

THE EFFECT OF THE NUMBERED HEADS TOGETHER (NHT) LEARNING MODEL ON SECOND GRADE STUDENTS' EARLY READING SKILLS

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Abstract

This study was motivated by the low early reading skills of elementary school students, particularly in the lower grades. There are still students who experience difficulty recognizing letters and reading syllables, words, and simple sentences, therefore a learning model is needed that can increase student engagement in the learning process. The research question in this study is whether there is a significant effect of the use of the Numbered Heads Together (NHT) learning model on the early reading skills of second-grade students at SDN 1 Megu Cilik. This study aims to determine the effect of the Numbered Heads Together (NHT) learning model on the early reading skills of second-grade students at SDN 1 Megu Cilik. The study employs a quantitative approach using a quasi-experimental method and a nonequivalent control group design. The research subjects consisted of 46 students, comprising 23 students in the experimental class and 23 students in the control class. Data collection techniques were conducted through observation, testing, and documentation. The results of the study showed that the average score of the experimental class increased from 51.74 to 77.87, while that of the control class increased from 47.83 to 69.57. The Mann-Whitney test yielded a significance value of 0.001, leading to the conclusion that the Numbered Heads Together (NHT) learning model has a positive effect on the early reading skills of second-grade students at SDN 1 Megu Cilik.

Keywords: *Numbered Heads Together; beginning reading ability; elementary school student*

Abstrak

Penelitian ini dilatarbelakangi oleh rendahnya kemampuan membaca permulaan siswa sekolah dasar, khususnya pada kelas rendah. Masih terdapat siswa yang mengalami kesulitan dalam mengenali huruf, membaca suku kata, kata, dan kalimat sederhana sehingga diperlukan model pembelajaran yang mampu meningkatkan keterlibatan siswa dalam proses belajar. Rumusan masalah dalam penelitian ini adalah apakah terdapat pengaruh yang signifikan antara penggunaan model pembelajaran Numbered Heads Together (NHT) terhadap kemampuan membaca permulaan siswa kelas II SD di SDN 1 Megu Cilik. Penelitian ini bertujuan untuk mengetahui pengaruh model pembelajaran Numbered Heads Together (NHT) terhadap kemampuan membaca permulaan siswa kelas II di SDN 1 Megu Cilik. Penelitian menggunakan pendekatan kuantitatif dengan metode quasi experimental dan desain nonequivalent control group design. Subjek penelitian berjumlah 46 siswa yang terdiri atas 23 siswa kelas eksperimen dan 23 siswa kelas kontrol. Teknik pengumpulan data dilakukan melalui observasi, tes, dan dokumentasi. Hasil penelitian menunjukkan bahwa rata-rata nilai kelas eksperimen meningkat dari 51,74 menjadi 77,87, sedangkan kelas kontrol meningkat dari 47,83 menjadi 69,57. Hasil uji Mann-Whitney memperoleh nilai signifikansi 0,001 sehingga dapat disimpulkan bahwa model pembelajaran Numbered Heads Together (NHT) berpengaruh positif terhadap kemampuan membaca permulaan siswa kelas II SDN 1 Megu Cilik.

Kata kunci: *Numbered Heads Together; kemampuan membaca permulaan; sekolah dasar.*

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Introduction

Reading is one of the most fundamental basic skills in modern human life. Through reading, individuals gain access to information, knowledge, and various forms of written communication that form the backbone of civilization (Shefira Mahardhika Nursahid et al., 2024). In the context of formal education, reading ability is not merely one of the learning objectives but a prerequisite for the entire learning process. Nearly all academic activities from understanding math problems, reading science texts, to following assignment instructions rely on adequate reading skills. Therefore, mastering reading from an early age is not merely an academic advantage but a fundamental necessity that determines a student's long-term success.

Early reading is the most critical stage in a child's journey toward becoming a proficient reader. This skill specifically involves recognizing letter shapes, reading syllables, recognizing simple words, and reading short sentences with correct pronunciation and intonation (Ain & Ain, 2024). Theoretically, early reading can be understood as a decoding process, namely the activity of connecting written symbols with the meaning of spoken language. Anderson, as cited by Tarigan, explains that this decoding process involves the ability to convert written text or print into meaningful sounds (Herlina, 2020). Furthermore, mechanical skills in early reading include: (a) recognition of letter shapes; (b) recognition of linguistic elements such as words and sentences; (c) understanding the relationship between spelling patterns and sounds; and (d) the gradual development of reading speed (Herlina, 2020). (Permata et al., 2024) emphasizes that early reading is the stage at which children learn to recognize language sound symbols, letter sequences, letter shapes, and the meanings they convey.

A solid foundation in early reading skills serves as the basis for the development of advanced reading skills and students' success in understanding various (Rahman, 2018). Children who successfully master early reading will find it easier to follow classroom instruction, feel more confident in completing academic tasks, and be better prepared to develop critical thinking skills in subsequent stages of education. Conversely, children who experience difficulties in the early reading phase tend to face learning challenges that persist into higher grades, even affecting their overall motivation and self-confidence. For this reason, education experts emphasize the importance of timely and structured interventions starting in first grade, before the reading achievement gap among students widens further (Lestari et al., 2024).

The success of the early reading learning process depends not only on students' cognitive abilities but is also influenced by a number of internal and external factors. (Nurhabibah et al., 2025) identified two of the most significant factors: motivation and the appropriateness of reading materials. Motivation is the primary driver that determines the extent to which a student is willing to read and practice consistently. Students with high motivation will demonstrate perseverance and enthusiasm in reading activities, while those with low motivation tend to avoid reading, thereby hindering their skill development. On the other hand, reading materials that are too difficult or inappropriate for a student's developmental level can lead to frustration and reluctance, even if their initial motivation is high. Therefore, teachers need to carefully select and design appropriate reading materials, while also creating a learning environment that can sustain and continuously enhance student motivation. (Inne Marthyanne Pratiwi & Ariawan, 2017) also emphasize that encouragement from the family environment particularly parents who actively encourage their children to read and foster a love for books plays a crucial role in the success of early reading.

In practice, ideal early reading instruction should be designed to be active and participatory. Teachers are expected to develop creative approaches by utilizing a variety of engaging learning materials so that students do not easily become bored and remain fully

engaged throughout the learning process (Permata et al., 2024). The learning model implemented should ideally allow students to practice reading, discuss with peers, and collaborate on meaningful tasks (Dewi Hapsari, 2019). (Inne Marthyanne Pratiwi & Ariawan, 2017) adds that literacy skills, which include both reading and writing, need to be developed holistically from an early age through systematic and continuous guidance.

However, the reality observed in the field reveals conditions that are far from ideal. Based on various research findings, the early reading skills of lower-grade elementary school students in Indonesia remain relatively low. Many students struggle to accurately recognize letters, combine syllables into meaningful words, and read simple sentences fluently and accurately (Dewi Hapsari, 2019). These difficulties not only hinder mastery of the Indonesian language subject but also have a broad impact on students' ability to engage with learning in other subjects. This situation indicates a significant gap between curricular expectations and students' actual achievements in the classroom, while also showing that the reading instruction models and strategies that have been predominantly used to date have not been able to optimize the engagement and abilities of all students.

This issue calls for innovation in early reading instruction approaches that are more student-centered, more collaborative, and better able to encourage active participation by each individual in the learning process. One promising alternative is the Numbered Heads Together (NHT) cooperative learning model. This model was developed by Spencer Kagan as a group-based learning approach that integrates the principles of cooperation, individual responsibility, and accountability into a single structured learning mechanism (Daulay, 2023). Operationally, the NHT model is implemented by dividing students into small, heterogeneous groups consisting of four to five members. Each member of the group is assigned a different sequential number. The teacher poses a question or task, which is then discussed within the group. Once the discussion is complete, the teacher randomly calls out a number to represent the group in presenting the answer to the class (Daulay, 2023).

This mechanism of randomly calling on students is what makes the NHT model both unique and effective. Since no student knows whose number will be called, every group member is motivated to ensure they understand the material being discussed and are ready to present it at any time. This effectively eliminates the "free-rider" phenomenon that often arises in conventional group learning, where only some students are active while others tend to be passive. Additionally, the group discussion process in NHT encourages students to teach one another, correct each other's understanding, and build knowledge collaboratively, which ultimately strengthens each member's individual understanding (Nuraini, 2017). (Rosmalah, 2020) describes the basic philosophy of the NHT model as "Getting Better Together," a principle that emphasizes that the most effective learning process is one carried out collaboratively in a conducive and mutually supportive atmosphere.

Various studies have demonstrated the effectiveness of the NHT model in improving student learning outcomes, including in the context of early reading skills. Research conducted by (Datuela, 2025) showed a significant improvement in the reading skills of elementary school students following the implementation of the NHT model, rising from 33% in the initial observation to 77% at the end of the second cycle. This figure represents an increase of 44 percentage points, reflecting the highly substantial impact of the model's implementation. Similar results were found in (Nuraini, 2017) study, which examined the effect of NHT combined with the Literacy Cloud platform on the early reading skills of first-grade students at SDN Ganting. The study found that the average score of the experimental class increased from 56 on the pretest to 78 on the posttest, while the control class only increased from 54 to 64. The

results of the hypothesis test using an independent samples t-test yielded a significance value of 0.000 (< 0.05) with a calculated t-value of 5.115 $>$ the critical t-value of 1.675 at a 5% significance level, which statistically confirms that the NHT model has a significant effect on students' early reading skills.

These empirical findings provide a strong basis for believing that the NHT model has great potential for improving early reading skills, particularly because it simultaneously activates two key factors for reading success that have been previously identified: student motivation and active engagement. The dynamic group discussion atmosphere in NHT is capable of stimulating students' intrinsic motivation to understand the material so they can contribute to their group, while simultaneously creating a learning experience that is enjoyable and not boring.

Nevertheless, existing research still leaves gaps that need to be filled. Studies on the application of NHT in early reading instruction generally focus on first-grade students or use it in combination with specific media, thus failing to provide a clear picture of the effectiveness of NHT on its own for second-grade elementary school students, who have different developmental characteristics and learning needs. Furthermore, the diverse research contexts make it difficult to generalize the findings to various school environments with differing social, cultural, and academic conditions.

Based on the above discussion, this study aims to address this gap by empirically examining the effect of the Numbered Heads Together (NHT) learning model on the early reading skills of second-grade students at SDN 1 Megu Cilik. The findings of this study are expected not only to make a scientific contribution to the development of early reading learning models but also to provide practical recommendations for classroom teachers in selecting and implementing learning strategies that are more effective and meaningful for students.

Research Methods

This study employed a quantitative approach using a quasi-experimental method with a nonequivalent control group design. This design was selected because random assignment of participants to groups was not feasible in a natural school setting. The independent variable was the Numbered Heads Together (NHT) cooperative learning model, and the dependent variable was early reading ability. The experimental class received NHT-based instruction, while the control class received conventional teacher-centered instruction. Both classes completed a pretest prior to treatment and a posttest following the completion of all treatment sessions.

The study was conducted at SDN 1 Megu Cilik, Cirebon Regency, during the second semester of the 2025/2026 academic year. The research took place from 20 April to 27 April 2026, covering three instructional meetings and one assessment session. Participants consisted of 46 second-grade students drawn from two intact classrooms. Purposive sampling was employed, as both classes were already formed by the school and were selected based on their comparable academic profiles as confirmed by the class teachers. Class 2A ($n = 23$) served as the experimental group, and Class 2B ($n = 23$) served as the control group.

Table 1. Research Sample Size

Class	Female Students	Male Students	Total
2A (eksperimen)	15	8	23
2B (control)	13	10	23

The intervention was administered over three instructional meetings (each lasting 2×35 minutes) within one week, from 20 April to 25 April 2026. The posttest was administered on 27 April 2026. Both classes were taught by the same classroom teacher to minimize instructor-

related variability. The researcher acted as an observer and assisted in preparing instructional materials.

Each lesson in the experimental class followed a structured three-phase format:

1. Opening (10 minutes): The teacher reviewed prior learning, stated learning objectives, and organized students into heterogeneous groups of four to five members. Each student was assigned a number (1–4 or 1–5).
2. Core Activities (45 minutes): NHT procedures were implemented as described below.
3. Closing (15 minutes): The teacher facilitated reflection, summarized key points, and provided corrective feedback.

In the control class, the teacher delivered lessons through direct instruction, including explanation, question-and-answer sessions, and individual written exercises, without cooperative group structures.

The NHT model was implemented following the four-stage procedure proposed by Kagan (1994) and adapted for early reading instruction:

1. Numbering: Students were divided into groups of four to five, and each member was assigned a number. Groups were formed heterogeneously based on prior academic performance.
2. Questioning: The teacher presented a reading task or question related to the lesson objective, such as identifying letters, reading syllables, reading words, or reading short sentences aloud.
3. Heads Together: All group members discussed the task collaboratively, ensuring that every member understood and could respond. Students with stronger reading skills were encouraged to support their peers.
4. Answering: The teacher randomly called a number; the student with that number from each group stood and responded. This procedure was repeated with different numbers across rounds to maintain active engagement.

This structured accountability mechanism ensured that every student remained engaged throughout the lesson, regardless of reading proficiency level.

Data were collected through three techniques:

1. Observation, used to record student learning behavior and the implementation fidelity of the NHT model during instructional sessions.
2. Testing (Pretest and Posttest), used to measure early reading ability before and after the intervention.
3. Documentation, used to gather supporting evidence such as attendance records, photographs, and lesson plans.

The reading ability test was developed based on four indicators of early reading competence: (1) letter recognition, (2) syllable reading, (3) word reading, and (4) sentence reading. These indicators align with the early reading developmental framework for Grade 2 elementary students as outlined in the national curriculum. The test was administered individually in an oral format. Each student was asked to read aloud a series of letters, syllables, words, and short sentences presented on a printed card. The test was scored by the teacher-observer using a structured rubric.

The early reading ability assessment instrument consisted of one aspect comprising four indicators, with each indicator carrying a maximum score of 25 points, yielding a total maximum score of 100 points.

Table 2. Early Reading Ability Assessment Rubric

No	Aspect	Assessment Indicator	Max Score	Score
1.	Recognition of vowels and consonants	Student identifies all vowels and consonants accurately and fluently without errors	25	10
		Student identifies most letters correctly with minor hesitation		7
		Student identifies only a few letters with frequent errors		5
		Student is unable to identify letters correctly		3
2.	Reading simple syllables	Student reads all syllables accurately and fluently	25	10
		Student reads most syllables correctly		7
		Student reads syllables with frequent errors		5
		Student is unable to read syllables		3
3.	Reading simple words	Student reads words with accurate pronunciation and fluency	25	10
		Student reads words with reasonable accuracy but lacks fluency		7
		Student reads words with frequent errors		5
		Student is unable to read simple words		3
4.	Reading simple sentences	Student reads sentences fluently with appropriate intonation	25	10
		Student reads with reasonable fluency but with inappropriate intonation		7
		Student reads haltingly with frequent errors		5
		Student is unable to read simple sentences		3

The final score was calculated using the following formula:

$$\text{Final Score} = \frac{\text{Total Score Obtained}}{\text{Maximum Total Score}} \times 100$$

Before the instrument was used in the main study, validity and reliability testing were conducted through a trial administered on 13 April 2026 at Class III SDN 1 Megu Cilik, involving 26 students ($N = 26$, $df = 26 - 2 = 24$). Validity was assessed using Pearson Product-Moment Correlation. An indicator was considered valid if the calculated r -value exceeded the r -table value of 0.388 at a 5% significance level with $df = 24$. All four indicators met this criterion, as shown in Table 3.

Table 3. Validity Test Data

No	Indicator	r- calculated	r- table	Sig.	Description
1.	Letters	0,658	0,388	0,000	Valid
2.	Syllables	0,984	0,388	0,000	Valid
3.	Words	0,984	0,388	0,000	Valid
4.	Sentences	0,936	0,388	0,000	Valid

After the test items are tested for validity, the next step is to test their reliability. The purpose of reliability testing is to determine the consistency of the instrument as a measuring tool. For the reliability test of the questions, the researcher uses the internal technique with the Alpha formula with the help of IBM SPSS software.

Table 4. Reliability Test Results

Cronbach's Alpha	N of items
.910	4

Based on the results of the reliability test shown in Table 3, the reliability test in this study was conducted using the Cronbach's Alpha technique with the assistance of SPSS. The test results showed that the Cronbach's Alpha value was 0.910 with a total of 4 indicators. Since the value is greater than 0.70, the instrument is declared reliable, which means that the questions have good internal consistency and are suitable to be used as a measurement tool in this study.

The obtained data were then analyzed using normality tests, homogeneity tests, and hypothesis tests. The analysis was conducted to determine whether there was an effect of the Numbered Heads Together (NHT) learning model on students' initial reading abilities.

Results and Discussion

Based on the results of observing student activities during the learning process using the Numbered Heads Together (NHT) model, a percentage of 85% was obtained with a very good category. The observation results showed that most students actively participated in learning activities and took part in group discussions. In addition, students were also able to cooperate with group members and respect their peers' opinions during discussions.

Table 5. Recapitulation of Pretest and Posttest Scores

Class	N	Min Pretest	Max Pretest	Mean Pretest	Min Posttest	Max Posttest	Mean Posttest
Eksperimen (II A)	23	40	65	51,74	70	93	77,87
Control (II B)	23	35	55	47,83	60	80	69,57

Based on Table 5, it can be seen that before the treatment was given, the experimental class (II A) obtained a minimum pretest score of 40 and a maximum of 65 with a mean of 51.74, while the control class (II B) obtained a minimum pretest score of 35 and a maximum of 55 with a mean of 47.83. The relatively small difference between the two classes indicates that both groups had comparable initial reading abilities before the study was conducted.

After the treatment was applied, both classes showed improvement in their posttest scores. The experimental class, which implemented the Numbered Heads Together (NHT) learning model, showed a more significant increase with a minimum posttest score of 70 and a maximum

of 93, achieving a mean of 77.87. Meanwhile, the control class, which received conventional learning, obtained a minimum posttest score of 60 and a maximum of 80, with a mean of 69.57.

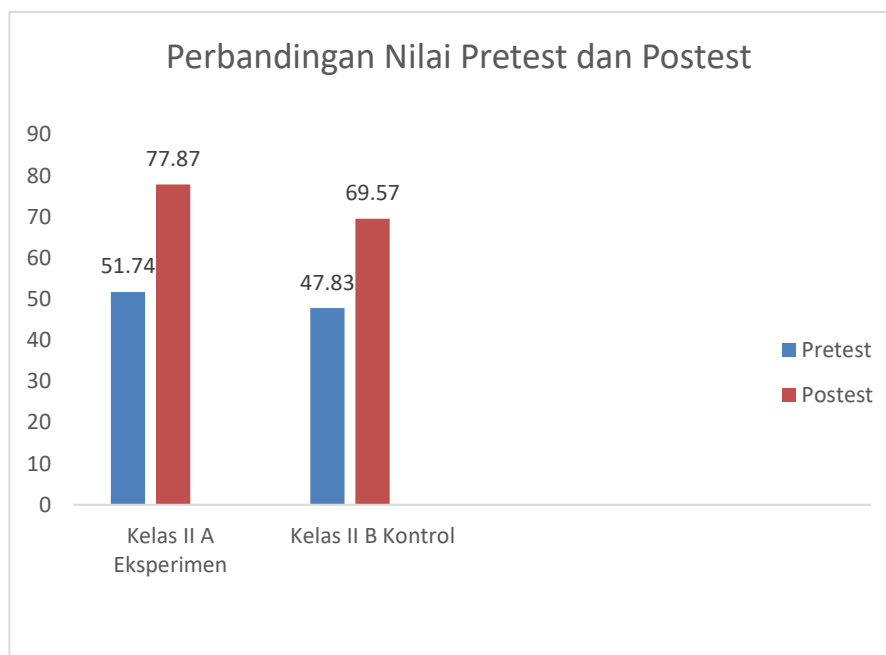


Figure 1. Bar Chart of the Control Group and the Experimental Group

Figure 1. shows a comparison of the average pretest and posttest scores between the experimental class (Class II A) and the control class (Class II B). Before any treatment was given, both classes had almost the same initial ability, with the experimental class averaging 51.74 on the pretest and the control class 47.83. This small difference shows that the initial reading abilities of both classes were quite balanced before the study was conducted. After the treatment, both classes saw an increase in posttest scores. The experimental class, which used the Numbered Heads Together (NHT) learning model, increased more significantly, from 51.74 to 77.87, a jump of 26.13 points. Meanwhile, the control class, which didn't receive the same treatment, only went up from 47.83 to 69.57, an increase of 21.74 points.

The difference in improvement between the two classes shows that applying the NHT model in the experimental class had a bigger impact on enhancing students' early reading skills compared to the conventional teaching used in the control class. So, it can be concluded that the NHT learning model significantly contributes to improving early reading skills of the second-grade students at SDN 1 Megu Cilik.

In terms of responsibility, students can understand the numbers given and are ready to respond when the number is called by the teacher. In the aspect of reading engagement, students are seen reading the assigned tasks diligently during the learning activities. Meanwhile, in the aspect of courage, most students are already brave enough to express their answers and show confidence when speaking in front of the class. Thus, the implementation of the Numbered Heads Together (NHT) learning model can increase students' activeness and engagement in early reading learning.

This normality test uses the assistance of IBM SPSS Statistic 22 with the Shapiro-Wilk technique. The normality test was conducted on two data sets, namely pretest and posttest data. The test was carried out at a confidence level of $\alpha = 0.05$. Decisions were made based on the normality test criteria, namely if $\text{sig} > 0.05$, then both data sets are normally distributed.

Conversely, if $\text{sig} < 0.05$, then both data sets are not normally distributed. The results of the statistical calculations conducted can be seen in Table 5. below.

Table 6. Normality Test Data Output Results

kelas		Shapiro-Wilk		
		Statistic	df	Sig.
nilai	Eksperimen	,924	23	,080
pretest	Kontrol	,846	23	,002
nilai	Eksperimen	,867	23	,006
posttest	Kontrol	,839	23	,002

Based on the results of the data normality test in Table 4.9 using the Kolmogorov-Smirnov and Shapiro-Wilk tests, it is known that the number of samples in each class is 23 students. Therefore, the decision on data normality refers to the significance value of the Shapiro-Wilk test. The data is considered normally distributed if the significance value (Sig.) is greater than 0.05. The test results show that the pretest value in the experimental class obtained a Sig. value of $0.080 > 0.05$, so the pretest data of the experimental class can be considered normally distributed. Meanwhile, the pretest value in the control class obtained a Sig. value of $0.002 < 0.05$, so the data in the control class is declared not normally distributed normal. Based on these results, it can be concluded that the research data does not entirely meet the assumption of normality. Therefore, hypothesis testing is continued using the nonparametric Mann-Whitney test.

Homogeneity tests are conducted to determine whether the data are homogeneous or not. The data tested for homogeneity consist of pretest and posttest data. The test is carried out at a confidence level of $\alpha = 0.05$. Data are said to meet the homogeneity assumption if the significance value > 0.05 , whereas data that are not homogeneous have a significance value < 0.05 . The homogeneity test in this study uses Levene's test with IBM SPSS Statistics 22.

Table 7. Homogeneity Test Results

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
Nilai pretest	,031	1	44	,862
nilai posttest	,311	1	44	,580

Based on the homogeneity test results in Table 6, the significance value for the pretest data was $0.862 > 0.05$ and for the posttest data was $0.580 > 0.05$. These results indicate that the variance of both the pretest and posttest data between the experimental class and the control class was homogeneous, confirming that both classes had comparable initial conditions with no significant difference in data variability.

It is important to note, however, that homogeneity of variance is a supplementary condition and does not substitute for the normality assumption in determining the appropriateness of a statistical test. In parametric testing, both normality and homogeneity must be simultaneously fulfilled. Since the normality assumption was not met across all data groups, the homogeneity result alone does not justify the use of parametric tests. Accordingly, hypothesis testing was appropriately conducted using the nonparametric Mann-Whitney U test, which does not require the assumption of normally distributed data (Field, 2018).

Hypothesis testing in this study used the Mann-Whitney U test. Given that the normality assumption was not fulfilled across all data groups, hypothesis testing was conducted using the Mann-Whitney U test. This nonparametric test is appropriate for comparing two independent groups when the data do not satisfy the normality assumption. The hypotheses tested in this study were as follows:

Ho: There is no significant effect of using the Numbered Heads Together (NHT) learning model on the early reading ability of students at SDN 1 Megu Cilik.

Ha: There is a significant effect of using the Numbered Heads Together (NHT) learning model on the early reading ability of students at SDN 1 Megu Cilik.

Table 8. Hypothesis Test Output Results Using the Mann-Whitney Test

	nilai pretest	nilai posttest
Mann-Whitney U	202,000	120,000
Wilcoxon W	478,000	396,000
Z	-1,405	-3,282
Asymp. Sig. (2-tailed)	,160	,001

Based on the Mann-Whitney U test results on the pretest data, the Asymp. Sig. (2-tailed) value was $0.160 > 0.05$, indicating no significant difference in early reading ability between the experimental class and the control class prior to treatment. This confirms that both classes were at a comparable baseline level before the intervention was administered.

The Mann-Whitney U test on the posttest data yielded an Asymp. Sig. (2-tailed) value of $0.001 < 0.05$, indicating a statistically significant difference in early reading ability between the two classes following the intervention. The mean rank of the experimental class (29.78) was substantially higher than that of the control class (17.22), demonstrating that students who received NHT-based instruction outperformed those in the control class. Accordingly, H_0 is rejected and H_a is accepted, leading to the conclusion that the implementation of the Numbered Heads Together (NHT) learning model had a significant effect on the early reading ability of second-grade students at SDN 1 Megu Cilik.

In the discussion results of this study, first Early Reading Ability of Students in the Control Class, based on the research results in class II B as the control class at SDN 1 Megu Cilik, students' initial reading ability showed an improvement after the learning process took place. This can be seen from the comparison of the average pre-test score of 47.83 to 69.57 in the post-test. Although there was an improvement, the results were still lower compared to the experimental class that used the Numbered Heads Together (NHT) model. The factors causing the control class results to be less than optimal: Learning in the control class was carried out using conventional methods in the form of lectures and question-and-answer sessions, in which the active role was predominantly held by the teacher, limiting student involvement in the learning process. As stated by (Inne Marthyanne Pratiwi & Ariawan, 2017), the learning model constitutes the highest framework in learning, encompassing the strategies, methods, and techniques applied throughout the instructional process.

In the control class, students tended to be passive, receiving explanations from the teacher without sufficient opportunities to discuss, collaborate, or actively practice reading with peers. As a result, some students continued to experience difficulties in reading letters, syllables, words, or simple sentences. The limited interaction among students also affected their self-confidence when required to read in front of the class. This aligns with (Apriyanti, 2025) who asserts that

the success of early reading instruction is greatly influenced by the teacher's activeness and creativity in establishing a learning atmosphere that directly engages students.

Second discussion 2. Initial Reading Ability of Students Using the Numbered Heads Together (NHT) Model. Based on the results of research conducted in class II A as the experimental class, the implementation of the Numbered Heads Together (NHT) model has a more significant impact on students' early reading skills. The average pretest score of the experimental class of 51.74 increased to 77.87 in the posttest. This increase is higher compared to the control class and indicates that the Numbered Heads Together (NHT) model is effectively applied in teaching early reading in grade II elementary school. According to (Hapsari, 2017), the NHT model is a learning model that begins with numbering, where each student in a group receives a different number. The teacher then asks a question, and each group discusses together (Heads Together) to find the answer. After that, the teacher calls out a number randomly, and the student with that number represents their group to answer. This mechanism forces all students to understand the material thoroughly, not just rely on smarter friends.

Furthermore, (Palupi et al., 2022) explains that the NHT model is a simple cooperative model consisting of four stages: numbering, question posing, thinking together, and answering. This model is designed to organize student interactions in a structured way so that each group member has the same responsibility in understanding the material. In the context of early reading, this structure is very helpful for students to teach each other how to read letters, syllables, words, and simple sentences to their group members.

(Aprilian, 2022) also emphasizes that the NHT model encourages students to interact more actively with their peers, be more responsible, exchange ideas, and be more open in expressing their opinions. This model not only develops cognitive abilities but also trains students to be active and responsible. This is evident in the observation results of students in this study, which reached a percentage of 85% in the Very Good category-indicating that students actively participate, can collaborate, and are brave enough to present answers in front of the class.

Relationship with early reading theory: According to (Rahman, 2018), early reading ability is the initial stage of learning to read, especially in lower grades, which includes the ability to recognize vowel and consonant letters, read syllables, words, and simple sentences. Early reading is a foundation that students must master before entering the advanced reading or reading comprehension stage in higher grades (Nurhabibah, 2024). The results of this study show that through the NHT model, second-grade students experienced significant development in all four indicators of early reading-as evidenced by an average post-test score of 77.87.

Continued with the final discussion 3. The Influence of the Implementation of the Numbered Heads Together (NHT) Learning Model on Students' Initial Reading Ability. Based on the results of observations and data analysis of the research conducted in class II SDN 1 Megu Cilik, it can be seen that the implementation of the Numbered Heads Together (NHT) model has an effect on students' initial reading ability. This model was applied in the experimental class, while the control class continued to use conventional teaching methods, namely lecture and question-and-answer.

The results of data analysis using the Mann-Whitney test showed that the Asymp. Sig. (2-tailed) value in the posttest was 0.001. This value is smaller than the significance level of 0.05 ($0.001 < 0.05$), so H_0 is rejected and H_a is accepted. Thus, it can be concluded that there is a significant effect of using the Numbered Heads Together (NHT) learning model on the beginning reading ability of second-grade students at SDN 1 Megu Cilik. In addition, the mean rank results in the experimental class were higher than those in the control class. The mean rank

of the experimental class was 29.78, while that of the control class was 17.22. These results indicate that the beginning reading ability of students in the experimental class was better than that of students in the control class after the implementation of the Numbered Heads Together (NHT) learning model.



Figure 2. Documentation of the lesson on April 28, 2026, in Class 2A (experimental class) using the Numbered Heads Together (NHT) model



Figure 3. Documentation of the lesson on April 28, 2026, in the control class without using the Numbered Heads Together (NHT) model



Figure 4. Documentation of the experimental class on April 30, 2026



Figure 5. During the post-test for second-grade students in the experimental group on April 30, 2026

Conclusion

Based on the results of research conducted in Class II of SDN 1 Megu Cilik, it can be concluded that the beginning reading ability of students who did not implement the Numbered Heads Together (NHT) learning model improved after the learning process took place; however,

this improvement was still not optimal. This is because the learning in the control class still used conventional teacher-centered methods, making students tend to be passive, interact less with peers, and lack the courage to read or present answers in front of the class. As a result, some students still experience difficulties in recognizing letters, reading syllables, words, and simple sentences fluently.

Meanwhile, the initial reading ability of students who applied the Numbered Heads Together (NHT) learning model showed better improvement compared to the control class. Through the implementation of the NHT model, students become more active in participating in learning because each group member has the responsibility to understand the material and engage in group discussions. The learning process conducted in groups also helps students exchange opinions, cooperate, and assist each other in understanding the reading. In addition, students become more confident in answering questions and reading in front of the class due to the opportunity to discuss first with their group. This condition makes the learning atmosphere more enjoyable, interactive, and capable of increasing students' interest in learning initial reading.

Thus, the use of the Numbered Heads Together (NHT) learning model has a positive effect on the early reading ability of second-grade students at SDN 1 Megu Cilik. This learning model has been proven to increase students' activeness, cooperation, responsibility, as well as courage in the early reading learning process. Therefore, the Numbered Heads Together (NHT) model can be used as an effective alternative learning model for elementary school teachers, especially in early reading learning in lower grades. Future research is expected to develop the use of the Numbered Heads Together (NHT) model on other learning materials, other language skills, as well as at different grade levels in order to obtain broader and deeper research results.

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