THE COMPARISON OF STUDENTS’ READING COMPREHENSION IN RECOUNT TEXT INSTRUCTION BETWEEN USING STAD AND JIGSAW TECHNIQUE AT DIFFERENT READING FREQUENCY AT THE FIRST GRADE OF SMA N 1 RUMBIA ACADEMIC YEAR 2012/2013

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Abstract: Reading as one of the four skills has always been as a part of the syllabus in English instruction. Based on the Pra survey, reading comprehension of the students of the first grade of SMA N 1 Rumbia is still low, most of them still lack structure knowledge and vocabulary, and their reading frequency in reading is still low. There are two techniques presented as a solution in this research. They are STAD Technique and Jigsaw technique. The objective of this research is to find out the difference result of using STAD and Jigsaw technique toward students’ reading comprehension in recount text at different high and low reading frequency and to find out there is significant interaction and comparison of reading comprehension in recount text, learning technique, and different reading frequency at the first grade students of SMA N 1 Rumbia academic year 2012/2013.

The method of investigation is held through quantitative research. The researcher uses true experimental research. In this experiment, the the researcher applies factorials design. The research is conducted at the first grade of SMA N 1 Rumbia in academic year 2012/2013. The population in this research is 180 students. It consisted 6 classes and each class consist 30 students. The researcher takes 52 students from total population as the sample, 26 students as experiment class and 26 as control class that match based on classification of student level. The researcher uses cluster random sampling as technique sampling. To analyze data, the researcher uses ANOVA TWO WAYS formula. The researcher got the result of Fhit is 18, 2 and Ftable is 7, 14. It means that Fhit > Ftable. And the criterion of Fhit is H0 accepted if Fhit > Ftable. So, there is any difference result of students’ Reading comprehension in recount text using STAD and Jigsaw, and STAD technique is more effective technique than Jigsaw technique toward students Reading comprehension at different reading frequency at the first grade of SMA N 1 Rumbia academic year 2012/2013. The researcher expects English teacher use STAD Technique in reading instruction especially in recount text, so the students feel fun and enjoy in following the learning process.

Key Words: Jigsaw, Reading Comprehension, Reading Frequency, Recount, STAD

INTRODUCTION

Reading is a challenge to the teacher also because it is such a complex process. Reading is not a general ability but a composite of many specific abilities. It is therefore necessary to break down general comprehension into specific skills that constitute it. For the beginning reading stage students recognizing word and comprehending literal meaning are important components.

From the data, the researcher fined that from 30 students the first grades of SMA N 1 Rumbia, there are 2 students get score 80-100. It means that they have had good knowledge in reading comprehension in recount text. There are 3 students get score about 75-79 and 7 students get score about 65-74. It means that they have had good enough knowledge of reading comprehension in recount text. The last, there are 10 students get score about 55-64 and 10 students get score about 10-54. So, from the data just 4 students get score more then 75. It means that most students of the first grade of SMA N 1 Rumbia still
have lack knowledge of reading comprehension in recount text. Based on those data, it can be concluded that the quality of English language lessons in English reading comprehension in recount text is still low. So it is necessary for English teacher to use effective technique in learning reading.

Based on that statement, it can be concluded that the researcher find the other alternative technique in order to learning process of reading comprehension be success by using STAD and Jigsaw technique.

The objective of the research are To find out there is any difference result of reading comprehension in recount text using STAD and Jigsaw technique at the first grade students of SMA N 1 Rumbia. To find out which one is more effective of students’ reading comprehension in recount text between learning by using STAD and Jigsaw technique at different reading frequency at the first grade students of SMA N 1 Rumbia. To find out there is significant interaction of reading comprehension in recount text, learning technique, and different reading frequency at the first grade students of SMA N 1 Rumbia. To find out there is significant comparison of reading comprehension in recount text by using STAD and Jigsaw at different reading frequency at the first grade of SMA N 1 Rumbia.

THEORETICAL FRAMEWORK

There are two literature overviews which related to this research. First, it was conducted by Koindrasari (2011) entitled “The Comparison of STAD and Jigsaw Cooperative Technique toward Simple Present Tense Mastery at the Eight Level in SMP N 3 Batanghari Nuban Academic Year 2011/2012”. Second, it was executed by Prasetyo (2011) entitled “The Comparison between Reading Ability in Narrative Text Using STAD and CBI Methods at the Tenth Level at the Senior High School Muhammadiyah 1 Metro”.

Cooperative learning STAD has received increased attention in recent years due to the movement to educate students with disabilities in the least restrictive environment. Children with disabilities bring social needs, as well as academic needs, which are not easily met in the regular classroom. Cooperative learning has received increased attention in recent years due to the movement to educate students with disabilities in the least restrictive environment. Children with disabilities bring social needs, as well as academic needs, which are not easily met in the regular classroom.

The Jigsaw technique is a cooperative learning technique in which students work in small groups. Jigsaw can be used in a variety of ways for a variety of goals, but it is primarily used for the acquisition and presentation of new material, review, or informed debate. In this technique, each group member is assigned to become an "expert" on some aspect of a unit of study. The researcher tries to use the jigsaw technique in learning process of reading comprehension of descriptive text because they can discuss about their material and to add their knowledge with other groups. So, students can solve their problem with each other and it makes students more responsible and focuses when they are studying. But in the fact, the teacher never uses the jigsaw technique. So, the researcher
feels difficulties when the researcher applies this technique in learning process.

Frequency is the rate at which something happens or is repeated.” Further, Wikipedia (2011) describe frequency as the number of occurrences of repeating event per unit time. It is also referred to as temporal frequency. The period is the duration of one cycle in a repeating event, so the period is the reciprocal of the frequency.

Reading comprehension is the process of deriving meaning from connected text, so it’s not passive process, but an active one. It includes making use of prior knowledge, involving drawing inferences from the words and expressions that a writer uses to communicate information, ideas, and view points.

STAD Technique is different from Jigsaw Technique. Although STAD and Jigsaws are cooperative method, but they have different roles. In steps of STAD technique, the teacher presents a lesson, and students then study worksheets in team members.

**METHOD**

This research is quantitative research. Research design that will be used in this research is factorial design. Factorial design is a modification of the true experimental design, the attention to the possible existence of moderator variable that would affect the independent and dependent variables. In this research, the researcher uses factorial 2x2 designs. This design would be linear with the following table:

| Learning Technique | STAD \( (X_1) \) | Jigsaw \( (X_2) \) |
|--------------------|-----------------|------------------|
| High \( (A_1) \)    | \( A_1, X_1 \)   | \( A_1, X_2 \)   |
| Low \( (A_2) \)     | \( A_2, X_1 \)   | \( A_2, X_2 \)   |

Where:
\( A_1 X_1 \) = Students of experimental class with high motivation to read
\( A_2 X_1 \) = Students of experimental class with low motivation to read
\( A_1 X_2 \) = Students of control class with high motivation to read
\( A_2 X_2 \) = Students of control class with low motivation to read

In this research there are three variables, they are: independent variable \( (X_1) \) and \( (X_2) \), variable attribute \( (A) \), and dependent variable \( (Y) \). In this research the independent variables are STAD technique \( (X_1) \), Jigsaw technique \( (X_2) \), Reading Frequency \( (A) \), and the dependent variable is Reading Comprehension in Recount Text \( (Y) \).

There are six classes at the even semester of eleventh grades of SMA N 1 Rumbia namely X1, X2, X3, X4, X5, X6 and each class in consist of 30 students, so the total number of population is 180 students. The students’ comprehension of each class is homogenous.

The researcher uses *cluster random sampling*. This technique have been done by consideration that the characteristic of population consist of groups and each group in population is homogenous that is consisting of the students from the same semester with similar learning process or environment. It used if population or sample is cluster units in population. Experimental research about the influence of learning technique commonly uses
groups of research sample and groups of research sample taken as being *stratified* (stratum).

The pre-test will be administered to both experimental and control class before giving the treatment. The post-test is given after experimental and control classes have been given treatment. The questionnaire distributed before pre test.

The validity which is used by the researcher is empirical validity. Empirical validity was tested by comparing (to look for similarities) between the existing criteria in the instrument with empirical factors there

The researcher uses Internal Consistency Reliability. This form of reliability is used to judge the consistency of results across item (Split Half) in the same test. Essentially, you are comparing test items that measure the same construct to determine the test internal consistency.

And for more reliable, the researcher will do some steps:
1. Giving students’ exam to the researcher.
2. Average equitable assessment result from the test 1 and test 2.
3. Dividing the scores into odd and even.
4. Correlating Between odd score and even score by using the product moment.

The formula is:

\[
 r_o= \frac{\sum XY}{\sqrt{\sum x^2}(\sum y^2)}
\]

Notes :
- \( r_{xy} \) = The coefficient correlation between X variable and Y variable
- \( X \) = The score of odd
- \( Y \) = The score of even
- \( X^2 \) = The quadrate score of the odd
- \( y^2 \) = The quadrate score of the even
- \( \sum XY \) = The score of X and Y product

To find reliability of the test, the researcher will use the spearman brown (Split Half).

The formula as follow:

\[
 r_{11} = \frac{2x r_{xy}}{1+r_{xy}}
\]

Notes :
- \( r_{11} \) : Reliability of instrument
- \( r_{xy} \) : between score each split

Then the result of \( r_{11} \) will be consulted to the criteria of reliability as follows:

Reliability coefficient
- A very high reliability ranges from 0.81 up to 1.00
- A high reliability ranges from 0.80 up to 0.61
- Average reliability ranges from 0.21 up to 0.60
- A very low reliability ranges from 0.20 up to 0.00  (Arikunto, 2010:319)

Based on the result of tryout, the calculation: \( r_{11}=0.99 \), so reliability of instrument has very high reliability. It means the instrument can be used for the research.

After giving the test and finding the result of the test, student’s score pre test and post test will be taken by using normality test and homogeneity test.
The characters of normality test are:

H0 : \( L_{\text{ratio}} \) is lower than \( L_{\text{table}} \) (the distribution of the data is normal)

H1 : \( L_{\text{ratio}} \) is higher than \( L_{\text{table}} \) (the distribution of the data is not normal)

The characters of homogeneity test are:

\[ \frac{S_{1} (\text{The largest Variable})}{S_{1} (\text{The smallest Variable})} \]

\( H_{0} = H_{0} \) is accepted if \( F_{\text{ratio}} \) less or equal to \( F_{\text{table}} \) means the variance of the data is homogeneous.

\( H_{a} = H_{a} \) is accepted if \( F_{\text{ratio}} \) higher or equal to \( F_{\text{table}} \) means the variance of the data is homogeneous. (Sugiono, 2010:275)

Hypothesis test is calculated by using two ways anova. This test is used to know whether the hypotheses proposed by the researcher are proved or not. The formula used in this test is Analysis Varian Test (ANOVA). In this research, the researcher uses the ANOVA test called Univariate: Analysis Varian Factorial Design.

DISCUSSION

As describe in the previous chapter, the purpose of this study was to find out the difference result of students’ reading comprehension in recount text instruction between learning by using STAD and Jigsaw technique, find out which one is more effective of students’ reading comprehension in recount text between learning by using STAD and Jigsaw technique at different reading frequency, know the interact of reading comprehension in recount text, learning technique, and different reading frequency and find out significant comparison students’ reading comprehension in recount text using STAD and Jigsaw technique at different reading frequency. To clarify the purpose of this study, the researcher used some tests to reading recount text and questionnaire reading frequency (which is used in the pretest and posttest) as a research instrument, and the average score of pretest and posttest for each class using STAD and Jigsaw technique compared to find out the advantages of both score.

The result of calculation on the value of the pretest and posttest score in each class (experimental and control) showed that the distribution is normal. In addition, the calculation, the hypothesis can be accepted because \( f_{\text{cal}} \) is 29.1 and \( f_{\text{table}} \) is 7, 14 on the criterion 1 and also \( f_{\text{table}} \) was 7, 14 and \( f_{\text{cal}} \) is 18, 2 on the criterion 2 and the last criterion is \( f_{\text{table}} \) was 7, 14 and \( f_{\text{cal}} \) is 76.56. It is shown that the hypothesis of \( H_{a} \) is accepted and \( H_{0} \) is rejected. It mean that there is any different of using STAD and Jigsaw technique toward reading comprehension, STAD technique is more effective of students’ reading comprehension in recount text instruction at different reading frequency, there is any interaction between reading comprehension in recount text, learning technique, and different reading frequency. It also concludes that there was there is significant comparison students’ reading comprehension in recount text using STAD and Jigsaw technique at different reading frequency.
Calculation results provide evidence that the posttest students in experimental class are better than control class. This can be seen when the posttest score of students compared with pretest score. The result showed that there was significant differences between pretest and posttest score (posttest>pretest). The results are consistence with the result of research Eko Prastiyo (2011) about A Comparative between Reading Ability in Narrative Text Using STAD and CBI Methods at the Tenth Level at the Senior High School Muhammadiyah 1 Metro in the Academic year Of 2010/2011). The result of the study shows that the students’ achievement in reading narrative text by the use of Students’ Team Achievement Division (STAD) technique is higher than the use of Content Based Instruction (CBI) technique and Students’ Team Achievement Division technique is effective to improve students’ students’ reading ability in narrative text. By using Students’ Team Achievement Division technique students feel enjoy in learning narrative text, so their achievement in narrative text can be improved.

The results are consistence with Elliot Aronson (1972) and Slavin (1997) which states that the differences of using STAD and Jigsaw technique are in the role. STAD technique is more simple in operation than Jigsaw technique that need an expert group in the learning activity. STAD will be easier received by students it can make them easier to develop their reading comprehension.

CONCLUSION
Based on objective and result of analysis data, the researchers draws conclusion as follows:

5.1.1 The result of reading comprehension in recount text using STAD and Jigsaw technique at the first grade students of SMA N 1 Rumbia is different. The statement is supported by result of finding that $F_{table}$ is 7, 14 on criterion 1 or it means that the hypothesis $H_a$ in this research is accepted. It means that the result of reading comprehension in recount text using STAD and Jigsaw technique at the first grade students of SMA N 1 Rumbia is different.

5.1.2 The students’ reading comprehension in recount text instruction at different reading frequency using STAD technique is effective. The statement is supported by result of finding that $F_{table}$ is 7, 14 on criterion 2, and also from result of average score of the students who taught by using STAD is 51, 76 in pretest and 67, 03 in post test with the progress of value is 15, 27. While the result of average score of the students who taught Jigsaw method is 51, 34 in pretest and 60, 42 in post test with the progress of value is 9, 08. It means that the average score of the students who taught by using STAD is higher than Jigsaw technique. So it is clearly that the hypothesis $H_a$ in this research is accepted. It means that students’ reading comprehension in recount text instruction at different reading
The interaction of reading comprehension in recount text, learning technique, and different reading frequency is significant. The statement is supported by result of finding that $F_{X_0}$ is bigger than $F_{table}$, so $H_0$ is rejected. It means that the interaction of reading comprehension in recount text, learning technique, and different reading frequency is significant.

The comparison students’ reading comprehension in recount text using STAD and Jigsaw technique at different reading frequency at the first grade of SMA N 1 Rumbia is significant. The statement is supported by result of finding that $F_{hit}$ is 76, 56 higher than $F_{table}$ is 7, 14 on the criterion 1 or it means that the hypothesis $H_1$ in this research is accepted. Finally the researcher conclude that There is significant comparison students’ reading comprehension in recount text using STAD and Jigsaw technique at different reading frequency.

Based on the calculation, the hypothesis can be accepted because $f_{cal}$ is 29,1 and $f_{table}$ is 7, 14 on the criterion 1 and also $f_{table}$ was 7, 14 and $f_{cal}$ is 18, 2 on the criterion 2 and the last criterion is $f_{table}$ was 7, 14 and $f_{cal}$ is 76,56. It is shown that the hypothesis of $H_1$ is accepted and $H_0$ is rejected. It mean that there is any different result of using STAD and Jigsaw technique toward reading comprehension, STAD technique is more effective of students’ reading comprehension in recount text instruction at different reading frequency, there is significant interaction between reading comprehension in recount text, learning technique, and different reading frequency. It also concludes that there was there is significant comparison students’ reading comprehension in recount text using STAD and Jigsaw technique at different reading frequency.

SUGGESTION
Based on the conclusion above, the researcher gives some suggestion:

5.2.1 For the students
The students should be active and innovative when they follow the learning process, especially in learning of reading. STAD technique can make the students feel enjoy in learning process and it will motivate students in learning English especially in reading. So, it can improve the students’ reading comprehension.

5.2.2 For the teachers
The data analysis prove that STAD can motivate students in learning process, so it can improve student’ reading comprehension. It is better if the English teacher applies STAD technique in reading instruction, so that the students can feel interesting. The English teacher is able to find many ways to enrich students’ reading comprehension in instruction process. The researcher suggests that the English teacher can use STAD technique to improve students’ reading comprehension.
5.2.3 For the researcher
This research can increase the researcher’s knowledge about STAD technique and can apply the technique well when in English learning process especially in reading comprehension.

5.2.4 For other researchers
For the other language researchers, this thesis may encourage them to conduct other studies concerning writing ability. Investigating other affecting factors is really needed to identify the problems to develop the writing ability to the students.

REFERENCES

Ahmad Jazim. (2010). Statistik Lanjutan. Metro: Universitas Muhammadiyah Metro

Arikunto, Suharsimi. (1996). Prosedur Penelitian: suatu Pendekatan Praktek. Jakarta: PT. Rineka Cipta

Artz, A. F., & Newman, C. M. (1990). Cooperative learning. Mathematics Teacher, 83, 448-449.

Brophy, Jere (1998). Motivating Students to Learn. State University: Michigan.

Brown, H Douglas (2001). Teaching by Principles. Addison Wesley Longman, Inc: San Francisco.

Brown H. Douglas. (2000). Teaching by Principles An Interactive Approach to Language Pedagogy. California: San Francisco State University.

David C. McClelland, et.al (1976). The Achievement Motive; New York: irvington.

Elliot, Et al (2000). Educational Psychology: Effective Teaching, Effective Learning. McGraw-Hill Companies Inc: USA.

Harmer, Jeremy. (1985). The Practice of English Language Testing. 2002. Dasar-Dasar Evaluasi pendidikan. Jakarta: Bumi Aksara

———. (2006). Prosedur Penelitian Ilmiah. Bandung: Bina Aksara

Hornby,AS. (2000). Oxford Advanced Learner’s Dictionary. New York: Oxford University Press.

Irianto, Agus (2004). Stastitik: Konsep Dasar dan Aplikasinya. Kencana: Jakarta.

Johnson, D., & Johnson, R. (1991). Learning together and alone: Cooperative and individualistic learning. (3 rd ed.). New Jersey: Prentice Hall.

Karwono, Heni Mularsih. (2010). Belajar dan Pembelajaran serta Pemanfaatan Sumber Belajar. Jakarta: Cerdas Jaya
Kessler, C (1992). *Cooperative language learning: A teacher resource book.* Englewood Cliffs, NJ: Prentice Hall. M.A. Dissertation, Mahidol University.

Koindrasari, Etri. (2012). *The Comparison of Jigsaw and STAD Cooperative Technique toward Simple Present Tense Mastery at the Eight Level in SMP N 3 Batanghari Nuban Academic Year 2011/2012.* Published University of Muhammadiyah Metro. Metro

Metzke, L., & Berghoff, P. (1999). *Cooperative learning in the classroom.* In A. S. Canter & S. A. Carroll (Eds.), *Helping children at home and school: Handouts from your school psychologist* (pp. 147-150). Bethesda, MD: National Association of School Psychologists.

M. Richard and Porter, W. lyman (1991). *Motivation and work Behavior.* Mc Graw-Hill Book: Singapure.

Nunan, D. (1989). *Understanding language classrooms.* New Jersey: Prentice Hall.

Nunan, David1 (1991). *Language Teaching Methodology.* New York: Prentice hall.

Nuttall, Christine (1996). *Teaching Reading Skills: in a Foreign Language.* Reed Educational and Professional Publishing: Jordan Hill.

Patel.M.F, et.al (2008). *English language Teaching* (methods, tools & techniques). Vaishali Nagar: Jaipur.

Prasetyo, Eko. (2012). *The Comparison between Reading Ability in Narrative Text Using STAD and CBI Methods at the Tenth Level at the Senior High School Muhammadiyah 1 Metro 2011/2012.* Published University of Muhammadiyah Metro. Metro

Retrieved from http://www.allaboutlearningpress.com/motivation-to-read, accessed on tuesday, 5th February, 2013

Retrieved from http://pustakabakul.blogspot.com/2012/02/essence-of-reading.html

Stahl, S.A (1994). *Defining phonological awareness and its relationship to early reading.* Journal of Educational Psychology, 86, 221-234.

Sugiyono. (2010). *Metode Penelitian Kualitatif dan Kuantitatif dan R & D.* Bandung: Alfabeta

Slavin, E. Robert (1995). *Cooperative Learning: Theory, Research, and Practice.* Needham Heights Steers: Massachusetts.

Uno, B Hamzah. (2007). *Teori Motivasi dan Pengukurannya.* Analisis dibidang pendidikan. Jakarta : PT. Bumi Aksara