

# tJournal of Elementary School Education

journal homepage: https://journal.berpusi.co.id/index.php/joese/article/view/954/version/955 Copyright © by Author Journal of Elementary School Education e-ISSN 2963-9484 Vol 3 No 1 2024 (Page: 5-12)





Application of Cooperative Learning Model Type Numbered Head Together (NHT) to Improve Students' Learning Outcomes on The Material of Appreciation of Historical Heritage at Mis Al-Hidayah School Namorambe

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### ARTICLEINFO

Keyword Numbered Head

Togethe (NHT), cooperative learning learning outcomes, history MIS Al-Hidayah Namorambe

### ABSTRACT

This study aims to improve students' learning outcomes in the material of appreciating historical heritage through the application of the Numbered Head Together (NHT) cooperative learning model at MIS Al-Hidayah Namorambe. The NHT learning model is one of the cooperative learning strategies that involves active participation of students in groups. In this process, each student is given a number and takes turns answering questions asked by the teacher. This approach aims to improve students' understanding, participation, and learning outcomes. The research method used is classroom action research (CAR) which is implemented in two cycles. Each cycle consists of planning, action implementation, observation, and reflection stages. Data were collected through learning outcome tests and observation of student activities. The results of the study showed a significant increase in student learning outcomes after the implementation of the NHT model. In addition, the implementation of this model also increases learning motivation and cooperation between students in groups. The conclusion of this study is that the NHT type cooperative learning model is effective in improving student learning outcomes in the material of appreciating historical relics. Therefore, this model is recommended to be used as an alternative learning strategy in history subjects in elementary schools.

### Introduction

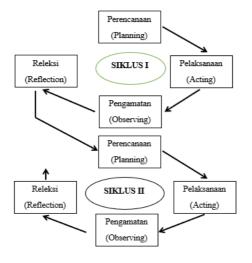
Education according to the National Education System Law no. 20 of 2003, is a conscious and planned effort to create a learning atmosphere and learning process in such a way that students can actively develop their potential so that they have self-control, intelligence, skills in society, spiritual religious strength, personality and noble morals. In the big Indonesian dictionary (KBBI) it is explained that education comes from the word "didik" and gets the affixes in the form of the prefix "pe" and the suffix "an" which means the process or method of educating. So the definition of education according to language is a change in the behavior and attitude of a person or group of people in their efforts to mature humans through inauguration and teaching. (Amelia, 2019). History education plays an important role in shaping students' historical awareness and enriching their understanding of culture and national identity. One important aspect of learning history is appreciating historical heritage, which includes historical objects, monuments, and sites. These historical heritages are silent witnesses of the past that need to be preserved and appreciated. According to Ahmad, the interpretation of education is various efforts made by an educator towards a student in order to achieve maximum positive development (Dr. H Mohammad Kosim, 2020). To achieve national education goals, the problem of the teaching and learning process cannot be ignored. When teachers present learning materials to students, a teaching process has actually occurred. According to Saputri's research, in the teaching process, two activities occur at once, namely students who can be called learning and teachers who are usually called teaching. (Saputri, 2019). Based on the results of observations conducted by researchers in January 2024, a problem was found that the cooperative model type numbered head together (NHT) had not been applied to social studies

lessons. The problems faced were not all students were able to achieve social studies learning outcomes. Difficulties and lack of student learning outcomes in social studies learning. Regarding student learning in teaching and learning activities that were not optimal, such as when learning took place, students tended not to pay attention to the material presented by the teacher. Student learning activities during the teaching and learning process were less than optimal, such as students were busy chatting with their friends when the teacher was delivering learning material so that learning was only one way.

The use of learning models that were less varied or did not involve students in the learning process resulted in less learning activities, resulting in low student achievement. This can also be seen from the average score of class V students at Mis Al-Hidayah Namorambe School, there were still scores of several students below the KKM. The model used by teachers is generally a conventional learning model. In this case, the one commonly used by teachers in delivering material is using the lecture method. The author's solution or hope for improving student learning outcomes in the material on appreciating historical heritage, in addition to that, teachers also provide material to students using the cooperative model type numbered head together (NHT). Students will become more active in participating, able to work together with their fellow groups and students can understand the words intended by the teacher in conveying the ongoing learning material. The learning process is said to be successful if students achieve the expected competencies, because it is a reflection of the teacher's role ability in developing learning activities that are very important in forming student activity in learning. The learning process is said to be successful if students achieve the expected competencies, because this is a reflection of the student's ability to master a material. This is inseparable from the teacher's ability in the explanation skills possessed by the teacher. Based on the problems above, the author is interested in the problem as a topic to be studied through the research title "Implementation of the cooperative learning model of the numbered head together (NHT) type to improve student learning outcomes in the material of appreciating historical heritage at SD Mis Al-Hidayah Namorambe".

## Research Methodology

This study uses the Classroom Action Research (CAR) method which is implemented at Mis Al-hidayah Namorambe on the material of Respecting Historical Heritage. The subjects of the study were grade V students of Mis Al-hidayah Namorambe. The research procedure carried out follows the implementation of Classroom Action Research which is carried out repeatedly. Each cycle consists of planning activities, action implementation, assessment, and reflection. In addition, the researcher also uses several research instruments such as: (1) Tests, to measure the increase in learning outcomes according to learning objectives, (2) Observations, carried out during the learning process using observation sheets to record symptoms in research objects, (3) Documentation, used to record student and teacher activities during the learning process. According to Tampubolon in (Sani et al., 2020), Classroom Action Research (CAR) is an important need for teachers to improve the quality of their performance, which has the potential to have a positive impact in several aspects, including (1) Improving the ability to overcome real learning problems and challenges, (2) Improving the quality of input, processes, and learning outcomes, in both academic and non-academic aspects, (3) Improving educators who have professional values, (4) Implementing improvement strategies based on ongoing research. According to Windari in (Mardhani et al., 2022), Classroom Action Research (CAR) encourages researchers to observe objects in the field that involve two direct learning cycles. Each cycle consists of planning, implementation, observation, and reflection stages. The Car cycle can be seen in picture 1 below:



Picture 1. PTK Cycle

### **Results and Discussion**

## **Student Learning Outcomes Before Using NHT**

Before this classroom action research was conducted, the researcher conducted a pre-test. Students were given a written test to determine the initial condition of the class, whether the class really needed an action in accordance with what was studied by the researcher, namely the application of the Numbered Head Together cooperative learning model to improve student learning outcomes on the material of appreciating historical heritage. To see what students obtained during the pre-test, see the following table:

**Table 1. Student Learning Outcomes Before Using NHT** 

No.	Student Name	Gender	Mark	Information		
1.	Abdullah Azmy	L	50	Not Complete		
2.	Aqilla Br. Marbun	P	63	Not Complete		
3.	Alpito Riyadi	L	58	Not Complete		
4.	Aldi Pratama	L	55	Not Complete		
5.	Balqis Adriani	P	60	Not Complete		
6.	Brian Al Faiz	L	75	Passed		
7.	Daffa Harish	L	55	Not Complete		
8.	Dava Firmansyah	L	78	Passed		
9.	Keke Syahputri	P	50	Not Complete		
10.	Husna Azzahra	P	85	Passed		
11.	Muammarul Ahsan	L	50	Not Complete		
12.	Malvino Al Fahrezy	L	85	Passed		
13.	Muadzah Ufaira	P	60	Not Complete		
14.	Naura Jihan	P	70	Not Complete		
15.	The Breath of Reyhani	P	80	Passed		
16.	Prayoda Pahrezy	L	60	Not Complete		
17.	Maulana Pahriza	L	65	Not Complete		
18.	Ricky Saputra	L	60	Not Complete		
19.	Rakha Adrian	L	70	Not Complete		
20.	Shinta Alesya	P	60	Not Complete		
21.	Zuyina Safhia	P	55	Not Complete		
22.	Zahira Qwin	P	58	Not Complete		
23.	Aikel	L	70	Not Complete		
24.	Husni	P	60	Not Complete		
Amount			1,532			
Average			63.8			
	Completion		20.8%			

Table 1. above shows that the average test score of students in cycle 1 is 63.8. The average score is above the KKM for the subject of Social Sciences that has been set by Mis Al-Hidayah Namorambe in that class. The table above also shows that the percentage of classical student learning completion is 20.8%. The data shows that the implementation of the action in this pretest is still not said to be successful, because it has not yet reached the minimum target in its learning.

#### Cycle I

## 1. Action Planning

At this planning stage, the researcher plans the actions that will be taken to overcome the problems experienced by students regarding the low learning outcomes of students in the subject of science, material on appreciating historical relics. The actions taken by the researcher are to apply the NHT type cooperative learning model. Based on the pretest results above, the researcher plans as follows;

- a. Create a Teaching Module, which is implemented in cycle I according to the material being taught.
- b. Preparing teaching materials on responding to how to appreciate historical heritage.
- c. Preparing learning facilities that support the implementation of the learning process, namely student textbooks
- d. Create a student worksheet test format, to see student learning outcomes on the material on Appreciating Historical Heritage in the Science subject.
- e. Prepare observation sheets on student learning activities and observation sheets on teacher activities.

f. Prepare evaluation questions for students.

## 2. Implementation of Action

The researcher carried out learning activities based on the planned teaching module and implemented the alternative problem solving that had been created. The implementation of this action was carried out in 2 meetings with a time allocation of 2 x 35 minutes. Learning activities carried out at meeting I.

## 3. Student Learning Outcomes

As for seeing the completion of students from each student in the final cycle, a formative test was held. The level of student success in cycle I can be seen in the following table.

Table 2. Results of student scores in posttest cycle I

No.	Student Name	Gender	Mark	Information		
1.	Abdullah Azmy	L	80	Passed		
2.	Aqilla Br. Marbun	P	65	Not Complete		
3.	Alpito Riyadi	L	60	Not Complete		
4.	Aldi Pratama	L	75	Passed		
5.	Balqis Adriani	P	60	Not Complete		
6.	Brian Al Faiz	L	80	Passed		
7.	Daffa Harish	L	55	Not Complete		
8.	Dava Firmansyah	L	80	Passed		
9.	Keke Syahputri	P	50	Not Complete		
10.	Husna Azzahra	P	85	Passed		
11.	Muammarul Ahsan	L	75	Passed		
12.	Malvino Al Fahrezy	L	85	Passed		
13.	Muadzah Ufaira	P	60	Not Complete		
14.	Naura Jihan	P	75	Passed		
15.	The Breath of Reyhani	P	80	Passed		
16.	Prayoda Pahrezy	L	60	Not Complete		
17.	Maulana Pahriza	L	65	Not Complete		
18.	Ricky Saputra	L	60	Not Complete		
19.	Rakha Adrian	L	85	Passed		
20.	Shinta Alesya	P	60	Not Complete		
21.	Zuyina Safhia	P	80	Passed		
22.	Zahira Qwin	P	50	Not Complete		
23.	Aikel	L	85	Passed		
24.	Husni	P	60	Not Complete		
Friday			1,670			
	Average		69.58			
	Classical Completion		50%			

Table 4.3 above shows that the average test score of students in cycle 1 is 69.58. The average score is above the KKM for the subject of Social Sciences that has been set by Mis Al-Hidayah Namorambe in that class.

### 4. Reflection

After the entire learning process in cycle I was completed, the researcher observed the results of the observations to find weaknesses and deficiencies in cycle I. In the implementation of cycle I, the subject of science, material on appreciating historical heritage, was obtained from the learning results which were still lacking, both in relation to the researcher and the students.

- a. Regarding researchers
  - 1. Researchers lack in class mastery
  - 2. Researchers were less careful in selecting members in each group
  - 3. Researchers are still unclear in explaining learning materials.
  - 4. Researchers do not understand the potential that students have
- b. Regarding students
  - 1. There are students who are not yet willing to work together in group work.
  - 2. There was a commotion while explaining the lesson material so that people could not concentrate/focus.

From the results of the reflection above, the researcher will take action again, namely conducting research in cycle II.

## Cycle II

## 1. Action Planning

Therefore, the researcher made an alternative action plan to be taken to overcome the problems that were still in cycle 1. The activities carried out at the planning stage were:

- a. Compiling an IPAS module using the NHT (Numbered Head Together) cooperative learning model
- b. Preparing researcher observation sheets and student observation sheets to observe student learning activities and implementation of learning using the NHT type cooperative learning model.
- c. Preparing student worksheets.
- d. Divide students into groups
- e. Designing class management.
- f. Prepare learning media and equipment used during the learning process.
- g. Prepare

## 2. Implementation of Action

The implementation of cycle II in the science subject of appreciating historical heritage in the presentation, the teacher carries out the learning steps as stated in the attached teaching module, the activities carried out are the teacher's activities in addition to presenting the material, namely observing student activities with the observing teacher (observer). Observations of teacher performance are carried out by the observing teacher (observer).

## 3. Observation

After the action stage, the next stage is observation. At this stage, direct observation is carried out using the observation format that has been prepared and an assessment of the results of the action is carried out using the existing evaluation format. Photo of the learning process cycle 1. Observation is carried out by observation. The cooperative learning model type NHT Numbered Heads Together is able to improve student learning outcomes, because students are given the opportunity to actively learn and explore information, solve problems through discussion and collect ideas.

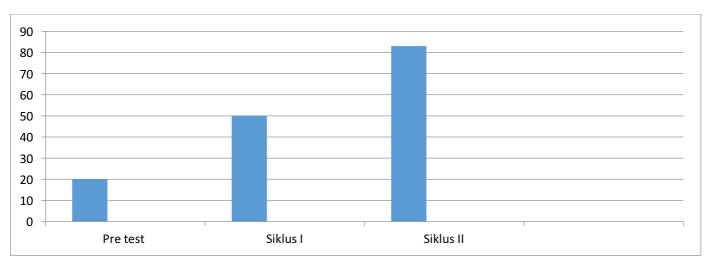


Figure 2. Improvement of student learning outcomes in pretest, cycle I and cycle II and percentage %

Table 3. The level of completion of student learning outcomes in each cycle

No	Information	Number of students		Percentage	
		Cycle I	Cycle II	Cycle I	Cycle II
1.	Completed	12	20	50%	83.3%
2.	Not finished	12	4	50%	16.6%

The following is a graph of the learning outcomes of class V students at Mis Al-Hidayah Namorambe

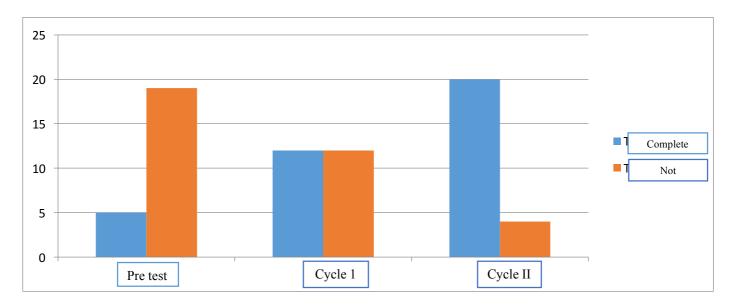


Figure 3. Graph of Student Learning Outcome Completion

Based on the graph above, it can be seen that in the pretest or initial stage, the average score of class V Mis Al-Hidayah Namorambe before the action was taken was 69.58 out of 24 students who completed it, totaling 12 students with a percentage of 50% and were classified in the criteria as still low and had not reached the classical completion stage as determined. Then the action was taken, namely using the cooperative model type Numbered Heads Together NHT in cycle 1, the average value of class V Mis Al-Hidayah Namorambe increased to 69.58 or in percentage 50%, students who completed increased to 12 students from the completion results of 50% the success criteria are still categorized as moderate, so that in cycle I this has not reached the predetermined learning capacity stage. The researcher took action in cycle II using the cooperative learning model type Numbered Heads Together NHT, after the average value of class V Mis Al-Hidayah Namorambe became 80 or in percentage 83.3%, thus the criteria for student success rate was very high and reached the predetermined KKM value. Based on the explanation above, it can be stated that the implementation of the Numbered Heads Together NHT type cooperative learning model can improve the activity and learning outcomes in the science subjects of class V Mis Al-Hidayah Namorambe in the 2024/2025 academic year.

## Improving student learning outcomes with the NHT model

By using this NHT model, it can increase student involvement in learning, strengthen cooperation between students, and improve understanding of the concepts being studied. In addition, with this model, students will feel more motivated and confident in answering questions and solving problems in science learning with the material of appreciating historical heritage. With the NHT learning model, it can provide a learning environment that supports and encourages students to achieve better learning outcomes. Improvement in student learning outcomes is expected to occur through positive social interactions and active learning that stimulates critical thinking and collaboration.

## Conclusion

Based on the research results and discussion, the conclusions in this study are as follows: Student learning outcomes using the Numbered Head Together cooperative learning model can improve the learning outcomes of class V IPAS students. On the material of appreciating historical heritage at Mis Al-Hidayah Namorambe. This shows that learning outcomes have increased temporarily when viewed from the percentage of learning outcomes, it can be seen that in the initial test there were 5 students who completed the course with a percentage of (20.8%) and 19 students did not complete it. In cycle I there were 12 students who completed the course with a percentage of (50%) and 12 students did not complete it, there were 20 students who completed the course with a percentage of (83.3) and 4 students did not complete it. This resulted in a significant increase in student learning scores and has met the standard for the completion of teaching and learning scores at school with a score of 75

### References

Ade Pratiwi. (2018). The Effect Of Jigsaw Type Cooperative Learning Model On Thematic Learning Outcomes Of Grade V Students Of State Islamic High School 3 Srimulyo Nata. http://digilib.unila.ac.id/id/eprint/31567

Alfiansyah, I. (2018). Implementation of the NHT Type Cooperative Learning Model to Improve Learning Outcomes of Elementary School Grade III Students. JTIEE (Journal of Teaching in Elementary Education),

- 2(1), 85. https://doi.org/10.30587/jtiee.v2i1.359
- Amelia, C. (2019). Problems of Education in Indonesia. Proceedings of the National Seminar of the Faculty of Social Sciences, State University of Medan, 3, 775–779.
- Andi Sulistio, SS, MPI, & Dr. Nik Haryanti, MP. (2022). cooperative learning model (G. Sakti Aditya, S.Pd (ed.); Eri Setiaw). Eureka media aksara, April 2022 member of IKAPI Central Java no 225 / JTE / 2021.
- Annisa, D. (2022). Journal of Education and Counseling. Journal of Education and Counseling, 4(1980), 1349–1358.
- Arpiah, A. (2020). Application of the NHT Type Cooperative Learning Model to Improve Interest and Learning Outcomes in Mathematics. Primatika: Journal of Mathematics Education, 9(1), 43–52. https://doi.org/10.30872/primatika.v9i1.251
- Diah Purwati, NLP, Wibawa, IMC, & Margunayasa, IG (2019). The Effect of Numbered Head Together Assisted by Pictures on Mastery of Science Knowledge Competencies. Journal of Pedagogy and Learning, 2(3), 282. https://doi.org/10.23887/jp2.v2i3.19275
- Dimyati, M. (2010). Learning and Teaching.
- Djamarah., SB (2018). Educational psychology. (176-190).
- Dr.H Mohammad Kosim, MA (2020). Islamic perspective of educational science (Jamal (ed.); Diah Safit). PT. RAJAGRFINDO PERSADA.
- Et al., H. (2020). Qualitative & Quantitative Research Methods. CV. Pustaka Ilmu Group.
- Hanafiah, N., & Suhana, C. (2012). The concept of learning strategies.
- Hanafy, MS (2014). The Concept of Learning and Teaching. Lentera Pendidikan: Journal of Education and Teacher Training, 17(1), 66–79. https://doi.org/10.24252/lp.2014v17n1a5
- Handayani, ES (2017). The Influence of the Number Heads Together (NHT) Type Cooperative Learning Model on History Learning Outcomes. Journal of History Education, 5(2), 16–27.
- Haydon, T. (2019). Comparing Numbered Heads Together with and without Peer-Led Opportunities t...: EBSCOhost. A Case Study Education and Treatment of Children, 42(2), 245–264. http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=4&sid=f35bc3d3-ee67-4511-98fe-73ded528d45c%40pdc-v-sessmgr06
- I Gede Budi Astrawan. (2014). Application of the NHT Type Cooperative Model in Improving Student Learning Outcomes in Science Subjects in Class V of SDN 3 Tonggolobibi. Tadulako Online Creative Journal, 3(4), 227–242.
- Ihsana. (2017). study and learning. Student Library.
- Imas Kurniasih, Berlin Sani. (2019). Various development of learning models to improve teacher professionalism. Pena City.
- Irmachmud Yuni Tri Iswandari, & Frida Dorintan Bertua Pakpahan, N. (2022). Application of Handouts in Road and Bridge Construction Subjects in an Effort to Improve Learning Outcomes at SMKN 1 Sidoarjo. Journal of Building Engineering Education Studies, 8(1), 4. http://chai-chairil.blogspot.com/
- Isjoni. (2012). Cooperative learning: improving communication intelligence between students.
- Kaharudin, A. (2020). Innovative & Variative Learning (e-book). February 20, 2022. https://books.google.co.id
- Maemunah, ES (2021). Efforts to Improve Chemistry Learning Outcomes Using the Blended Learning Method for Class XI Mipa 4 Students of Sman 1. Indonesian Journal of Educational Development, 2(2), 262–269. https://doi.org/10.5281/zenodo.5244203
- Purwanto, SEI., M. (nd). Techniques for Compiling Validity and Reliability Test Instruments for Islamic Economic Research. (A. Saifudin (ed.)). https://drive.google.com/file/d/1RBVxcqdLwX4a9f-Wrt-GHOXliN\_wjDp-%0A/view
- Purwanto. (2010). Evaluation of Learning Outcomes.
- Purwanto. (2023). The Use of Formative Test Forms to Improve Learning Outcomes in Educational Evaluation Courses Reviewed from Thinking Ability. Jurnal Universitas Pahlawan, 5(2), 342–350.
- Samsudin, M. (2020). Factors Affecting Learning. Eduprof: Islamic Education Journal, 2(2), 162–186. https://doi.org/10.47453/eduprof.v2i2.38
- Saputri, LA (2019). The importance of understanding students' learning styles at elementary school level. Journal of Chemical Information and Modeling, 53(9), 1689–1699.
- Setyawan, A., Sholihah, A., Rita, SM, Alfiya, N., & Nurfajri, RA (2020). The Role of Teachers in SD Pangpong Learning. National Education Proceedings: Lppm Ikip PGRI Bojonegoro, 1(1), 570–571.
- Siti Ma'rifah Setiawati, SP, S. (2018). 'HELPER" Journal of Guidance and Counseling, FKIP UNIPA. Journal of Guidance and Counseling, FKIP UNIPA, 35(1), 31–46.
- Sugiyono. (2020). Qualitative research methods.
- Sukardi, S., & Sepriady, J. (2020). The Role of History Education in Shaping National Character. Kalpataru: Journal of History and History Learning, 6(2), 114–117. https://doi.org/10.31851/kalpataru.v6i2.5256

- Suyatno. (2016). Learning and Study Methods.
- Yenni, RF (2016). The Use of the Numbered Head Together (NHT) Method in Mathematics Learning. Journal of Mathematics Education, 1(2), 34.
- Yulia, A., Juwandani, E., & Mauliddya, D. (2020). Cooperative Learning Model. In National Seminar on Educational Sciences and Multidisciplines, 3, 223–227.
- Zen, S. and Z. (2017). Basic book of educational science.
- Zulhaida, Z. (2018). Application of Numbered Head Together-Plus Type Cooperative Learning Model to Improve History Learning Outcomes of Grade XI Students of Building Drawing Engineering Department 3 State Vocational School 2 Pekanbaru. PAJAR JOURNAL (Education and Teaching), 2(3), 375. https://doi.org/10.33578/pjr.v2i3.5532