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## **NUMBERED HEAD TOGETHER (NHT) TYPE COOPERATIVE LEARNING STRATEGY ON ECONOMICS LEARNING OUTCOMES ON ACCOUNTING MATERIAL**

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### **Abstract**

This study aims to determine the effect of cooperative learning strategies of the Numbered Head Together (NHT) type on the results of learning economics on accounting material for class XII IPS students at SMA Negeri 4 Soppeng. The variable in this study is the Numbered Head Together (NHT) cooperative learning strategy as the independent variable and learning outcomes as the dependent variable. The population of this study were all students of class XII IPS SMA Negeri 4 Soppeng. The sampling technique used the total sampling technique, samples from the population were obtained from the entire population with a sample of 50 students. Data collection techniques used are questionnaires, observation and documentation. The data analysis technique used is descriptive analysis of percentages, instrument testing and hypothesis testing. Based on the data analysis that has been done, there are five indicators of the Numbered Head Together NHT cooperative learning strategy, namely a) Establishing Set, b) Demonstrating, c) Guided Practice, d) Feedback, and e) Extended Practice where descriptive results are obtained at 70.70 % in the high category and learning outcomes of 89.6% which are classified as very high. The results of a simple linear regression analysis obtained the equation  $Y = 70.032 + 0.327X$ . This means that for every addition of one value of the NHT type cooperative learning strategy, there is an increase in learning outcomes of 0.327 units while the results of the coefficient of determination ( $r^2$ ) = 0.180 or 18%. Where NHT has a contribution to learning outcomes of 18%, the remaining 82% is influenced by other factors. Furthermore, from the results of the t-test analysis, it was obtained a significance value of alpha value of  $0.000 < 0.05$ , which means that NHT has a very significant effect on accounting learning outcomes, so the hypothesis is declared accepted.

**Keywords:** Kooperatif learning; Numbered Head Together (NHT); Learning Outcomes



## INTRODUCTION

Education must be carried out fully consciously with a planned learning process so that everything that teachers and students do is a learning process in order to achieve the stated goals, namely increasing student potential. Student potential in this problem is the ability and behavior of individuals related to human resources who have the opportunity to develop and/or uphold the improvement of other potentials contained within students (Fitriani et al., 2022).

One important result that shows whether students are successful or not in the learning process is student learning outcomes. " Learning outcomes are the various abilities that students have after receiving learning experiences" (Sudjana, 2019 : 22 ) . Based on this, it can be said that learning outcomes are the abilities that children gain after experiencing learning activities. To create an interesting learning atmosphere, educators must implement accurate learning strategies to make students enthusiastic and active in participating in learning. One of the learning strategies that is currently developing is the cooperative learning strategy. Cooperative learning is learning in groups, all group members must contribute to each other to achieve learning goals. There are many types of cooperative learning strategies, including Numbered Head Together. According to (Lestari & Yudhanegara, 2015 :44 ) The Numbered Head Together (NHT) type cooperative learning strategy is a type of cooperative learning that allows students to think together in groups where each student is given a number and gets the same opportunity to respond to problems presented by the teacher by saying the number in a row (Afsari et al., 2023).

SMA Negeri 4 Soppeng is one of the state secondary schools in South Sulawesi Province and is one of the schools in Soppeng Regency with A accreditation. using curriculum 13 (K13) in classes X, and XI. And XII with majors divided into two, namely MIPA and IPS (Fitriani et al., 2022). Based on pre-research conducted on 13 September 2022 by distributing questionnaires on NHT-type cooperative learning strategies on the economic learning outcomes of accounting material for class XII IPS students, namely XII IPS 1 and active in groups and requires students to help each other in learning concepts, observing and justifying friends' answers as input to achieve more ideal learning. Accounting learning outcomes are a measure of the success of the learning process that has been implemented. Students' accounting learning outcomes do not always meet the objectives previously set, in the sense that there are still many students whose accounting learning outcomes are below standard. Seeing student learning outcomes that are still below standard namely, the

accounting UTS scores for class XII IPS 1 and XII IPS 2 students are still below the minimum completeness (KKM) (Amin & Harahap, 2023).

Based on initial observations, the percentage of indicators for the cooperative learning strategy variable type NHT (X) for students as measured using a questionnaire was 62%, including in the high category. That matter This is confirmed by research conducted by Niki Safitri (2018) which states that the numbered head together (NHT) type of cooperative learning is in the range of >35% and above which is considered high. Meanwhile, the learning outcome indicator (Y) for students is classified as low with an average of 40% based on standard indicators according to Arikunto (2008:35), namely 21-41%. Based on these data, it can be concluded that the numbered heads together (NHT) type cooperative learning strategy has a negative effect on the accounting learning outcomes of students in class XII IPS 1 and XII IPS 2 at SMA Negeri 4 Soppeng . "This is not in line with research conducted by Muliandari ( 2019) which states that the *Numbered Head Together (NHT)* learning model has a positive effect on mathematics learning outcomes." Apart from that, research conducted by Handy Ferdiansyah ( 2021 ) states that there is practicality in using the blended learning model for learning outcomes during the Covid-19 pandemic (Harahap, 2018).

## RESEARCH METHODS

Variable X in this research is the cooperative learning strategy type numbered heads together (NHT) and variable Y is learning outcomes. This research is quantitative research which was processed using statistical analysis. Data collection methods were collected using questionnaires, observation, and documentation. The data analysis techniques used are descriptive percentage analysis, instrument testing, and hypothesis testing using SPSS 25. Instrument testing consists of validity and reliability tests. Meanwhile, hypothesis testing consists of simple linear regression analysis, coefficient of determination ( $r^2$ ), and t-test (Sudaryono, 2019).

The objects in this research and also the population are class XII IPS students at SMA Negeri 4 Soppeng. The measurement of cooperative learning strategy variations of *the Numbered Head Together NHT*) type uses a *Likert* scale measuring instrument with a questionnaire sheet, namely (*Establishing set*) Conveying objectives and preparing students, (*demonstrating*) Demonstrating knowledge or skills, (*Guided Practice*) Guiding training, (*Feedback*) Check understanding and provide feedback, and (*Extended Practice*) Provide opportunities for results for

further training and application. Learning outcome variables are measured from indicators of student learning outcomes using mid-semester exam (UTS) scores in accounting subjects for classes XII IPS 1. The data analysis techniques used are descriptive percentage analysis, instrument testing, and hypothesis testing.

## RESULTS AND DISCUSSION

### *Descriptive analysis of percentages*

Based on the research results, there are cooperative learning strategy variables of the Numbered Head Together (NHT) type from the distribution of the questionnaire, which is depicted as a percentage of the total score of all respondents' answers obtained by 5 indicators which can be seen in table 1 below:

Table 1. Numbered Head Together (NHT) type cooperative learning strategy variables

No	Items	Actual score	Actual score (%)	Information
1	<i>(Establishing set)</i> Convey objectives and prepare students	518	69.06	Tall
2	<i>(Demonstrating)</i> Demonstrating knowledge or skills	491	65.46	Tall
3	<i>(Guided Practice)</i> Guiding training	702	69.3	Tall
4	<i>(Feedback)</i> Check to understand and provide feedback	697	69.7	Tall
5	<i>(Extended Practice)</i> Provides opportunities for results for further training and application	597	79.6	Tall
<b>Amount</b>		3005	70.70	Tall

Actual score percentage result in the percentage of indicators for the Numbered Head Together (NHT) Type Cooperative Learning Strategy variable is 70.70% in the high category as stated by Arikunto (2018:35). However, four indicators are below the average actual score percentage, namely 1) Establishing set, conveying goals and preparing students as much as 69.06 percent, 2) Demonstrating knowledge or skills as much as 65.46 percent, 3) Guided Practice, Guiding training as much as 69.3 percent, and 4) Feedback. Checking to understand and providing feedback as much as 69.7 percent, because, in the learning process, few students are active in learning in class (Aritonang & Safitri, 2021; Siregar & Safitri, 2020).

Table 2. Classification of Odd Semester Final Scores for

Value interval	Predicate	The number of students	Percentage (%)
$90 \leq A \leq 100$	Very good	28	56
$80 \leq B \leq 89$	Good	17	34
$75 \leq C \leq 80$	Enough	5	4
$>75$	Not enough	0	0
Amount		50	100

Based on table 2, it can be seen that , in the interval  $90 \leq A \leq 100$  there were 56% or 28 students, in the interval  $80 \leq B \leq 89$  there were 34% or 17 students, and in the interval  $75 \leq C \leq 80$  there were 4% or 5 students and interval  $>75$  which is classified as poor, it can be seen that there are no students who get a score  $>75$ . This shows an average value ( *mean* ) of 89.6% where the value is in the interval  $80 \leq B \leq 89$ , which means all students are classified as good (Pratiwi & Harahap, 2022).

### **Instrument Test**

#### **a. Instrument Validity Test**

The instrument validity test in this research is measured based on statement items which are declared valid if the calculated *r* is  $>$  the *r* table value, the *r* table can be seen in the statistical *r* table with a significance level of 5% of 50: 0.284. if *r* count  $>$  *r* table then the statement is valid (Hasanah et al., 2021; Safitri, 2017a, 2017b; Safitri et al., 2023, 2024). The results of testing the cooperative learning strategy instrument type Numbered Head Together NHT (X) with 17 statement items can be seen in Table 3 below:

Table 3. Validity Test Results of *the Numbered Head Together (NHT) Cooperative Learning Strategy Instrument*

Statement items No.	Validity		Conclusion
	r count	r table	
X1	0.611	0.279	Valid
X2	0.529	0.279	Valid
X3	0.525	0.279	Valid
X4	0.527	0.279	Valid
X5	0.430	0.279	Valid
X6	0.580	0.279	Valid
X7	0.706	0.279	Valid
X8	0.410	0.279	Valid
X9	0.435	0.279	Valid
X10	0.445	0.279	Valid
X11	0.595	0.279	Valid
X12	0.280	0.279	Valid
X13	0.316	0.279	Valid
X14	0.401	0.279	Valid
X15	0.425	0.279	Valid
X16	0.583	0.279	Valid
X17	0.680	0.279	Valid

The results of the variable validity test show that all the statement items submitted consist of 17 statement items. Based on table 3, shows that all statement items proposed for the *Numbered Head Together NHT type cooperative learning strategy variable (X)* have a  $r_{\text{calculated}}$  between 0.280 to 0.706. This shows that the  $r_{\text{calculated}}$  value for all variable statement items (X) is greater than the  $r_{\text{table}}$ , namely 0.279. Therefore, it can be concluded that all statement items on the *Numbered Head Together (NHT) type cooperative learning strategy questionnaire* are declared "valid".

*b. Instrument Reliability Test*

The reliability test is used to measure the consistency of the questionnaire which is an indicator of the construct variable. Testing the reliability of the instrument in this research was carried out using the *Cronbach'Alpha technique*, with a total of 50 students as respondents. An instrument is declared reliable if the *Cronbach'Alpha value* is  $> 0.60$ . The table of instrument reliability test results can be seen in Table 4 below:

Table 4. Reliability Results of *the Numbered Head Together (NHT) Cooperative Learning Strategy Instrument*

Reliability Statistics	
Cronbach'Alpha	N of items
,789	17

Based on table 4, shows that the instrument used to collect data on the cooperative learning strategy type Numbered Head Together (NHT) is reliable because the value of the cooperative learning strategy type Numbered Head Together (NHT) is greater than *Cronbach'Alpha*. namely  $0.789 > 0.60$ . Thus it can be concluded that the Numbered Head Together (NHT) type cooperative learning strategy variable instrument used in collecting data was declared "reliable". Based on the instrument tests used including validity tests and reliability tests, it can be concluded as follows:

Table 5. Conclusion of Validity Test and Reliability Test of Research Instruments

Variable	Validity			Reliability		
	$r_{hitung}$	$r_{tabel}$	Note	<i>CronBach's Alpha</i>	Standard	Note
Numbered Head Together (NHT)	0.280 to 0.706	0.279	Valid	0.789	0.60	Reliable

Thus, it can be concluded that the Numbered Head Together (NHT) cooperative learning strategy instrument in this research is suitable for use.

### Hypothesis testing

#### Simple Linear Regression Analysis

Numbered Head Together (NHT) cooperative learning strategy variable on learning outcomes. The analysis was carried out using SPSS Version 25 for Windows, the results, linear regression calculations are presented in Table 6 as follows:

Table 6. Results of Simple Linear Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
		B	Std. Error	Beta		
1	(Constant)	70,034	6,080		11,519	,000
	NHT	,327	.101	,425	3,248	,002

The simple linear regression equation model is  $Y = 70.032 + 0.327X$ . Based on the equation model obtained, it is known that the constant value is 70.032. If the value of the Numbered Head Together (NHT) type cooperative learning strategy variable is  $x$ , then the student learning outcome variable is 0.032 units.

#### Coefficient of Determination ( $r^2$ )

The coefficient of determination ( $r^2$ ) is used to determine the magnitude of the influence exerted by the cooperative learning strategy variable Numbered Head Together (NHT) on the learning outcomes of students in class XII IPS 1 and XII IPS 2 at SMA Negeri 4 Soppeng. So a determination coefficient test was carried out which was processed using SPSS version 25 which can be seen in Table 7 as follows:

Table 7 . Coefficient of Determination Results ( $r^2$ )

Model Summary				
Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error
1	.425 <sup>a</sup>	.180	.163	5.83277

a.Predictors: (Constants), NHT Type Cooperative Learning Strategy

Based on Table 7, the coefficient of determination ( $r^2$ ) is 0.180 or 18%. This means that the Numbered Head Together (NHT) type cooperative learning strategy has an influence on learning outcomes of 18% while the remaining 82% is influenced by other factors.

### **t-test**

The t-test is used to test the hypothesis and find out how significant the influence of the Numbered Head Together (NHT) type cooperative learning strategy is on learning outcomes. To determine the effect of the Numbered Head Together (NHT) type cooperative learning strategy on the results using the t-test is to compare the significant value  $< 0.05$  (5%). A variable is said to be influential when the significance value obtained is 5% smaller ( $\alpha = 0.05$ ). The t-test results can be seen in Table 8 below.

Table 8. T-test results

Model		Unstandardized Coefficients		Standardized Coefficients		Q	Sig.
		B	Std. Error	Beta			
1	(Constants)	70,034	6,080			11,519	,000
	NHT Type Cooperative Learning Strategy	,327	.101	,425		3,248	,002

a. Dependent Variable: Learning Outcomes

Based on table 8, shows that a significance value of  $0.000 < 0.05$  is obtained, which means that the Numbered Head Together (NHT) type cooperative learning strategy variable has a significant effect on the learning outcomes of students in class XII IPS 1 and XII IPS 2 at SMA Negeri 4





Soppeng. Therefore, it can be concluded that the hypothesis presented in this study is declared "accepted". Cooperative learning strategy is heterogeneous learning where students are divided into small groups and directed to study predetermined subject matter. This learning strategy prioritizes students being able to work together in groups to achieve common goals (Winangsih & Harahap, 2023).

Numbered Heads Together (NHT) type cooperative learning is a cooperative learning strategy that refers to group learning of students where each member has a task section (question) with a different number. Every student gets the same opportunity to support their team to get maximum grades so they are motivated to learn. In this way, each individual feels that they have a duty and responsibility so that learning objectives can be achieved.

Learning outcomes are the abilities, attitudes, and skills that students acquire after they receive treatment given by the teacher by looking at three domains, namely the cognitive domain, the affective domain, and the psychomotor domain so that (Syahputra et al., 2022) they can construct this knowledge in everyday life for class XII IPS students at SMA Negeri 4 Soppeng.

The Numbered Head Together (NHT) cooperative learning strategy variable, the average actual score was 70.70% in the high category. The indicator obtained for cooperative learning strategies of the Numbered Head Together (NHT) type with the highest percentage is (Extended Practice) which provides opportunities for results for advanced training and application as much as 79.6%, while the lowest indicator is demonstrating knowledge or skills as much as 65.46% which is considered high.

Based on the results of the research conducted, it was found that the Numbered Head Together (NHT) type cooperative learning strategy had a significant effect on the learning outcomes of students in class XII IPS 1 and XII IPS 2 at SMA Negeri 4 Soppeng. The results show a simple regression equation  $Y = 70.032 + 0.327X$ , which means that for every additional value of the cooperative learning strategy type Numbered Head Together (NHT), the learning outcomes of class XII IPS students at SMA Negeri 4 Soppeng will increase by 0.327X.

The results of this research are in line with research conducted by Muliandari (2019) which resulted in data analysis using the t-test, a calculated value of 3.3 was obtained which was greater than the  $t_{table \text{ value}}$  of 2.021 with a significance level of 5%. Comparison of the calculation results of the average value of mathematics learning outcomes for students who were taught using the NHT type cooperative learning model was 21.1 while students who were taught without using the NHT



type cooperative learning model was 18.89. This means that the use of the NHT type cooperative learning model influences the mathematics learning outcomes of fifth grade elementary school students in Sukasada cluster IV Sukasada subdistrict, Buleleng district in the 2017/2018 academic year.

The similarities between this research and research conducted by Muliandari (2019) namely the use of independent variables and dependent variables, research design, and data collection used, namely observation. The difference lies in the use of material in previous research, namely Mathematics, whereas in this research, Accounting material was used and the location of the previous research was in Sukasada District, Buleleng Regency, while this research was located at SMA Negeri 4 Soppeng.

Research conducted by Firdaus & Rijanto (2016) found that the learning outcomes of students who had high learning activities were as good as those of students who had moderate learning activities. The learning outcomes of students who have moderate learning activities are better than students who have low learning activities, seen from the marginal average, namely  $78.53 > 61.83$ . Learning outcomes for students who have high learning activities are better than students who have low learning activities, seen from the marginal average, namely  $85.35 > 61.83$ . The similarity between this research and research conducted by Firdaus & Rijanto (2016) is the use of the independent variable (X), namely the numbered head together (NHT) cooperative learning model, and using questionnaire data collection techniques. The next similarity is in the research method used, namely quantitative research methods. The difference lies in the use of the dependent variable (Y), namely student learning activities, and in the use of research objects used in the previous study were junior high school students, whereas, in the current study, the objects used were high school students. The next difference lies in the type of research carried out, namely that the previous research used experimental research, while the current research is descriptive research.

Research conducted by regarding the use of the blended learning model for learning outcomes during the Covid-19 pandemic shows that the practicality of using the blended learning model for learning outcomes during the COVID-19 pandemic was obtained from the results of student analysis. In the results of student assessments regarding the use of the blended learning model for learning outcomes during the Covid-19 pandemic, especially introductory business courses and based on Table 1 regarding score conversion, it is known that the average score reached 92%, including in the "very practical" category for use. This research uses research conducted by, which



uses quantitative research using learning outcome variables as dependent variables with data collection techniques using observation and questionnaires. Meanwhile, the difference lies in the research object, where the previous research object was course lecturers and students at Muhammadiyah Sidenreng Rappang University, while the current research is class XII IPS students at SMAN 4 Soppeng.

The results of this research are also supported by the theory put forward by Hosnan (2014: 252) "Numbered Heads Together (NHT) is a type of cooperative learning that emphasizes special structures designed to influence student interaction patterns and has the aim of improving learning outcomes (Dalimunthe et al., 2021). "

## CONCLUSION

Based on the results of the data analysis and discussion described in the previous chapter regarding the influence of the Numbered Head Together (NHT) type cooperative learning strategy on the learning outcomes of class XII IPS students at SMA Negeri 4 Soppeng, it can be concluded that:

1. The Numbered Head Together (NHT) cooperative learning strategy indicator obtained a percentage of 70.70 percent in the high category.
2. Based on the results of descriptive analysis, the learning outcomes of students in classes XII IPS 1 and
3. The Numbered Head Together (NHT) type cooperative learning strategy has a positive and significant effect on the learning outcomes of class XII IPS students at SMA Negeri 4 Soppeng, with a significance value of  $0.000 < 0.05$ .

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