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IMPROVING STUDENTS' READING COMPREHENSION BY USING DIAGRAMMATIC FLOWCHART

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ABSTRACT

This research is aimed at improving the eighth grade students' reading comprehension ability using diagrammatic flowchart at SMPN 3 Kramatwatu in the academic year of 2018/2019. This action research was conducted in two cycles. The researcher worked collaboratively with the English teacher and the eighth grade students of SMPN 3 Kramatwatu. The data of this study were qualitative and quantitative. The qualitative data were obtained through observation in the teaching and learning process during the implementation of the actions, interviews with the students and the English teacher about the implemented actions, and discussion with the English teacher as the collaborator. The qualitative data were in the forms of field notes and interview transcripts. Meanwhile, the quantitative data were collected through the pre-test and post-test. Therefore, the data were in the form of students' reading scores in the pre-test and post-test. The results show that there are some improvements on the students' reading comprehension ability. They make a good improvement in some aspects of reading skills such as guessing, and predicting. The improvement is also shown by the students' positive behaviors toward the implementation of the diagrammatic flowchart related to their participation in the class and their interest in joining the activities. They are more active than before in every activity. They are active to participate in making prediction and guessing meaning. They are interested in reading the English texts and completing the tasks. The findings are supported by the result of the paired-samples t-test. On average, there is an improvement on students' reading comprehension which is shown by the level of significant of the paired samples t-test 0,000, which means that there is a significant improvement of the students' reading comprehension ability after the researcher implementing the diagrammatic flowchart.

Keywords: Diagrammatic Flowchart, Reading, Reading Comprehension

INTRODUCTION

Regarding the status of English as a foreign language, the Minister of Education has launched a new curriculum called the National Curriculum. This new curriculum is applicable to all levels of education, such as junior high schools.

The national curriculum stipulates that the purpose of learning English in junior high schools is to cultivate the four macro skills of listening, speaking, reading and writing. These skills need to be learned simultaneously and in a balanced manner. These skills are taught in a comprehensive way to reach the level of functional literacy, and at the end of a certain level of education, students are expected to have the ability to communicate in spoken and written English.

As one of the four skills, compared with other skills, reading has received great attention in the process of English teaching and learning. In each subject, students' learning activities involve reading. In addition, reading is not only a source of information, but also a means of enriching language knowledge. Reading really makes learners knowledgeable. The more they read, the more valuable knowledge they gain. Therefore,

reading is considered one of the most important skills.

As stated by Permendiknas No. 23 (2014: 16), the goal of learning reading in junior high school is to understand the meaning of interpersonal and transactional meaning, whether formal or informal, in the form of procedures, descriptions, narratives, narratives and reports. Students should learn multiple text types. However, some SMP students still find it difficult to understand English text. Students of SMPN 3 Kramatwatu 2018/2019 school year have the same problem.

From the preliminary observations of 8th grade students in SMPN 3 Kramatwatu, the researchers found that many of them have low reading comprehension skills. It is difficult for them to understand the meaning of the text because their vocabulary is very low. Students are not used to guessing the meaning of difficult words. They would rather ask the teacher for advice than look up the dictionary. In fact, finding difficult words by yourself will help them remember the words.

The teaching technique used by the teacher did not arouse the students' involvement in the reading class. During the reading lesson, he talked a lot. The students tended to be listeners during the teaching and learning process. The activities were reading the text and answering questions. Sometimes, they were busy doing their own activity and paid less attention to the lesson. As a result, the teaching and learning process could not run well. Such a situation made them have low reading comprehension ability because they did not participate well in the teaching and learning process. Therefore, they needed an effective way to improve their reading comprehension.

A diagrammatic flowchart is a kind of graphic organizers that provide visual images from the organization of information. It is selected as the teaching reading technique to improve the eighth grade students' reading comprehension ability. It helps them to demonstrate their comprehension and their improvement for example, by making comparisons and contras, showing causes and effects, outlining sequence of events, and so forth. This diagrammatic flowchart is believed to help students find a better way to solve a problem in getting the message of the text, because it is useful in activating students' background knowledge and developing students' vocabulary mastery by making prediction of the content of the text and guessing the meaning of the difficult words. As a result, they will be able to comprehend the text easily.

LITERATURE REVIEW

Reading Comprehension

Many experts propose different definitions of reading comprehension. Celce-Murcia (2014: 188) views reading comprehension represents the ability of. In this process, the reader should be able to read and even to construct meaning. Comprehension leads the readers to construct meaning which can help them to get the main idea and the topic. Comprehension can also be drawn by constructing meaning from the written sign in the text. It is expected that, the readers are able to organize the content of the text to send the message.

In line with Celce-Murcia, Snow (2014: 11) defines reading comprehension as the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. She proposes three elements of reading comprehension they are the reader, the text, and the activity.

In support of it, Mikulecky and Jeffries (2007:3) say that comprehension is the constructing meaning of the text by interpreting textual information in the light of prior knowledge and experiences. Comprehension happens when the readers read the text. Then, the readers try to interpret the textual information based on knowledge and experiences to construct the meaning of the text. The theories above tell us that reading comprehension is the ability to recognize written symbols to construct the meaning of the text through interaction of some aspects. They are the reader's background or previous knowledge, the text, and the strategy that is used. In other words, comprehension happens when the readers integrate all the information they get.

Definition of Diagrammatic Flowchart

Willis (2008: 141) states a diagrammatic flowchart is one of the graphic organizers that may increase students' comprehension because it can give the students opportunities to demonstrate their comprehension and their improvement. The use of graphic organizers has been found to improve reading comprehension at all levels and across content areas. The National Reading Panel (2000) cited the use of graphic organizers as being one of the most effective instructions for improving reading comprehension.

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Some researchers define the diagrammatic flowchart as a road map. It can help students' thinking to plan important steps, and it can also help them to remember how they arrived at a certain point in their thoughts. In other words, the diagrammatic flowchart presents visual display about story and it will help the readers to remember what the story is about.

In support of it, Celce–Murcia (2001: 195) says that one of the effective ways to support students to comprehend a text is through the use of graphic organizers including using diagrammatic flowchart to trace events or steps in a process highlighted in a text.

Hedgcock (2009: 173) argues that if the use of diagrammatic flowchart to help students with text comprehension, this technique can be taken a step further by showing students how to develop their own outlines or charts for the texts they read.

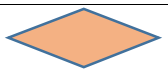
In addition Celce–Murcia (2001: 194) says that the use of diagrammatic flowchart provides some benefits First of all, students are able to see the key information in a text. Next, students are able to see the organization of text. Then students are able to see the way how information is structured. The last students are able to see the relationships among ideas that presented in a text.

From the discussion above, we can conclude that diagrammatic flowchart is a technique for language learning that shows a sequence of events to represent a story structured. It is one of the effective techniques to support students to comprehend a text. Therefore it can help students to demonstrate understanding of the sequence of events by making prediction and improve their vocabulary mastery by guessing meaning of the difficult words based on the context.

The Guidelines of Diagrammatic Flowchart Symbols

A diagrammatic flowchart is usually drawn into some standard symbols; however, some special symbols can also be developed when required. Some researchers argue that diagrammatic flowchart uses special symbols and arrows to create a map. It requires knowledge of a particular content area and understanding of how to process the information. The special symbols, which are frequently required for diagrammatic flowchart, are shown in the following figure

Table 1: **Diagrammatic Flowchart Symbols**

Flowchart Symbols	Descriptions
	Elongated circles, which signify the start or end of a process.
	Rectangles, which show instructions or actions
	Diamonds, which show decision making and branching.
	Arrow connector (flow line), show the direction that the process flows.

Most of the diagrammatic flowchart is made up of three main types of symbols. Those symbols are elongated circles, rectangles, and diamonds. The symbols are connected one to the other by flow line connectors, which mean showing the flow of the process of the story.

With regard to the explanation above, the diagrammatic flowchart constructed from connected shapes representing a story structured. Therefore, the readers need to use flowchart symbols and arrows to construct the diagrammatic flowchart story. The diagrammatic flowchart is believed to help students to become conscious of the way a story structured, because it is one of the effective techniques to activate their background knowledge by making prediction.

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METHODOLOGY OF RESEARCH

Type of the Research

This research is classroom action research because it aims to portray the process of the improvement of students' reading comprehension ability. Burns (2010: 2) says that the main point in action research is to identify a situation that has been going on in education generally for some time. It is related to the ideas of reflective practice. In this research, the researcher was directly involved in improving students' reading comprehension ability. The nature of this action

research was collaborative which involved the English teacher acted as an observer and the researcher herself acted as practitioner. The researcher and the collaborator applied the diagrammatic flowchart to improve the students' reading comprehension ability.

Subjects of the Research

The subjects of the research were the English teacher, the eighth grade students of SMPN 3 Kramatwatu in the academic year of 2018/2019, and the researcher herself. The eighth grade students were chosen based on the teacher's recommendation because most of them had low reading comprehension ability and tended to be passive in the English teaching and learning process. For this reason, the researcher considered that the class needed some improvements.

Research Setting

The research was conducted at SMPN 3 Kramatwatu which is located in Harjatani, Kramatwatu, Kab. Serang. The location is about 10 km from down town. Most of the students of SMPN 3 Kramatwatu go to school by public transportation. Physically, SMPN 3 Kramatwatu has nice classrooms, a principal office, a teacher office, a mosque, a language laboratory, a computer laboratory, two sciences laboratories, a library, a meeting room, a medical room, a guidance and counseling room (BK), a school hall, two canteens, and a field in the central area. The researcher conducted the action research in the second semester of the academic year of 2018/2019. The research was conducted from January to February 2018. In conducting the actions the researcher followed the English schedule of class VIIID of SMPN 3 Kramatwatu because the researcher conducted the action research in this class.

Instruments

In collecting the data, the researcher used three different instruments which are presented below.

1. Observation Guideline

The observation guideline was aimed to guide the researcher and the collaborator in writing down any information and the process of the running of the teaching and learning process in this research.

2. Interview Guideline

The interview guideline was used to guide the researcher in conducting the interview to get the data related to the teacher's behavior and students' behavior before, while and after the action was implemented.

3. Students' Reading Comprehension Test

In the beginning of the research, students were given a pre-test in the form of multiple choices. Meanwhile, the post-test was given after conducting the research. Then, the score of both tests was compared. It was used to know whether or not there were improvements of students' reading comprehension ability after the diagrammatic flowchart was applied in teaching and learning process.

Techniques of Data Collection

The data of the research were qualitative but it was supported with the quantitative data. The quantitative data were presented in the score of students' pre-test and post-test. Meanwhile, the qualitative data were the description of the process during the action which involved field notes, interview transcripts, teaching and learning process transcripts, and photographs. The data were collected in the form of opinions, preferences, and expectations of the research team members to fulfill the democratic and dialogic validity data.

Technique of the Data Analysis

There were two forms of the data in this study. The first was qualitative and the second was the quantitative data. The qualitative data were obtained from the interview and the classroom observation. Meanwhile, the quantitative data were obtained from students' reading comprehension test. The data were obtained from the actions conducted in the field. The researcher did three steps to analyze the qualitative data. They are data reduction, data display, and conclusion drawing/verification (Miles and Huberman, 1994: 10-12). Firstly, the researcher selected, focused, simplified, abstracted, and transformed the data which were in the form of field notes and interview transcripts. The researcher, then, sorted, sharpened, focused, and organized the data to get the final conclusion. Afterwards, the researcher organized the data in order to come to the conclusion drawing and action. Finally, she drew conclusion from the data display to know the progress of the implementation and verified it. This step is very important to be done in order to get good research conclusions.

Considering the quantitative data, the researcher used pretest and posttest. The data were analyzed using descriptive statistics. The data were analyzed using descriptive statistics, i.e. the mean, standard deviation, and paired samples t-test. The descriptive statistics aimed to provide answers

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about the students' learning achievement before and after applying the diagrammatic flowchart. The result of the mean and standard deviation in the pretest and posttest were described using a chart to shows the students' reading ability improvement.

RESULT AND DISCUSSION

The General Findings

The research aimed at improving reading comprehension ability of the eight grade students of SMPN 3 Kramatwatu through the diagrammatic flowchart. Therefore, the actions conducted answered the questions formulated in the first cycle.

The data of students' comprehension test show an improvement of the result of the students' post-test. The following is the result of the students' pre-test and post-test was illustrated in Table 2.

Table 2: **The Result of the Students' Pre-test and Post-test**

Data	Pre-test	Post-test
Number of students	36	36
Mean	3, 4167	5, 1000
Median	55420	73368

In the first cycle, the implementation of the diagrammatic flowchart was successful to make the students get involved in the teaching learning process. It also improved their reading comprehension ability. However, there were some problems occurring in implementing the actions that were the class became noisy, some students made prediction noisily and haphazardly and they tend to be passive. Therefore, the researcher solved the problems so that in Cycle II the students' reading comprehension improved successfully. The research finding on improving reading comprehension is summarized in Table 3.

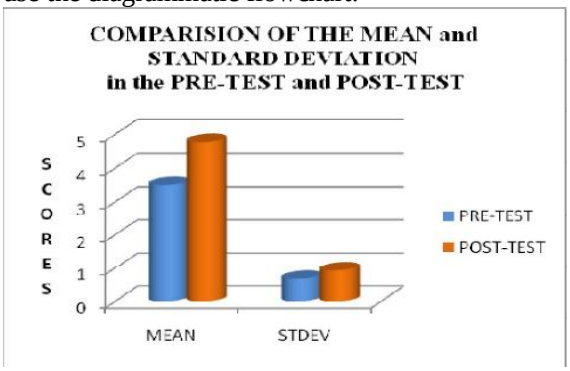
Before the implementation of the action, the teaching and learning process was monotonous. The activity did not motivate the students to participate well during the teaching and learning process. Most of the students were lazy to read the text.

After the action was implemented, the teaching reading technique was not monotonous. The students actively participated during the teaching and learning process. After the implementation of the action, the students' reading comprehension improved. They can answer the questions related to the text. They also understood what the text is about. The improvement of the students' reading comprehension is also presented in the score of pre-test and post-test.

Table 3: **The Result of the Action Research Study**

No.	Pre-condition	Cycle I	Cycle II
1.	The students did not participate well in the reading teaching and learning process.	Some of the students participate well in the reading teaching and learning process. The students make prediction haphazardly. Also some of them passive.	Most of the students participate well in the reading teaching and learning process. The students stated their prediction systematically. They actively stated their ideas.
2.	Most of the students had no adequate mastery of vocabulary.	The use of the diagrammatic flowchart made some students improved their vocabulary.	The use of the diagrammatic flowchart made most of the students improved their vocabulary
3.	The students did not comprehend the text given well.	The students comprehended the given text.	The students comprehended the given text.
4.	The reading lesson was monotonous.	The reading lesson was not monotonous. However the class became noisy.	The reading lesson was not monotonous. The noisy could be reduced well.

The following is the comparison of the mean and the standard deviation scores in the pre-test and post-test that the writer obtained in a series of the use the diagrammatic flowchart:



Both scores indicate there is an improvement in the mean score and standard deviation of the students' reading comprehension. The mean score in the pre-test is 3, 2778 and in the post-test is 4, 8111. From those scores, the improvement of the mean score is 1, 5333. Meanwhile, the standard deviation in the pre-test is 51331 and in the post-test is 72023. From those scores, the improvement of the standard deviation is 20692. It means that the standard deviation belongs to homogeneous. The writer also analyzed the students' pre-test and post-test scores using paired samples t-test. On average, there was an improvement on students' reading comprehension which is shown by the result of significant level of the paired samples t-test 0, 000, which mean that there is a significant improvement on the students' reading comprehension ability after the researcher implementing the diagrammatic flowchart. However, the quantitative data was used to support the findings of this research but it could not be considered as the representation of the whole description of this research.

CONCLUSION AND SUGGESTION

Conclusions

The two cycles in this action research were completely done. The research began on January 30th and ended on February 27th, 2018. In both cycles, the researcher implemented the diagrammatic flowchart as the teaching technique by making prediction about the story of the recount text and guessing the meaning of the difficult words based on the context. In every cycle, she implemented the diagrammatic flowchart in order to improve the students' reading comprehension ability. In the implementation of the diagrammatic flowchart in the cycle I, she assisted them to activate their background knowledge before they read the text. When they were making prediction, they also were stating their prediction into the diagrammatic flowchart. The technique was not successfully implemented because it was a new technique for the students although she explained the rule of the diagrammatic flowchart. The class became noisy, some of them were lazy to share their opinion and some students often make prediction noisily and guess meaning haphazardly.

On the contrary, in the implementation of the cycle II, the students actively involved in stating their prediction and they were able to make prediction systematically. It was because the diagrammatic flowchart is an interesting technique. They followed all the instructions and answered the questions related to the text correctly. So, the students were interested to read and complete the tasks. The diagrammatic flowchart helps them to demonstrate their comprehension and their improvement for example, by outlining the sequence of events. This diagrammatic flowchart is believed to help students find a better way to solve a problem in getting the message of the text, because it is useful in activating students' background knowledge and developing students' vocabulary mastery by making prediction of the content of the text and guessing the meaning of the difficult words. As a result, they will be able to comprehend the text easily.

To overcome the unsuccessful actions, there were some additional and revised actions in Cycle II such as motivated the passive students by giving more assistance and attention to be more active. The students were given a lot of opportunities to share their opinions. Also she used guided questions (5W1H) in asking students to make prediction systematically. She was still implementing the diagrammatic flowchart technique to help them to comprehend the text.

With regard to the explanation above, the diagrammatic flowchart with some other accompanying actions could improve the students' reading comprehension ability after she implemented them in her research. The diagrammatic flowchart with its advantages was able to improve the students' micro skills of reading like identify the purpose of the text, identify main ideas, supporting details, and deducing meaning from context. Finally, this research shows a positive result in improving the students' reading comprehension ability using the

diagrammatic flowchart. It could be seen from the field notes, students' scores in the pretest and posttest, paired sample t-test results, interview transcripts, and the collaborators' opinion about the actions.

Suggestions

Based on the conclusions and the implications of the study, some suggestions are directed to the English teacher and other researchers.

1. For the English teachers
   It is essential for the teacher especially the English teachers at SMPN 3 Kramatwatu to improve the students' reading comprehension by applying the various and interesting teaching technique. The interesting technique is useful to make the students enjoyed and participated well during the teaching and learning process. It is very useful for them to use the diagrammatic flowchart in teaching reading.
2. For other researcher.
   It is necessary to follow up this study in order to find more actions to improve students' reading comprehension. It is also possible for other researchers to conduct this study in other schools. Therefore, the other researchers who conduct similar research need to be well-prepared, so the research can run well.

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