

Effect of Use of Numbered Heads Together Model Assisted by Powtoon Application on Learning Outcomes Indonesian Grade IV Students

Putri Handayani¹, Nas Haryati Setyaningsih², Farid Ahmadi³

¹ Master Program, Student of Primary Education, ^{2,3} Master Program, of Primary Education. Universitas Negeri Semarang, Semarang City, Indonesia.

Corresponding Author: Putri Handayani

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ABSTRACT

One type of reading learning that is more emphasized for students is reading comprehension in elementary school. Problems related to reading the understanding of the theory of fictional texts so that learning outcomes are very low. Therefore, teachers provide treatment to elementary school students in Tempilang district of West Bangka Belitung Islands using the numbered heads together model assisted by powtoon applications. The Number Head Together model with the help of powtoon applications is good for cognitive achievement in learning outcomes so that learning can be meaningful. This study aims to analyze the influence of the use of the number heads together model assisted by powtoon applications on learning outcomes Indonesian fourth graders. This research uses quantitative experimental methods. The research design used is a type of One Group Pretest-Posttest Design. At the end of the learning process is measured about the material comprehension test. The sample purposive sampling amounted to 120 elementary school students in Tempilang Subdistrict. Data collection techniques in the form of observation and giving test questions. Data analysis techniques in quantitative research use statistics. There are two types of statistics used for data analysis in research, namely descriptive statistics and inferential statistics. The results showed that the use of the NHT model assisted by powtoon applications to learning outcomes Indonesian fourth grade students had an influence obtained, namely $t_{count} 2,840 > t_{table} = 1,669$.

Keywords: Reading Comprehension, Learning Outcomes, Powtoon-Assisted NHT Model

INTRODUCTION

Education is everyone's obligation to get it, everyone has been guaranteed in law to get a proper education and should get a good education. Along with the development of the revolution of science and technology (Science And Technology) can be seen from the field of education. There are demands to always develop scientific innovations derived from creativity in building new concepts, theories, and technologies (Semiawan, 2010). In the 21st century are 4C skills (Critical thinking, communication, collaboration, creativity) among them the main tasks of teachers as learning planners, the application of varied learning approach patterns and models, and integration. technology.

Indonesian learning is language learning that is procedurally designed according to the general steps of scientific activity, Indonesian is also a broad science. The goal is to improve intellectual ability and high-level thinking. One of the problems is the low reading comprehension. The indicator of curriculum implementation is that all learning programs focus on achieving competency standards which are a measure of the achievement of educational programs, namely learning motivation and learning outcomes.

In fact, difficulty in reading comprehension will make it difficult for students to take the meaning and messages contained in the text they read. This is evident from the results of observations in class IV of State Elementary School in Tempilang District, West Bangka Regency, Bangka Belitung Islands shows that in general they have difficulties such as determining themes, settings, plots, and mandates. There are four schools that have the same problem, namely when teachers give evaluations in the form of questions related to the material, almost all of their answers are not appropriate. The results of the study were observed by researchers, that some schools have difficulty reading comprehension, namely that there are 58% of students do not reach KKM on average 70 in Tempilang District. Ideally, class IV students are able to think critically, able to understand the reading text because class IV students are already categorized as high grade levels. This is due to two factors, namely from teachers and students. Factors from teachers, teachers still use teaching conventionally while the factors of students at the time of learning students are often sleepy, students are lazy and bored with long reading, so that the absence of learning motivation will affect student learning outcomes not yet in accordance with the goals expected by the teacher.

For this reason, experiments are needed that can make it easier for students to learn Indonesian on their learning outcomes related to reading comprehension. Therefore, the researcher took one of the cooperative learning methods, namely the numbered heads together type developed by Kagan (2013: 3). The reason the researcher chose this model was that it could accommodate the influence of the intensity of discussion between groups, and stimulate students to interact and work together in completing tasks with share ideas and thoughts. So that students will be more active and can understand learning more easily. In addition to using the NHT model combined with advanced technology

through the powtoon application to encourage learning motivation so that learning in class will be more fun. This media will foster student interest, foster student learning motivation and grow student learning outcomes and make learning more meaningful. So the specific purpose of this research is the use of the numbered heads together model with the help of the Powtoon application which is expected to increase student motivation and learning outcomes. The purpose of this study was to analyze the effect of using the number heads together model with the help of the powtoon application on the learning outcomes of fourth grade Indonesian students.

LITERATURE REVIEW

Rajab explained that numbered heads together learning is a learning model with this numbering model thinking together is a very good way to add individual responsibility to group discussions. Kagen (Huda, 2012: 59) argues that Numbered heads together is a learning model that begins with numbering, namely the teacher divides the group and each person in the group is given a number. Then the teacher asks some questions and on this occasion each group member unites his mind to discuss thinking about the answer. Next, the teacher calls students who have the same number from each group and discusses the most appropriate answer. Joyce and Weil (Winataputra) state that the syntax of the numbered heads together learning model is as follows: (1) Numbering; (2) Questioning; (3) Heads Together; (4) Answers. Safhida stated that the numbered heads together model will direct students to find a concept through the learning process so that the knowledge gained will last a long time so that student learning outcomes increase. Riyanto argues that the numbered heads together model has an effect on student learning outcomes at the elementary school level. According to Wulandari, using powtoon media can improve teaching performance

(effectiveness) in the field of education. Meanwhile, according to Mutmainnah, the influence of learning media using the powtoon application allows users to get more stimulus than conventional learning. The same thing was also conveyed by Jabir that the Powtoon application in learning media was able to facilitate the learning process related to the material given. Research conducted by Marwan Pulungan, Umar Effendy, Syadza Izdihar with the research title "The Effect of Powtoon Media on Poetry Writing Skills for Class V Elementary School Students" in 2016. The similarities in the research are the content of Indonesian language lessons, then the method used is the quantitative experimental method, and the media used is the powtoon application media. The difference between the research and the next researcher is the title variable, the absence of learning motivation, then the material. In the sample, the previous researcher was only 27 students while the next researcher was 120 students. Furthermore, research conducted by Izomi Awalia, Aan S. Pamungkas, and Trian P. Alamsyah with the research title "Development of Powtoon Animation Learning Media in Mathematics Subjects in Grade IV Elementary School" in 2019. This research is a type of research and development or Research and Development (R&D). The equation of this research is using application media assisted by Powtoon. While the difference in this study is of course on the variables, research methods, and research samples. The previous researcher applied mathematics learning, namely flat wake while the next researcher was about reading comprehension in Indonesian, the previous researcher used the development method while the next researcher used quantitative experiments. Then the researchers reviewed the research conducted by Anti Muthmainnah, Nurul Nisa, Riswati Ashifa, Dinie Anggraeni Dewi, Yayang Furi Furnamasari with the title "Improving Civic Education Learning Outcomes using Powtoon Media during Distance Learning in

Elementary Schools" in 2021. The equation of this research is the media both scenario learning uses media assisted by the Powtoon application. Meanwhile, the difference in this research is in the subject matter, methods, and research samples. Previous research used to apply the learning content of PKN, while the next researcher used the content of Indonesian language lessons. Previous researchers used qualitative research that is based on literature studies, while subsequent research used questionnaires, and test questions related to numbers using quantitative experimental methods. For the research sample, the previous researcher used three classes, namely grades 3, 4 and 6 SD, while the next research class was 5 classes, but there were experimental classes and control classes. However, the research entitled "Mathematical Understanding Through Metaphorical Thinking Assisted by the Powtoon Application" was conducted by Didah Husnul Aidah, Nunung Sobarningsih, Yuyu Nurhayati Rahayu in 2020. Researchers reviewed the research, namely "The Effect of Animation in Powtoon Applications on Indonesian Language Learning in Explanatory Text Materials." conducted by Lidiyatul Izzah, Herwina Bahar, Gianti Puteri in 2020. The equation of this research is in one of the variables. While the differences in this study are, the absence of motivational variables, material differences. Where the previous researchers used Indonesian language material about explanatory texts, while further research on textual material reads understanding of fictional texts. There are differences in the research sample, the previous sample was class XI students, while the next researchers were elementary school students in class IV in Tempilang District, West Bangka. For the research method there are differences, previous research used descriptive qualitative, while the next researcher used quantitative experiments using statistical data obtained from questionnaires and test questions. Researchers are still reviewing research conducted by Yani Wulandar,

Yayat Ruhiat, Lukman Nulhakim in 2020, the title of the research is "Development of Powtoon-Based Video Media in Science Subjects in Class V. The similarity of this research is to use learning media assisted by the Powtoon application. The next researcher used experiments, and for the research sample the next researcher was fourth grade elementary school students in Tempilang District related to the content of Indonesian language lessons regarding reading comprehension texts. Furthermore, the research entitled "The Influence of Numbered Heads Together Cooperative Learning Model on Mathematics Learning Outcomes of Grade V Elementary School Students in Reasonsgrker Village conducted by Ni Luh Putu Murtita Santiana, Dewa Nyoman Sudana, Ni Nyoman Garminah in 2016. The equation of this research is in the learning model is the NHT type model and the dependent variable is the learning outcomes and the research method used is the experimental method. While the differences in this study are the absence of motivational variables, the addition of media assisted by the Powtoon application and the sample selected by purposive sampling for fourth grade elementary school students in Tempilang District, West Bangka Regency. Research conducted by Muh Khalifah Mustami in 2018 with the research title "The Effects of Numbered Heads Together-Assurance Relevance Interest Assessment Satisfaction on Students' Motivation". The difference in research is that there is no dependent variable on learning outcomes, does not use learning media, which is assisted by the Powtoon application. The content of the previous research lesson was the motivation to learn science at SMP Makassar class VIII. Meanwhile, future research will determine the effect on motivation and learning outcomes of fourth grade elementary school students in Indonesian in Tempilang District, West Bangka Regency by obtaining questionnaire data and test questions. The benefit of the results of this study is that using the model in the learning

process will make students enthusiastic and affect the ability of student learning outcomes to be better. So that it can improve the quality of education, especially for SD Negeri 10 Tempilang, SD Negeri 13 Tempilang, SD Negeri 16 Tempilang, SD Negeri 18 Tempilang. success of teaching in schools and become one of the innovations to improve student learning outcomes in learning, especially in Indonesian language subjects for fourth grade students.

MATERIALS & METHODS

This research is using quasi experimental design (Pseudo Experimental) form (nonequivalent control group design). In this design the experimental group and the control group are not randomly selected. Methods is experiment. The research design used is a type of One Group Pretest-Posttest Design. The population used in this study was 22 state elementary schools in Tempilang District, West Bangka Regency, Bangka Belitung Islands. The sample in this study was 120 students in grade IV of SDN in Tempilang Subdistrict.

The data collection techniques used in this study are in the form of observation techniques, questionnaires, test questions, and documentation. In this study, researchers used observation techniques that aim to see the circumstances that occur in the field or know the learning process that occurs in the classroom to ensure using the numbered heads together model. In addition, observation techniques aim to find out the attitude of students so that they can know one of the successes and meet the criteria in the use of the learning model. Data analysis techniques in quantitative research use statistics. Inferential statistics include parametric statistics and nonparametric statistics. The prerequisite tests for data analysis in this study are normality test, homogeneity test, average completeness test, average comparison test.

Statistical Analysis

In the experimental class of tests conducted using the average completion test

and the average appeal test before carrying out the test, the prerequisite test is carried out, namely the normality and homogeneity test. Here are the results of prerequisite tests and the results of research on the influence of powtoon-assisted NHT on the learning outcomes of Indonesian from this study.

1. Normality Test

A normality test is performed to test whether the data obtained in the study is normally distributed. The normality test used to determine the distribution of pretest and posttest results data is a normality test with Kolmogorov Smirnov.

Table 1. Normality Test Results

No	Items	Pretest experiment	Pretest experiments and controls	Experimental class posttest	Posttest class of experiments and controls
1	Many students	60	120	60	120
2	Average	65,8	64,8	83,6	79,5
3	Test results. Sig	0,143	0,157	0,137	0,108
4	Information	Usual	Usual	Usual	Usual

Based on the results of the calculations showed that the sig. value in the pretest results of the experimental class was 0.143. Using the level of significance $\alpha = 0.05$ means insignificant testing because $.sig = 0.143 > \alpha = 0.05$ so it can be concluded that the data follows a normal distribution. For posttest data returns a significance value of 0.137 which is $.sig = 0.137 > \alpha = 0.05$. Based on these results show that H_0 was accepted. Thus it can be concluded that the data that researchers obtain both pretest and posttest data is normal distribution data.

2. Homogeneity Test

Homogeneity testing uses Levene's test on Minitab with the following acceptance criteria. If the .sig value ≥ 0.05 then H_0 is accepted. Homogeneity test results presented in table 2.1 below

Table 2. Homogeneity Test Summary

No	Kind	Data Acquisition
1.	Number of Students	120
2.	Test Criteria	0,05
3.	Fghi counting	1,699
4.	. Sig	0,199

Based on Table 3 above, with 120 experimental and control class students, seen in table 4.4 column .sig value of 0.199 > 0.05 then H_0 is accepted. So, the variance of the two classes is the same or homogeneous. When viewed from the hypothesis decision-making criteria on the F test, obtained 1,699 then H_0 was accepted. This indicates that both variances are the same (homogeneous)

3. Average Completeness Test

The minimum completion achievement test aims to find out whether statistically, the learning outcomes of experimental class students have reached the minimum completion criteria of 70.

Table 3. Summary of Minimum Criteria Achievement Test Results

No	Kind	Data Acquisition
1.	Test Value (KKM)	70
2.	Test Criteria (α)	5%
2.	T count	7,189
3.	T table	1,698
4.	.sig	0,000

Table 3 above shows that the results of the hypothesis test on average student learning outcomes using NHT assisted powtoon more than 70 things are evidenced by the t_{count} value obtained from the SPSS test using one sample t-test obtained a score

of 7,189. Therefore, the score of $t_{\text{calculates}} > t_{\text{table}}$ which is $7,189 > 1,698$, it means that the average student learning outcome in the subject Indonesian using powtoon-assisted NHT is more than 70. In addition, the sig value obtained is 0.000 which means less than 5%. So that it can be concluded bring reject H_0 and accept H_a .

4. Average Appeal Test

The average comparative test of Indonesian learning results is done to statistically test which class has a higher average.

Table 4. Summary of Average Appeal Test Results Experiment and Control Classes

No	Kind	Data Acquisition
1.	Test Value (KKM)	70
2.	Test Criteria (α)	5%
2.	T count	2,840
3.	T table	1,669
4.	.sig	0,05

Table 4 is the output result of hypothesis testing comparing average learning outcomes using powtoon-assisted NHT learning and on demonstration learning. From the results of SPSS output obtained through the Independent Samples Test in Table 4.5 above, it shows that NHT learning is helped by powtoons more than the average learning outcome of class students in demonstration learning. This is because the $t_{\text{calculation}}$ value obtained from the t-test for Equality of Means is 2,840 means that it exceeds the $t_{\text{of the table}}$ that has been determined, which is 1,669. In addition to the results of Sig. (2-tailed) is 0.05 means less than 5%, so the data is concluded that reject H_0 and accept H_a . This means that the average learning period of students who obtained treatment using powtoon-assisted NHT is better compared to the average learning outcome given by learning demonstrations.

RESULT & DISCUSSION

In this thesis research, to determine the validity of each item in the questionnaire and test items, the measuring instrument can use Cronbach Alpha analysis assisted by using the SPSS 21 for windows program. The results of the calculation of the validity test are said to be valid if the Corrected Item-Total Correlation value $>$ the value of $r_{\text{(table.)}}$ (0.361). It is found in the results of the calculation above that using the SPSS 21 application on the test item instrument which states that there are 10 question items given to students to determine their understanding in learning, then there are 10 valid question items and 0 invalid question items. Therefore, all 10 items of test questions can be used. Instrument validity is carried out to show the accuracy and precision of a measuring instrument to measure something that the researcher will measure. The use of research instruments is said to be valid if it accurately measures the actual situation so that it can reveal data from variables. The data collection of the validity of the research instrument was in the form of a written test conducted by an expert using a research instrument validation sheet. The validator is Mr. Deni Wardana, M.Pd as an expert on Indonesian language test instruments.

Testing the reliability of the learning motivation questionnaire instrument, as well as questions using the alpha coefficient (α). The reliability test is carried out so that it can be seen whether the learning outcomes data and questionnaire data are consistent (reliable) or not, the standard or critical value is 0.7. It means that it is considered reliable if the alpha coefficient value on an instrument is at least 0.7. The results of the reliability with the help of the SPSS 21 program are 0.715. It can be said that the research data is reliable, because the calculation results are 0.715 greater than 0.70. The results of the study showed that powtoon-assisted NHT which affects the average learning outcome Indonesian exceed KKM and the average comparison with conventional classes is better. This is in

line with previous research, namely previous research in line with the results of this study conducted by Yuliana (2018), Bestari (2017), Astuti (2018) which stated that the use of powtoon-assisted NHT has an influence on learning outcomes. In addition to interesting media in learning, students are more open in pouring ideas, more active in learning, so that when given questions the learning outcome test exceeds the KKM limit. The results of other studies conducted by Arifah (2019), Adrya (2017) and Aslam (2021) have concluded that research with the use of the NHT model of powtoon assistance can have an influence on student learning outcomes. This is inseparable from the advantages of NHT itself.

The first use of NHT makes every learner become ready to do learning, because if students are not ready then their group will definitely reprimand. Furthermore, by having a discussion that is finally made a presentation, students are more earnest in learning so that learning outcomes Indonesian students become better.

In addition, in heterogeneous groups of students who are good at not gathering with smart students, therefore smart students can help underprivileged friends. Another thing that is the reason NHT makes learning outcomes Indonesian increase is that if there are students who are afraid to ask teachers, students can discuss with their group. Therefore, students' knowledge is formed in discussions.

With the use of NHT carried out in groups, namely each group consisting of 4-5 students, there is an intent interaction between students in answering questions so that the compactness in the group produces good results in the posttest passed by students.

In addition, assistance from powtoons also supports student learning outcomes in Indonesian subjects. This is because it is interactive from the powtoon application that makes students know if they do a mistake an. In addition to the use of

powtoons that include all human senses makes students with the learning style they want to adjust.

In addition, the use of powtoons carried out in research is classified as never done in teaching and learning activities. Students become more interested in new things. These things that make the use of powtoon assistance can make learning outcomes Indonesian increased. Furthermore, the use of technology in the world of education can make students feel more comfortable and will not look bored. The reason is, the transmission of information through technology seems more diverse and modern. In terms of providing learning materials, teachers can also exert as much creativity as possible, one of which is by displaying materials by showing animated videos. In making Powtoon animated videos, we do not need to master special skills, because in today's digital era, we can find out the steps to use the application by searching for it on Google or YouTube.

In addition, the use of powtoon-assisted NHT that can motivate that has been proven in previous results also has an important role in student learning outcomes. Because the more students are motivated in learning, the learning outcomes they get become better, interesting, because of the use of powtoons that are easy to understand so that students become more comfortable in learning. Therefore, learning outcomes Indonesian the use of powtoon-assisted NHT can improve student learning outcomes.

CONCLUSION

The use of the NHT model is assisted by powtoon applications to learning outcomes Indonesian fourth graders there is an influence. The average experimental class learning outcomes surpassed KKM and comparisons with control classes showed that the learning outcomes of students with POWTOON-assisted NHT were better than demonstration classes. That the value of $t_{\text{calculate}}$ obtained is $2,840 > t_{\text{table}}$

= 1,669. So reject H_0 and accept H_a . This means that the average student learning hasil obtained treatment using POWTOON-assisted NHT is better than the average learning outcome given treatment with demonstration learning.

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