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Implementation of numbered head together model to increase students' activeness and learning output in primary schools

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Abstract

The purpose of this study was to determine the increase in activeness and learning outcomes of the 4th grade students of SD Negeri Pasekan 03 Ambarawa District by applying the Numbered Head Together (NHT) model. This type of research was a classroom action research accomodating a research model by Kemmis and Mc Taggart carried out with 4 stages including planning, action, observation and reflection, which carried out 2 cycles which each cycle consisted of 3 meetings. The results of the study were obtained from class IV SD Pasekan 03 students totaling 30 students (1) in the pre-cycle learning outcomes of student learning outcomes during the learning there were 20 students who did not complete with a percentage of 33.3% and 10 completed with percentages 66.66% of students in pre-cycle learning. (2) in learning using Numbered Head Together (NHT) learning model in the first cycle of students who completed 14 students with a percentage of 46.67% and those who did not complete 16 students with a percentage of 53.33%. (3) the results of the study in the second cycle of students who completed 24 students with a percentage of 80% and those that did not complete there were 6 students with a percentage of 20%. learning outcomes theme 7 sub-theme 1 learning 1 and 2 experienced a significant increase for 4th grade students of SD Negeri Pasekan 03, students seemed active, cheerful, pleasant and also enthusiastic in the learning process.

Keywords: *number head together model; students' activeness; learning outcome; primary school*

Introduction

The 2013 curriculum applied at primary school in Indonesia uses thematic learning models and is carried out using a scientific approach so that schools can conduct learning that is appropriate to the school environment. Thematic learning is integrated learning that uses themes to associate several subjects so as to provide meaningful learning experiences for students (Trianto, 2010). However, the application of thematic learning requires certain techniques or models in order to achieve the expected learning process. The teacher must have a technique or model so students can learn well and students easily understand the material presented by the teacher.

Weak learning processes can affect learning outcomes and student activity is low. According to Sudjana (2010) the activeness of students in following the learning process can be seen from participation in carrying out tasks, involvement in problem solving processes, active asking questions to other students or to teachers when they do not understand the subject matter, activeness of seeking information to solve problems, involvement in discussions group in accordance with the teacher's instructions, the desire to start his ability and the results obtained, his activeness in solving problems or problems, and the ability to

use or apply what has been obtained in completing the task or problem at hand. Every student in the learning process must be active, so the learning process can run optimally and comfortably. Student learning outcomes are related to students' ability to understand the material that has been given or taught by the teacher. Learning outcomes are something that individuals do in understanding something through various training procedures and experiences to produce skills in attitudes, habits, intelligence and understanding (Sudjana, 2011). Learning outcomes between students one with the other students are not the same, due to the ability of students to think and experience of different students.

In fact, elementary school students generally do not actively express their opinions or ask questions about the material during the learning process. The teacher still uses the question and answer model and material assignments, as well as in the delivery of material not yet using teaching aids or using the media to the maximum so that it influences student activity and learning outcomes. To overcome this problem, it is necessary to have a learning model that is suitable for increasing student activity and learning outcomes.

One of the learning models that can be applied to increase student activity is numbered head together (NHT). In this model, students are given the opportunity to share ideas and find the most appropriate answers. According to Trianto (2010), NHT is a type of cooperative learning method designed to influence patterns of student interaction and as an alternative to traditional classes. NHT is a better learning method compared to the conventional one (Lince, 2016). This method enhanced students' participation and reading score in secondary school (Fanolong, Bugis, Azwan, Hanapi, & Handayani, 2016), improved students' learning activity and achievement (Wora & Hadisaputro, 2017), showed higher retention (Nursyamsi & Corebima, 2016), increased students' participation when combined with team accelerated instruction (Together, 2016), and improved students' motivation when combined with assurance relevance interest assessment satisfaction (Mustami, Makassar, & Safitri, 2018). NHT was also preferable by students who were considerably weak in chemistry (Baker, 2013) and students with disabilities (Haydon, Maheady, & Hunter, 2010). However, this method is rarely implemented in primary schools. Therefore, we conducted a research to implement the NHT method in a primary school and observe students’ activeness and learning outcome.

Materials and Methods

This type of research is Classroom Action Research (CAR), which uses a research model according to Kemmis and Mc Taggart which includes 4 stages, namely planning,

implementation, observation and reflection. This research was conducted with 2 cycles, each of which included 3 meetings. meetings 1 and 2 are used for material delivery while the third meeting is used to conduct evaluations. This study was conducted at Pasekan 03 Elementary School in Ambarawa Subdistrict with the subjects of the study being 30 grade IV students, consisting of 13 female students and 17 male students with different family backgrounds.

In this study the research instruments in cycles I and II were 20 multiple choice questions which were tested for validity using SPSS 18. The instrument was used to measure student learning outcomes and activeness with indicators according to Sudjana (2010).

Data collection techniques in this research activity are test and non-test techniques. This test technique is in the form of multiple choice questions to measure students' learning abilities in each cycle. While the non-test technique in the form of observations made during the learning process takes place using an observation sheet in the form of assessment documents to get data about student activity and teacher teaching while the learning process takes place.

Results and Discussion

The completeness of student learning outcomes before the action can be seen that there are students who have a value below the minimum completeness criteria of KKM (68), there are as many as 20 students who have not reached KKM with a percentage of 66.67%, then those who have achieved KKM are 10 students with a percentage 33.33%. Learning outcomes are still low because there are several obstacles when the learning process takes place such as caused by a lack of student participation when learning activities take place in students who are still busy themselves, there are students who play with their peers and do not pay attention to the explanation from the teacher when delivering the material, this has the effect of a lack of learning outcomes and decreased student activity. Before class action, 6 students were active with a percentage of 20%, 22 students were categorized as inactive with a percentage of 73.33%, and 2 students were very inactive with a percentage of 6.67%. Therefore, it is necessary to conduct classroom action research using the NHT model.

Table 1. Learning outcome for each cycle

Category	Value	Pre-cycle		Cycle I		Cycle II	
		f	%	f	%	f	%
Complete	68-100	10	66.67	14	46.67	24	80
Not complete	< 68	20	33.33	16	53.33	6	20
Average		52		68.8		78.2	

The implementation in the first cycle turned out not to reach the target indicator. Students who have not reached KKM are still many, there are 16 students with a percentage of 53.33%, while students who are said to reach KKM only 14 students with a percentage of 46.67% (Table 1). In the first cycle, the results of the research obtained there were still shortcomings obtained so that the researchers made improvements in the second cycle. Improvements include 1) students are expected to be active in asking questions, 2) students are expected to be able to improve learning outcomes, 3) students are expected to enjoy the learning process takes place, and 4) students are expected when the learning process takes place not to talk to their peers.

After the second cycle, students who have fulfilled the graduation score are 24 students with a percentage of 80%. Based on the results of observations, in the second cycle the teacher has carried out learning systematically and has involved students to play an active role in the learning process so that in the second cycle this activity and student learning outcomes have increased.

Table 2. Students' activeness in each cycle

Competency mastery	Category	Pre-cycle		Cycle I		Cycle II	
		f	%	f	%	f	%
90% - 100%	Very active	0	0	0	0	5	16.67
80% - 89%	Active	0	0	3	10	16	53.33
65% - 79%	Active enough	6	20	12	40	9	30
55 - 64%	Not active	22	73.33	15	50	0	0
< 55%	Very not active	2	6.67	0	0	0	0
Class category		Not active		Active enough		Active	

The activeness of students in learning experiences a significant increase. At the time before the action carried out the average value of class activeness reached 4.6 while at the time of the action in cycle II the increase was significant, namely the average value of student activity reached 12.3 and in the second cycle it reached 15.4 (Table 2) . Based on the results of observations made, it can be seen that there has been an increase in learning outcomes after using the NHT learning model.

Conclusion

The application of the Number Head Together (NHT) model can increase the activity and learning outcomes of elementary school students. This can be known based on the initial

condition data before the action data activity is done at 13.86%, increasing in the first cycle to 41% and in the second cycle 51.33%. Data on learning outcomes of class IV students of SD Negeri Pasekan 03 Ambarawa before the action was carried out by 33.33% students completed the KKM with a class average of 63.2, increasing in the first cycle by 46.67% of students completing the KKM with a class average of 68 , 8, then experienced an increase in the second cycle of 83.33% of students completed from KKM with a class average of 78.2.

Findings of the application of the NHT Model in Theme 7 Subtitles 1 Learning 7 fourth grade students of SD Negeri Pasekan 03, from the results of the implementation of the first cycle of actions that achieved completeness of 46.67% of students. So it can be concluded that in the first cycle the activity and learning outcomes of students have reached the results indicators but the indicators of action still have not been achieved, then the cycle II is implemented. From the results of the implementation in the second cycle that achieved completeness by 80% of students. So it can be concluded that in the second cycle the activity and learning outcomes have achieved completeness in the indicators of results and implementation indicators.

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