Activating Students' Schemata In Teaching Reading Comprehension

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Abstract: This research investigated the significant difference between Schema Activation Strategy and Graphic Organizers in students' reading comprehension achievement and to find out what reading aspect improves the students' reading comprehension better between implementing schema activation strategy and graphic organizers.The sample are two classes of the second grade at SMPN 21 Bandar Lampung. There are two classes and 34 students each class.This reseacrh is quantitative by using one group pretest and posttest design. The instrument is 30 multiple choice reading test. The data is analyzed by using t-test. The result of sig. (2- tailed) was 0.00 for the experimental class one and experimental class two the sig. (two-tailed) was 0.101. It shows that there was a significant difference of schema activation strategy on students' reading comprehension but there was no significant difference of graphic organizers on students' reading comprehension. The gain scores of reading aspects, it is found that both of experimental classes generally improved for five aspects of reading but in experimental class two, it is tend to increase slightly. Finally, schema activation strategy improves students' reading comprehension better than graphic organizers does.

Abstract: Penelitian ini meneliti perbedaan yang signifikan antara schema activation strategy dan graphic organizers dalam pencapaian pemahaman membaca siswa dan mencari tahu aspek membaca yang paling berpengaruh terhadap pemahaman siswa yang diajar dengan menggunakan schema activation strategy dan graphic organizers. Subjek penelitian adalah dua kelas siswa kelas 8 di SMPN 21 Bandar Lampung. Ada dua kelas penelitian dan masing masing 34 siswa. Penelitian ini adalah quantitatif dengan mengunakan pretest posttest group disain. Instrument penelitian adalah 30 soal pilihan ganda reading test. Data di analisis menggunakan t- test. Hasilnya sig. (two-tailed) adalah 0,00 untuk experimental kelas pertama dan experimental kelas kedua sig. (two-tailed) adalah 0.101. Itu menunjukan bahwa ada perbedaan yang signifikan untuk kelas yang diajar menggunakan schema activation strategy dan tidak ada perbedaan yang signifikan pada kelas yang diajar menggunakan grahic organizers. Berdasarkan pencapaian hasil dari aspek membaca, ditemukan bahwa kedua kelas eksperimen umumnya meningkat dalam 5 aspek membaca tetapi pada kelas experimen kedua cenderung meningkat sedikit. Akhirnya, schema activation strategy meningkatkan pemahaman membaca siswa lebih baik dari pada graphic organizers.

Kata Kunci: Graphic Organizers, Reading Comprehension, Schema Activation Strategy.

INTRODUCTION

Reading is an interactive process between the reader and the text. It is an essential skill at Junior High School. The aim of teaching reading in this level is to make the students able to understand and comprehend the reading text. For reading to be meaningful, it must be accompanied with comprehension. According to Al-Isa (2006) reading is a multilevel and interactive process in which readers construct a meaningful representation of text using their schemata. It means that schema has great impact on understanding reading comprehension.

Besides the reading comprehension, the materials of teaching is also important in teaching reading. Therefore, this research used narrative texts. According to Willingham (2004) stories are easy to comprehend and easy to remember, and that's true not just because people pay close attention to stories; there is something inherent in the story format that makes them easy to understand and remember. Thus, this research uses familiar text to make the students easy to comprehend the reading text. Nevertheles, the purpose of narrative text is to amuse and entertain the reader, it could not be reached if the students's reading ability is poor.

In fact, the students still lack of reading comprehension. The students have problems in learning reading comprehension. Generally, some problems face by the students who learn reading are; (1) students have difficulty to identify the main idea of a paragraph; (2) students have difficulty to comprehend the text as they lack of vocabulary; (3) students are unable to find specific information in a paragraph; (4) the students are unable to infer the meaning of sentences. (5) Also, the students are passive and irresponsive towards learning English. In line with this situation, the English teachers need to apply an appropriate technique in teaching reading.

In teaching and learning in the class, there are a lot of strategies in teaching reading. Acording to He, et al (2014) as a number of studies (shown in the above discussion) have been done on the effectiveness of learner strategies in second language acquisition, many researchers advocate that teachers should provide students with direct training on strategy use either in classroom teaching or outside the classroom. Furthermore, they explain that the way to teach reading comprehension is by setting a top-down task This task is actually the same as the warming-up activities by choosing a topic related to the content of the text, and then ask the students to work in groups to express their opinions on that issue with their schemata.

Schema refers to the knowledge which has already been stored in someone's memory. According to Ajideh (2003) a schema (plural schemata) is a hypothetical mental structure for representing generic concepts stored in memory. Furthermore, AlSalmi (2011) concludes schema is the prior knowledge gained through experiences stored in one's mind. It is an abstract structure of knowledge. It means that the more the students

have schemata the more they are able to comprehend the reading text. Therefore, to activate students' schemata, the teachers. The way to activate students' schemata are schema activation strategy and graphic organizers.

The first strategy to activate the students' schemata is Schema Activation Strategy. Magsoudi (2012) investigated the impact of schema activation on reading comprehension of cultural texts among Iranian EFL learners. The result is schema activation has an effect on reading comprehension of culturally-loaded texts. Furthermore, Zhu and Zhao (2012) investigated Schema Theory and College English Reading Teaching. By activating schema testifies the assumption that its application is beneficial to cultivate students' reading interest, quicken their reading speed and make proper judgements.

The second strategy to improve students' reading comprehension is graphic organizer. Graphic organizer helps the reader to visual the main concept of what they are reading. According to Dye (2000) Graphic Organizers has it roots in schema theory. Schema theory states that new information must be linked to preexisting knowledge.When students learn something new, they must be able to retain the information for later user. Furthermore, Öztürk (2012) investigated the effects of graphic organizers on reading comprehension achievement of EFL learners. The result shows that the instruction of graphic organizers in EFL reading courses helps learners to comprehend the reading materials in English.

Regarding all of aforementioned above, this research investigated the schemata in teaching reading comprehension in order to improve students' reading comprehension, namely Schema Activation Strategy and Graphic Organizer. One assumption about schema activation is that some words, or groups of words, or the title of a text, are highly suggestive and they can signal a certain schema (Mohamad and Gumma, 2013). Graphic Organizer definition is students' prior knowledge can be tapped with simple graphic organizers. Graphic organizers are diagrams that visually display information. Depending on their structure, they can show relationships among data, such as hierarchies or subcategories, to use for many purposes as they assist students in visually organized information and isolated important details (Campbell and Campbell, 2009).

Because of the importance of students' reading comprehension, the researcher conducted the research in order to find out whether there is any significant difference between schema activation strategy and graphic organizer on students' reading comprehension and investigated what reading aspects improve the students' reading comprehension better by implementing schema activation strategy and graphic organizers. So, the researcher believes that schema activation strategy and graphic organizers are good to solve the students' problem on finding main idea, understanding vocabulary, identify specific information, finding reference and making inference.

METHODS

The design of this research is pretest posttest experimental group design. The population of this research were the second grade students of SMPN 21 Bandar Lampung. The sample was taken in random, because there were no classification of the students' capability in the class, they are at same level. The sample of experimenal class one was taught by using schema activation strategy and the experimental class two was taught by using graphic organizers.

The researcher used multiple choice reading test as the instrument of collecting the data. The item test was valid, it showed from the sig. tailed < 0.05 and reliable that result analysis was obtained 0.899. There were 30 items in form multiple choices with four options (a, b, c and d). Then, the researcher gave pre test to the students. Before conducting the post test, the researcher gave treatment to the students and analyzed the data. In analyzing the data of this research, the writer used the statistical calculation by using SPSS. The writer used the statistical calculation of t-test. t-test is used to find out the significant difference of means score between two variable whether or nor there is a significant difference of students' reading comprehension achievement between students taught through schema activation strategy and those taught through graphic organizers.

RESULTS

Based on the results of the research, it is found that there is a significant difference of schema activation strategy on students' reading comprehension achievement. The result can be seen on the Table 1 below:

Table 1. Schema activation strategy t-test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	T	Df	
Pair 1	Postest Kelas B - Pretest Kelas B	5.0000	17.29650	2.96633	-1.03504	11.03504	1.686	33	.101

Source: Data Analysis

In testing the hypothesis, repeated measure t-tests was used to determine the result of hypothesis. The students' scores is higher in posttest when they were taught by schema activation strategy during reading comprehension. The pretest is (M=28.33, SD=14.14). It means that there is a significant difference. The significant result is determined by (p = 0.00). The t-test revealed that the result is significant (p = 0.00). The significance value (2-tailed) was P = 0.00 < α = 0.05. It means that H_1 is accepted and H_0 is rejected. It can be said that there is significant difference from pre test to post test. It can be stated that there is a significant increase of students'

reading comprehension after being treatment by using schema activation strategy.

The result of students' achievement in reading comprehension scores who were taught through graphic organizers can be seen in Table 2 below:

Table 2. Graphic organizers
t-test

| | | Paired Differences | | | | | | | Sig. (2-tailed) |
| | | | | | 95% Confidence Interval of the Difference | | | | |
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	T	Df	
Pair 1	Postest Kelas B - Pretest Kelas B	5.00000	17.29650	2.96633	-1.03504	11.03504	1.686	33	.101

Source: Data Analysis

Based on the results of paired sample t-test in Table 2 above, it is shown that the significance value (2 tailed) was 0.101, the significance is determined by $p < \alpha$ (0.05). The t-test reveals that the result is not significant (p = 0.101). The result shows that H_0 is accepted and H_1 is rejected. Therefore, there is no significant difference between students' score of pre test and post test in the class which was taught through graphic organizers.

The students' reading comprehension scores increased in both classes. It can be said that there is significant difference in student's reading comprehension achievement who taught through schema activation strategy and through graphic organizers. The highest score was obtained in the experimental class who were taught through schema activation strategy. The comparison between pre test and post test scores can be seen in the table below: It is shown in Table 3 below:

Table 3. The difference of both strategy
t-test

Independent Samples Test

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | | | | | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
		f	Sig.	T	df				Lower	Upper
Score Postest	Equal variances assumed	9.639	.003	10.146	66	.000	31.86	3.14	25.59	38.13
	Equal variances not assumed			10.146	56.481	.000	31.8625	3.14053	25.57258	38.15271

Based on Table 3 above, it can be seen that the means score of experimental class one was 77.05 and the experimental class 2 was 45.19. The means different is 31.86, it means that the experimental class I gets higher score than experimental class two. The second is the significance value of students (2-tailed) is 0.00. p = 0.000. It means that the sig < α (p < 0.05, p = 0.000). The last is t ratio > t table. The t table is 0.05. So, t ratio is higher than t table (10.146 > 1.67).

Therefore, it can be said that there is a significant difference scores for the students who were taught through schema activation strategy and through graphic organizers.

Regarding to the research question what reading aspect improve the students' reading comprehension better between implementing schema activation strategy and graphic organizers. The experimental class one who was taught by using schema activation stratey, it is shown from means score from the highest to the lowest are making inference was 15.88, specific information was 15.58, making reference was 15.88, understanding vocabulary was 15.29 and determining main idea was 14.70. Whereas the means score of class two who was taught by using graphic organizers are vocabulary was 9.80, determining main idea was 9.60, finding reference was 9.30, identifying specific information was 8.62 and making inference was 7.84. The total means score from experimental class one was 77.05.

Whereas, the experimental class two was 45.146.

DISCUSSION

Based on the results of the research, it is found that there is a significant difference of schema activation strategy on students' reading comprehension achievement than graphic organizers do. Some factors may be affecting the students' reading comprehension achievement by using schema activation strategy are: The pre reading activity helped the students to improve reading comprehension. It was found that the students curious and interested to connect their previous knowledge to the topic by answering some questions. It is in line with the theories that schemata could improve students' reading comprehension achievement by using pre-reading activity. Alemi and Ebadi (2010:7) stated that the students' prior knowledge need to be activated before reading, they should be given at least minimal background information, if the students do not have sufficient prior knowledge to interpret the text, they can not understand the text.

The second factor was the picture which is used in activating students' schemata. The researcher found that the students focused on looking at the picture and figure out the prediction of some words about the topic of the text. This is in line with Chun and Ching (2009), they found that low-proficiency EFL college students improved their comprehension of text (both simpler and more difficult) with the addition of the pictures. The third factor was the usage of familiarity text. It was

found that the students were interested to the topic because they were familiar to the topic. It is in line with Al-Issa (2006), he found that content schemata affect comprehension more than formal schemata.

For the reason why graphic organizers can't improve students' reading comprehension maybe because some factors happened on the treatment. It is found that the score of students' reading comprehension improve sligtly. From the t-test analysis found that there is no significant difference of graphic organizers on students' reading comprehension. The first was the graphic needs modification, various model and full colour in order to make them interest to the graphic. The second factor is the graphic should be simplify on spider map considering the students level still at Junior High School. A long period of time to implement the graphic in order to make it as a habit. Regarding to the explanation above, the investigation tells us that to make the students have a better understanding of the reading text, the schema activation strategy is better than graphic organizers to improve students' reading comprehension. It is relevant to Yu (2015) and Al Salmi (2011). Whereas, the graphic organizers needs a long time period to apply in order to improve the students' reading comprehension. It is relevant to Ozturk (2012) and Jiang and Grabe (2007).

Based on the result of mains score of reading aspect in each experimental class, schema activation strategy has higher score than graphic organizers do. Making inference is the highest means score

on schema activation strategy whereas understanding vocabulary is the highest score on graphic organizers. The students have difficulty on using graphic organizers. The researcher assumes that the students need more practices to reactivate their schemata, by using interesting and appropriate graphic for students of junior high school, for example: the design of graphic should be modify in shape and color. So, the students are eager to learn reading comprehension by using graphic organizers. So, it can be concluded that schema activation strategy improves the students' reading comprehension better than graphic organizers do.

CONCLUSIONS

Concerning to the significant difference of schema activation strategy on students' reading comprehension. It was found that there is a significant difference of schema activation strategy on students' reading compehension and it is also found that there is no significant difference of graphic organizers on students' reading comprehension after being treatment.

Schema activation strategy improved the students' reading comprehension better than graphic organizers do. Based on the gain of each reading aspect in schema activaton strategy class, finding specific information is the most improve on the students' reading comprehension, it is assumed that there were some factors happen in the treatment. It might be because the pre reading activity, picture and familiarity text are able to reactive the students' schemata. Whereas, on

graphic organizers class, understanding vocabulary is the most improve on students' reading comprehension, eventhough it just improve slightly.

SUGGESTIONS

Based on the evidence of the findings of the research that schema activation strategy can be used to improve students' reading comprehension achievement. It is suggested for the english teachers should apply schema activation strategy on teaching reading comprehension by implementing on pre reading activity, using appropriate picture and familiarity text. The students are able to activate their schemata to predict the topic and the content of the text.The usage of picture could reactive students' schemata to develop students' reading comprehension achievement. The familiarity text is reactive their previous knowledge about the reading text.

Based on the fail of implementation graphic organizers, it is suggested to use graphic organizers in a long time period in order to train the students as a habit to tap their schemata. Since there were three graphic, it is suggested to use one graphic each meeting. The graphic is also suggested; i.e. variatifly, colourful and simple in order to attract the students' interest.

For the previous research, since schema activation strategy could improve the students' reading comprehension, it might be good for further study to employ different skills, i.e. speaking, listening and writing and also apply the strategy on different level of school in order to enhance the generalization, transferability of the finding of the research and investigated formal or linguistic schemata in further research.

Based on the result analysis that graphic organizers can not improve students' reading comprehension, maybe because the implementing three graphic in one meeting, So, it is suggested to use one graphic each meeting. It is also suggested to implement the graphic organizers on a long time period in order to train the students use graphic organizers as a habit to tap their schemata.

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