

THE EFFECT OF *THE NHT (NUMBEREAD HEADS TOGETHER) LEARNING MODEL* ON THE ACTIVITY AND LEARNING OUTCOMES OF SCIENCE STUDENTS IN MIN SIHABORGOAN DALAN

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Abstract

This article aims to determine the effect of the NHT (Numberread Heads Together) learning model on student activity and science learning outcomes at MIN Sihaborgoan Dalan. This study employed a quasi-experimental design with a non-equivalent control group. The population and sample were 20 fourth-grade students at MIN Sihaborgoan Dalan. The instruments used in this study were tests and observation sheets. Data analysis techniques used were descriptive tests (mean, median, mode, and standard deviation) and inferential tests (normality, t-test, and MANOVA). Based on data analysis using SPSS 20, the normality test for problem-solving ability and learning outcomes using multivariate tests showed a sig > 0.05 for the pretest and posttest of the experimental class. The normality test using the based mean showed a sig > 0.05 for the pretest and posttest of the experimental class. The MANOVA test showed a significance value of 0.000. $0.000 < 0.05$ then H_0 is rejected and H_a is accepted. Based on this, it can be concluded that there is an influence of the NHT (Numberread Heads Together) Learning Model on the activeness and learning outcomes of science students on plant propagation material in class IV MIN Sihaborgoan Dalan.

Keywords: Learning Model, NHT (Numberread Heads Together), On Learning Activity and Outcomes



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INTRODUCTION

Education is a conscious, planned effort to develop personality and abilities inside and outside of school and lasts a lifetime.¹ In other words, education is processed in order to influence students and efforts to be able to adapt as best as possible to their environment. Education will have an impact on changes in students both in cognitive, affective, and psychomotor aspects.² Education has a very important role and is needed by humans. Without education, human life is difficult to progress and develop. In accordance with what is written in the SISDIKNAS Law number 20 of 2003, chapter II article 3 which states that: Indonesian national education has a function to develop abilities and form a dignified personality and civilization of the nation in order to educate the life of the nation, aiming to develop the ability of education participants to become human beings of faith, devotion to God Almighty and become citizens of the state with good *karimah*, physically and spiritually healthy, knowledgeable, have life skills, have a creative spirit, be independent, and be a democratic and responsible citizen.³

Basic education is education that is organized to provide the basic provisions needed to live in society in the form of developing basic attitudes, knowledge and skills.⁴ Through education in elementary schools and at Madrasah Ibtidaiyah, it is hoped to produce quality human beings. The goals of national education will not be realized if learning is not implemented at every level and educational unit. Its main focus is to provide knowledge, skills, and form the basic attitudes needed in society.⁵ This education lasts for six years in elementary school, followed by three years in high school. The main problem that is a problem in learning within the scope of formal education (school) is very low learning outcomes or lack of student absorption.⁶ This can be seen from the learning outcomes of students who are still low on average. As for achieving the success

¹ Abd Rahman Bp et al., "Pengertian Pendidikan, Ilmu Pendidikan Dan Unsur-Unsur Pendidikan," *AL-URWATUL WUTSQA: Kajian Pendidikan Islam* 2, no. 1 (June 2022), <https://journal.unismuh.ac.id/index.php/alurwatul/article/view/7757>.

² Ulfah Ulfah, Opan Arifudin, and Ika Kartika, "Pengaruh Aspek Kognitif, Afektif, Dan Psikomotor Terhadap Hasil Belajar Peserta Didik," *Jurnal Al-Amar: Ekonomi Syariah, Perbankan Syariah, Agama Islam, Manajemen Dan Pendidikan* 2, no. 1 (January 2021), <https://ojs-steialamar.org/index.php/JAA/article/view/88>.

³ Sara Indah Elisabet Tambun, Goncalwes Sirait, and Janpatar Simamora, "Analisis Undang-Undang Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional Mencakup Bab IV Pasal 5 Mengenai Hak Dan Kewajiban Warga Negara, Orang Tua Dan Pemerintah," *Visi Ilmu Sosial Dan Humaniora (VISH)* 1, no. 1 (2020).

⁴ Alifian Nugraha, "Pentingnya Pendidikan Berkelanjutan Di Era Revolusi Industri 4.0," *Majalah Ilmiah Pelita Ilmu* 2, no. 1 (2019), <https://doi.org/10.37849/mipi.v2i1.118>.

⁵ Tuti Marlina, "Urgensi Dan Implikasi Pelaksanaan Kurikulum Merdeka Pada Sekolah Dasar/Madrasah Ibtidaiyah," *PROSIDING SEMINAR NASIONAL PENDIDIKAN EKONOMI* 1, no. 1 (June 2022), <https://prosiding.umm metro.ac.id/index.php/snpe/article/view/24>.

⁶ Ajeng Dwi Pratiwi et al., "Identifikasi Permasalahan Pembelajaran IPS di Semua Tingkat Pendidikan Formal (SD, SMP dan SMA)," *El-Mujtama: Jurnal Pengabdian Masyarakat* 3, no. 2 (2023), <https://doi.org/10.47467/elmutjama.v3i2.2818>.

of a nation's education, it is necessary to increase learning at every level of education.⁷ Learning is a process to help students learn well. Learning targets in learning can be measured through changes in students' attitudes and abilities through the learning process.⁸

Based on the results of initial observations made in the science subject of Plant Breeding material on students at MIN Sihaborgoan Dalan. The results of these observations the researcher found several problems, namely the first problem of lack of student learning activeness here the researcher found a problem of course not just active or crowded, but quality activeness, characterized by a lot of responses from students, a lot of questions or answers about the material studied or ideas that may arise related to the concept of the material being studied. Viewed from the teacher's side, to create an active learning atmosphere, teachers need to realize that when teaching, teachers should position themselves more as facilitators and motivators, not completely as a source of information in learning. In addition, teachers must also be able to adjust the right learning method to the material to be discussed, because the learning method greatly affects the success of the learning process. In addition, the researcher also saw that student learning outcomes were very low in science learning, many student learning outcomes were below the KKM (Maximum Completeness Criteria) which was 75. Problems that occur during learning result in students not being able to do the questions given by the teacher properly. There are still students who have not completed their studies, and have grades that do not pass the KKM. This can be seen from the learning results of students who only achieved an average score of 65.75.

One of the factors that causes student learning outcomes is because the learning process is still one-way and centered on teachers or teachers as a source of learning (*teacher center*) so that it has a great impact on students.⁹ This can be seen from the lack of interest in students in receiving science lessons so that students are not able to fully apply the material and result in less than optimal student learning outcomes. In addition, student activity in science learning tends to be low. This is shown in at least 3 indicators. *First*, the students' courage to express ideas or opinions is still lacking. *Second*, students' ability to convey personal ideas is still lacking. *Third*, students are not used to competing in expressing opinions to their friends.

⁷ Hengki Nurhuda, "Masalah-Masalah Pendidikan Nasional; Faktor-Faktor Dan Solusi Yang Ditawarkan," *Dirasah: Jurnal Pemikiran dan Pendidikan Dasar Islam* 5, no. 2 (2022), <https://doi.org/10.51476/dirasah.v5i2.406>.

⁸ Dirgantara Wicaksono and Iswan Iswan, "Upaya Meningkatkan Hasil Belajar Peserta Didik Melalui Penerapan Model Pembelajaran Berbasis Masalah Di Kelas Iv Sekolah Dasar Muhammadiyah 12 Pamulang, Banten," *Jurnal Holistika* 3, no. 2 (November 2019), <https://doi.org/10.24853/holistika.3.2.111-126>.

⁹ Atha Candra Puspita and Sachiko Aqila Naila Ismail, "Penerapan Teori Gestalt Wolfgang Kohler dalam Meningkatkan Pemahaman Siswa," *Jurnal Ilmu Pendidikan, Sosial dan Humaniora* 1, no. 2 (July 2025), <https://doi.org/10.58472/jipsh.v1i2.39>.

In addition, the researcher also obtained data that most students felt bored in learning science because learning tended to be monotonous because students only received information obtained from teachers. In the learning process, students listen more, take notes or write and practice something ordered by the teacher. Teachers still use traditional methods in learning, namely the lecture method, so that students become less active and quickly feel bored. In addition, limited internet access constraints at school are also a problem that makes it difficult for students to find out more about science learning materials. So solutions are needed to solve existing obstacles.

Based on the above problems, the researcher is interested in conducting experimental research that teachers must be able to apply the right learning model and in accordance with the subject matter that will be delivered to students, because the suitability of a teacher as an educator in applying the learning model will be able to increase students' motivation in learning so that they will be more active in participating in science learning and can spur students to develop knowledge that is obtained from the learning process at school with the knowledge that has been had. One way or solution to overcome this problem is by using a *problem-based learning* model assisted by the Canva application to increase student activity and learning outcomes. The model that will be applied is the *problem-based learning model*.

To overcome this problem, the researcher tries to offer a learning model that is able to increase student activity and student learning outcomes. This model is believed to be able to increase student activity and student learning outcomes because in the implementation procedure not only some students are required to be involved but all students are required to be involved in it. All students have different tasks, so students cannot depend on other students. The learning model offered by the researcher is *the NHT (Numberead Heads Together)* learning model. Because *the Numberead Heads Together* model is a cooperative learning model in which students in small groups (3-5 people) work together to learn a subject matter, after which one of the members is randomly selected to present his or her group's answers. This model encourages students to be active in discussions and take responsibility for the understanding of the material.

Applying the model mentioned above is expected to improve student effectiveness and learning outcomes, and can improve the increase in student activity, especially science subjects and learning objectives can be achieved as expected. So that the researcher can raise the title with an experimental research, namely "The Influence of the NHT (*Numberead Heads Together*) Learning Model on the Activeness and Learning Outcomes of Science Students at MIN Sihaborgoan Dalan".

RESEARCH METHODS

The method used in this is a quantitative research and aims to analyze the NHT (*Numberead Heads Together*) learning model on the activity and learning outcomes of science students at MIN Sihaborgoan Dalan, Central Barumun District, Padang Lawas Regency. The type of research used in this study is quasi-experimental design and the design used is *a non-equivalent control group*. *Quasy experimental design* is to give two different treatments to two research groups. The study consisted of two groups, the first group received the NHT (*Numberead Heads Together*) model, called the experimental class, and the second group used the conventional learning model and was referred to as the control class. These two classes are not randomly selected.

This research was carried out at MIN Sihaborgoan Dalan, Central Barumun District, Padang Lawas Regency. The researcher chose the MIN Sihaborgoan Dalan school as the location of the research, because the researcher is an educator on duty at MIN Sihaborgoan Dalan, so the researcher has an academic responsibility to see the extent of the effectiveness of applying the NHT (*Numberead Heads Together*) learning model on the literacy skills, student activity, and learning outcomes of fourth grade students of MIN Sihaborgoan Dalan. The population in this study is grade IV students of MIN Sihaborgoan Dalan which consists of 3 schools and the number of students is 55 people.

The sample in this study is all fourth grade students of MIN Sihaborgoan Dalan. as many as 30 students consisting of two schools, namely class IV MIN Sihaborgoan Dalan as many as 20 students as an experimental class and class IV MIN Pulo Bariang as many as 10 students as a control class.

Data Collection Techniques

The data collection techniques used in this study are as follows:

1. Tests

In the experimental class, lessons were given using the NHT (*Numberead Heads Together*) learning model and the control class was given treatment using conventional learning. The data collection techniques used in this study are the initial test and the final test, the data collection steps that will be carried out are as follows:

- a. Pretest Initial test is done before treatment.¹⁰ The researcher will provide tests in the form of questions to students with the aim of finding out the activeness and learning outcomes of students.

¹⁰ Yayak Efi Bidari, "Pengaruh Metode Nht Dengan Pendekatan Saintifik Pada Subtema Hidup Bersih Dan Sehat Di Rumah Terhadap Hasil Dan Keaktifan Belajar Siswa Kelas II Sekolah Dasar" (Skripsi, STKIP PGRI Sidoarjo, 2020), <https://repository.universitaspgridelta.ac.id/1168/>.

- b. Post-test *After* treatment, the next action is post-test. The researcher provides tests in the form of questions from the content of the reading text and then answers based on steps using the NHT (*Numberead Heads Together*) model to find out the extent to which students understand the material and student learning outcomes.

2. Observations

The observation in this study is intended to obtain data on the student learning process during learning as well as classroom conditions during the learning process regarding active participation and attention to learning using the NHT (*Numberead Heads Together*) learning model.¹¹

3. Documentation

Documentation is intended to obtain data directly from the research site, including relevant images, regulations, activity reports, and relevant data in the research.¹²

RESULTS AND DISCUSSION

This study was conducted to determine the influence of the NHT (*Numberead Heads Together*) learning model on the activity and learning outcomes of science, namely the breeding of plant plants of grade IV students at MIN Sihaborgoan Dalan. The data from the results of this study was obtained through pre-test and post-test question instruments to students.

Implementation of the NHT (*Numberead Heads Together*) Learning Model of Plant Propagation Science Material for Grade IV Students of MIN Sihaborgoamn Jalan Kec. Barumun Tengah, Kab. Padang Lawas

The implementation of the NHT (*Numberead Heads Together*) learning model in the classroom is carried out through observer observation using teacher and student activity observation sheets. For the format of the observation sheet, the activities of teachers and students are not tested, but coordinated to observers who follow the research process so that there is no misunderstanding of the observation format. The observation sheet filled in by the observer shows the extent of the implementation of the NHT (*Numberead Heads Together*) Learning model in the classroom.

The data of this study was collected from a sample of 20 subjects from the experimental class and 10 subjects from the control class. Before conducting this study, the researcher has prepared research tools, namely: Modules in the experimental class using the NHT (*Numberead*

¹¹ Nurfatimah Nurfatimah et al., "Analisis Keaktifan Belajar Siswa kelas Tinggi di SDN 07 Sila pada Masa Pandemi Covid-19," *Jurnal Ilmiah Profesi Pendidikan* 5, no. 2 (2020), <https://doi.org/10.29303/jipp.v5i2.130>.

¹² Marinu Waruwu et al., "Metode Penelitian Kuantitatif: Konsep, Jenis, Tahapan Dan Kelebihan," *Jurnal Ilmiah Profesi Pendidikan* 10, no. 1 (2025), <https://doi.org/10.29303/jipp.v10i1.3057>.

Heads Together) Learning model and the control class using the conventional model. Student Worksheets, learning media for pre-test and post-test questions.

The Effect of the NHT (*Numberead Heads Together*) Learning Model on the Activity of Science Students in Plant Breeding for Grade IV Students of MIN Sihaborgoamn Dalan Kec. Barumun Tengah, Kab. Padang Lawas

1. Descriptive Student Activity

The data on *the results of the pre-test and post-test* conducted in the Experiment class can be seen in the table below:

Table 1. Descriptive Statistics Data on Pre-test and Post-Test Results of Student Activity in Experimental Classes and Control Classes

Statistics	Control		Express	
	Pre Test	Pots Test	Pre Test	Pots Test
Sample Size	21	21	19	19
Score Maximum	72	82	75	92
Score Minimum	65	75	65	87
Standard Deviation	3.151	2.082	3.727	2.262
Average	69.14	76.67	70.00	90.68

Based on table 4.3 descriptive statistics, the score of pre test and post-test students in the Plant Breeding Science material was obtained, namely in the experimental class the average score of 70.00 from the students' solving ability before the application of the NHT (*Numberead Heads Togther*) learning model , namely with the lowest score of 65 and the highest score of 75, after being treated using the NHT (*Numberead Heads Togther*) learning model. An average score of 90.68 student activity was obtained, namely with the lowest score of 87 and the highest score of 92. Meanwhile, in the control class, the average score in the pre test was 69.14 and the post test score in the control class was 76.67.

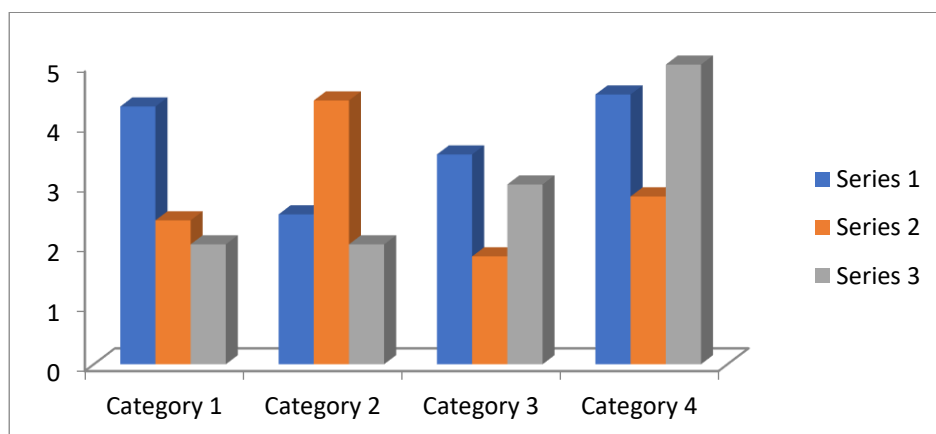
2. Distribution of Frequency and Percentage of Student Activity of Control Classes and Experimental Classes

Table 2. Distribution of Frequency and Percentage of Student Activity
Control and Experiment Classes

Interval	Category	Control				Express			
		Pre Test		Pos Test		Pre Test		Pos Test	
		F	%	F	%	F	%	F	%
80 -100	Very High	0	0 %	5	24 %	0	0 %	20	100 %
66 - 79	Height	5	50 %	5	76 %	15	74 %	0	0 %
56 - 65	Medium	5	50 %	0	0 %	5	26 %	0	0 %
40 - 55	Low	0	0 %	0	0 %	0	0 %	0	0 %
≤ 39	Very Low	0	0 %	0	0 %	0	0 %	0	100 %
Quantity		10	100 %	10	100 %	20	100 %	20	100 %

Based on table 2. The distribution of frequency and percentage of the pre-test stage can show that the average is in the high category of both the control class and the experimental class, while in the posttest stage above it can be seen that the activeness of students in the experimental class after being given treatment there are 20 students in the very high category with a percentage of 100%. Meanwhile, in the control class, the results of student activity at the post test stage were 10 students in the high category with a percentage of 22.22%, 5 students in the medium category with a percentage of 76%, 5 students in the high category with a percentage of 24%, although the results of student activity in the experimental and control classes both increased, but the experimental class was still superior because they were treated using the NHT (*Numberead Heads Tohetger*) learning model.

In addition to the table, it can also be seen in the form of a graph:



The Effect of the NHT (*Numberead Heads Together*) Learning Model on the Learning Outcomes of Plant Breeding Science for Grade IV Students at MIN Sihaboroan Dalan

The data of this study was collected from a sample of 19 subjects from the experimental class and 21 subjects from the control class. Before conducting this study, the researcher had prepared research tools, namely: Learning Implementation Plan (RPP) in the experimental class using the NHT (*Numberead Heads Together*) learning model model and the control class using conventional.

1. Descriptive Science Learning Outcomes

The data on the results of the pre test and post test carried out in the Experiment class can be seen in the table below:

Table 3. Descriptive Statistics of Pre-test and Post-Test Results Data
Science Learning Outcomes for Experimental Classes and Control Classes

Statistics	Control		Express	
	Pre Test	Pos Test	Pre Test	Pos Test
Sample Size	10	10	20	20
Maximum Score	75	77	80	93
Minimum Score	62	62	62	79
Standard Deviation	4.610	4.092	6.615	4.256
Flat - Flat	69.38	70.95	72.48	87.29

Based on table 3. descriptive statistics of pre-test and post-test science learning scores on plant propagation materials, the results were obtained in the experimental class with an average score of 72.48 from the science learning outcomes before the application of the NHT (*Numberead Heads Together*) learning model, namely with the lowest score of 62 and the highest score of 80, after being treated using the NHT (*Numberead Heads Together*) learning model) obtained an average score of 87.29 science learning outcomes, namely with the lowest score of 79 and the highest score of 93. Meanwhile, in the control class, the average score in the pre test was 69.38 and the post test score in the control class was 70.95.

2. Distribution of Frequency and Percentage of Science Learning Outcomes in Experimental Classes and Control Classes

Table 4. Distribution of Frequency and Percentage of Science Learning Outcomes in Experimental Classes and Control Classes

Interval	Category	Control				Express			
		Pre Test		Pos Test		Pre Test		Pos Test	
		F	%	F	%	F	%	F	%
93 -100	Very High	0	0 %	5	24 %	0	0 %	20	100 %
84 - 92	Height	5	50 %	5	76 %	15	74 %	0	0 %
75 - 83	Medium	5	50 %	0	0 %	5	26 %	0	0 %
< 75	Less	0	0 %	0	0 %	0	0 %	0	100 %
Quantity		10	100 %	10	100 %	20	100 %	20	100 %

Based on table 4 the frequency distribution and percentage of the pre-test stage can show that the average is in the low category, both the control class and the experimental class, while in the posttest stage above it can be seen that the science learning results in the experimental class after being given treatment there were 5 students in the medium category with a percentage of 26%, 11 students in the high category with a percentage of 58%, 3 students in the very high category with a percentage of 16%. Meanwhile, in the control class of science learning outcomes at the posttest stage, there were 20 students in the less category with a percentage of 95%, 1 student in the medium category with a percentage of 5%, although the results of student activity in the experimental and control classes both increased, but the experimental class was still superior because they were treated using the NHT (*Numberead Heads Together*) learning model.

The Effect of the NHT (Numberead Heads Together) Learning Model on the Activity and Learning Outcomes of Science Students in Grade IV at MIN Sihaboroan Dalan

1. MANOVA Test

In this study, the MANOVA test was used to determine the influence of the NHT (*Numberead Heads Together*) learning model on the activity and learning outcomes of science plant breeding material of Class IV students of MIN Sihaborgoan Dalan. However, before conducting a data analysis test using the MANOVA test, the researcher must first conduct a prerequisite test, namely the variance homogeneity test and the matrix/covariance variant

homogeneity test.¹³ The following will be presented the variant homogeneity test and the matrix/covariant variant homogeneity test.

a. Variant Homogeneity Test

The variance homogeneity test can be seen from the results of Levene's Test of Equality of Error Variances test using the help of SPSS 25, namely with the General Linear Model-Multivariate. The results are as follows.

Tabel 5. Levene's Test of Equality of Error Variances

Variabel	F	df1	df2	Sig.
KPM	0,326	1	38	0,571
EASY LEARNING	0,375	1	38	0,544

Levene's Test of Equality of Error Variances is used to find out if the variance between data groups is the same.¹⁴ If Sig.<0.05 then it can be concluded that the variant of the data group is different, but on the other hand if it is Sig.>0.05 then it can be concluded that the variant of the data group is the same. In table 4.18, it can be seen that the significance of problem-solving ability is 0.571 > 0.05 and learning outcomes are 0.544 > 0.05. So it can be concluded that the variants of the data group of the two variables are the same.

b. Matrix/Covarian Variant Homogeneity Test

In the MANOVA test, in addition to the variants of the data group must be the same, the variant/covariance matrix of the dependent variables must also be the same.¹⁵ To test the homogeneity of matrix/covariance variants, it can be seen from the results of the Box's M test using the help of SPSS 25, namely with the General Linear Model-Multivariate. Since the two hypothesis prerequisites above have been met, it can be continued on the MANOVA test. The results of the MANOVA test results were taken from the analysis of Pillai's Trace, Wilk's Lambda, Hotelling's Trace, and Roy's Largest Root. This analysis was carried out with the help of SPSS 25, namely with the General Linear Model-Multivariate.

¹³ A. Sarwendah, Muhajir, and Sunarjo, "Perbedaan Keterampilan Dan Kemampuan Penalaran Formal Siswa Menggunakan Model Pembelajaran PDEODE Berbasis Teaching Factory," *Jurnal Teknologi Pembelajaran Indonesia* 12, no. 2 (2022), https://doi.org/10.23887/jurnal_tp.v12i2.1403.

¹⁴ Putri Saymita et al., "Pengaruh Pemanfaatan Lingkungan Melalui Model Experiential Learning Terhadap Hasil Belajar Siswa Kelas V SD," *JPDI (Jurnal Pendidikan Dasar Indonesia)* 8, no. 1 (2023), <https://doi.org/10.26737/jpdi.v8i1.3750>.

¹⁵ Indra Prabowo et al., "The Influence of the Problem Based Learning Model on Critical Thinking Ability and Learning Motivation in Islamic Religious Education of Class X," *Bulletin of Pedagogical Research* 5, no. 1 (2025), <https://doi.org/10.51278/bpr.v5i1.1746>.

In this study, the material on Studying plant breeding will provide knowledge about how plants produce new offspring through generative (sexual) and vegetative (asexual) ways. It includes an understanding of the parts of the flower as a means of generative reproduction, the pollination process, and various vegetative methods such as cuttings, grafting, as well as natural ways such as budding and bulbing. This knowledge is important for cultivating plants and understanding the survival of plant species. In this learning process, students are more active in seeking information on their own with their group mates from books, the internet or based on their own experiences, while teachers play the role of facilitators or guides for students. This is supported by "NHT" generally referring to the Numbered Heads Together *type cooperative learning model*. This model was developed by Spencer Kagan in 1992-1993. However, conceptually, this model is supported by the principles of cooperative learning, in which students work in heterogeneous groups to achieve a common goal.

In this study, it was shown that the implementation of the NHT (*Numbered Heads Together*) learning model by teachers reached a percentage of 52% for the 1st meeting and increased in the 2nd meeting, which was 65% and the 3rd meeting increased with a percentage of 68%, the 4th meeting increased with a percentage value of 82%. From the four meetings, the implementation of the problem-based learning model is in good predicate. Meanwhile, the implementation of the NHT (*Numbered Heads Together*) learning model by students reached a percentage of 41% for the 1st meeting and increased in the 2nd meeting, which was a percentage of 49% and the 3rd meeting increased with a percentage of 56%, the 4th meeting increased with a percentage value of 82%. From the four meetings, the implementation of the problem-based learning model is in good predicate. This means that the learning process using the NHT (*Numbered Heads Together*) learning model runs well and is in accordance with the stages that must be done.

Based on the results of the analysis, it was shown that the descriptive statistics of the pre-test and post-test science learning scores on plant breeding materials were obtained as results, namely in the experimental class the average score of 72.48 from the science learning outcomes before the implementation of the NHT (*Numbered Heads Together*) learning model, namely with the lowest score of 62 and the highest score of 80, after being treated using the NHT (*Numbered Heads Together*) learning model) obtained an average score of 87.29 science learning outcomes, namely with the lowest score of 79 and the highest score of 93. Meanwhile, the average value of the control class in the pre test was 69.38 and the post test score of the control class was 70.95. Meanwhile, the results of the independent sample t-test showed that the degree of freedom (df) was 38 with a sig value. (2-tailed) which is 0.000, the value sig. $0.000 < 0.05$. Apart from that, it can also be seen from the acquisition of a tcal value

of 12.323 > a ttable value of 1.2913. Then it can be stated that H_a is accepted and H_0 is rejected. Based on the hypothetical criteria of independent sample t testing, it can be concluded that there is a difference in science learning outcomes between the experimental class and the control class after using the NHT (*Numbered Heads Together*) model.

Thus, it can be concluded that there is an influence of the NHT (*Numbered Heads Together*) model on the learning outcomes of plant breeding science of grade IV students of MIN Sihaborgoan Dalan.

CONCLUSION

Based on the results of the research and data analysis that has been carried out, it can be concluded that it can be concluded; (1) The NHT (*Numbered Heads Together*) learning model has a positive influence on the activeness in learning science of plant breeding material for grade IV students of MIN Sihaborgoan Dalan. This is seen from the significance value obtained is $0.000 < 0.05$. (2) The NHT (*Numbered Heads Together*) learning model has a positive influence on the learning outcomes of science plant breeding material for grade IV students of MIN Sihaborgoan Dalan. This is seen from the significance value obtained is $0.000 < 0.05$. (3) There is an influence of the NHT (*Numbered Heads Together*) learning model on the activity and learning outcomes of science plant breeding materials of grade IV students of MIN Sihaborgoan Dalan. This is seen from the significance value obtained is $0.000 < 0.05$.

ADVICE

Based on the conclusions of the research results, there are several things that researchers need to suggest, namely; (1) As a researcher to maximize every preparation for the implementation of research, one of which is that during the data collection process it is very necessary to prepare carefully. (2) The number of samples is expected to be greater than the number of samples in this study, especially if the experimental research requires statistical tests in the data analysis. (3) Mapping the time allocation of the research process, to be calculated properly and maturely.

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