

Implementation of the Numbered Heads Together Learning Model in Increasing the Economic Learning Outcomes of Students of Sma Negeri 1 Wera

Yayan Anggriani¹, Wiedy Murtini², Kristiani³, Students of Master Economic Education Study Program, Sebelas Maret University, Surakarta. Indonesia.
^{2,3}Lecturer of Master of Economic Education Study Program, Sebelas Maret University, Surakarta, Indonesia. Email: ¹yayananggriani28@gmail.com,
²wiedymurtini@staff.uns.ac.id, ³kristieko95@yahoo.co.id

This study aims to improve the learning outcomes of SMA Negeri 1 Wera students by implementing a Numbered Heads Together (NHT) Type Cooperative Learning Model. The method used in this study is experimental research. The population in this study was all students of Class XI SMA Negeri 1 Wera, while the sample in this study was Class XI IPS2 which was selected randomly using a probability sampling technique of cluster type random sampling. The results showed that student economic learning outcomes improved after the implementation of the Numbered Heads Together learning model with the average value of student learning outcomes increased by 43.86 points, with an average pretest value of 34.07 while the posttest is 77.93. Normality tests showed that pretest and posttest obtained sig. > 0.05 or normal distributed data and homogeneity test results both homogeneous or significant sig data. > 0.05 that there is a significant difference between students' pretest and posttest scores and the application of the Numbered Heads Together model. The results of the study using the Numbered heads Together learning model have been proven to improve student economic learning outcomes to have a positive impact on student economic learning outcomes.

Keywords: *Numbered Heads Together, Learning Outcomes.*

1. INTRODUCTION

The problem that often occurs when learning takes place students only listen to the material explained by the teacher without being directly invited in the learning process so that students guess, therefore it is necessary to apply learning strategies using learning models that can help students understand learning material and its application in everyday life. The learning model is a plan or a pattern that is used as a guide in planning classroom learning or tutorial learning and to determine learning tools included in books, films, computers, curricula, and others (Susanto, 2013).

Education aims to bring up learning situations and learning process activities that aim to make students actively bring out noble morals and skills needed by society, the Nation, and the State (Batubara, 2014). Education can also be interpreted as something important for life from the past until now, education plays an important role in realizing quality people. Education in its implementation plays a role in the long term, so that humans are adaptive to changing times (Andini, 2017).

The results of student economics learning only appear in the ability of students to memorize the material they are studying, although many students are able to provide good memorization of the material they receive, but in fact students often do not understand in depth the substance of the material. Students need to understand what learning means, its benefits and how to achieve it, they must realize that what they learn is useful for their life later. That way they position themselves as themselves who need a provision for their future. They learn what is beneficial to them and work towards achieving it (Nurhadi, 2004).

To facilitate students' understanding of this matter, one of the efforts made in improving student economics learning outcomes, namely by using the learning model of the Numbered Heads Together (NHT) type. Numbered Heads Together is a learning model that emphasizes student activity. This learning is expected so that students can create new ideas in learning and increase student activity, cooperation, and the courage to express ideas in the learning process (Suardini, 2019). In research Efendy (2014), the activities carried out by students during the application of the Numbered Heads Together method increased well. The Numbered Heads Together (NHT) type cooperative learning model encourages students to think in a team and dare to appear independent so that in its implementation the teacher acts as a facilitator (Warsono & Haryanto, 2014).

Rahmawati (2014), that the use of the numbered heads together (NHT) model can improve reading comprehension. It is proven that before students were given the numbered heads together model in conventional model learning, students' pretest results were still far below average, but after teachers gave the students treatment, their understanding of comprehensive reading improved, similar to opinions Ode (2014), that the use of audio-visual resources has a significant effect on private school learning.

Based on the results of observations and learning outcomes of class XI social studies students, information was obtained, that until now many students have scores below the KKM score, which is 75. The data on the results of UTS Economics for class XI social studies students of SMA Negeri 1 Wera, before the research was carried out, were presented in Table 1.

Table 1. UTS Economics Class XI SMA Negeri 1 Wera for the 2019/2020 academic year.

Class	Number of Students	Average Value	Classical Completeness (%)
XI IPS1	27	18,00	44,44
XI IPS2	26	16,35	38,46
XI IPA1	28	15,40	39,28
XI IPA2	27	17,50	48,14
XI IPA3	28	18,10	46,42

Source: SMAN Negeri 1 Wera 2019 Document

The value of economics learning outcomes of SMA Negeri 1 Wera, especially class XI, is still low, because there are still many students who have not reached the minimum completeness criteria (KKM). In addition, the percentage of students who are complete is still very low when compared to the percentage of classical completeness (KK) set by the School at 80%, this means that students who are able to achieve KKM are very low. It is said to have reached the target if it gets a value of more than 75%. The low learning outcomes are a natural thing where the learning process carried out by teachers through the application of certain learning models affects the level of student understanding which is reflected in the learning outcomes achieved by students (Widyasari et al., 2018).

The development of education in Bima Regency itself is still many students who are afraid to express opinions in the learning process, This causes boredom and less activity of students, thus affecting students' understanding of the material delivered by the teacher. Efforts are made to address some of these problems by applying creative and innovative learning models. According to Rika (2016), said that one alternative used to overcome the problem of low student learning outcomes is to use the Numbered Heads Together method. Because this model is suitable to be applied in the learning process that wants to involve student activity and encourage students to understand the material taught. Numbered Heads Together is a learning model that prioritizes student activities to find, process, and report information from various sources which is finally presented in front of the class (Purwati, Diah et al., 2019).

On the other hand, the Number Head Together model not only increases student participation and involvement in the teaching and learning process, However, it can improve student learning outcomes. This is in line with opinion Nasrun (2016), which states that the application of the NHT learning model has a role in improving student learning outcomes. Emphasized by Hunter (2016), that learning strategies such as NHT improve academic outcomes as well as normal student behavior and disabilities.

Numbered Heads Together is a structural cooperative learning model designed to focus on specific structures, with the aim of being able to influence student interaction patterns and improve academic mastery (Sucidamayantii, 2017). The Numbered Heads Together (NHT) type cooperative learning model was developed by Spencer Kagan (deep Sucidamayantii, (2017), which involves students in studying the material given during learning as well as confirming students' understanding of the subject matter. This Numbered Heads Together (NHT) type learning model is carried out by giving numbers to each student in a group, it can help students to actively interact with their group mates, In addition, students are also encouraged to think in a group and dare to appear independent in expressing their opinions (Kholis, 2017).

As for the steps in the Numbered Heads Together cooperative learning model, according to W. Huda et al., (2018) deep Gracia & Anugraheni, (2021) there are five steps to implementing the Numbered Heads Together cooperative learning model, that is : 1) students are formed in groups of four to six students, 2) each student who is already in the group is assigned a number, 3) Each group that has been formed gets a question assignment from the teacher, 4) any group that has been given an assignment or question by the teacher, then members in the group can discuss with each other to find the most appropriate answer and make sure all group members know the answer, 5) after discussing and getting answers that according to each group are correct, the teacher calls one of the numbers randomly and the student with the number called can present the answer from the group.

2. RESEARCH METHODS

This approach and type of research is quantitative and for its type is experimental. Experimental research is a study that aims to find out whether there are differences in objects given treatment and those that are not treated (Arikunto, 2013). The reason for using quantitative research is because researchers want to make improvements in teaching and learning activities in the classroom by using the NHT learning model to improve Economic Learning Outcomes of SMA Negeri 1 Wera students.

The study population was all class XI students with a total of 139 students. The implementation of research activities was carried out in class XI IPS2 with a sample of 27 students, where the class was chosen because the students' learning outcomes were still low or still below KKM. In this study, The research sample was determined by probability sampling technique of cluster random sampling type. The data collection instrument consists of multiple-choice test questions to measure student learning outcomes. Data analysis techniques using SPSS 22 software.

3. RESULTS AND DISCUSSION

3.1. Results

In this study, the results of students' economic learning were obtained. Data on student learning outcomes are presented in **Table 2**.

Table 2. Student Learning Outcomes Data

Learning Model	Number of students	Average value		Points average	N-Gain
		Pretest	Posttest		
Numbered Heads Together	27	34,07	77,93	43,86	0,67

Source: 2022 Data Processing Results

Table 2. Data before treatment pretest scores showed an average of 34.07 and after treatment posttest scores showed an average of 77.93, This is that the students' economic learning outcomes increased by 43.86 points. The results of these pretest and posttest scores show that there is an increase in the learning outcomes of these students in the medium category. based on an average N-Gain of 0.67.

Student pretest and posttest data were analyzed using SPSS 22 software to determine whether or not there was a significant difference between students' pretest and posttest scores after applying the Numbered Heads Together learning model. Statistical test results in **Table 3**.

Table 3. Statistical Test Results

Test Type	Test Results			Conclusion
	Pretest	Posttest	Decision	
Normality	0,508	0,092	Accepted Ho	Usual
Homogeneity	0,283	0,071	Accepted Ho	Homogeneous
Paired Samples	0,000		Accepted Ha	There is a Difference

Source: 2022 data processing results

Table 3 shows that the normality test results of pretest and posttest data obtained sig. > 0.05 or normal distributed data, as well as the homogeneity test results of the two data obtained by SIG. > 0.05 or homogeneous data. The pretest-posttest data difference test using the paired samples test parametric test obtained sig. < 0.05 which means that there is a significant difference between students' pretest and posttest scores after applying the Numbered Heads Together model.

3.2. Discussion

The results showed a difference in the average pretest and posttest values based on the results of the study shown in Table 2 that the posttest average > the pretest average. This is reinforced by the statistical test results shown in Table 3 that there is a significant difference between students' pretest and posttest average scores. This means that the implementation of the Numbered Heads Together learning model has an effect on improving student economics learning outcomes. Narhetali (2017) states that Numbered Heads Together (NHT) is a student learning activity that requires students' creativity abilities and changes student social interaction patterns in order to stimulate student activeness in learning. Huda (2017), also added that the NHT model had a positive influence on student learning patterns, where it can help students to increase motivation and active roles that help build student understanding so as to provide meaningful learning (Fitri, 2017; Muttaqien, 2017).

Suardini (2019) and Mulyana et al., (2016) shows that learning the Numbered Heads Together method can increase learning activities carried out by students and reduce boredom during the learning process. Mulyana et al., (2016), states that this type of learning model makes for fun learning activities, because students can exchange opinions with their friends to solve a problem. The Numbered Heads Together learning method can also make students more active in asking questions and interacting during the learning process.

The Numbered Heads Together (NHT) type cooperative learning model is designed to influence student interaction patterns that aim to improve academic mastery so that learning outcomes are high (Hamdayama & Jumanta, 2014). The purpose of the Numbered Heads Together learning model is to provide opportunities for students to be actively involved in the thinking process and activities in learning. The Numbered Heads Together (NHT) learning model has a characteristic where students are appointed by the teacher to represent their group in a random way, so this method is an appropriate effort to increase individual responsibility through group discussions (Kurniasih et al., 2016). One of the benefits of the Numbered Heads Together model is that it can improve student learning outcomes.

The Numbered Heads Together (NHT) learning model is a method developed by Kagan to involve students in gaining their understanding of the material delivered in class and can influence interaction patterns (Jahring, 2020). Numbered Heads Together (NHT) is a model for group learning where there are positive relationships and collaboration skills in the classroom in groups of 4-5 students to improve learning outcomes (Jampel et al., 2018). The Numbered heads together (NHT) learning model in its application to the school context has advantages and disadvantages Pramusinto et al., (2016), states that there are several advantages and disadvantages of this Numbered Heads Together learning model. The advantages of Numbered Heads Together include, able to train students to be able to work together and respect the opinions of others, train students to improve communication skills through group discussions, and train students to get used to being peer tutors. While the disadvantages of the

Numbered Heads Together model include that not all students have the opportunity to answer. In addition, students' activeness in following the Numbered Heads Together learning model is able to improve students' communication skills (Wardah & Nasrudin, 2020).

The achievement of the teaching and learning process can be measured from the selection of learning models used (Wiratama, 2020). In order for students to receive and understand the material provided, It's important to use learning models that can be active, imaginative, creative, and fun during the learning process (Fiesher, 2021). Then it can determine the right learning model to convey positive stimuli (Audia et al., 2021). In this regard, the right learning model to encourage students to participate in learning activities is the Numbered Heads Together (NHT) learning model (Yenita, 2017). The success or failure of an educational process is greatly influenced by the learning that takes place. Learning is a complicated process because it does not just absorb information from the teacher but involves various activities and actions that must be done to get better learning outcomes (Haryati, 2017; Hariyanti et al., 2013).

The results of this study show that the economic learning outcomes of students by applying the Numbered Head Together model are better than the economic learning outcomes of students by applying the direct learning model. This is in line with research Rusmini & Surya, C.E. (2017) that there is a significant influence between NHT and the direct learning model with mastery of economic concepts. Emphasized by Nursyamsyi & Corebima (2016), that the scores obtained from NHT learning strategies are better compared to hands-on learning.

4. CONCLUSION

The implementation of the Numbered Heads Together learning model has an influence in improving the Economics learning outcomes of SMA Negeri 1 Wera students because the NHT model itself spurs students' enthusiasm to be active and excited during the learning process. Changes that occur in students can be stated that through the implementation of the Numbered Heads Together (NHT) learning model can improve the learning outcomes of SMA Negeri 1 Wera students.

Based on the results of the study showed that student learning achievement increased as evidenced by the average posttest score of 77.93 and pretest 34.07 with N-Gain of 0.67. The implementation of learning using the Numbered Heads Together model students are more active and creative in receiving material because students can express their ideas well and structured. The implementation of learning using the Numbered Heads Together Model has a positive influence on students' critical thinking skills.

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