THE EFFECTS OF TEAM WORD WEBBING ON THE ABILITY OF THE FIRST YEAR STUDENTS OF SMAN PLUS RIAU IN READING COMPREHENSION

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Abstract: *This study aims to find out the effect of Team Word-Webbing on the ability of the first year students of SMAN PLUS RIAU in reading comprehension. The writer used Cluster Random Sampling technique to choose the sample. For 96 students of the population, class X M.S 4 was chosen as the sample. The instrument of this research was in form of test which consisted of pre-test and post-test. The test was narrative text. The test had five texts and each text had eight questions based on reading comprehension components so there were 40 questions for each text. The writer used SPSS 16.0 Program to analyze the data. Based on the results, the t-table was higher that the t-test and the Paired Samples Correlations was 0.914 which can be interpreted as very strong. It can be concluded that there is a significant effect of Team Word-Webbing on the ability of the first year students of SMAN PLUS RIAU in reading comprehension. It is suggested that this technique being applied in teaching reading narrative text or other texts. This technique can be applied not only in senior high school level but also in junior high school level. Fresh ideas or some improvisations from further researcher are really needed to make this technique better in its used.*

Key Words: *Effects, Team Word-Webbing, Reading Comprehension*

PENGARUH TEAM WORD-WEBBING TERHADAP KEMAMPUAN SISWA TAHUN PERTAMA SMAN PLUS RIAU DALAM PEMAHAMAN MEMBACA

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Abstract: Penelitian ini bertujuan untuk mengetahui pengaruh Team Word-Webbing terhadap kemampuan siswa tahun pertama SMAN PLUS RIAU dalam pemahaman membaca. Penulis menggunakan teknik *Cluster Random Sampling* untuk memilih sampel. Dari jumlah populasi sebanyak 96 orang, kelas X M.S 4 terpilih sebagai sampel. Instrumen dari penelitian ini adalah tes yang terdiri dari *pre-test* dan *post-test* dalam bentuk teks naratif. Tes ini terdiri dari lima teks dan masing-masing teks memiliki delapan pertanyaan berdasarkan komponen pemahaman membaca sehingga ada 40 pertanyaan untuk setiap tes. Penulis menggunakan Program SPSS 16.0 untuk menganalisis data. Berdasarkan hasil penelitian, nilai *t-tabel* lebih tinggi dari nilai *t-test* dan nilai *Paired Samples Correlations* adalah 0,914 yang dapat diinterpretasikan sebagai *sangat kuat*. Dapat disimpulkan bahwa ada pengaruh yang signifikan dari Team Word-Webbing terhadap kemampuan siswa tahun pertama SMAN PLUS RIAU dalam pemahaman membaca. Tekhnik ini sangat disarankan untuk diaplikasikan dalam mengajar *reading* (membaca) teks naratif maupun teks lain. Tekhnik ini bisa diaplikasikan di level SMA maupun di level SMP. Ide atau masukan yang membangun dari peneliti selanjutnya sangat diperlukan untuk membuat tekhnik ini menjadi lebih baik dalam pengaplikasiannya.

Kata Kunci: Efek, Team Word-Webbing, Pemahaman Membaca

BACKGROUND OF THE STUDY

English as an international language has four skills that should be mastered in order to understand the language. In Senior High School, reading receives a special focus especially in reading comprehension. There are number of reasons for this statement. One of those reasons is first, every school is provided with textbooks as a foundation, so the students should read those textbooks if they want to follow lessons well. In English subject, of course, the textbook is written in English. There are some schools with international standard usually called Pioneering International School (RSBI) or International School (SBI) which even require all subjects to use English textbooks. One of the schools is SMAN PLUS RIAU.

Actually, a lot of foreign language students often have reading as one of their most important goals. They want to be able to read for information and pleasure (Richards, 2006). In other words, students have to read English material for their subject or just reading for pleasure. Both reading for their subject and reading for pleasure need ability in reading comprehension. That is why teachers should improve students' reading comprehension from their first year.

The expectations of curriculum 2013 are not only that students read the text or book but also comprehend what they read. The comprehension will be shown by answering correctly questions the text provided such as knowing main idea, detail information, meaning of vocabulary in context, reference, and what the text implied as stated by King and Stanley (1989) as the five components of reading.

Based on the writer's observation as a practicing teacher at SMAN PLUS RIAU who handled the first year students, there were still many students who did not reach the minimum criteria of achievement (KKM) that is 80 for English subject. The students were still confused in deciding main idea and finding detail information. They were also lack of vocabularies so it was very difficult for them to clearly understand the information implied in the text. The writer then analyzed the results of students' midterm examination for academic year 2015/2016. The writer noticed that most of the mistakes lied on reading comprehension. The percentage showed that 83.74% of the students' answers in reading comprehension were wrong especially in inferences.

One of the techniques that can be used to solve the problems above is Team Word-Webbing which belongs to Collaborative Learning Method. Collaborative Learning is rooted in Piaget's theory, Zone of Proximal Development (ZPD), Communicative Language Teaching, and Input Hypotheses. Apple (in Zarei and Gilani, 2013) defines ZPD as the limit to which someone can learn something with others' help. Hiep (in Zarei and Gilani, 2013) recommends the use of Collaborative Learning activities in Communicative Language Teaching (CLT). CLT activities are based on pair or group work. He points out that CLT is a learner-centered approach, so it is collaborative learning in nature and wants students to learn together in pairs or in groups.

According to Zarei and Gilani (2013) who conducted a research entitled "L2 Vocabulary Learning through Collaborative Techniques", the result of the study showed that Team Word-Webbing group had the highest mean followed by snowball group, think pair-square group, and rotating circles group while the lowest mean was jigsaw group. Team Word-Webbing considered one of the best techniques in the present study.

Pierson, *et al* (2006) believes that Team Word-Webbing is suitable for developing and reviewing vocabulary. The results of the present study support their opinion. Team Word-Webbing is a powerful tool in concept development and information ex-change (Stone, 2007). It is a group work which every student must cooperate with each other. According to Holt (1993), this technique is a quick way to explore background knowledge, summarize main points, or to check if students have connections between ideas that they are seeking which those are really close to the five components of reading stated by King and Stanley (1989). By using this method, the writer hopes that students can increase their reading comprehension and reach the minimum criteria of achievement (KKM).

Based on the reasons above, the researcher conducted an experimental research entitled: The Effects of Team Word-Webbing on the Ability of the First Year Students of SMAN Plus Riau in Reading Comprehension.

METHODOLOGY

This research took place at SMAN Plus Riau which is located on Jl. Lingkar Kubang Raya, Pekanbaru, Riau. The data were collected from August 8, 2016 up to August 30, 2016. There were three meetings needed for applying this technique. It was based on the syllabus and the normal schedule of the school. The time allocation for each meeting was 2 x 45 minutes.

This study used experimental research design because this method establishes cause and effect relationship. Sugiyono (2014) stated that experimental research is a research method that is used to find out the effect of a particular treatment over another in a runaway condition. The research design of this study was pre-experimental design with one-group pretest-posttest design. According to Hatch and Farhady (1985), pre-experimental research is divided into three categories; one-shot case study, one group pre-test-posttest design, and intact group comparison. In this research, one group pretest and posttest design was used.

The population of the research was the first year students of SMAN PLUS RIAU. There were 4 classes which consisted of twenty two up to twenty five students. The number of population was 96 students. The writer used Cluster Random Sampling technique to choose the sample. The sample was chosen by using lottery. Since there were four classes, four pieces of paper were made. Only one paper was written the word "Experimental Class" while the others were blank. Each class took one. As the result, class X M.S 4 was chosen as the sample which the total number of the students was 24. The data of this reasearch were quantitative data. The instrument that was used to collect the data was a reading comprehension test in the form of narrative text. There were pre-test and post-test.

Before conducting the research, the writer tested the instrument's validity and reliability. Research instrument will be accepted if it passes the validity and reliability test. According to Kirk and Miller (1986), validity is defined as the extent to which the instrument measures what it purported to measure. The validity test was for *tryout* group of respondents which were class X M.S 2. The result of the try out showed that there were 9 invalid questions out of 80 questions. There were 5 questions in pre-test and 4 questions in post-test. The writer decided to edit the invalid questions instead of wasting them away.

According to Kirk and Miller (1986) Reliability was defined as the extent to which a questionnaire, test, observation or any measurement procedure produce the same results on repeated trials. In short, it was the stability or concistency of scores over time or across raters. In this study, the writer used *Cronbach's Alpha test* assisted by SPSS 16.0 *(Statistical Product and Service Solution)*. The test showed that the instrument was reliable because the value of Cronbach's Alpha was bigger than 0.6. The data were collected by analyzing students' reading comprehension. Before researcher distributed the test to the sample, the test was tried out to the population which was the *tryout* group. The validity and reliability of the reading test had been obtained by using SPSS 16.0 Program.

According to Heaton (1975), the item test is rejected if the index of difficulty (FV) is below 0,30 (difficult) or over 0,70 (easy). The test is accepted if the degree of difficulty (FV) is between 0,30-0,70.

The formula is presented below.

$$FV = \frac{R}{N}$$

Where:
FV = Facility Value
R = the number of the correct answer
N = the number of the students

To find out the reliability of the test, the writer used the following formula:

$$r_{ii} = \frac{N}{N-1}\left(1 - \frac{m(N-m)}{Nx^2}\right)$$

Where:

r_{ii} = the reliability

N = the number of the items in the test

m = the mean score on the test for all the tests

x^2 = the standard deviation of all the test score

a. To obtain the Mean Scores of the respondents

$$\bar{x} = \frac{\sum fx}{N}$$

Where:

$\bar{x}$ = mean score

$\sum fx$ = total of the students' score

N = the number of the students

b. To obtain the Standard Deviation

$$s.d = \sqrt{\frac{\sum d^2}{N}}$$

Where:
$s.d$ = standard deviation
$\sum d^2$ = sum of mean deviation
N = the number of students

The researcher collected the quantitative data through test. The researcher gave pre-test before applying Team Word-Webbing technique. After finishing the treatment, a post-test was done. The test was narrative text. The test consisted of five texts and each text had eight objective questions. The data were analyzed by using SPSS 16.0. SPSS is a Windows based program that can be used to perform data entry and analysis and to create tables and graphs (Field, 2009). The researcher found the complete result in SPSS including the mean, the variance and the accuracy of the test. T-test was chosen to compare the differences of the students' scores in the pre-test and the post-test.

RESEARCH FINDINGS

The data were collected by giving pre-test and post-test to the students. The students were required to finish the test which consisted of 40 questions of five narrative texts which were in the form of legends. The pre-test was given at the beginning of the research to find out the students' reading comprehension before the treatment was applied. Furthermore, the second test was given after the treatment had

been applied. The data of the students' achievement on each aspect of reading is shown in table 1:

Table 1. Students' Ability in Each Aspect of Reading in the Pre-test

NO	Aspects of Reading	Percentage %
1	Detail Information	68.3 %
2	Vocabulary	55.4 %
3	Reference	82.4 %
4	Main Idea	54 %
5	Inference	42.4 %
6	Social Function	47 %

Based on the data above, it can be concluded that the easiest aspect of reading for the students is reference. It can be seen in the table that the highest percentage is reference which is 82.4%. The second easiest aspect for the students in the pre-test is detail information (68.3%) followed by vocabulary and main idea which for the students are neither difficult nor easy. It can be showed by the percentages that reach more than 50% that are 55.4% for vocabulary and 54% for main idea. There are two aspects which seemed quite difficult for the students because the percentages are below 50%. The two aspects are social function and inference. Inference seems to be the most difficult aspect for the students because the percentage only shows 42.4% while social function does not get much higher than that which is 47%.

Table 2. Students' Ability Level of Reading in the Pre-test

Test Score	Ability Level	Frequency	Percentage
81-100	Excellent	1	4.16%
61-80	Good	9	37.5%
41-60	Mediocre	11	45.83%
21-40	Poor	3	12.5%
0-20	Very Poor	0	0%
Total		24	100%

Based on the result of the pre-test above, the writer points out that 11 students (45.83%) are in mediocre level followed by 9 students (37.5%.) in good level. There are 3 students (12.5%) are in poor level while only one student gets excellent score. The table also shows that there is no student in very poor level which means that the the lowest score is between 21 to 40.

After all stages had been undergone, the post test was conducted in order to know students' reading comprehension ability after being taught by applying Team Word-Webbing. Finally, the data were computed and the result was found.

Table 3. Students' Ability in Each Aspect of Reading in the Post-test

NO	Aspects of Reading	Percentage %
1	Detail Information	76.2%
2	Vocabulary	58.3%
3	Reference	86.6%
4	Main Idea	60.8%
5	Inference	56%
6	Social Function	72%

Based on the data above, it can be concluded that the easiest aspect of reading for the students in the post-test is reference with the highest percentage which is 86.6%. The second easiest aspect for the students in the post-test is detail information which is 76.2% followed by social function (72%). The percentage of main idea were quite high (60.8%). The most difficult aspect is inference with the percentage 56% followed by vocabulary (58.3%). The difference between the two lowest percentages is 2.3%.

Table 4. Students' Ability Level of Reading in the Post-test

Test Score	Ability Level	Frequency	Percentage
81-100	Excellent	3	12.5%
61-80	Good	15	62.5%
41-60	Mediocre	5	20.83%
21-40	Poor	1	4.16%
0-20	Very Poor	0	0%
Total		24	100%

Based on the result of the post-test above, the writer points out that more than 50 percent of total students are in good level with the percentage 62.5% or as many as 15 students followed by 5 students (20.3%) in mediocre level. There are 3 students (12.5%) in excellent level while one student gets poor score. The table also shows that there is no student in very poor level which means that the the lowest score is between 21 to 40.

The findings show an enhancement in reading comprehension. Their improvement in reading comprehension scores can be seen through the difference between their pre-test and post-test scores. The comparison between their pre and post-test scores is presented in the following table:

Table 5. Comparison between Each Aspect of Reading from Pretest to Posttest

Aspects of Reading	Percentage %	
	Pre-Test	Post-Test
Detail Information	68.3%	76.2%
Vocabulary	55.4%	58.3%
Reference	82.4%	86.6%
Main Idea	54%	60.8%
Inference	42.4%	56%
Social Function	47%	72%

Based on the table 5, the easiest aspect for students in the pretest and post test is reference. It is shown by the percentage which is 82.40% for the pretest and 86,60% for the post test. The posttest is higher than the pretest with the difference 4.2%. The second easiest aspect of reading in the pretest and post-test is social function (47%) and vocabulary (58.30%) followed by main idea for both.

The percentages of main idea in the pre and post-test are 54% and 60,80% increases by 2.9% while the difference between the pre and posttest in the aspect of social function is the highest of all. Furhermore, the percentages of the aspect of detail information for both pretest and posttest are mediocre which are 68.30% and 76.20%.

Although the difference for detail information, vocabulary, reference, main idea and inference is small, there is always improvement in each aspect after given the treatment. It can be concluded that teaching reading by using Team Word-Webbing technique gives a good effect on students'reading comprehension.

Table 6. Comparison of the Level of Reading in Pretest to Posttest

PRE-TEST				POST-TEST	
Test Score	Ability Level	Frequency	Percentage	Frequency	Percentage
81-100	Excellent	1	4.16%	3	12.5%
61-80	Good	9	37.5%	15	62.5%
41-60	Mediocre	11	45.83%	5	20.83%
21-40	Poor	3	12.5%	1	4.16%
0-20	Very Poor	0	0%	0	0%
Total		24	100%	24	100%

Based on the table 6, there are three students in the excellent level or as many as 12.50% after given the treatment while before given the treatment, there is only one student (4.16%) in the excellent level. In the good level, the difference is quite high which is 25%. There are 9 students in the good level in the pretest. After given the treatment, there are 6 students overtake the 9 students at the good level. The percentage rises from 37.50% up to 62.50%. The difference between the pre and post-test of the mediocre level is the same as in the good level which is 25% while the percentage of the pre and post-test of the poor level and the excellent level is vice versa. There are 3 students in the poor level before given the treatment and only one student after given the

treatment. It can be concluded that there is improvement in students' reading comprehension after being taught by using Team Word-Webbing technique.

In this research, t-test formula was used to compare the pre-test and the post-test results in determining whether the hypothesis could be accepted and measuring whether the instruments in treatment could give an effect to the student's reading comprehension or not. In performing the pre-experimental research, hypothesis was required to see whether there is a significant difference after the activities was completely performed. The mean of the pre-test score (X) achieved by the students was 59.48. The improvement could be seen in their mean score as shown in the post-test result (Y) which was 66.35. In order that the hypothesis could be accepted, the result of t-test formula was also required. The mean score and the t-test can be seen below:

$$
\begin{aligned}
\text{t-table} &= \text{n-1 } (\alpha 5\%) \\
&= 24\text{-}1 \ (\alpha 5\%) \\
&= 23 \ (\alpha 5\%) \\
&= 2.069
\end{aligned}
$$

Table 7. T-Test Table Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Post-Test	66.3542	24	12.91652	2.63657
Pre-Test	59.4792	24	13.45240	2.74596

According to table 7, the mean scores of pre-test and post-test are 59.48 and 66.35. Standard deviation is a values spread in the sample, while standard error mean is an estimate of standard deviation. The spread of values in the sample pre-test is 13.45, while standard error of mean is 2,74. The standard deviation and standard error of mean of post-test are 12,91 and 2.63.

Table 8. Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Post-Test & Pre-Test	24	.914	.000

According to table 8, the correlation coefficient is 0.914. The classification of the correlation can be shown on table 4.9 below:

Table 9. Classification of Correlation Coefficient

No.	The Value of "r" Product Moment (r_{xy})	Interpretation
1	0.00 – 0.20	There's such a correlation between variable x and y. However, the correlation is *very weak* and therefore that correlation can be ignored.
2	0.20 – 0.40	The correlation between variable x and y is *weak*
3	0.40 – 0.70	The correlation between variable x and y is *mediocre.*
4	0.70 – 0.90	The correlation between variable x and y is *strong*
5	0.90 – 1.00	The correlation between variable x and y is *very strong.*

(Adopted from Anas Sudijono, 2008)

Based on table 9, the correlation score is 0.914 means that the correlation between variable x and y is very strong.

Table 10. Table Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	T	df	Sig. (2-tailed)
Pair 1	Post-Test Pre-Test	6.87500	5.47971	1.11854	4.56112	9.18888	6.146	23	.000

It can be shown from the table above that the result of the t-test is 6.146 meanwhile the t-table is 2.069. The t-test is much higher than the t-table. It can be concluded that there is a significant difference between the pre-test and the post-test. It also can be concluded that there is a significant effect of Team Word-Webbing on the ability of the first year students of SMAN Plus Riau in reading comprehension.

CONCLUSIONS

Based on the research findings, it can be concluded that Team Word-Webbing had a significant effect on the ability of the first year students of SMAN plus riau in reading comprehension. It was found out that the score of t-test (6,146) was much higher than the t–table (2.069). The value of the paired samples t-test was also high which was 0,914 which meant that the correlation between Team Word-Webbing and student's ability in reading comprehension was very strong. It also meant that the alternative

hypothesis was accepted and the null hypothesis was rejected. It can be inferred that the implementation of Team Word-Webbing had beneficial effects in teaching reading comprehension.

SUGGESTIONS

Based on the conclusions above, it is suggested that this technique to be applied in teaching reading narrative text and other texts. This technique can be applied not only in senior high school level but also in junior high school level. This technique can be used in teaching other skills in English with some improvisations based on students' needs. This technique will be more effective and efficient for maximum 25 students in a classroom since there are quite lots of activities should be done in a meeting. The total of the students below 20 is better so that there will be more students to present the final result orally (not only the representative of each group).

The activities in this technique are really enjoyable and fun. Students will be very active and sometimes forget about the time of each step. It is teacher's responsibility to remind the time left to them so that they will work faster and finish the activities on time. At the next meeting, some students may feel bored, teacher is suggested to find a way to make them enjoyable to continue the activities. Teacher can give them a time for break or give a fun activity to refresh their mind. The following resercher can conduct another research in the same field by using other research designs to get more accurate result.

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