic learning. Thematic learning is learning that combines various subjects and uses certain themes (Kadir & Hanum, 2014, p. 9). Thematic learning emphasizes selecting certain topics that correspond to one learning concept or several concepts that combine various information.

Currently, many problems arise in the world of education, especially related to student learning outcomes which are greatly decreasing. Based on observations made on class IV students at SD Negeri 064986 Medan Amplas, it was found that the learning outcomes of class IV students, especially in thematic learning on the theme "Various Jobs", there were still many students whose learning results were below the Minimum Completeness Criteria (KKM) implemented by the party. school. According to Kunandar (2013:62) Learning outcomes are "certain competencies or abilities, both cognitive, affective and psychomotor, that are achieved or mastered by students after following the teaching and learning process". According to Febriyananda (2019), learning outcomes are the mastery that a person or student has gained after the student has absorbed the learning experience.

During the observation it appeared that the learning process was not running smoothly. The monotonous learning process makes many students not enthusiastic when participating in the learning process. The methods, tools and teaching materials used in the learning process are considered to have not been able to make the learning process effective, so this has an impact on low student learning outcomes. One of the factors that determines student learning outcomes is the teacher's ability to use learning strategies and tools as a way to manage learning activities. According to Hidayat and Khayroiayah (2018) To reduce the emergence of learning obstacles, teachers need to prepare appropriate learning tools.

According to Hidayat, et al (2021) in this modern era, technology is developing in various fields, such as education, including at the basic education level. This technological development makes it easier for teaching staff to create learning media and use learning methods in order to maximize the learning process.

Optimal learning results can be obtained, one of which is from using creative and innovative learning models. Choosing the right model can make changes to learning outcomes. One learning model that is quite innovative is the *Jigsaw type cooperative learning model*. The *jigsaw* type learning model is a cooperative learning model, with students learning in small groups consisting of 4-6 people heterogeneously and working together in positive interdependence and taking responsibility for the completion of the material to other group members. According to Istarani (2017:25) learning with the *Jigsaw model* begins with an introduction to the topic that will be discussed by the teacher. Next, the teacher divides the students into small groups. After the groups are formed, the teacher distributes textual material to each group.

Based on the description in above , then the problem formulation in this research is :

1. Can using a *jigsaw type learning model* improve student learning outcomes on the theme "Various Jobs" in class IV of SD Negeri 064986 Medan Amplas?
2. What are the student learning outcomes after implementing the *jigsaw type cooperative learning model* in class IV of SD Negeri 064986 Medan Amplas?

The aims of this research are:

1. To determine the effectiveness of the *jigsaw type learning model* in improving the learning outcomes of fourth grade students at SD Negeri 064986 Medan Amplas on the theme "various jobs".
2. To determine the learning outcomes of fourth grade students at SD Negeri 064986 Medan Amplas after implementing the *jigsaw type cooperative learning model* on the theme "various jobs".

RESEARCH METHODS

The type of research that the author used in this research is Classroom Action Research (PTK). This classroom action research uses the Kemmis and Mc model. Taggart. This model essentially consists of four components, namely planning, action, observation and reflection.

Identification of problems
Problem

Cycle I

Cycle II

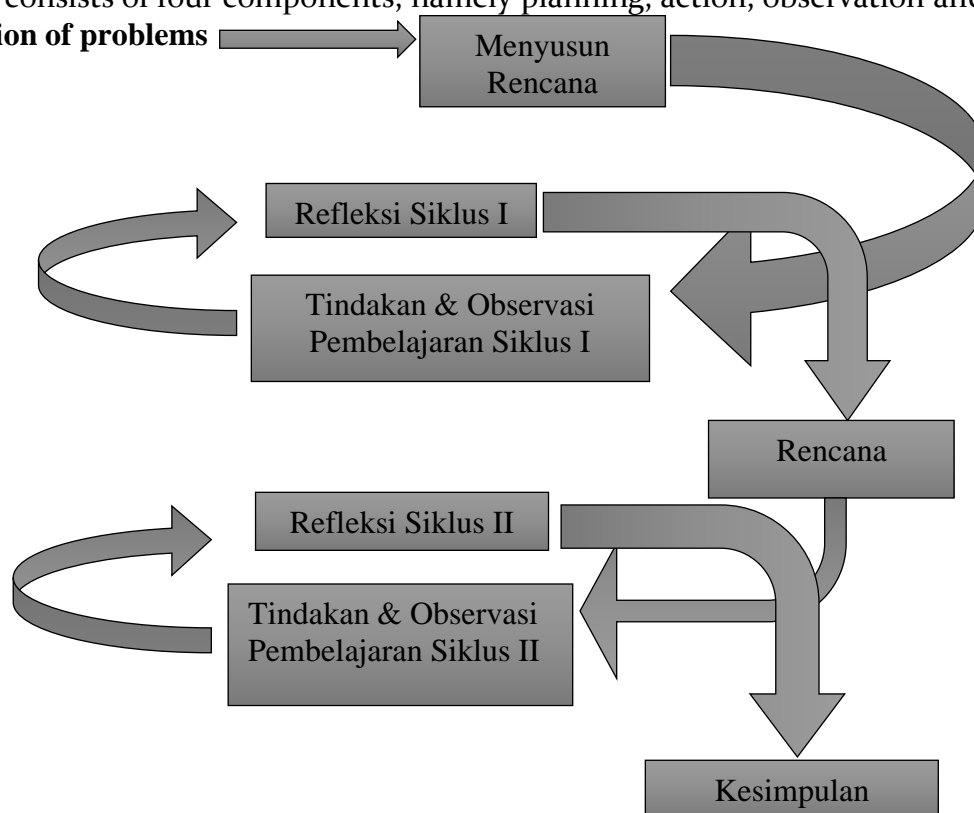


Figure 1. Classroom Action Research Design (PTK)
(Kemmis and Taggart (Kasbolah, 1998:124)

This research was conducted at SD Negeri 064986 Medan Amplas . The subjects of this research were class IV students at SD Negeri 064986 Medan Amplas, consisting of 17 people. With the number of male students totaling 7, and the number of female students totaling 10 .

There are several categories that are classified at the Classroom Action Research (PTK) stage, namely:

1. Cycle I

a. Planning

In this case, researchers need to prepare several things to prepare plans for cycle 1, namely preparing a Learning Implementation Plan (RPP), preparing observation sheets, preparing groups of students according to the learning model applied, and preparing several exam questions per cycle.

b. Implementation of Actions

In implementing the action, it needs to be done after preparing a plan with the steps that will be carried out, namely learning activities that are in accordance with the RPP and the initial stages of learning.

c. Observation

The implementation of observations contains documentation activities that occur during the teaching and learning process in the classroom. At this stage new facts can be seen that can encourage the creation of new conclusions regarding the research subject so that at this stage flexibility is still needed.

d. Reflection

activity in the Classroom Action Research (PTK) series is a reflection activity. Reflection activities are carried out to restate what happened during the action implementation activities, both in terms of weaknesses and strengths. This reflection activity influences changes and taking action in the next cycle.

The data analysis techniques used in this research are qualitative and quantitative data. Qualitative data consists of information on teacher and student activities carried out in each learning activity cycle. Meanwhile, the quantitative data is the average score of students in completing evaluation tests using the jigsaw type cooperative model. The data analyzed was obtained from the results of observations, documentation and tests. The learning outcomes of class IV students at SD Negeri 064986 Medan Amplas during reading comprehension and individual learning activities can be calculated using the formula:

$$P = \frac{F}{N} \times 100\%$$

Information:

P = Percentage sought

F = Number of students who completed

N = Total number of students

100% = Fixed number

The target to be achieved in this research is that students achieve a score of ≥ 75 out of a maximum score of 100 and achieve completeness of the minimum criteria set by the school. The Minimum Completeness Criteria (KKM) for research at SD Negeri 064986 Medan Amplas is 75. This research can be said to be successful if student learning outcomes increase, namely reaching ≥ 75 completeness and if ≥ 75 it is declared incomplete.

RESEARCH RESULT AND DISCUSSIONS

Jigsaw type cooperative learning model to improve the learning outcomes of class IV students at SD Negeri 064986 Medan Amplas, researchers carried out observations to determine the learning outcomes of class IV students. The results of the observations made can be seen in the table below:

Table 1. Student learning outcomes

No	Name	Mark	Awesomeness	
			Complete	Not Completed
1.	Utami's younger sister	85	Complete	
2.	Alfaro Septiano	80	Complete	
3.	Alya Shakira	60		Not Completed
4.	Andra Hutagalung	65		Not Completed
5.	Bryan Bernalto Sianturi	60		Not Completed
6.	Karina Natasya Flowers	55		Not Completed
7.	Dimas Putra Rabbani	60		Not Completed
8.	Ester Novalina Siahaan	78	Complete	
9.	Hanna Ferbyna Br Ginting	78	Complete	
10.	Hizkiah Manasseh Simanullang	80	Complete	
11.	Khairunnisa Wulandari	65		Not Completed
12.	Lastia Vanesha Silaban	55		Not Completed
13.	M. Abdul Nur Raihan	65		Not Completed
14.	Noura Nindira	60		Not Completed
15.	Nabila Zaskia	60		Not Completed
16.	Nur Asiah Harum	55		Not Completed
17.	Anugrah Wardhana	65		Not Completed
Total		1126	5	12
Percentage		29.41%		

Source: Class IV Teacher at State Elementary School 064986 Medan Amplas.

From the table above, it is known that of the 15 class V students at SDN 066667 Medan Denai, only 5 students scored above the Minimum Completeness Criteria (KKM), and 10 students below the KKM. The percentage of student learning outcomes only reached 33%.

Cycle I

1. Planning

Researchers prepare learning implementation plans (RPP) on various work themes. The lesson plan was created based on the learning material for class IV students at SD Negeri 064986 Medan Amplas contained in the theme 4 textbook, namely various jobs.

2. Implementation of Actions

Cycle I implementation actions were carried out in 3 meetings, namely on 17, 19 and 21 October 2022. The implementation process of cycle I was attended by all 17 class IV students. This implementation is guided by the learning implementation plan (RPP) that has been prepared

previously. The steps for implementing this action consist of three stages, namely: initial activities, core activities, and final activities.

3. Observation

Jigsaw type cooperative learning model in cycle 1 was carried out by providing material on theme 4 "Various Jobs", sub-theme 1 "Types of Work". The researcher gave 10 questions at the end of the learning activity using the *Jigsaw type cooperative learning model*.

Table 2. Recapitulation of Class IV Student Learning Results in Cycle I

No	Name	Student Grades for Each Meeting			Average	Awesomeness
		1	2	3		
1.	Utami's younger sister	85	85	85	85	Complete
2.	Alfaro Septiano	80	80	80	80	Complete
3.	Alya Shakira	60	65	65	63.3	Not Completed
4.	Andra Hutagalung	65	70	70	68.3	Not Completed
5.	Bryan Bernalto Sianturi	60	65	65	63.3	Not Completed
6.	Karina Natasya Flowers	65	70	70	68.3	Not Completed
7.	Dimas Putra Rabbani	60	70	70	66.6	Not Completed
8.	Ester Novalina Siahaan	80	80	80	80	Complete
9.	Hanna Ferbyna Ginting	80	80	80	80	Complete
10.	Hizkiah Manasseh Simanullang	80	85	85	83.3	Complete
11.	Khairunnisa Wulandari	75	75	75	75	Complete
12.	Lastia Vanesha Silaban	60	70	70	66.6	Not Completed
13.	M. Abdul Nur Raihan	65	70	75	70	Not Completed
14.	Noura Nindira	70	70	70	70	Not Completed
15.	Nabila Zaskia	70	75	75	73.3	Not Completed
16.	Nur Asiah Harum	60	60	60	60	Not Completed
17.	Anugrah Wardhana	75	80	80	78.3	Complete
Total		1190	1240	1245	72.42	
Percentage						41.17%

Source: Researcher Processed Data, 2022.

Based on the recapitulation table of student learning outcomes in cycle I above, out of 17 class IV students, 7 students got an average score above the KKM. Meanwhile, 10 other students did not get a score above the KKM. The average value of all student learning outcomes is 72.42 with a percentage of 41.17%. From these results it can be said that the learning outcomes of class IV students have not reached the KKM standards implemented by SDN 064986 Medan Amplas.

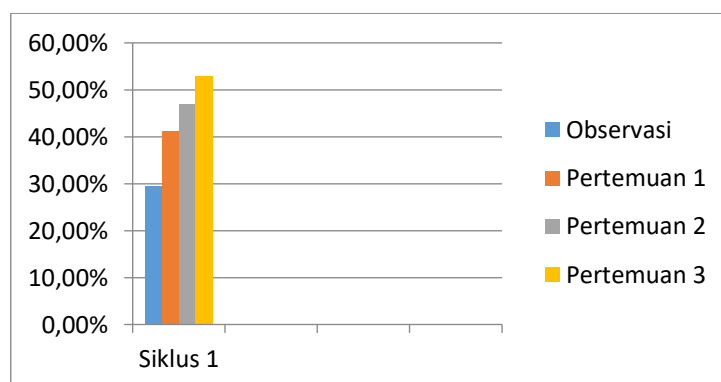


Figure 2. Diagram of Student Learning Outcomes in Cycle I

4. Reflection

At this stage the researcher thoroughly reviewed the activities carried out in cycle I. In addition, the researcher asked students questions about all the activities carried out as input. For the use of the *Jigsaw type cooperative learning model*, no weaknesses were found in cycle 1. Students are enthusiastic about participating in the learning process using the *Jigsaw type cooperative learning model*. Of all the activities carried out, there are still students who are not focused on participating in the learning process. There are several students who are still playing around on their own when the learning material is presented. Researchers then looked for the cause and found that there was a weakness in the process of delivering the material, namely the way the material was delivered was still less attractive so it could not make students focus more when the learning material was explained.

Cycle II

1. Planning

Researchers prepared a learning implementation plan (RPP) on the theme of healthy eating. The lesson plan was created based on the learning material for class IV students at SD Negeri 064986 Medan Amplas contained in the textbook theme 4, namely "Various Jobs" sub-theme 1 "Types of Work".

2. Implementation of Actions

The actions for implementing cycle II were carried out in 2 meetings, namely on the 24th and 26 October 2022. The implementation process for cycle II was attended by all 17 class V students. This implementation is guided by the learning implementation plan (RPP) that has been prepared previously. The steps for implementing this action consist of three stages, namely: initial activities, core activities, and final activities.

3. Observation

Jigsaw type cooperative learning model in cycle II of the first meeting was carried out by providing material on theme 4, sub-theme 2 "My Parents' Work". Researchers asked 10 questions during the learning process using the *Jigsaw type cooperative learning model*.

Table 3. Recapitulation of Class IV Student Learning Results in Cycle 2

No	Name	Student Grades for Each Meeting			Average	Awesomeness
		1	2	3		
1.	Utami's younger sister	90	90	90	90	Complete
2.	Alfaro Septiano	85	85	85	85	Complete
3.	Alya Shakira	70	70	75	71.6	Not Completed
4.	Andra Hutagalung	80	80	80	80	Complete
5.	Bryan Bernalto Sianturi	70	80	80	76.6	Complete
6.	Karina Natasya Flowers	75	85	85	81.6	Complete
7.	Dimas Putra Rabbani	70	75	85	76.6	Complete
8.	Ester Novalina Siahaan	80	80	80	80	Complete
9.	Hanna Ferbyna Br Ginting	80	80	80	80	Complete
10.	Hizkiah Manasseh Simanullang	85	85	85	85	Complete
11.	Khairunnisa Wulandari	75	75	75	75	Complete
12.	Lastia Vanesha Silaban	70	80	80	76.6	Complete
13.	M. Abdul Nur Raihan	75	75	70	73.3	Not Completed
14.	Noura Nindira	70	80	80	76.6	Complete
15.	Nabila Zaskia	75	75	75	75	Complete
16.	Nur Asiah Harum	60	70	70	66.6	Not Completed
17.	Anugrah Wardhana	80	80	80	80	Complete
Total		1290	1345	1355	78.01	
Percentage						82.35%

Source: Researcher Processed Data, 2022.

Based on the recapitulation table of student learning outcomes in cycle II above, out of 17 class IV students, 14 students got an average score above the KKM. Only 3 other students did not get a score above the KKM. The average value of all student learning outcomes is 78.01 with a percentage of 82.35%. From these results it can be said that the learning outcomes of class IV students have reached the KKM standards implemented by SD Negeri 064986 Medan Amplas.

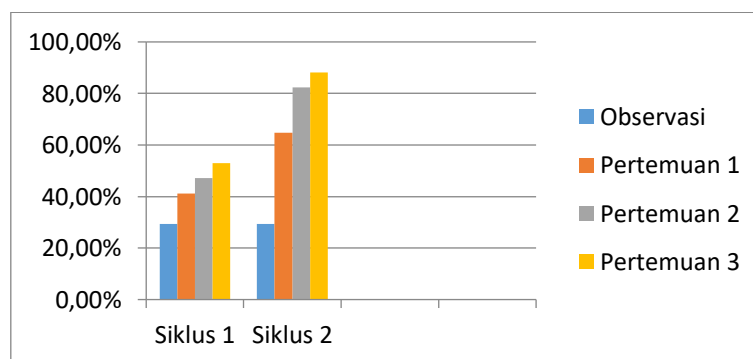


Figure 3. Diagram of Student Learning Outcomes in Cycle 2

4. Reflection

At this stage the researcher thoroughly reviewed the activities carried out in cycle II. Researchers evaluated the learning material presented, the use of the *Jigsaw type cooperative learning model* and student learning outcomes in cycle II. From the 2 meetings held in cycle II, it can be seen that the learning outcomes of class IV students have increased significantly. From this it can be said that the use of the *Jigsaw type cooperative learning model* can improve student learning outcomes.

CONCLUSION

Based on the results of research and discussion regarding the application of the *Jigsaw type cooperative learning model* to improve student learning outcomes on the theme "Various Jobs" in class IV elementary school, it can be concluded that:

1. The use of learning models has an influence on student learning outcomes.
2. The use of the *Jigsaw type cooperative learning model* in class IV was carried out in 2 cycles and in each cycle there was an increase in student learning outcomes.
3. In cycle I, out of 17 class IV students, 7 students got an average score above the KKM. Meanwhile, 10 other students did not get a score above the KKM. In cycle II, out of 17 class IV students, 14 students got an average score above the KKM. Only 3 other students did not get a score above the KKM.
4. There was an increase in class IV student learning outcomes by 11.76% in cycle I, namely from 29.41% at the time of observation to 41.17% at the end of cycle I. From the end of cycle II there was a significant increase in student learning outcomes, namely amounting to 52.94%. From 29.41 % at the time of observation to 82.35% at the end of cycle II.

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