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The Application of the Numbered Heads Together (NHT) Cooperative Learning Model to Improve Memory in Learning Degree of Comparison among Grade XI-C1 Students at SMAN 2 Pamekasan

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Abstract: This classroom action research aims to improve students' memory in learning the "Degree of Comparison" material by implementing the Numbered Head Together cooperative model. The study was conducted at SMAN 2 Pamekasan with 34 students of class XI-C1 as subjects. The research was carried out in two cycles consisting of planning, action, observation, and reflection. Data were collected through observation, test, and documentation. The indicators measured included two cognitive aspects, namely: (1) ability to recall comparative and superlative structures, task completion accuracy, cooperation in group work, and adherence to instructions. The results showed a significant increase in students' memory levels. At the pre-cycle stage, only 11.8% of students were in the high category, in cycle I increased to 44.1%, and in cycle II reached 73.5%. This proves that the NHT model is effective in improving students' memory and understanding of English grammar topics and is expected to develop collaborative learning.

Keywords: Numbered Head Together, Memory

Abstrak: Penelitian tindakan kelas ini bertujuan untuk meningkatkan memori siswa dalam pembelajaran materi "Degree of Comparison" melalui penerapan model kooperatif Numbered Head Together. Penelitian dilakukan di SMAN 2 Pamekasan dengan 34 siswa kelas XI-C1 sebagai subjek. Penelitian dilaksanakan dalam dua siklus yang terdiri dari tahap perencanaan, tindakan, observasi, dan refleksi. Data dikumpulkan melalui observasi, tes, dan dokumentasi. Indikator yang diukur meliputi dua aspek kognitif yaitu: (1) kemampuan mengingat struktur comparative dan superlative, akurasi penyelesaian tugas, kerjasama dalam kelompok, dan kepatuhan terhadap instruksi. Hasil penelitian menunjukkan peningkatan signifikan pada tingkat memori siswa. Pada tahap pra-siklus, hanya 11,8% siswa berada pada kategori tinggi, pada siklus I meningkat menjadi 44,1%, dan pada siklus II mencapai 73,5%. Hal ini membuktikan bahwa model NHT efektif dalam meningkatkan memori dan pemahaman siswa terhadap topik grammar bahasa Inggris serta diharapkan dapat mengembangkan pembelajaran kolaboratif.

Kata kunci: Numbered Head Together, Memory

1. LATAR BELAKANG

One of the most important factors in building a nation is education. Through education, individuals are abilities can acquire knowledge that gives us the capacity to deal with the challenges of modern life. Education is more than just teaching, which can be said to be a process of knowledge transfer, values, transformation, and personality formation with all the aspects it covers. So, learning activities are centered on students, teachers as motivators and facilitators have a very important position in carrying out their duty (Harifah et al., 2024a). The curriculum is continuously refined to improve the quality

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of education and oriented towards the progress of the national system. According to the Law (Act) of the Republic of Indonesia, the expected learning environment in this learning is the active role of students in each class. Learning is a process of gaining knowledge and experience in the form of changes in behavior and abilities that are permanent or permanent due to the existence of interaction of individuals with their environment (Andrian & Desinta, 2023).

The progress of education is realized through maximum learning opportunities. Expected learning environment in this learning is the active role of students in each class (Harifah & Fajariati, 2021). Learning is a process of gaining knowledge and experience in the form of changes in behavior and abilities that are permanent or permanent due to the existence of interaction of individuals with their environment (Andrian & Desinta, 2023).

Several research studies have been conducted related to the application of learning models. Numbered Head Together (NHT) in improving student learning outcomes. Research conducted by (Sari & Ahmad, 2024), This research is to determine the effectiveness of using the jigsaw and NHT type learning models. According to research conducted by (Tandisman, 2020) In the article, it contains the comparison of Numbered Head Together (NHT) and the conventional learning model of the cooperative learning model type.

Meanwhile, NHT is one of the cooperative learning models that involves a lot of student activity. According to them et al., (2023) stated that NHT is a different discussion, where one student will be selected as a group representative. But it was not previously told who was the representative, creating curiosity. So all students must be ready when called by the teacher to study in groups and each student is given a number, then the researcher calls a random number. Them according to NHT-type cooperative learning, it emphasizes students' activities to search, process, and report information from various sources which is then presented in front of the class (Irfan, 2021; Diah Purwati et al., 2019; Kumia et al., 2019). This type of learning involves students' learning activities searching, processing, and reporting information from various sources (Manafe et al., 2022).

One effective learning model is "Numbered Head Together" (NHT). Numbered Head Together is a cooperative learning strategy in which students work in small groups

and share responsibility for understanding and solving problems. The success of the NHT model is supported by (Restikawati et al., 2020) stated that the Influence of the Number Head Together (NHT) Learning Model learning is learning that prioritizes learning in forming groups where students work together to achieve learning objectives.

According to one of the applications of the NHT type cooperative learning model, it is a learning model for learning material and analyzing the material. In this learning model, students analyze the content of the lesson. In this learning will further increase cooperation between students (Hanifah et al., 2022; Fitisma & Rahmah, 2021) students are formed and get developed by Spencer Kagen to involve more students in studying the material covered in a lesson and checking their understanding of the content of the lesson (Hiwan et al., 2023). There are also opinions (Fitidaui & Rahmat, n.d.), the total involvement of all students and is an excellent effort to increase student responsibility and Give side the chance, to express their thoughts for the appropriate answers. With the Numbered Heads Together (NHT) method, there are sub-topics of various energy sources using the NHT technique, it can facilitate students' understanding of concepts in developing their intelligence.

This model aims to increase students' understanding and learning outcomes while also encouraging active participation, active communication, and collaborative between students, as well as improve their understanding and learning outcomes. This model also aims to improve. The Application of the Numbered Head Together Learning Model in Improving Memory in Degree of Comparison Materials in Grade XI C1 Students at SMAN 2 Pamekasan.

There are a few reasons why Student learning results can be enhanced using the Numbered Head Together (NHT) learning approach. There are several reasons why the Numbered Head Together (NHT) Learning Model can enhance student learning outcomes. First, this method is in accordance with the classroom conditions found and recorded in the researcher's reflection journal, namely the teacher must be creative, and use always active in asking questions until they really understand but there are students who do not dare to ask questions directly when they don't understand the material being taught. The NHT method of teaching is carried out in such a way that each student will receive a number, be grouped together, and the teacher will first discuss who will responsibly respond to any questions that are posed after the students have completed a

group exercise. The NHT method is a learning method that is carried out in such a way that all students will be given numbers, arranged in groups, and the teacher will randomly select students who answer the questions given after the students have done the steps of thinking together (Jangkin & Dethan, 2022).

Several previous studies have been conducted related to the application of learning models Numbered Head Together (NHT) in improving student learning outcomes. Research conducted by (Sari & Ahmad, 2024), In the article, it contains the comparison of the jigsaw and NHT. According to (Sari & Ahmad, 2024). It was stated that the Jigsaw and NHT type learning models are cooperative learning techniques that are very effective in increasing active learning and, The effect of student's understanding of science learning. Meanwhile (Sari & Ahmad, 2024) Jigsaw-type learning model, Students are organized into small groups, and each element of the learning material becomes a specific sub-topic to study and become an expert. This approach allows Students to engage deeply with the material assigned to them.

One of the key factors contributing to the effectiveness of an activity in order to be able to teach is effectively to their peers. Then according to several studies conducted by (Tambunan, 2020) In the article, it explains the comparison of 2 methods, namely the contextual Learning model and the cooperative learning model type Numbered Head Together (NHT). (Tambunan, 2020) informs that there is an influence of a learning model that can help teachers relate the learning materials taught to the real lives students so that students can apply the knowledge gained in class. But on the other hand While in Figure the form model type NHT. (Tambunan, 2020) explains that the cooperative model of the NHT is a type of cooperative model that involves more students in studying material covered in a lesson and checking their understanding a subject. (Tambunan, 2020) explained that NHT or Number-Head-Together type cooperative learning is useful for influencing students' interactions and learning. Thus The cooperative learning model of type Number-Head-Together provides opportunities for students to share arguments with each other and determine the right.

The purpose of this study is to determine the application of one numbered head together NHT) cooperative learning model in improving memory in degree of comparison materials in grade XI C1 Students of SMAN 2 Pamekasan.

Considering this background. The researcher's areas of interest include researching the results of the application and memory of students taught to students using the Vlan Act"J Head Together (NHT) method. There fore, the researcher poured it in the form of a classroom action research article with the title "The Application of the Numbered Head Together Learning labeled is Improving Memory in Degree of Comparison Material in Grade XI Cl Students at SMAN 2 Pamekasan.

2. KAJIAN TEORITIS

This research is collaborative, meaning that the research is in collaboration with group friends. The procedure for this research consists of (1) the planning stage; (2) the level of action; (3) the observation/evaluation stage; and (4) the reflection stage, then return to the planning stage, action stage and so on so as to form a cycle (Arikunto & Suhardjono, 2010).

The formula used to calculate the percentage of achievement of each indicator is as follows:

Ketuntasan (%) = (Jumlah siswa yang tuntas / Jumlah seluruh siswa) × 100.

3. METODE PENELITIAN

This research was conducted in class XI C 1 of SMA NEGERI 2 PAMEKASAN. The research time is in May 2024. The research subjects in PTK is research concerned with combining qualitative and quantitative ana lysis. The examinant or of qualitative data in this resea rch is used to determine and interpret the factors of observation data such as activity and used actions of the type of research is Classroom Action Research (PTK). Classroom action research is research that is carried out in a spiral through the stages of planning, action, observation, evaluation, and reflection (Sari et al., 2021). The spiral model that the researcher is to ascertain the Improvement of Memory and Co N awareness of Grade XI-CI of SMAN 2 Pamekasan Students Towards Degree of Comparison Material in Grade XI CI SMAN 2 Pamekasan students got by way of N 1C cycle, first cycle and Second cycle, with the outcome in this study is data on activities, tests and documentation. The data source collected in this study comes from elementary doing. The data management technique begins with collecting data on the questions that the questions are selected according to the memory ability indicators. The questions

chosen are considered to be able to represent every indicator of difficulty ability. The data collection is the study was carried out using observation, interview, and LKPD methods. The data from of the research results were then analyzed using qualitative descriptive data analysis techniques, which the percentage formula.

4. HASIL DAN PEMBAHASAN

Based on observations during the process of learning from the start of cycle 1 to the end of cycle II, there an increase in students' memory. To be able to see whether there is or There is no distinction between the average pretest score and the posttest (Auriantt; n.d.). The results of the classroom action research show that the application of the numbered head together type cooperative learning model is able to improve students' memory. The table below shows the comparison of students' memory test in the degree of comparison material before and after using the number head together type cooperative model.

PLANNING

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CYCLE I

REFLECTION → OBSERVATION → IMPLEMENTATION → PLANNING

CYCLE II

REFLECTION → OBSERVATION → IMPLEMENTATION → DST

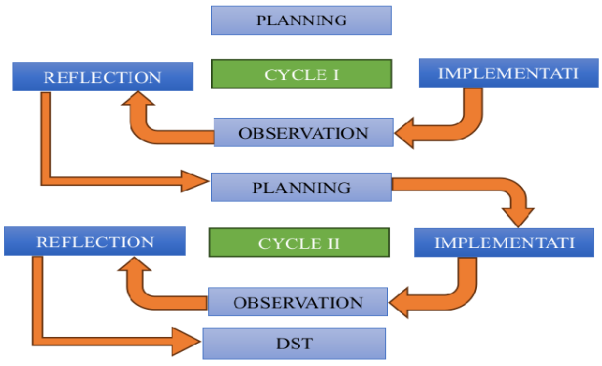

Figure 1. Classroom action research stage

The formula used to calculate the percentage of achievement of each indicator is as follows:

Ketuntasan (%) = (Jumlah siswa yang tuntas / Jumlah seluruh siswa) × 100

RESULTS AND DISCUSSION

Based on observations during the process of learning from the start of cycle 1 to the end of cycle II, there an increase in students' memory. To be able to see whether there is or There is no distinction between the average pretest score and the posttest (Auriantt; n.d.). The results of the classroom action research show that the application of the numbered head together type cooperative learning model is able to improve students' memory. The table below shows the comparison of students' memory test in the degree of comparison material before and after using the number head together type cooperative model.

Table 1. Results of Analysis of Several Indicators

Yes	Indicators Assessed	Number of Students Reach	Percentage	Qualitative Interpretation
1	Recalling the form of comparative degree	28 students	(28/34) × 100 = 82.4%	The majority of students are already able to remember comparative forms well
2	Recognizing sentences with a superlative degree	26 students	(26/34) × 100 = 76.5%	Students are quite good at recognizing superlative sentence structures, although they still need reinforcement
3	Work closely with group members	30 students	(30/34) × 100 = 88.2%	Cohesiveness in group work is very good
4	Complete the LKPD completely	32 students	(32/34) × 100 = 94.1%	Students are able to complete the LKPD very well

	and appropriately			
5	Answer questions according to the teacher's instructions	25 students	(25/34) × 100 = 73.5%	Some students still need to be more careful in following the instructions

Table 1 above presents five indicators of assessment of students' memory and cohesiveness after the application of the NHT model. In the first indicator, namely recalling the form of comparative degree, as many as 28 out of 34 students or 82.4% managed to show good achievement. Furthermore, in the second indicator, the ability to recognize sentences with a superlative degree was mastered by 26 students or 76.5%. Although this number is slightly less than the first indicator, students still show a fairly good performance. In the third indicator, namely working with group members, it shows the highest percentage, namely 30 students or 88.2%. This proves that a very good cooperative attitude, showing the success of the NHT model in building teamwork. The fourth indicator, completing the LKPD completely and appropriately, was succeeded by 32 students or 94.1%, which means that almost all students were able to complete the assignment correctly and completely. Meanwhile, the fifth indicator related to answering questions according to the teacher's instructions showed that 25 students or 73.5% had followed the instructions well, although there were still some students who needed to be more careful. Overall, this data shows that the application of the NHT learning model has a positive impact on improving students' cohesiveness and social aspects.

Table 2. Students' learning memory

No	**Categories of student learning memory**	**Pre-Cycle**		**Cycle I**		**Cycle II**	
		F	%	F	%	F	%
1	Full	4/11.8%	15/44.1%	22/64.7%	4/11.8%	15/44.1%	22/64.7%

2	Keep	10/29 .4%	8/23. 5%	4/11. 8%	10/29 .4%	8/23. 5%	4/11. 8%
3	Low	19/55 .9%	3/8.8 %	0/0%	19/55 .9%	3/8.8 %	0/0%
4	Very Low	1/2.9 %	0/0%	0/0%	1/2.9 %	0/0%	0/0%

Table 2, above shows the results of a comparative analysis of student learning. In the pre-cycle, out of 34 students or 11 students. In the pre-cycle, most students (19 students or 55.9%) were in the low memory category, while only 4 students (11.8%) were classified as high. This reflects that the initial learning conditions have not been effective in helping students remember and understand the degree of comparison material. After the implementation of the Numbered Head Together model in cycle I, there was an increase in the high category from 11.8% to 44.1% (15 students), and a significant decrease in the low category from 55.9% to 8.8% (3 students). This shows that the NHT model has a positive influence, as it encourages students to actively discuss, listen, and remember information. A more significant improvement occurred in cycle II when the number of students in the high category increased to 22 students (64.7%). Low and very low categories are no longer found, indicating that all students already have sufficient to high memory skills. Only 4 students (11.8%) are still in the medium category.

These results suggest that the NHT model of learning is capable of gradually enhance pupil memory significantly with a collaborative and participatory learning environment. Students not only memorize the material, but understand through discussion and joint problem-solving. Discussion carried out in the collaborative group as well (Sa'dilyah et al., 2022). is way for teachers to present lesson materials by providing opportunities for students in groups to conduct scientific discussions to express and gather opinions, creating a conclusion, and offering a substitute for solutions solving. Discussion is also a method concluded that using The Collective Numbered Heads cooperative model is a suitable and effective tactic for increasing student interest, especially in the degree of comparison material in grades XI C1 SMAN 2 Pamekasan. make conclusions, and develop alternative problem solving. Thus, it can be concluded that the use of the Numbered Heads Together type cooperative model is an appropriate and effective

strategy in improving students' memory, especially in the material degree of comparison in class XI C1 SMAN 2 Pamekasan.

KESIMPULAN DAN SARAN

According to the findings of the research that has been carried out, four main conclusions can be drawn: (1) Effective cooperation in groups, students can help and support each other to understand the teaching materials. They are able to be exchanging opinions, discussing, and always provide support to help them understand the content better (2). NHT supports all group members in the learning process. Every student has the desire and inclination to participate in the group. This encourages active participation and ensures that every student contributes fully in the learning process, in understanding the learning material. They can exchange opinions, discuss, and give each other input to deepen their understanding. (3), NHT involve all group members during the educational process. Each Students role a part Inresponsibility to contribute in his or her group. This encourages active participation and ensures that every student is fully engaged in learning. (3) Through the Numbered Head Together Learning Model, students are instructed to use critical thinking and analyze the ideas of comparison. They must be open-minded in order to respond to questions or solve problems that are presented. Therefore, the NHT learning model is a cooperative learning approach that actively engages all students in small groups to achieve the learning objectives (Febriani et al., n.d.). (4) NHT can improve students' social skills. They learn to talk in a timely manner, communicate well, and help others. The Numbered Head Together educational model offers effective and comprehensive instruction. (3), through the Numbered Head Together Learning Model, students are invited to think critically and analyze the sentence of degree of comparison. They must think deeply to be able to answer a question or solve a given problem. So the NHT learning model is a cooperative learning approach that actively involves all students in small groups to achieve specific learning objectives (Febriani et al., n.d.). (4), NHT can improve students' social skills. They learn to work in teams, communicate well, listen to other people's opinions. The Numbered Head Together Learning Model offers an effective and inclusive approach. Then the research data shows that there is an increase as seen from the comparison of student memory test results which show significant changes. From the pre cycle stage, cycle I, to cycle II In the pre-cycle, most students

(55.9%) were in the low memory category, and only 11.8% were in the high category. After the implementation of the NHT model in cycle I, the number of students in the high category increased to 44.1%, and in cycle II it increased again to 64.7%. Meanwhile, the low and very low categories decreased drastically and even reached 0% in cycle II.

DAFTAR REFERENSI

Almahira, A. R. (n.d.). *Implementation of English learning methods at SDN Mendekan Taban: An analysis of effectiveness and challenges*.

Armand, F. (2003). *Social marketing models for product-based reproductive health programs: A comparative analysis*.

Belair, A. R. (2003). *Shopping for your self: When marketing becomes a social problem*.

Chain, P. (1997). *Same or different?: A comparison of the beliefs Australian and Chinese university students hold about learning*.

Diah Purwati, M., Suryanto, & Junaidi, R. (2019). *Efektifitas Numbered Head Together berbantuan media visual terhadap hasil belajar siswa di sekolah dasar*.

Febriani, S. K., Baroroh, R. I., & Fauziyah, A. (2021). The Problem Based Learning model improves the thematic learning outcomes of Indonesian lesson content. *Journal of Language and Literature Studies, 4*(2), 23–30. https://doi.org/10.23887/jlls.v4i2.36995

Harifah, K. J., Wahyuni, R., & Mulyani, S. (2024). *Penerapan model pembelajaran kooperatif tipe Student Teams Achievement Division (STAD) untuk meningkatkan prestasi belajar siswa pada materi recount text kelas XI-D SMAN 2 Pamekasan*.

Hiwan, A., Jailani, A., & Sugilar, H. (2023). Implementation of the flipped classroom learning model with the Numbered Head Together (NHT) learning model in mathematics learning. *Journal of Innovative Mathematics Learning, 6*(2), 87–96. https://doi.org/10.22460/jiml.v6i2.15821

Manafe, A., Ratu, M. F. T., & Ratu, P. L. S. (2022). Pengaruh model pembelajaran kooperatif tipe Number Head Together (NHT) terhadap pemahaman konsep matematika. *Edukatif: Jurnal Ilmu Pendidikan, 8*(1), 299–307. https://doi.org/10.55927/ema.v8i1.3827

Sari, I., Ramadhan, R., & Safitri, F. (2021). Penerapan model pembelajaran kooperatif tipe Number Head Together (NHT) terhadap hasil belajar matematika. *Jurnal Pendidikan dan Bimbingan, 4*(2), 101–110. https://doi.org/10.58987/jpba.v4i2.3798

Sari, N. I., & Ahmad, F. (2024). Comparative study: Jigsaw-type and Number Head

Together cooperative learning model in science learning in first secondary school students. *Jurnal Studi Guru dan Pembelajaran, 7*(1), 55–64. https://doi.org/10.30605/jsgp.7.1.2024.4396

Sukmadinata, N. S. (2009). *Landasan psikologi proses pendidikan*. Bandung: Remaja Rosdakarya.

Tambunan, E. P. S. (2020). Comparison using 2 learning model Janung contextual and Numbered Head Cooperative Together (NHT) towards student learning outcome in the high school. *Jurnal Pendidikan Biologi Nusantara, 6*(2), 105–112. https://doi.org/10.36987/jpbn.v6i2.1798