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**THE EFFECTIVENESS OF USING NUMBERED HEADS TOGETHER  
TECHNIQUE ON STUDENTS' READING COMPREHENSION AT VIII  
GRADE OF MTS AL-AMIEN 1 PRENDUAN SUMENEP 2025/2026**

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**Abstract:**

This study aimed to investigate whether there is a significant effect of using the Numbered Heads Together (NHT) technique on the reading comprehension achievement of the eighth-grade students at MTs Al-Amien 1 Prenduan. The study was motivated by students' low reading comprehension ability and the need for an instructional technique that could enhance students' participation and cooperation in English learning activities. This research employed a quantitative approach using a true experimental design, specifically a pre-test and post-test control group design. The population of the study consisted of all eighth-grade students of MTs AL-amien 1 Prenduan Sumenep in the 2025/2026 academic year, totaling 146 students. The sample consisted of two classes: Class VIII-D as the experimental group and Class VIII-E as the control group, with 32 students in each class. The research instrument was a multiple-choice reading comprehension test administered before and after the treatment.

The collected data were analyzed using the t-test formula. The findings revealed that the mean score of the pre-test in the experimental group was 70.31, while that of the control group was 73.43. After the implementation of the Numbered Heads Together technique, the mean post-test score of the experimental group increased to 85.93, whereas the control group achieved a mean score of 75.00. The result of the t-test showed that the obtained t-value was 11.277, which was higher than the critical value of the t-table at both the 5% and 1% significance levels. Therefore, the alternative hypothesis was accepted, and the null hypothesis was rejected.

In conclusion, the use of the Numbered Heads Together technique was effective and had a significant positive effect on the reading comprehension achievement of the eighth-grade students at MTs Al-Amien 1 Prenduan Sumenep Madures.

**Keywords:** Numbered Heads Together, Cooperative Learning, Reading Comprehension, Reading Achievement, English Language Teaching.

#### **Abstract**

*Penelitian ini bertujuan untuk mengetahui apakah terdapat pengaruh yang signifikan penggunaan teknik Numbered Heads Together (NHT) terhadap kemampuan membaca (reading comprehension) siswa kelas VIII MTs AL-amien 1 Prenduan. Penelitian ini dilatarbelakangi oleh rendahnya kemampuan pemahaman membaca siswa serta perlunya penggunaan teknik pembelajaran yang dapat meningkatkan keaktifan dan kerja sama siswa dalam proses pembelajaran bahasa Inggris. Penelitian ini menggunakan pendekatan kuantitatif dengan metode eksperimen (true experimental design) berupa pre-test and post-test control group design. Populasi penelitian adalah seluruh siswa kelas VIII MTs AL-amien 1 Prenduan Sumenep in the 2025/2026 yang berjumlah 146 siswa. Sampel penelitian terdiri atas dua kelas, yaitu kelas VIII-D sebagai kelompok eksperimen dan kelas VIII-E sebagai kelompok kontrol, masing-masing berjumlah 32 siswa. Instrumen penelitian yang digunakan adalah tes pilihan ganda untuk mengukur kemampuan membaca siswa sebelum dan sesudah perlakuan. Data dianalisis menggunakan uji-t (t-test). Hasil penelitian menunjukkan bahwa nilai rata-rata pre-test kelompok eksperimen adalah 70,31 dan kelompok kontrol 73,43. Setelah diberikan perlakuan menggunakan teknik NHT, nilai rata-rata post-test kelompok eksperimen meningkat menjadi 85,93, sedangkan kelompok kontrol hanya mencapai 75,00. Hasil perhitungan uji-t menunjukkan nilai t-hitung sebesar 11,277 yang lebih tinggi daripada t-tabel pada taraf signifikansi 5% maupun 1%. Dengan demikian, hipotesis alternatif diterima dan hipotesis nol ditolak. Berdasarkan hasil penelitian dapat disimpulkan bahwa penggunaan teknik Numbered Heads Together efektif dan memberikan pengaruh yang signifikan terhadap peningkatan kemampuan membaca siswa kelas VIII MTs AL-amien 1 Prenduan Sumenep Madura.*

**Kata Kunci:** Numbered Heads Together, Cooperative Learning, Reading Comprehension,

## Introduction

Reading comprehension as process involves actively constructing meaning among the parts of the text and between the text and personal experience. The text is blue print for creating meaning. Comprehension and relation and chanced by strategies for integrating text with personal knowledge and experience.

In junior high school level, students try to comprehend their reading comprehension. The teacher must teach their students as well as possible in order to students can answers the question of their reading, but many students still have difficulties in reading comprehension. It can be seen in their English scores they get from daily examination. Because of it in teaching learning process the teacher must apply a good technique to make students to be effectively and efficiently. One technique that is more active use in teaching reading comprehension at VIII grade of *MTs AL-amien 1 Prenduan Sumenep* is numbered heads together. It is one of type of cooperative learning. According to Anita Lie, cooperative learning is learning system that the teacher gives opportunity to students to cooperate with other students in structured class. It makes students more active to do work together with their team. Students help each other and responsible to their work.

The goal of cooperative learning is to create meaningful learning experiences that will help students develop genuine fluency in another language. Cooperative learning consists of group of students working together in cooperative. As opposed to cooperative, manner to complete a test, an activity or a project, while working together, the students have meaningful interaction with one another in the target language.

Numbered heads together is a type of cooperative learning that can be alternative variation of learning where is built heterogeneity. This type is developed by Spencer Kagan (1992). This type gives opportunity to the students to share their idea and the best answer. This type support students to increase spirit their work.

The previous study are The Effect of The Power of Two Model on Student's Reading Comprehension, ( Mamluah : 2011 ) the result of this title is very effective to the implementation in teaching reading because it can make the students more active to comprehend of the student material and to answer the teacher question, it also make the student more self confidence to show their skill. The students have an opportunity to evaluate

From what has been explained above, the researcher will do research entitled **“The Effectiveness of using Numbered Heads Together Technique on Students’ Reading Comprehension at VIII Grade of MTs AL-amien 1 Prenduan 2025/2026”**

## Presentation of Data

1. In this research, the researcher used two instrument, test and documentation. To know the effectiveness the researcher needs the students score in students' reading ability using Numbered Heads Together and **The Result of Data Test**

### Pre Test Score of Control Group

[illegible]

[illegible]

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Nun Numbered Heads Together, The researcher got the data as follows:

**a. Validity of Test Instrument**

As stated in the previous chapter, test is the main instrument in this research. A test should have validity. It test is called valid if it measures what it intend to be measured. In his case, the test has to measure the student's reading comprehension. So, the researcher used content validity to gain the validity of the instrument. Content validity refers to the extent. So, in measuring student's reading comprehension the test should represents the reading material given.

To know whether or not the test instrument tested the reading comprehension related to the test given, the researcher showed the test to the English teacher of VIII Grade before giving the test to the students. It was mean to gain the validity of the test instrument.

**b. Reliability of test instrument.**

The researcher calculated the reliability of the test using KuderRicharson formula 21 (KR21).

Before computing the reliability, the researcher had to compute total variance.

$$\begin{aligned}
 X^2 &= \sum X^2 - \frac{(\sum X)^2}{n} \\
 &= 1759 - \frac{(235)^2}{23} \\
 &= 33,219 \\
 V_t &= \frac{X^2}{n} \\
 &= \frac{33,219}{32} \\
 &= 1,038
 \end{aligned}$$

$$\begin{aligned}
 M &= \frac{\sum X}{n} \\
 &= \frac{235}{32} \\
 &= 7,343
 \end{aligned}$$

The computation of the variance is 1,038 at finding total variance. The researcher computed the reliability of the test as follow:

$$\begin{aligned}
 r_{11} &= \left( \frac{k}{k-1} \right) \left( 1 - \frac{M(K-M)}{K.Vt} \right) \\
 &= \left( \frac{10}{10-1} \right) \left( 1 - \frac{7,343(10-7,343)}{10.(1,038)} \right) \\
 &= \left( \frac{10}{9} \right) \left( 1 - \frac{19,510}{10,38} \right) \\
 &= 0,975
 \end{aligned}$$

From the computation above, it is found that total of reliability is 0,975 whereas the number of subject test is 32 and the critical value for r-table with significance level 5% is 0,349. Thus the value resulted from the computation is higher than that critical value. Because the form of pre-test and post-test are similar mean that it contain the similar reading material and similar test difficulties the researcher decided to calculate the pre-test reliability and assume that the post-test have the same reliability.

**The Data Analysis of pre-test value of the experimental class and control class**

**Table 2:**

| No | Experimental Class |                  |                               | Control Class |                  |                               |
|----|--------------------|------------------|-------------------------------|---------------|------------------|-------------------------------|
|    | X                  | (X - $\bar{X}$ ) | (X - $\bar{X}$ ) <sup>2</sup> | X             | (X - $\bar{X}$ ) | (X - $\bar{X}$ ) <sup>2</sup> |
| 1  | 70                 | -0.3125          | 0.097656                      | 70            | -3.4375          | 11.81641                      |

| 2                                                                | 80                 | 9.6875           | 93.84766                      | 90                                                                    | 16.5625          | 274.3164                      |
|------------------------------------------------------------------|--------------------|------------------|-------------------------------|-----------------------------------------------------------------------|------------------|-------------------------------|
| 3                                                                | 60                 | -10.3125         | 106.3477                      | 60                                                                    | -13.4375         | 180.5664                      |
| 4                                                                | 70                 | -0.3125          | 0.097656                      | 70                                                                    | -3.4375          | 11.81641                      |
| 5                                                                | 60                 | -10.3125         | 106.3477                      | 70                                                                    | -3.4375          | 11.81641                      |
| 6                                                                | 80                 | 9.6875           | 93.84766                      | 80                                                                    | 6.5625           | 43.06641                      |
| 7                                                                | 70                 | -0.3125          | 0.097656                      | 60                                                                    | -13.4375         | 180.5664                      |
| 8                                                                | 60                 | -10.3125         | 106.3477                      | 70                                                                    | -3.4375          | 11.81641                      |
| 9                                                                | 70                 | -0.3125          | 0.097656                      | 70                                                                    | -3.4375          | 11.81641                      |
| 10                                                               | 70                 | -0.3125          | 0.097656                      | 80                                                                    | 6.5625           | 43.06641                      |
| 11                                                               | 60                 | -10.3125         | 106.3477                      | 60                                                                    | -13.4375         | 180.5664                      |
| 12                                                               | 80                 | 9.6875           | 93.84766                      | 90                                                                    | 16.5625          | 274.3164                      |
| 13                                                               | 80                 | 9.6875           | 93.84766                      | 80                                                                    | 6.5625           | 43.06641                      |
| 14                                                               | 70                 | -0.3125          | 0.097656                      | 70                                                                    | -3.4375          | 11.81641                      |
| 15                                                               | 70                 | -0.3125          | 0.097656                      | 70                                                                    | -3.4375          | 11.81641                      |
| 16                                                               | 70                 | -0.3125          | 0.097656                      | 70                                                                    | -3.4375          | 11.81641                      |
| 17                                                               | 60                 | -10.3125         | 106.3477                      | 60                                                                    | -13.4375         | 180.5664                      |
| 18                                                               | 60                 | -10.3125         | 106.3477                      | 60                                                                    | -13.4375         | 180.5664                      |
| 19                                                               | 80                 | 9.6875           | 93.84766                      | 90                                                                    | 16.5625          | 274.3164                      |
| 20                                                               | 60                 | -10.3125         | 106.3477                      | 60                                                                    | -13.4375         | 180.5664                      |
| 21                                                               | 70                 | -0.3125          | 0.097656                      | 70                                                                    | -3.4375          | 11.81641                      |
| 22                                                               | 70                 | -0.3125          | 0.097656                      | 70                                                                    | -3.4375          | 11.81641                      |
| No                                                               | Experimental Class |                  |                               | Control Class                                                         |                  |                               |
|                                                                  | X                  | (X - $\bar{X}$ ) | (X - $\bar{X}$ ) <sup>2</sup> | X                                                                     | (X - $\bar{X}$ ) | (X - $\bar{X}$ ) <sup>2</sup> |
| 23                                                               | 70                 | -0.3125          | 0.097656                      | 70                                                                    | -3.4375          | 11.81641                      |
| 24                                                               | 70                 | -0.3125          | 0.097656                      | 80                                                                    | 6.5625           | 43.06641                      |
| 25                                                               | 70                 | -0.3125          | 0.097656                      | 70                                                                    | -3.4375          | 11.81641                      |
| 26                                                               | 80                 | 9.6875           | 93.84766                      | 90                                                                    | 16.5625          | 274.3164                      |
| 27                                                               | 70                 | -0.3125          | 0.097656                      | 90                                                                    | 16.5625          | 274.3164                      |
| 28                                                               | 80                 | 9.6875           | 93.84766                      | 80                                                                    | 6.5625           | 43.06641                      |
| 29                                                               | 60                 | -10.3125         | 106.3477                      | 60                                                                    | -13.4375         | 180.5664                      |
| 30                                                               | 70                 | -0.3125          | 0.097656                      | 70                                                                    | -3.4375          | 11.81641                      |
| 31                                                               | 80                 | 9.6875           | 93.84766                      | 80                                                                    | 6.5625           | 43.06641                      |
| 32                                                               | 80                 | 9.6875           | 93.84766                      | 90                                                                    | 16.5625          | 274.3164                      |
| $\Sigma = \frac{\Sigma \bar{X}}{n} = \frac{2250}{32}$<br>70,3125 |                    |                  | 1696.875                      | $\Sigma = \frac{\Sigma \bar{X}}{n}$<br>=<br>$\frac{2350}{32}=73,4375$ |                  | 3321.875                      |

From the pre-test value comparison between experimental

class and control class was known that mean value of experimental class is 70, 3125 whereas control class mean value is 73,4375. The differences both of them are 3, 125 points.

### The Data Analysis of Post-test value of Experiment Class and Control Class

**Table 3**

| No | Experimental class |                 |                   | Control class |                 |                   |
|----|--------------------|-----------------|-------------------|---------------|-----------------|-------------------|
|    | X                  | $(X - \bar{X})$ | $(X - \bar{X})^2$ | X             | $(X - \bar{X})$ | $(X - \bar{X})^2$ |
| 1  | 80                 | -5.9375         | 35.25391          | 80            | 5               | 25                |
| 2  | 90                 | 4.0625          | 16.50391          | 90            | 15              | 225               |
| 3  | 80                 | -5.9375         | 35.25391          | 60            | -15             | 225               |
| 4  | 90                 | 4.0625          | 16.50391          | 70            | -5              | 25                |
| 5  | 90                 | 4.0625          | 16.50391          | 70            | -5              | 25                |
| 6  | 100                | 14.0625         | 197.7539          | 80            | 5               | 25                |
| 7  | 80                 | -5.9375         | 35.25391          | 70            | -5              | 25                |
| 8  | 80                 | -5.9375         | 35.25391          | 70            | -5              | 25                |
| 9  | 90                 | 4.0625          | 16.50391          | 70            | -5              | 25                |
| 10 | 80                 | -5.9375         | 35.25391          | 80            | 5               | 25                |
| 11 | 80                 | -5.9375         | 35.25391          | 70            | -5              | 25                |
| 12 | 90                 | 4.0625          | 16.50391          | 90            | 15              | 225               |
| 13 | 90                 | 4.0625          | 16.50391          | 80            | 5               | 25                |
| 14 | 80                 | -5.9375         | 35.25391          | 70            | -5              | 25                |
| 15 | 80                 | -5.9375         | 35.25391          | 70            | -5              | 25                |
| 16 | 80                 | -5.9375         | 35.25391          | 70            | -5              | 25                |
| 17 | 90                 | 4.0625          | 16.50391          | 70            | -5              | 25                |
| 18 | 80                 | -5.9375         | 35.25391          | 60            | -15             | 225               |
| 19 | 100                | 14.0625         | 197.7539          | 90            | 15              | 225               |
| 20 | 80                 | -5.9375         | 35.25391          | 60            | -15             | 225               |
| No | Experimental Class |                 |                   | Control Class |                 |                   |
|    | X                  | $(X - \bar{X})$ | $(X - \bar{X})^2$ | X             | $(X - \bar{X})$ | $(X - \bar{X})^2$ |
| 21 | 80                 | -5.9375         | 35.25391          | 70            | -5              | 25                |
| 22 | 80                 | -5.9375         | 35.25391          | 70            | -5              | 25                |
| 23 | 80                 | -5.9375         | 35.25391          | 70            | -5              | 25                |
| 24 | 90                 | 4.0625          | 16.50391          | 80            | 5               | 25                |

|                                                                 |     |         |          |                                                            |    |      |
|-----------------------------------------------------------------|-----|---------|----------|------------------------------------------------------------|----|------|
| 25                                                              | 90  | 4.0625  | 16.50391 | 70                                                         | -5 | 25   |
| 26                                                              | 100 | 14.0625 | 197.7539 | 90                                                         | 15 | 225  |
| 27                                                              | 90  | 4.0625  | 16.50391 | 90                                                         | 15 | 225  |
| 28                                                              | 90  | 4.0625  | 16.50391 | 80                                                         | 5  | 25   |
| 29                                                              | 80  | -5.9375 | 35.25391 | 70                                                         | -5 | 25   |
| 30                                                              | 80  | -5.9375 | 35.25391 | 70                                                         | -5 | 25   |
| 31                                                              | 90  | 4.0625  | 16.50391 | 80                                                         | 5  | 25   |
| 32                                                              | 90  | 4.0625  | 16.50391 | 90                                                         | 15 | 225  |
| $\sum = \frac{\sum \bar{X}}{n}$ $= \frac{2750}{32}$ $= 85,9375$ |     |         | 1371.875 | $\sum = \frac{\sum \bar{X}}{n}$ $= \frac{2400}{32}$ $= 75$ |    | 2600 |

From post-test value comparison the mean value of experimental class 85, 9375 and control class is 75. The difference is 10, 9375 points. It can be concluded that after treatment using Numbered Heads Together in experimental class and using non Numbered Heads Together in control class has significant effectiveness in increasing the students reading comprehension.

To be clearer the researcher analyzed the data to "t" test. Analysis as follow:

#### The value of pre-test and post-test in Experimental and Control group

Table 4:

| Experimental Class |          |           |          |                | Control Class |           |          |                |
|--------------------|----------|-----------|----------|----------------|---------------|-----------|----------|----------------|
| No                 | Pre-test | Post-test | Gain (X) | X <sup>2</sup> | Pre-test      | Post-test | Gain (X) | X <sup>2</sup> |
| 1                  | 70       | 80        | 10       | 100            | 70            | 80        | 10       | 100            |
| 1                  | 70       | 80        | 10       | 100            | 70            | 80        | 10       | 100            |
| 1                  | 70       | 80        | 10       | 100            | 70            | 80        | 10       | 100            |
| 2                  | 80       | 90        | 10       | 100            | 90            | 90        | 0        | -              |
| 3                  | 60       | 80        | 20       | 400            | 60            | 60        | 0        | -              |
| 4                  | 70       | 90        | 20       | 400            | 70            | 70        | 0        | -              |
| 5                  | 60       | 90        | 30       | 900            | 70            | 70        | 0        | -              |

| 6        | 80                 | 100       | 20       | 400            | 80            | 80        | 0        | -              |
|----------|--------------------|-----------|----------|----------------|---------------|-----------|----------|----------------|
| 7        | 70                 | 80        | 10       | 100            | 60            | 70        | 10       | 100            |
| 8        | 60                 | 80        | 20       | 400            | 70            | 70        | 0        | -              |
| 9        | 70                 | 90        | 20       | 400            | 70            | 70        | 0        | -              |
| 10       | 70                 | 80        | 10       | 100            | 80            | 80        | 0        | -              |
| 11       | 60                 | 80        | 20       | 400            | 60            | 70        | 10       | 100            |
| 12       | 80                 | 90        | 10       | 100            | 90            | 90        | 0        | -              |
| No       | Experimental Class |           |          |                | Control Class |           |          |                |
|          | Pre-test           | Post-test | Gain (X) | X <sup>2</sup> | Pre-test      | Post-test | Gain (X) | X <sup>2</sup> |
| 13       | 80                 | 90        | 10       | 100            | 80            | 80        | 0        | -              |
| 14       | 70                 | 80        | 10       | 100            | 70            | 70        | 0        | -              |
| 15       | 70                 | 80        | 10       | 100            | 70            | 70        | 0        | -              |
| 16       | 70                 | 80        | 10       | 100            | 70            | 70        | 0        | -              |
| 17       | 60                 | 90        | 30       | 900            | 60            | 70        | 10       | 100            |
| 18       | 60                 | 80        | 20       | 400            | 60            | 60        | 0        | -              |
| 19       | 80                 | 100       | 20       | 400            | 90            | 90        | 0        | -              |
| 20       | 60                 | 80        | 20       | 400            | 60            | 60        | 0        | -              |
| 21       | 70                 | 80        | 10       | 100            | 70            | 70        | 0        | -              |
| 22       | 70                 | 80        | 10       | 100            | 70            | 70        | 0        | -              |
| 23       | 70                 | 80        | 10       | 100            | 70            | 70        | 0        | -              |
| 24       | 70                 | 90        | 20       | 400            | 80            | 80        | 0        | -              |
| 25       | 70                 | 90        | 20       | 400            | 70            | 70        | 0        | -              |
| 26       | 80                 | 100       | 20       | 400            | 90            | 90        | 0        | -              |
| 27       | 70                 | 90        | 20       | 400            | 90            | 90        | 0        | -              |
| 28       | 80                 | 90        | 10       | 100            | 80            | 80        | 0        | -              |
| 29       | 60                 | 80        | 20       | 400            | 60            | 70        | 10       | 100            |
| 30       | 70                 | 80        | 10       | 100            | 70            | 70        | 0        | -              |
| 31       | 80                 | 90        | 10       | 100            | 80            | 80        | 0        | -              |
| 32       | 80                 | 90        | 10       | 100            | 90            | 90        | 0        | -              |
| $\Sigma$ | 2250               | 2750      | 500      | 9000           | 2350          | 2400      | 50       | 500            |

Before applied to the t test formula, the researcher had to determine the value  $M_X, M_Y, \Sigma X^2, \Sigma Y^2$ .

$$\begin{aligned}
 M_X &= \frac{\Sigma X}{n} \\
 &= \frac{2250}{32} \\
 &= 15,625
 \end{aligned}$$

$$\begin{aligned}\sum X^2 &= \sum X^2 - \frac{(\sum x)^2}{n} \\ &= 9000 - \frac{(500)^2}{32} \\ &= 9000 - 7812,5 \\ &= 1187,5\end{aligned}$$

$$\begin{aligned}M_y &= \frac{\sum y}{n} \\ &= \frac{50}{32} \\ &= 1,562\end{aligned}$$

$$\begin{aligned}\sum Y^2 &= \sum Y^2 - \frac{(\sum y)^2}{n} \\ &= 500 - \frac{(50)^2}{32} \\ &= 500 - 78,125 \\ &= 421,875\end{aligned}$$

$$\begin{aligned}db &= (N_X + N_Y - 2) \\ &= (32 + 32 - 2) \\ &= 62\end{aligned}$$

$$\begin{aligned}t &= \frac{M_X - M_Y}{\sqrt{\left(\frac{\sum X^2 + Y^2}{N_X + N_Y - 2}\right)\left(\frac{1}{N_X} + \frac{1}{N_Y}\right)}} \\ &= \frac{15,625 - 1,562}{\sqrt{\left(\frac{1187,5 + 421,875}{32 + 32 - 2}\right)\left(\frac{1}{32} + \frac{1}{32}\right)}} \\ &= \frac{14,063}{\sqrt{25,957 \cdot 0,06}} \\ &= \frac{14,063}{1,247} \\ &= 11,277\end{aligned}$$

## 2. The result of the documentation

The data that are obtained from documentations are as follow:

- Students name list of VIII grade of MiftahulQulub especially D class that use Numbered Together on students' reading Comprehension and E class that use Non Numbered Heads Together on students reading comprehension. ( *see appendix* )
- The students score list of reading comprehension test.
- Lesson plan. ( *see appendix* )

**The students score list of reading comprehension test.  
(Experimental Class)**

**Table 5:**

| <b>No</b> | <b>Pre-test</b> | <b>Post-test</b> |
|-----------|-----------------|------------------|
| 1         | 70              | 80               |
| 2         | 80              | 90               |
| 3         | 60              | 80               |
| 4         | 70              | 90               |
| 5         | 60              | 90               |
| 6         | 80              | 100              |
| 7         | 70              | 80               |
| 8         | 60              | 80               |
| 9         | 70              | 90               |
| 10        | 70              | 80               |
| 11        | 60              | 80               |
| 12        | 80              | 90               |
| 13        | 80              | 90               |
| 14        | 70              | 80               |
| 15        | 70              | 80               |
| 16        | 70              | 80               |
| 17        | 60              | 90               |
| 18        | 60              | 80               |
| 19        | 80              | 100              |
| 20        | 60              | 80               |
| 21        | 70              | 80               |
| 22        | 70              | 80               |
| 23        | 70              | 80               |
| 24        | 70              | 90               |
| 25        | 70              | 90               |
| 26        | 80              | 100              |
| 27        | 70              | 90               |
| 28        | 80              | 90               |
| 29        | 60              | 80               |
| 30        | 70              | 80               |
| 31        | 80              | 90               |
| 32        | 80              | 90               |

**The students score list of reading comprehension test.  
(Control Class)**

**Table 6:**

| <b>No</b> | <b>Pre-test</b> | <b>Post-test</b> |
|-----------|-----------------|------------------|
| 1         | 70              | 80               |
| 2         | 90              | 90               |
| 3         | 60              | 60               |
| 4         | 70              | 70               |
| 5         | 70              | 70               |
| 6         | 80              | 80               |
| 7         | 60              | 70               |
| 8         | 70              | 70               |
| 9         | 70              | 70               |
| 10        | 80              | 80               |
| 11        | 60              | 70               |
| 12        | 90              | 90               |
| 13        | 80              | 80               |
| 14        | 70              | 70               |
| 15        | 70              | 70               |
| 16        | 70              | 70               |
| 17        | 60              | 70               |
| 18        | 60              | 60               |
| 19        | 90              | 90               |
| 20        | 60              | 60               |
| 21        | 70              | 70               |
| 22        | 70              | 70               |
| 23        | 70              | 70               |
| 24        | 80              | 80               |
| 25        | 70              | 70               |
| 26        | 90              | 90               |
| 27        | 90              | 90               |
| 28        | 80              | 80               |
| 29        | 60              | 70               |
| 30        | 70              | 70               |
| 31        | 80              | 80               |
| 32        | 90              | 90               |

## Hypothesis Testing

In this section, the researcher will compare the mean value of each class and also the result of "t" test value and "t" table.

### The list of mean value of Experimental Class and Control Class.

**Table 7:**

| Mean             | Experimental Class | Control Class | Difference |
|------------------|--------------------|---------------|------------|
| <b>Pre-test</b>  | 70,31              | 73,43         | 3,125      |
| <b>Post-test</b> | 85,93              | 75            | 10,9375    |

From the mean value comparison can be concluded that after treatment, students mean value of Experimental class is higher than control class (85, 93>75) its different 10, 93 points. In other word, using Numbered Heads Together Technique gives significance effectiveness in increasing students reading comprehension.

### "t " table critic

**Table 8:**

| Df  | Significance level | t table | t value |
|-----|--------------------|---------|---------|
| 60  | 99%                | 2,660   | 11,277  |
| 60  | 95%                | 2,000   | 11,277  |
| 120 | 99%                | 2,617   | 11,277  |
| 120 | 95%                | 1,980   | 11,277  |

Because df 62 is nothing in the critic table, the researcher took df 60 and 120. In df 60 t value is higher than t table either in 99% or 95% (99%= 11, 277 > 2,660 and 95% = 11, 277> 2, 00). And also in df 120 t value is higher than t table either 99% or 95% (99% =11,277 > 2,617 and 95% = 11,277 > 1,980 ).From the fact above, can be concluded that alternative hypothesis is accepted in this research, students who taught reading comprehension using Numbered Heads Together have higher achievement than those who taught using non Numbered Heads Together.

## DISCUSSIONS OF FINDINGS

### Interpretation of Findings

There are two research problems in this study. Do students who taught reading comprehension using numbered heads together have higher achievement than those taught non numbered heads together and Is there

any significant effect of Numbered Heads Together on Students' Reading Comprehension at VIII grade of *MTs AL-amien 1 Prenduan Sumenep*. In this section, the researcher presents the obtained data during investigating the predetermined variables. It involves the presentation of test and documentation as research instrument

## 1. Interpretation of Data

### a. Interpretation of Data test

After finding text of reading comprehension, the researcher made a test to measure students reading comprehension using Numbered Heads Together Technique and Non Numbered Heads Together. The researcher done the tests before treatment and after treatment, namely pre-test and post-test. The kind of test is similar; it is multiple choices consist of ten numbers.

In scoring the test's answer the researcher gave 10 score for each items of right answer and 0 for wrong answer. So, the students will get 100 score, if they answer the ten question. The example is NuerAiniAskiah (control class) in a post-test she can answer 9 items correctly and 1 item wrong. So, the researcher scores 90.

### 1. Validity

The tests are estimated in term of content validity. It is found by consulting to the advisor and then to English teacher in *MTs AL-amien 1 Prenduan Sumenep*. The English teacher said that the test really measured reading Comprehension.

### 2. The reliability

The reliability of test was measured internally by using K-R 21 formula.

After being measured, it is found that total of reliability is 0,975 whereas the number of subject test is 32 and the critical value for r-table with significance level 5% is 0,349 ( $0,975 > 0,349$ ). Thus the value resulted from the computation is higher than that critical value. Because the form of pre-test and post-test are similar, mean that it contain the similar reading material and similar test difficulties the researcher decide to calculate the pre-test reliability and assume that the post-test have the same reliability.

**The data analysis of pre-test value of Experimental Class and**

### **Control Class.**

For the first time the researcher give pre-test to Experimental class and Control Class. The Test is Reading Comprehension with the title " How to Make Pizza " and consist of ten numbers of multiple choice tests, the researcher score the students as like the researcher mention in the chapter III. After conduct the pre-test the researcher calculated the value of pre-test between Experimental Class.

From the pre-test value comparison between experimental class and control class was known that mean value of experimental class is 70, 3125 whereas control class mean value is 73, 4375. The difference both of them are 3, 125 points.

### **The data analysis of post-test of Experimental Class and Control Class.**

After give a treatment the researcher gives post-test to Experimental Class and Control Class, the test is Reading Comprehension with the title "How to Boil Pasta " the test consists of ten numbers of multiple choice tests. After conduct and scoring a post-test, the research calculated the score both of class.

From post-test value comparison the mean value of experimental class 85, 9375 and control class is 75. The difference is 10, 9375 points. It can be concluded that after treatment using Numbered Heads Together in experimental class and using non Numbered Heads Together in control class has difference, the Experimental class is higher than Control Class and has significant effectiveness in increasing the students reading comprehension.

### **The Data Analysis of Pre-test and Post-test of Experimental Class and Control Class**

After the researcher conducted pre-test and post-test, the researcher calculated value both of them to be continued to t test analysis. The researcher calculated the value of  $M_X, M_Y, \sum X^2, \sum Y^2$ . The value of  $M_X$  is 15,625,  $M_Y$  is 1,562,  $\sum X^2$  is 1187, 5 and  $\sum Y^2$  is 421,875.

### **t Test analyze**

To be clearer the researcher analysis the data using t Test, the researcher calculated the value of pre-test and post-test in

Experimental class and control class, after know the value the researcher had to determine the value  $M_X, M_Y, \sum X^2, \sum Y^2$ . And the result or t test is 11,58 it is higher than t table in df 60 and 120.

#### **b. Interpretation of Documentation**

The second instrument of this research is documentation. It is to consolidate the research. Documentation of this research are Students name list of VIII grade of MiftahulQulub especially D class that used Numbered Heads of Heads Together Comprehension and E class that used Non Numbered Heads of Heads Together on students reading comprehension. The students score list of reading comprehension test and Lesson plan. (See appendix)

#### **2. Interpretation of Hypothesis Testing.**

The test of hypothesis used t test formula. It was showed that the value of t test is higher than critical value in df 60 and df 120. In df 60 t value is higher than t table either in 99% or 95% (99%= 11, 5277 > 2,660 and 95% = 11, 5277 > 2, 00). And also in df 120 t value is higher than t table either 99% or 95% (99% =11, 5277 > 2,617 and 95% = 11, 5277 > 1,980). It means that students who taught reading comprehension using Numbered Heads Together have higher achievement than those who taught using non Numbered Heads Together

#### **Implication**

This research is to know does Numbered Heads Together have effectiveness on students' reading comprehension and also how significant of effectiveness. The researcher compares two groups namely Experimental Class and Control Class, D class consist of 32 students as Experimental Class and E class consist of 32 students as Control Class. The researcher conducted pre-test and post-test to compare reading comprehension ability. The mean value of Experimental Class (using Numbered Heads together) is 85, 9375 and Control Class (using Nun Numbered Heads Together) is 75. It can be said that the reading Comprehension achievement score of Experimental Class is higher than Control Class.

After conduct the test the researcher analyze using t test. t value is higher than t table. The researcher use df 60 and 120. In df 60 t value is higher than t table either in 99% or 95% (99%= 11, 5277 > 2,660 and 95 % = 11, 5277 > 2, 00). And also in df 120 t value is higher than t table either 99% or 95% (99% =11,277 > 2,617 and 95% = 11,277 > 1,980). From the fact above, can be concluded that alternative hypothesis is accepted students who taught reading comprehension using Numbered Heads Together have higher achievement than taught non Numbered heads Together and there is significant effectiveness of using Numbered Heads Together on Students

Reading Comprehension. It is mean that teaching Reading Comprehension using Numbered Heads Together is Effective because it can make students easier to comprehend reading material and answer reading question, it is increase students' Reading achievement.

### **Application**

In conducting this research, the researcher give pre-test to D class and E class, D lass as Experimental Class and E Class as Control Class. This test to give information about their reading abilities before conduct treatment.

After gave pre-test the researcher conducting treatment two meetings Using Numbered Heads Together to Experimental class and using Non Numbered Heads Together to Control Class. The title of Materials is (How to Boil Pasta). There are many steps in Conducting Numbered Heads Together as follow:

- a. The teacher divided class in to some groups. Each group consistsof 5 people. Because in D class consist of 32 students so, there was on group consist of 2 person, to make it complete the researcher borrowed 3 students in C class. So in this class consist of 7 groups each group 5 person. And the teacher gives number to them.
- b. The teacher utters question to the students. Because the test consists of ten items and students of each group are 5 people, so the researcher decides the students who got the number 1 must answer the question number 1 and 5, and the student who got number 2, the students must answer number 2 and 7 and so on.
- c. The researcher gave time to think together, every students must know the answer, and they not also responsible to their number but also to all of number, it mean the must know the answer of ten item.
- d. The teacher mentioned one number and students from every group who have the same number up their hand and prepare the answer to whole class, for example the teacher mention number 4, the student who got that number from every groups up their hand and answer, after all students who got the number from each group answer the researcher conclude the correct answer.

In control class the researcher use same material but different technique, the researcher use Non Numbered heads together, the activities as follow:

- a. The researcher asked students to read the text.
- b. The teacher discussed material with the students and make list of word difficulties
- c. The teacher asked students to answer the question by their selves

- d. The students answered the question by their self, it mean answer one by one without group.
- e. The teacher asked students to submit their duty.

After conducted treatment the research gives post-test to Experimental class and Control Class use the same test to know students achievement.

This research can be alternative to the English teachers who teach reading comprehension because it made students more active and easier to comprehend their reading material.

### **Conclusion**

The findings of this study indicate that there is a significant difference in reading comprehension achievement between students in the experimental and control classes. The experimental class, which received instruction through the Numbered Heads Together (NHT) technique, achieved a mean score of 85.9375, whereas the control class obtained a mean score of 75. This difference suggests that students who learned through the NHT technique performed better in reading comprehension than those who received instruction without this technique. The statistical analysis further supports this finding. The calculated t-value of 11.277 exceeded the critical t-values at both the 95% and 99% confidence levels. For degrees of freedom (df) of 60, the critical values were 2.000 at the 95% confidence level and 2.660 at the 99% confidence level. Similarly, for df of 120, the critical values were 1.980 and 2.617, respectively. These results demonstrate a statistically significant difference between the two classes.

Furthermore, the findings confirm the effectiveness of the Numbered Heads Together technique in improving the reading comprehension skills of eighth-grade students at MTs Al-Amien 1 Prenduan Sumenep. The calculated t-value of 11.277 was greater than all the critical values used in the analysis. Therefore, the null hypothesis was rejected, while the alternative hypothesis was accepted. This statistical evidence indicates that the NHT technique contributed to better reading comprehension achievement among students in the experimental class. The higher mean score also supports the conclusion that cooperative learning through NHT can help students understand reading materials more effectively. Overall, the results suggest that implementing the Numbered Heads Together technique is an effective instructional approach for teaching reading comprehension to eighth-grade students at MTs Al-Amien 1 Prenduan Sumenep.

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