
A COMPARATIVE STUDY ON THE EFFECT OF NHT AND RSQC2 TECHNIQUES

Oleh

Fitri Wulandari, M.Pd

Universitas Islam Riau

E-mail: fitriwulandari@edu.uir.ac.id

Article History:

Received: 05-07-2021

Revised: 15-08-2021

Accepted: 27-08-2021

Keywords:

Reading comprehension,
NHT, RSQC2 Technique

Abstract: *The aims of this research are to investigate whether there is any significant difference on reading comprehension between students who were taught using NHT and those who were taught using RSQC2 techniques and, to determine which one of the two techniques is more effective in improving students' reading comprehension. The research design used in this study was Pre-test and Post-test Comparison Group Design. The samples were three classes of the tenth grade students at SMKN 6 Pekanbaru of the 2015 academic year. The samples were selected using the technique of cluster sampling. The total samples were 97 students. The forms of the test were multiple choices. Finally, first the writer found that significant probabilities was higher than 0.05 ($sig > 0.05$) in multiple comparison one way ANOVA. It means that there is no significant difference on students' reading comprehension between using NHT and RSQC2 techniques are good in comprehending reading text at SMKN 6 Pekanbaru. The second, found that significant probabilities was lower than 0.05 ($sig > 0.05$) in both paired sample t-test and independent sample t-test. It means that there is a significant difference of students' reading comprehension pre-test and post-test of experimental classes*

INTRODUCTION

Reading has is an important language skill that learners need to develop since the first time they start studying English. Through reading, they can get the information they need either for the purpose of mastering English or for other purposes. Without information learners will surely not know anything happening either changing about the situation of education, economic, politic, or simply the information that is necessary to develop their reading comprehension. In line with it, English students need to be good in reading and get sufficient information to increase their knowledge and ability from the any sources that they have. In addition, the students are expected to develop their reading ability in understanding various kinds of texts.

English is one of the world's languages. However, there are many students that are uninterested in studying English. It can be seen from the students' scores in the subject that tend to be lower than their scores in other subjects. The low achievement in learning English students showed that their ability in English is still low. This problem may be solved by giving appropriate learning for students, so that they no longer consider learning English to be hard and boring, but rather easy and meaningful. In terms of creative reading teaching approaches, the researcher evaluated two specific techniques: Numbered Heads Together (henceforth NHT) and the Recall, Summarize, Question, Connect, and Comment (RSQC2) technique. NHT is one of the cooperative techniques developed by Kagan in 1993 to involve more students in the review of materials covered in a lesson and to assess their understanding of the lesson's content (Arends, 2004). It is a simple four-step technique that can be used repeatedly with a variety of curriculum materials and applied to almost all subject areas, grade levels, and locations in a lesson (Olsen & Kagan in Yeh, 2004).¹²

Based on the preliminary study in November 2014 at SMKN 6 Pekanbaru, there were some problems that emerged during the teaching and learning reading in the school. The first one was students' laziness in reading. In this case, the teacher only gave the text without giving any explanations to the students or anything that might help them to found the appropriate as a result of the text they were reading. This condition had made them know less or even nothing about searching the information they needed in reading. Then, when something like this happen continuously the students become lazy and less motivated in reading because nothing they can do about it and finally they got low ability and score in reading. So, it is really expected that the teachers can improve their ability in delivering the material clearly, interestingly and well for the sake of students.

Then, the second one was that the teaching technique or strategy applied by teachers in teaching reading was not interesting. Most of English teachers often used the same way in teaching reading all the time. For instance, the teacher's role in reading instruction is crucial. only gave the text and then asks the students to read the text. Then, the student is asked to answer the questions below the text. These techniques of teaching seem to make students not only feel bored in learning but also face difficulties in comprehending the text.

The phenomenon described above indicates that the student's achievement in reading comprehension was still under the KKM (Minimum Completion Criteria). The KKM for English subject in the school is 73, but many students' scores were under the KKM and they have difficulties to comprehend the English texts. One of the problems might be that the teachers' method for teaching reading was still the traditional one, in which the teachers' strategy is essentially teacher-centered, in which they dominate class instruction.. The teachers spend a lot of time explaining, debating, and talking, which overshadows the students' engagement in the learning process. Furthermore, the approach most commonly used by instructors, such as the Grammar Translation Method, is rather traditional method.

¹ Arends, Richard I. 2004. Learning to Teach, Sixth Edition. New York: McGraw-Hill Company, Inc.

² Yeh, Ying-Chi. 2004. Students' Perception of Cooperative Learning Methods in One Senior High School EFL Classroom in Taiwan. Thesis. Taipei: Ming Chuan University

Teachers typically use this technique to just look at the instructions in the textbook, ask a student or two in the class to read the text, or read the material themselves, and then translate word by word or phrase by sentence before having students answer the questions that follow the text.

Based on the above mentioned phenomenon, it was critical to adopt a method or approach that might assist in the solution of these issues. Furthermore, there is an urgent need to implement a technique that involves both teachers and students so that the teachers are not too dominant in the classroom and the students are engaged in cooperative and interesting activities so that they are not forced to do the same activities throughout their English instruction. Students will be more interested and motivated to read if they are involved in exciting and cooperative activities. Brown (2001:300) emphasizes that many students' "love" of reading has led to their effective development of reading skills.³

Based on the above reasoning, it may be concluded that it is necessary to conduct a research entitled "A Comparative Study on The Effect of Numbered Head Together and RSQC2 Techniques towards Students' Reading Comprehension at SMKN 6 Pekanbaru". The use of Numbered Head Together and RSQC2 technique hopefully can improve students' ability to improve their English proficiency, especially in reading texts.

LITERATURE REVIEW

Elizabeth S. Pang (2003 : 14) Learning to read is a talent that will empower anybody who acquires it. They will be able to profit from the wealth of knowledge contained in print materials and, eventually, contribute to it. Students may learn to read and read to learn with good instruction. The method of getting meaning from text connections is known as comprehension. It involves both word knowledge (vocabulary) and thinking and reasoning. As a result, understanding is a proactive rather than a passive process. To build meaning, the reader actively engages with the text. This active participation includes the application of past knowledge. It entails deducing meaning from the words and expressions used by a writer to communicate information, ideas, and viewpoints⁴.

In the context of EFL reading instruction in Indonesian universities, Cahyono and Widiati (2006) The issue becomes more difficult since college reading necessitates flexible and independent learning, requiring students to read English texts from a variety of sources independently and efficiently. For Indonesian students who are impacted by their cultural backgrounds and lack motivation, in reading English ⁵texts (Lamb & Coleman, 2008; Setiono, 2004), the demand of the EFL reading is not easy to accomplish. This issue is discussed

³ Brown, H. Douglas. 2001. Teaching by Principles: An Interactive Approach to Language Pedagogy, Second Edition. New York: Addison Wesley Longman Inc.

⁴ Elizabeth S. Pang. 2003. Teaching Reading Educational Practices Series 12. Switzerland.

⁴ Cahyono, B. Y., & Widiati, U. (2006). The teaching of EFL reading in the Indonesian context: The state of the art. TEFLIN Journal, 17(1), 23-46.

further in the following section.⁶⁷

The cultural background of students has also been discovered to impact individual variations in their reading behavior and, as a result, their reading performance. (Imran, 2005). Reading progress occurs when students are provided with enough chances to develop their motivation, confidence, topic knowledge, and language abilities. (Imran, 2005). In Imran's view, To become more self - confident readers, EFL students should be helped to improve their ability and motivation to learn. Kweldju (2000) In a literature class, He offered an option to encourage reluctant students to read. The students in her study were given a guideline based on cultural and gender factors, which was beneficial in altering their attitudes from reluctant to interested readers.⁸⁹

Numbered Heads Together Technique is an approach develop by Spencer Kagan (1993) to include more students in the review of materials covered in a session and to ensure that they understand the content of the lesson (Arends, 2004).¹⁰

Numbered Heads Together is one of the techniques or structures that is originally derive from Russ Frank. The structure is hen refine and name by Kagan back in 2002. Numbered Heads Together is a cooperative learning approach that is designed to include more students in reviewing materials covered in a lesson and evaluating their understanding of the content. (Arends, 2004). It's a simple technique that can be used frequently with a variety of curricular materials and applied to nearly all subject matters, grade levels, and locations within a lesson. (Olsen & Kagan as quote by, Nuruddin, 2013).¹¹

RSQC2 Technique is a technique in teaching reading that can help the teacher to improving students' reading comprehension skill. According to Angelo and Cross (1993) RSQC2 is a modular classroom technique in which teacher can use the whole thing or select individual components to administer. In this technique teacher guides students quickly through simple recall, summary, analysis, evaluation and synthesis exercises focusing on the material.

-
- ⁶ Setiono, S. (2004, October 17, 2012). Competency-based learning: The dreams and realities, The Jakarta Post. Retrieved from <http://www.thejakartapost.com/news/2004/06/19/competencybased-learning-dreamsand-realities.html>
- ⁷ Cahyono, B. Y., & Widiati, U. (2006). The teaching of EFL reading in the Indonesian context: The state of the art. TEFLIN Journal, 17(1), 23-46.
- ⁸ Imran, N. (2005). The interplay of culture, individual differences and adult EFL reading performance: From teacher-dependence to the development of autonomous readers. Paper presented at the The 1st International Seminar on Literacy Education in Developing Countries, Semarang.
- ⁹ Kweldju, S. (1996). English department students interest and strategies in reading their content area textbooks. TEFLIN Journal, 8(1), 104-117.
- ¹⁰ Kagan, Spencer. 1989. The Structural Approach to Cooperative Learning. Education Leadership, p. 13-15.
- ¹¹ Nuruddin, I. K. Seken, L.P. Artini. 2013. The Effect of NHT and QAR Techniques on Students' Reading Comprehension: A Comparative Study. Journal

From the theory above, the writer concludes that RSQC2 is an technique that use by the teacher to evaluate the students' understanding, analysis, recall and synthesis about the material from the text that they have read. In this technique, teacher allows students to make summarize about the material in the text based on their own words. If they have make a good summary, they have understood with the material.

METHODS

The design of the research is an experimental method that focusing on quantitative research. According to L. R Gay (2000: 349), In experimental research, the experimental method is a method of study that can truly test hypotheses about cause and effect relationships. There are three variable. NHT and RSQC2 technique was independent variable, The reading comprehension of the students was a dependent variable. As a result, the experimental groups received a pre-test, treatment, and post-test. They can be represented as follows:¹²

Table 1. The Research Design

E1	O1	X1	O2
E2	O1	X2	O2
C	O1	-	O2

- E1 : Experimental Group 1
E2 : Experimental Group 2
C : Control Group
X1 : Independent variable 1 (NHT)
X2 : Independent variable 2 (RSQC2)
O1 : Pre-test
O2 : Post-test

The researcher used the results of the experimental and control groups' pre- test and post-tests to analyze the data. This score was statistically analyzed. Both descriptive and inferential statistics, as well as analysis of variance, are available. In this research, the researcher used SPSS 20 and these formulas:

1. Independent sample t-test
2. Paired sample t-test or Non-independent Sample t- t_{test}
3. Analysis of Variance or ANOVA

RESULTS AND DISCUSSION

The data analysis was aimed to show the significant NHT and RSQC2 technique toward reading comprehension of three classes before giving the treatment for the experimental class and non-treatment for the control group. To determine it, the researcher took the data from the results of pre-test from three of classes. The data were obtained by using SPSS 20. The data of mean, median and standard deviation from the pre-test of experimental class 1, experimental class 2 and control class can be seen from the following table:

¹² L. R Gay. 2000. Educational Research: Competencies for Analysis and Application- 6th Addition. Prentice- Hall, Inc.

Table 2. Mean and Standard Deviation of Pre-test in experimental class 1 and Control Class

Class	Mean	Standard Deviation
Pre-test of Experimental Group 1	52.34	8.229
Pre-test of Control Group	55.00	10.160

Then, the mean of pre-test from experimental class 1 and In analyzing the students' reading comprehension abilities, a control class was created. The classification table can be seen as follows:

Table 3. Mean and Standard Deviation of Pre-test in Experimental class 2 and Control Class

Class	Mean	Standard Deviation
Pre-test of Experimental Group 2	54.52	10.905
Pre-test of Control Group	55.00	10.160

According on the table above, the mean score of pre-test of the experimental class 2 was 54.52. It means the students' ability in reading comprehension before giving the treatment for experimental group 2 was categorized into less category. Meanwhile, the mean of pre-test of control class was 55.00. It means that the students' ability in reading comprehension in the control class was categorized into less category.

The research findings showed that there was a statistically significant difference at ($P=0.05$) in students' reading comprehension pre-test mean score between experimental classes and control class. The results of the level of significance of students' reading comprehension between pre-test of both experimental class and control class in sig (2-tailed is 0.255 and 0.856 and it is higher than significant probabilities 5% ($P>0.05$).

There was a statistically significance difference at sig. 0.05 in students' reading comprehension between post-test of both experimental class and control class. The level of significance of students' reading comprehension between pre-test of both experimental class and control class in sig (2-tailed is 0.10 and 0.00 and it is lower than significant probabilities 5% ($P>0.05$).

The last, comparing the significant difference of students' reading comprehension post-test between among students who were taught by NHT, RSQC2 and Conventional Reading Techniques, it can be known from the result of one way ANOVA showed that Fob was 11.641. So the null hypothesis (H_0) which stated that there was no significant difference in reading comprehension among the three group of students who were treated differently using NHT Technique, QAR and Conventional Reading Techniques was rejected. In the other hand alternative hypothesis (H_a) which stated there was a significant difference in reading comprehension among the three group of students who

were treated differently using NHT Technique, RSQC2 and Conventional Reading Techniques was accepted. Where the mean score of NHT group (A1) was 68.90 the mean score of RSQC2 group (A2) was 74.84, and the mean score of Conventional Reading Technique group (A3) was 61.09.

CONCLUSION

The main goals of the research were to explore the effects of Numbered Head Together and RSQC2 technique toward students' reading comprehension on descriptive text at SMKN 6 Pekanbaru.

The last findings of the research can be concluded the data as follow:

From the research finding by using pair sample t-test of experimental class I of SPSS 20 version, it can be seen that sig. (2-tailed) is 0.000 and it is lower than significant probabilities 5% or 0.05. It means that H_a is accepted. So, it proves that there is any significant difference of students reading comprehension in descriptive text between pre-test and post-test in the experimental class I.

1. From the research finding by using pair sample t-test of experimental class II of SPSS 20 version, it can be seen that sig. (2-tailed) is 0.000 and it is lower than significant probabilities 5% or 0.05. It means that H_a is accepted. So, it proves that there is any significant difference of students reading comprehension in descriptive text between pre-test and post-test in the experimental class II.
2. From the research finding by using pair sample t-test of control class of SPSS 20 version, it can be seen that sig. (2-tailed) is 0.45 and it is higher than significant probabilities 5% or 0.05. It means that H_o is accepted. So, it proves that there is no significant difference of students reading comprehension in descriptive text between pre-test and post-test in the control class.
3. There was a significant difference on reading comprehension among the three groups of the students who were treated using NHT and those who were treated using RSQC2 Techniques. The probability in table multiple comparison show $p > 0.05$.

So, it is clear to say that Numbered Head Together and RSQC2 technique has a positive effect toward reading comprehension in descriptive text of the tenth grade students at vocational school SMKN 6 Pekanbaru.

SUGGESTION

Relative results of this study there are some things the researcher wants suggest, among others:

1. Expected to teachers in vocational school to be able to use NHT and RSQC2 technique in teaching learning process as one of the technique that is useful for the teacher to motivate the students.
2. The researcher hopes the result of her research is useful for the teacher and improve the students' knowledge in English. So the researcher tries to manage the program interesting for students.
3. By using this techniques, the students can foster their feeling to work together and they will be easy to appreciate their knowledge.

ACKNOWLEDGEMENTS

Alhamdulillah, the researcher would like to express grateful to Allah SWT, the almighty, who blessed her in finishing writing the thesis entitled "A Comparative Study on The Effect of Numbered Head Together and RSQC2 Technique Towards Students' Reading Comprehension at SMKN 6 Pekanbaru" to fulfill one of the requirements to get the degree of Magister Pendidikan (M.Pd). Then, her gratitude for life guidance to the beloved Prophet Muhammad SAW who has showed the right way in life.

The researcher would like to express her deep and sincere gratitude to Dr. H. Abdullah Hasan, M.Sc as the first consultant and Mr. Abdul Hadi, MA, Ph.D as the second consultant who have given her suggestion, corrections, and ideas for the development of the thesis.

She also want to extend her gratitude to Prof. Dr. Munzir Hitami, M.A., as Rector of State Islamic University Sultan Syarif Kasim Riau, Prof. Dr. Ilyas Husti, M.Ag., as Director of Postgraduate Program State Islamic University Sultan Syarif Kasim Riau, Dr. Khairil Anwar, M.Sc as a good Statistic lecturer and all staffs of Postgraduate Program State Islamic University Sultan Syarif Kasim Riau who have given valuable and friendly help.

The researcher would like thanks to my beloved parents Alm. Turaji and Sri Hartati. Thanks to my beloved husband Noor Cholish Achmad, S.E and my son Azzamy Syauqi Achmad who have been supporting her with their patience and understanding and also to my big family that I cannot mention one by one.

Finally, the researcher would like to express her thank full to those who any have been helping her in doing the researcher and writing the thesis that she cannot mention all. The researcher believes that there still have weaknesses and needs improvement in the thesis that she does not realize. Therefore, any valuable contribution and suggestions will be always accepted happily. However, I also hope that this study will be useful for everyone.

REFERENCES

- [1] Arends, Richard I. 2004. Learning to Teach, Sixth Edition. New York: McGraw-Hill Company, Inc.
- [2] Yeh, Ying-Chi. 2004. Students' Perception of Cooperative Learning Methods in One Senior High School EFL Classroom in Taiwan. Thesis. Taipei: Ming Chuan University
- [3] Brown, H. Douglas. 2001. Teaching by Principles: An Interactive Approach to Language Pedagogy, Second Edition. New York: Addison Wesley Longman Inc.
- [4] Elizabeth S. Pang. 2003. Teaching Reading Educational Practices Series 12. Switzerland.
- [5] Cahyono, B. Y., & Widiati, U. (2006). The teaching of EFL reading in the Indonesian context: The state of the art. TEFLIN Journal, 17(1), 23-46.
- [6] Setiono, S. (2004, October 17, 2012). Competency-based learning: The dreams and realities, The Jakarta Post. Retrieved from <http://www.thejakartapost.com/news/2004/06/19/competencybased-learning-dreamsand-realities.html>
- [7] Cahyono, B. Y., & Widiati, U. (2006). The teaching of EFL reading in the Indonesian context: The state of the art. TEFLIN Journal, 17(1), 23-46.
- [8] Imran, N. (2005). The interplay of culture, individual differences and adult EFL reading performance: From teacher-dependence to the development of autonomous readers. Paper presented at the The 1st International Seminar on Literacy Education in

- Developing Countries, Semarang.
- [9] Kweldju, S. (1996). English department students interest and strategies in reading their content area textbooks. TEFLIN Journal, 8(1), 104-117.
- [10] Kagan, Spencer. 1989. The Structural Approach to Cooperative Learning. Education Leadership, p. 13-15.
- [11] Nuruddin, I. K. Seken, L.P. Artini. 2013. The Effect of NHT and QAR Techniques on Students' Reading Comprehension: A Comparative Study. Journal
- [12] L. R Gay. 2000. Educational Research: Competencies for Analysis and Application- 6th Addition. Prentice- Hall, Inc.

HALAMAN INI SENGAJA DIKOSONGKAN