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Application of PowerPoint Interactive Media to Improve Student Activities and Learning Outcomes

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ABSTRACT

This research has a background of low student learning outcomes in grade 5 theme 6 at SDN I Barusuda, sub-district, Garut City. It is known that students have daily test scores that do not reach the specified KKM score.The purpose of this study was to increase the activity and learning outcomes of students by using interactive media PowerPoint for students of Class V Theme 6 at SDN I Barusuda, Cigedug District, Garut Regency. The research method using Classroom Action Research (CAR) consisting of 3 cycles with 4 stages, namely planning, action, observation, and reflection. The subjects of this study is students of class V with a total of 30 people. Data collection techniques useing observation, interviews, tests, and documentation. While the data analysis technique used descriptive analysis. The results of this study indicate that the average percentage of student activity classically has increased. In the pre-cycle before treatment, it was 65%, in the first cycle it was 69%, in the second cycle, it was 74% while in the third cycle it was 87%. While the percentage of mastery learning outcomes in the pre-cycle is 33%, in the first cycle it is 33%, in the second cycle, it is 73%, while in the third cycle it is 90%. Based on the results of the research that has been done, it can be concluded that learning in Theme 6 using interactive PowerPoint media can increase students' activities and learning outcomes.

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1. INTRODUCTION

Education is a strategic issue for a nation. Quality education is not only an effort to produce educated individuals and communities but is a provision for preparation for the era of Globalization (Pribudhiana, 2020; Stofkova & Sukalova, 2020; Torres & Bosio, 2020; Zhao, 2020). The quality of education must be reviewed from a series of educational components which include input, process, and output (Supardi, 2021). On the one hand, education is very dependent on teacher competence, especially in the current conditions where learning is more emphasized through media and technology applications. Pedagogical competence must be developed, where teachers can utilize information and communication technology (Casillas, Cabezas, Garcia, 2020; Johan et al., 2020; Susanto, Rachmadtullah, Rachbini, 2020). In organizing learning, educators use technology as a medium (Batubara, 2021; Burbules et al., 2020; Johan et al., 2020; Mandasari, 2021). Through the Ministry of Education, the government provides internet quota for teachers and students so that online learning can be carried out using models and media modified by the teacher by utilizing supporting applications.

The problems found in class V SDN I Barusuda, Cigedug District, Garut Regency, through the observation that the learning activity of students is low by 65%, thus affecting the cognitive learning outcomes of Thematic learning. The lecture method needs feedback from students. Therefore, students only listen without any effort to explore their knowledge and do not learn to think critically in dealing with a problem because the material received is in the rote learning process without any meaningful meaning from a process they have done.

The relation function of learning media is that learning media improves the quality of the teaching and learning process (Ritakumari, 2019; Riyana, 2012; Wahyuningtyas & Sulasmono, 2020; Yaumi, 2021). So basically, creating effective and fun learning requires media, one of which is PowerPoint media with the advantage of visual information messages that are easy for students to understand so that it stimulates children to find out more information about the teaching materials presented (Alvianita, Abustang, & Fatimah, 2020; Syakur, Fanani & Ahmadi, 2020; Winarto, Syahid & Saguni, 2020).

The indicators for observing students' learning activities during the learning process are asking questions, activities in group work, activities answering discussion questions, and students presenting the results of discussion work in front of the class. The application of PowerPoint media in increasing student learning activities and results resulted in the conclusion that PowerPoint media can increase student activity and learning outcomes at SDN Pandean Lamper (Roberts, 2018; Mudasih & Subroto, 2019; Rullyana et al., 2017; Suaib, 2020).

Other research on the use of PowerPoint media in improving learning outcomes resulted in an increase from the first cycle to the second cycle, namely 15.29%, and an increase in student learning activity from the first cycle to the second cycle by 17.8% (Ningsih, 2020). Then other research related to integrated thematic learning and the use of PowerPoint media can increase student activity and learning outcomes in science subject the concept of natural resources, this can be seen from changes in student activity in learning and increasing student mastery of the material from the pre-cycle with the results the average category is lacking, cycle I with average results in the excellent category, to cycle II with average results in the good category (Agustiani et al., 2016).

This study's purpose was to increase students' activity and learning outcomes by using interactive PowerPoint media for Class V Theme 6 students at SDN I Barusuda, Cigedug District, Garut Regency.

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2. METHODOLOGY

This research method is Classroom Action Research (CAR), using two cycles of two meetings, each of which consists of four activities carried out in repeated cycles. Each cycle has four main activities: planning, action, observation, and reflection (Arikunto, 2021; Meesuk, 2021). This research was conducted at SDN I Barusuda, Cigedug District, Garut Regency. The research subjects were 18 students in class V, as many as 18 students whom the learning process was carried out face to face.

The research was carried out in the Even semester of the 2021/2022 Academic Year on Theme 6, Heat and Its Transfer. Data collection was carried out using test and non-test techniques. Test techniques include repetition at the end of cycles I, II, and III. In contrast, non-tests include observation of student activity, observation of teacher learning, and observer response questionnaires to teacher learning.

The indicator of success (benchmark) of this classroom action research is if the learning activities of students are said to increase if, from an average percentage, a minimum of 75% is obtained for each of these activity indicators, including asking questions, activities in group work, activities answering discussion questions, and students present the results of the discussion in front of the class. Indicators of success of student learning outcomes obtain a KKM score of 70, and the percentage of completeness obtains 75%. The data analysis technique used in this study is a descriptive analysis technique using percentages, comparing students' activities and learning outcomes between Cycle I, Cycle II, and Cycle III.

3. RESULT AND DISCUSSION

3.1. Cycle 1

At the learning planning stage of cycle I, planning is done based on the weaknesses identified at the pre-cycle stage to find a solution. Learning implementation activities consist of an introduction, content, and closing. These 3 learning stages are conducted by research (Rahmadani & Anugraheni, 2017). Corrective actions will be carried out through learning using PowerPoint media. The results of processing learning activities in cycle 1 are presented in detail in table 1 as follows:

Table 1. The Results of Student Activity in Cycle 1

Indicator	Score
Asking activity	67%
Activities in group work	65%
Activity answers discussion questions	75%
Activities presenting the results of discussion work in front of the class	69%
Average Score	**69%**

Guidelines for the criteria for student activity in learning according to Arikunto (2021) in table 2 are as follows:

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Table 2. The results of student activity in cycle 1

Achievements	Criteria
75% - 100 %	Tall
50% – 74,99 %	Currently
25% - 49,99 %	Low
0% - 24,99 %	Very low

Based on the results of observing the learning activities above, it is known that three indicators do not meet the minimum average criteria, namely 69% with moderate criteria. These indicators are the activity of "asking," activity in "group work," activity of "presenting" the results of the discussion. This can be seen when discussing students who are afraid to ask, so the indicator of work activities in groups has the lowest indicator score of 65%. Therefore, indicators that have not reached an average of at least 75% will then be used as material for reflection and improved in cycle II. At the end of the lesson, an evaluation test for the cycle consisted of 10 questions given in class. The following is the recapitulation of student scores on the first cycle evaluation test with material on Theme 6, Heat and Its Transfer.

Based on the data in table 3, it can be explained that the learning outcomes of students in class V SDN I Barusuda, Cigedug District, Garut Regency in cycle I showed an average value of 60 out of 18 students. With a completeness percentage of 33%. It is known from before being given treatment in the pre-cycle that it has increased, but it has yet to be said to be COMPLETE because it is still below the KKM, which is 70. The highest score is 75, and the lowest score is 40.

Table 3. Student Learning Outcome Data Cycle I

Rating Result	Score
Average value	80
The highest score	75
Lowest Value	40
Number of Completed Students	6
Number of Unfinished Students	12
Completeness Presentation	**33%**

Based on the data in Table 3 above, it can be explained that the learning outcomes of students in class V SDN I Barusuda, Cigedug District, Garut Regency in cycle I showed an average value of 60 out of 18 students. With a completeness percentage of 33%. It is known from before being given treatment in the pre-cycle that it has increased, but it has not been said to be COMPLETE because it is still below the KKM, which is 70. The highest score is 75, and the lowest score is 40.

3.2. Cycle II

In the learning planning stage of cycle II, planning is done based on the weaknesses identified at the pre-cycle stage to find a solution. Learning implementation activities consist of an introduction, content, and closing. These 3 learning stages are by research conducted by (Rahmadani & Anugraheni, 2017). The corrective actions that will be carried out through learning using PowerPoint media are carried out through four steps: 1. Orientation of students to problems. 2. Organizing students to learn. 3. Guiding individual and group

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investigations. 4 and developing and presenting works, assisting students in planning and preparing works 5. Analyze and evaluate the problem-solving process. The results of processing II cycle learning activities are presented in detail in Table 4 below:

Table 4. Learning Activity Scores Based on Cycle II Observations

Indicator	Score
Asking activity	72%
Activities in group work	75%
Activity answers discussion questions	75%
Activities presenting the results of discussion work in front of the class	75%
Average Score	**74%**

Based on the results of observations of students' learning activities, three indicators were met, namely group activity with a score of 75%, discussion question answering activities with a score of 76%, and presentation activities in front of the class with 75%, but there was one indicator that had not been fulfilled, namely asking activity with a score of 72%. After an average score of the four indicators obtained 74% of the total number of students, they have not reached the desired criteria. However, there has been an increase in each indicator. After learning in cycle II was completed, an evaluation test was carried out, which consisted of 10 questions given in class. The following is the recapitulation of student scores on the second cycle evaluation test with material on the theme 6 Heat and its Transfer.

Table 5. Student Learning Outcome Data Cycle II

Rating Result	Score
Average value	73
The highest score	100
Lowest Value	50
Number of Completed Students	13
Number of Unfinished Students	5
Completeness Presentation	**73%**

Based on the data in Table 5 above, it can be explained that the learning outcomes of students in class V SDN I Barusuda, Cigedug District, Garut Regency in cycle II showed an average value of 73 out of 18 students, with a percentage of 73%. There were 12 COMPLETE students and 6 students NOT COMPLETE. The highest score is 100, and the lowest score is 50. After an average score of the four indicators obtains a percentage of 74% of the total number of students, they have not yet reached the desired criteria. However, there has been an increase in each indicator, and their respective learning outcomes students have fulfilled the KKM. However, they have not reached the success criteria determined by the researcher, namely the 75% success criterion. With 13 COMPLETE students and 5 students NOT COMPLETE. The improvement will be made to emphasize guiding the course of the discussion when the learning process takes place by the expected learning objectives so that students can present in front of the class and express their opinions. The researcher will convey the technical discussion so that the atmosphere remains conducive.

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3.3. Cycle III

Table 6. Learning Activity Scores Based on Cycle II Observations

Indicator	Score
Asking activity	86%
Activities in group work	87%
Activity answers discussion questions	91%
Activities presenting the results of discussion work in front of the class	85%
Average Score	**87%**

In the learning planning stage of cycle III, planning is made based on the weaknesses identified at the pre-cycle stage to find a solution. Learning implementation activities consist of introduction, content and closing. These 3 learning stages are in accordance with research conducted by (Rahmadani & Anugraheni, 2017). As for corrective actions that will be carried out through learning using the PBL model assisted by Power Point media which is carried out through four steps, namely orientation of students to problems, organizing students to learn, guiding individual and group investigations, developing and presenting works that are helping students in planning and prepare works, analyze and evaluate the problem-solving process. The results of the processing of cycle III learning activities are presented in detail in Table 6 above.

Table 7. Student Learning Outcome Data Cycle III

Rating Result	Score
Average value	87
The highest score	100
Lowest Value	60
Number of Completed Students	15
Number of Unfinished Students	3
Completeness Presentation	**90%**

Based on the data in Table 7 above, it can be explained that the learning outcomes of students in class V SDN I Barusuda, Cigedug District, Garut Regency in cycle III showed an average value of 87 out of 18 students. As many as 90% of students have completed it, while 10% still need to complete it because they are still under the KKM, which is 70. The highest score is 100, and the lowest score is 60. Based on the results in cycle III, there is an increase in student learning activities, as indicated by an increase in scores on the indicator set. Reflection on improvements from cycle I to cycle III related to group activities went well, where there was an increase in the role of students in group activities, namely asking questions, activities in group work, activities in answering questions, and activities presenting work results. Research on the application of interactive PowerPoint media has a goal: to find out the increase in learning activities and student learning outcomes.

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Table 8. Comparison of Student Learning Activity Scores

Indicator	Score			
	Pre Cycle	Cycle I	Cycle II	Cycle III
Asking activity	66%	67%	72%	86%
Activities in group work	60%	65%	75%	87%
Activity answers discussion questions	69%	75%	75%	90%
Activities presenting the results of discussion work in front of the class	65%	69%	75%	85%
Average Score	**65%**	**69%**	**74%**	**87%**

Based on the research analysis, it is known that there is an increase in the learning activities of class V students at SDN I Barusuda, Cigedug District, Garut Regency. This can be seen from the increase that reflects the learning activities carried out by students during the process; the activities carried out by students have met the criteria set out in the indicators on student learning activities, which show an increase during Pre-cycle to Cycle I, from Cycle I to Cycle II, and from Cycle II to Cycle III. The increase in student learning activities that occur in learning activities can be seen in Table 8 above. Based on the data above, it can be seen that there is an increase in the learning activities of class V students with the application of media using PowerPoint (Yuliansah, 2018). The following data can be seen based on diagram 1.

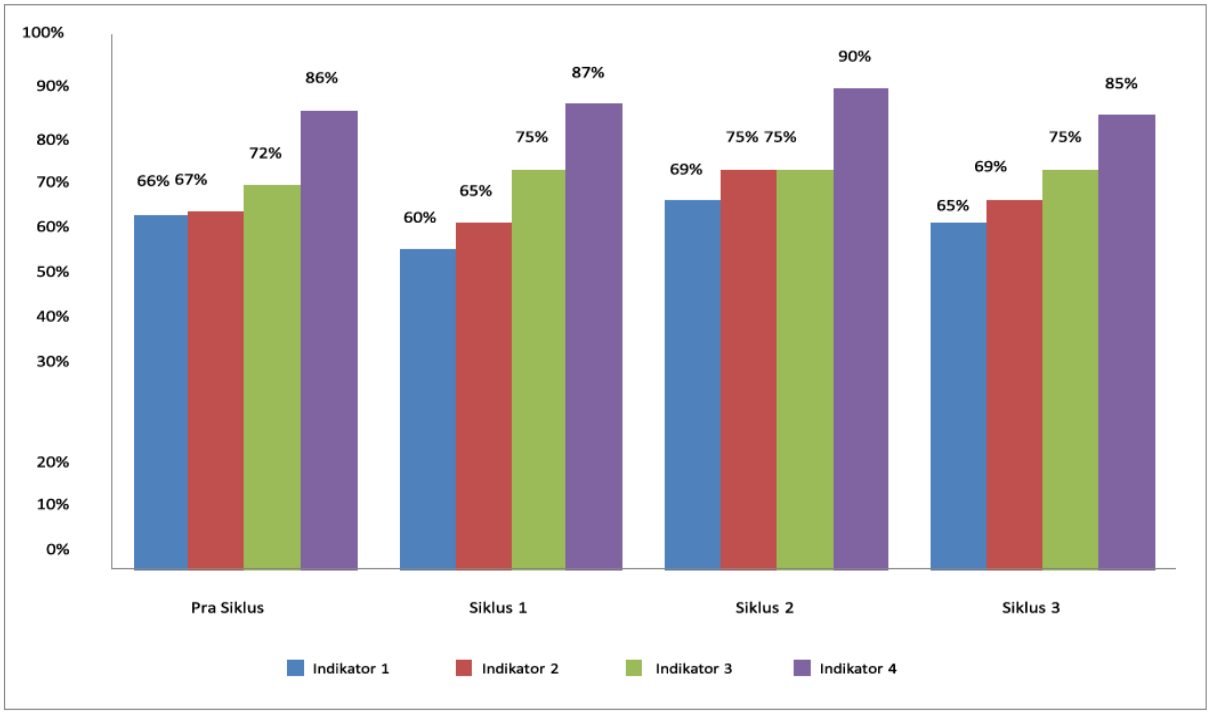

Figure 1. Student Learning Activity Diagram

Information :
Indicator 1: Asking activity
Indicator 2: Activity in group work

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Indicator 3: Activity answering discussion questions
Indicator 4: Activity presenting the results of discussion work in front of the class

Table 9. Achievement of Participant Learning Outcomes

Achievements	Pre Cycle	Cycle I	Cycle II	Cycle III
Average	60	60	73	87
The highest score	80	75	100	100
Lowest Value	40	40	50	60
Total Value >70	6	6	13	27
Completeness percentage	**33%**	**33%**	**73%**	**90%**

Based on the results of research that has been done, it shows that powerpoint media in class V SDN I Barusuda, Cigedug District, Garut Regency, can improve student learning outcomes on theme 6 about Heat and its Transfer. This can be seen in the self-evaluation tests carried out after completing learning in the pre-cycle, cycle I, cycle II and cycle III in Table 9 below, namely the comparison of the results of the students' self-evaluation tests. Based on the data above, it can be seen that there is an increase in student learning outcomes. Based on the data in the table, it can be seen that there was an increase in the learning outcomes of class V students at SDN I Barusuda, Cigedug District, by applying media using power point. The following data can be seen based on diagram 2.

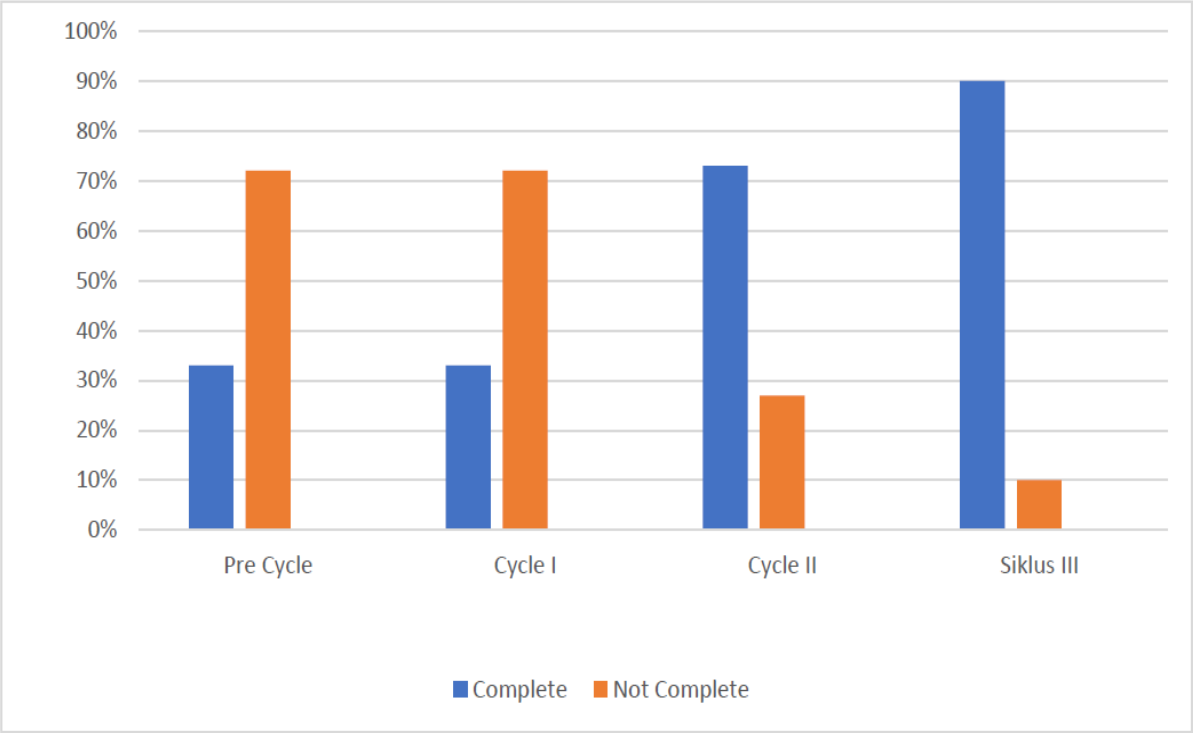

Figure 2. Student Learning Outcome Percentage Diagram

Acquisition of the percentage of complete learning outcomes in the pre-cycle, cycle I, and cycle II has yet to reach the success criteria that have been planned. Namely, 33% in the pre-

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cycle, cycle 33%, and Cycle II obtained 73% of the success criteria of 75%. Even so, overall, the results of the percentage of completeness of learning outcomes after using PowerPoint have been successful in increasing from cycle I to cycle II. Cycle III obtained 90% results, reaching the minimum criteria of 75%. Based on students' learning outcomes before the PowerPoint media, cycle I, cycle II, and cycle III experienced an increase. The learning outcomes of students in cycle I experienced a better improvement than cycle II, cycle II experienced an increase from cycle I, and cycle III experienced the expected minimum mastery of 90%. Besides that, the success of using PowerPoint media is also proven through diagrams in 3, namely the average achievement of student scores.

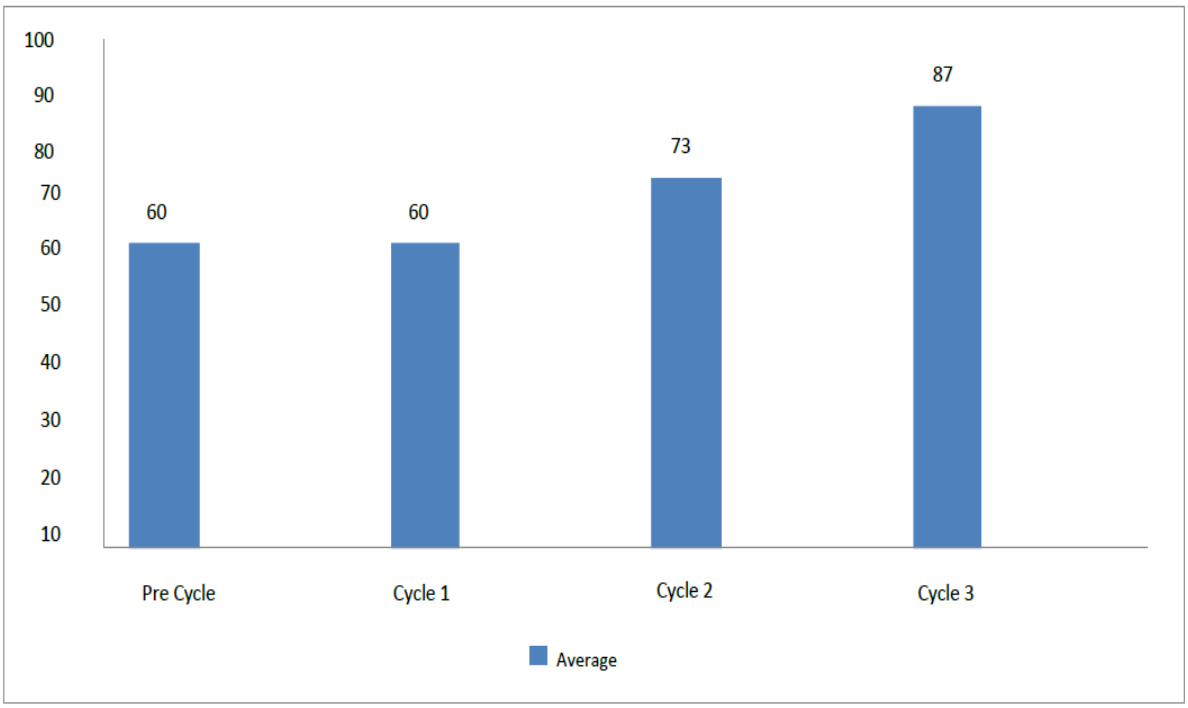

Figure 3. Diagram of Average Student Learning Outcomes

Based on the diagram above, it is obtained that the average value of each cycle has increased; from the pre-cycle, an average of 60 is obtained; in cycle I, an average is obtained 60; cycle II obtained an average of 73, while in cycle III an average is obtained 87. This increase occurred due to several factors, such as the adaptation process, the atmosphere or condition of the students, and discussion guidance, and the material for each cycle was different. In cycle, I, students as a whole, have yet to be able to adapt to PowerPoint media. It can still be seen that some students, during discussions, needed to focus on the material and prepare it properly. In cycle II, students have started to adapt to PowerPoint media, but the discussion could have gone better because there are students who dominate. In Cycle III, students already know what to do and also understand the material with PowerPoint media. Before learning, the students have prepared the material to be studied and are more active in asking questions when they need help understanding the material discussed.

4. CONCLUSION

PowerPoint media can increase the learning activities of class V students, Theme 6, Heat and Its Movements. This can be seen in the increase in the achievement of indicators of

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student learning activities in each cycle. By using observations of the results of student learning activities in the pre-cycle, a score of 65% was obtained; in a cycle, an increase of 4% obtained a score of 69%; in cycle II, an increase of 5% was obtained by a score of 74%, then in cycle III, an increase of 13% became 87%. The application of PowerPoint interactive media can improve the learning outcomes of class V students, Theme 6, Heat and Its Movements. This can be seen from the increase in the percentage of completeness of student learning outcomes with the KKM limit of 70. Before the application of PowerPoint, media was 33%, then in cycle I, it was 33%, Cycle II increased to 73%, and in Cycle III, it increased to 90%.

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