THE EFFECT OF APPLYING VENN DIAGRAM STRATEGY ON STUDENTS' ACHIEVEMENT IN READING COMPREHENSION

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ABSTRACT

This study was aimed at finding out the effect of applying Venn Diagram Strategy on students' achievement in reading comprehension. This study was conducted with an experimental design. The population of this study was the first year students in the academic year 2012/2013 at SMK Prayatna-1 Medan. There were sixty students taken as the sample of the research. The sample was divided into two groups: the first group (30 students) as the experimental group and the second group (30 students) as the control group. The experimental group was taught by applying the Venn Diagram Strategy, while the control group was taught without the Venn Diagram Strategy. The instrument for collecting data was a multiple choice test which consisted of 40 items. To obtain test reliability, the researcher used the Kuder -Richardson (KR-21) formula. The calculation showed that the reliability of the test was 0.66. The data were calculated by using the t-test formula. The result of the analysis showed that the t-observed (5.02) was higher than t-table (2.00) at the level of significance (α) 0.05 and the degree of freedom (df) 58. Therefore, the null hypothesis (H_0) was rejected and the alternative hypothesis (H_a) was accepted. It means that teaching reading comprehension through the Venn Diagram Strategy significantly affected reading comprehension.

Key Words: Venn Diagram Strategy, Reading Comprehension, Student Achievement.

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INTRODUCTION

Background of the Study

Reading is one of the most important skills in language learning besides listening, speaking and writing. Without reading, one cannot access written information. In reading process, students are expected to get knowledge and be familiar with what the teacher has explained in the content, where as in comprehension the students are expected to have more skills in order to get the meaning in the text. That is the purpose of reading comprehension. Therefore, it is useless if one do not have reading competence, because reading competence enables students to find the information in reading a text.

Reading comprehension is the process of simultaneously extracting and contrasting meaning trough interaction and involvement with written language. It consists of three elements; the reader, the text, and the activity or purpose for reading, (Reading for Understanding: Toward an R&D Program in Reading Comprehension, RAND Reading Study Group, 2002,p.11) . So, teacher should help the students not only how to read but the way to comprehend and to get the meaning of the text itself.

In reading skill, students are expected to have knowledge and ability to understand about the content that has explained in the text. It means that students need to learn a considerable amount of information of a text. Therefore, students need some abilities to understand and remember main ideas as well as number of details that elaborate the main and supporting ideas in the text. They also need to link the text to their knowledge base.

In fact, reading is not as easy as people think. It is not easy to have the ability of drawing meaning from the printed page and interpret the information appropriately. In this case, the reader must use their brain to process the available information in the text.

Harmer (2003:208) states that students sometimes have vague understanding of reading. Reading passage seems to be too difficult for them because of some conditions. The conditions here refer to the failure of understanding the words, the sentences, the sentences' unity and organization; and the lack of interest or concentration. Daniel S. Mc Manara (2009) stated the problem that is often faced by the students in comprehending the text. He explained that the students may not be able to read the

words themselves, fail to understand the relationship between the sentence and whole meaning of the text.

The main problem in this case is that the students may be lack of the necessary strategies for reading to overcome those challenges. This case will be frustrating and de-motivating, such attitudes often due to unsuccessful experience in reading. This case is based on the writer's experience when she took a teaching practice in Junior High School (PPLT 2009), where most of the students were not able to read and comprehend the text, although some students could read or pronounce the words well but they could not understand to comprehend the text well because they could not identify the meaning of difficult words in the text.

Therefore, if they only can read the words without comprehending or understanding the text or what they are reading, it means that they are not really reading (put reading first). This condition really proves how bad the students' achievement in reading is.

In line with above discussion, the improvement of teaching reading comprehension has been a challenge to the teachers of English and researchers so long. In today world, reading is the key of education reading is a personal interaction, like conversation between a reader and words on a page. Zukowski (2002:1) says as one learns to read in English, one learns new words and new grammar forms. However, there is much more than that to learn how to read well. Reading is a process of learning to use a set of skill. A skill is an ability to perform and act (to do something out) or to make something well. A person can learn to become an expert by practicing a special strategy. Since the students are expected to comprehend the reading text, their ability to perform and act is very crucial, otherwise it will be difficult for them to comprehend the text. Thus, teaching strategy of reading is really needed in order to encourage students' ability and enhance their interest in reading. Interesting reading is surely able to create a good atmosphere in classroom so the students can improve their way of learning.

Speaking of teaching strategy, it really plays an essential role to support students' motivation and interest in learning English. Motivation which is a source of support to intensify the efforts not only brings positive psychology attitude to the students but also leads them to have chance to acquire their language skill as well.

For that reason mentioned above, some linguistics states that the success of teachers in teaching is often measured through the accuracy of strategy they apply.

So, the teachers should be able to choose a suitable strategy in order to create a better, interesting and communicative teaching and learning process.

For this condition, linguists never stop to explore some strategy to teach English in order to increase the students' achievement in learning English.

Dealing with the fact previously mentioned, the writer needs to try to carry out a research in teaching reading. In this case, the writer believes that Venn Diagram is a very good strategy to be applied in teaching reading. It is based on The National Reading Panel (2000) in the United State which declared that it is one of the seven most effective teaching strategies for reading comprehension. Teachers who include Venn Diagram in their instructional practice can improve their students' academic performance. It means that Venn Diagram has been successful to be an interesting strategy. By applying this strategy, the students will be situated to discuss the upcoming topics which have relation to their prior knowledge and then enable them to compare and to contrast the meaning in each paragraph. This case will help the students to build up a comprehension of reading passage that they have read. Therefore, they can achieve the goals of learning process.

Venn Diagram basically retains individual element in which students work individually to read and take a meaning or construct the meaning on text given by the teacher. This case will make students become the strategic readers in which they can monitor their own thinking and make connections between texts and their own experiences.

In short, the writer simplifies that to overcome the problem of teaching reading, particularly in comprehending the text, the teacher needs to apply Venn Diagram strategy which will intend the enthusiasm of students in learning activities.

Applying Venn Diagram is expected to solve the problem and to bring s good improvement in students' reading achievement.

For the explanation above, the writer is interested in conducting a research under the title "The Effect of Applying Venn Diagram Strategy on Students' Achievement in Reading Comprehension".

Research Questions

The problem of the study was formulated as the following: Does the effect of Applying Venn Diagram Strategy improve reading achievement of the first year students of SMK Prayatna-1 Medan?

Objective of the Study

The objective of this study was to find out whether the effect of Applying Venn Diagram Strategy improves reading achievement of the first year students of SMK Prayatna-1 Medan.

Significance of the Study

The findings of the research are at least expected to answer the proposed problem and it is intended to give many benefits either theory or practice to both English teachers and students. The application of Venn Diagram strategy on teaching reading expected is:

- To provide the English teacher to plan and conduct a better and interesting in teaching learning process. To assist the students to build reading comprehension competency. To help the research to get the information of Venn Diagram in teaching reading.

Conceptual Framework

Nature of Reading Comprehension

Generally, reading comprehension is the ability to draw meaning from the printed page and interpret the information appropriately. According to Mc. Neil (1992:16), reading comprehension is acquiring information from context and combining different elements into a new whole. It is a process of using one's existing knowledge (schemata) to interpret text in order to construct the meaning.

Mc. Neil (1992: 20) defines reading comprehension as the process simultaneously extracting and constructing meaning through interaction involvement with written language. In reading comprehension, reader must be able to get main idea

of the text. In other words, reading comprehension is an achievement to use many abilities well to comprehend and to understand text easily. In additional, Heilman et. al (1981) says that reading is a language process which interacting with language that has been coded into prints. It is an active process that is affected directly by an individual's interaction with their environment.

It is a complex interaction between the text and the reader which is shaped by the reader's prior knowledge, experiences, attitude, and language community which is culturally and socially situated.

The product of interacting with the printed language should be comprehension and the purpose of reading is to communicate. It is the instantaneous recognition of various written symbols, simultaneous association of the symbols with existing knowledge, and comprehension of the information and ideas communicated (Harmer, 2001). It means that when a reader interacts with prints, their prior knowledge combined with and the visual or written information results in his comprehending the message.

By looking the explanation above, the writer conclude that reading comprehension is an active cognitive process of interacting between a reader and text which monitoring interpretation or understanding to establish meaning from the text.

Levels of Comprehension

According to Dorn (2006) comprehension defined as the ability to get meaning from the text. It means that a reader not only read the text, but must be able to understand what they are reading. Or in other words, reader also needs to read to at all levels of comprehension. In this case, levels of comprehension means different depths of understanding, different analysis of what is meant

Berry (2005) stated there are four levels of reading comprehension. The following levels of comprehension can tell us how far the students understand the reading material and which level has been achieved.

Literal Comprehension

In this level, students asked to look what is written by the author. They would be difficult to understand the true meaning of paragraph, however students need to

memorize the information that they have read. So, this level becomes prerequisite for higher level understanding.

Interpretative Comprehension

At the interpretative comprehension level, the reader or students can attempt to answer the author's question, the author meant in the story or paragraph. Or in other words, this level will help the students to implicate what they have memorized in the literal level. It is the process of deriving ideas or information that are implied rather than directly stated.

Critical Comprehension

At this level, students are attempting to evaluate or rise up their thinking to be more a critical readers. When individual read critically, they analyze and evaluate what is read. It occurs only after readers have understood the ideas and information that the writer has presented.

In this case, students read between lines and then examining the message from the author and attempting to apply that message to other settings. So, this level focuses in responding what the author means by drawing conclusion about their accuracy, appropriateness and timeliness.

Creative Reading

Creative reading goes beyond what the author has written, applying ideas from the text to new situation, and recombining the author ideas to form new concept or to expand old new ones. When an individual reads creatively, he creates something from a new idea, the solution of problem, a new way of looking at something from the ideas gleaned from the text. For example, the students are asked to identify one event within a story, and then have children tell what happened before or after that.

Purpose for Reading

Reading is one the most important academic task faced by the students. Strategies designed to improve reading comprehension may have any number of purposes:

- To enhance understanding the content information presented in a text

- To improve understanding of the organization of information in a text.

- To improve attention and concentration while reading

- To make reading be more active process

- To increase personal involvement in the reading material

- To promote critical thinking and evaluation of reading material

- To enhance registration and recall of text information in memory.

Models of Reading

Eskey (1986) denotes there are some kinds of reading models. They are bottom up, top down, and interactive which has involvement in reading process. Some of them are:

- The Bottom-up

The bottom-up model is a precise involving exact, detailed, sequential perceptions and identification of letters, words, spelling patterns and larger language units. This model assumes that a reader proceeds by mowing their eyes from the left to right across the page, first taking in letters, combining these to form words, then combining the words to form the phrases.

- The Top-down

The top down model emphasize that readers should link thought and language. It begins from making general predictions based on higher level, general schemata, and then searches the input for information. It means that a reader will read a text by reading the sentences, then tries to find and to construct the information or plausible of the text based on her/him background knowledge.

- Interactive process.

Besides bottom-up and top-down, interactive process also has in important in reading activity. Interactive is a combination of bottom-up and top-down processing where there is interaction between information obtained by means of bottom-up decoding and information provided by means of top-down analysis, both of which depend on a certain kind of prior knowledge and certain kind of information processing skills. It means there are two sources of knowledge that is needed knowledge of grammar and knowledge of the real world for comprehending the text. So, interactive process relates to how the reader use skill bottom-up and top-down in interaction or communication.

So, interactive process relates to how the reader use skill bottom-up and top-down in interaction or communication. In other word, the reader can apply their knowledge about the reading text in contextual situation. So, the reader is expected to be able to communicate it between one to another. It is supported by Brown 2001: 105, interaction is collaborative exchange of thoughts, feeling, and ideas for more people, resulting in reciprocal effect of each other.

Process of Reading Comprehension

Reading comprehension is a complex cognitive decoding symbol for understanding the meaning. In understanding the meaning of text, students have to comprehend the 3 reading models. It can enhance students' cognitive skill. The 3 reading models is the basic way for student in analyzing process of reading. They will know what the want to do in the process of reading. The process consists of a series of activities performed in order to comprehend the text.

To achieve the goals, teacher should divide the reading activities into their interrelated stages, those are: pre-reading, while reading, and post- reading activities (William, 1984:34).

- Pre- reading activities

This phase of reading is intended to make learners be aware to the reason why they have to read the text. They need to use their background knowledge to encounter the text more easily.

- While reading activities

The aim of this activity is to help the learners to develop their reading strategies or skill so that they can be effective and independent readers. By implicating this activity, learner should be flexible in their ways of reading which are appropriate to the text given. In this level, students interact to the text by the help of their relevant background knowledge such as interaction will help the students to understand the writer's purpose, to understand the text structure and to classify the content.

Furthermore, Williams (1984) suggest that the activities of reading should be gradually developed from a global understanding of the text and to smaller unit such as paragraph, sentence, and word. To be effective reader, students should be able to:

-Get specific information of the text

-Get the gist or main idea of the text

-Get conclusion of the text

-Identify the pronoun refers to the context

-Get the meaning of the difficult words

-Predict what information which will be got in the text before reading

- Post- reading activities

In this phase, learners are able to make a conclusion what the writer's meant, to measure how far the learners understand about the reading text in the whilst reading, to investigate and measure how far the students extend their prior knowledge. In this case, teacher will probably organize some kind of follow up students' task related to the text given.

Factors Affecting Reading Comprehension

There are some factors that have an effect on the reading process and the product of reading. According to Anderson (2000), the factors which affecting reading are:

Reader's prior knowledge has an important part in reading comprehension. Reader's prior knowledge means the facts, information, understanding and skills that a reader had acquired trough experience or education. There are many aspects to prior knowledge including knowledge of the world, cultural knowledge, subject-matter knowledge and linguistic knowledge. A reader's interact in a subject matter will also influence the level of prior knowledge. All of these factors are important to different degrees, depending on the reading task. A reader's knowledge of the world depends on lived experience. It has been clear that the prior knowledge that readers have will influence their way in comprehending the text. When processing text, readers will integrate the new information from the text into their prior knowledge so that it can influence how they recognize in the text.

Reader's motivation is critical factors for providing meaningful learning opportunities to students. Reader's motivation means the stimulation or interest of reader to read. Research shows that if students are not motivated to read, they will benefit very little from reading instruction, therefore, the more highly motivated a remedial readers is, the greater the student's progress and success. Teacher plays an important role to increase reader's motivation. In addition, teacher should apply reading materials that appropriate to reader's abilities to help them in increasing their

motivation. Teaching strategies that increase motivation include activating prior knowledge trough pre-reading exercises, teaching reader to look for information while reading, and modeling self-monitoring techniques during reading.

Reader's skill means what abilities are required by good reader in order to process text efficiently. According to Canine, et al. (1990), the skill for processing the increasingly comprehension consist of rapid decoding, summarizing the main idea in the text, drawing inferences, translating difficult words more into more familiar words which is easy to understand. By having the skills, readers will able to catch new knowledge and able to process information effectively.

Reader's fluency means the capability to speak or to write accurately and easily. Research shows that good readers are fluent readers.
It is not surprisingly, if students who are not fluent and read very slowly or focus on each word independently, have difficulty comprehending what they read. Therefore, to become a good reader, they need to re-read a passage until they can read it fluently.

Vocabulary means the total number of words which is known by a reader in a language. Vocabulary is the basic factors in affecting reading comprehension. The more reader has vocabulary, the greater they become success in reading comprehension.

Physical characteristics include eye movement and speed of word recognition. Dorn (2009) explain that the eyes and ears are the tools for inputting the information, yet the mind is the place where interpretation will occur. Integration is the mind's instrument for constructing meaning. In other words, what is already in the mind will influence what the eyes will see and what the ears will hear. Numerous studies of eye movements have shown the importance of rapid and automatic processing of most the words on page.

Besides that, good reader rapid in their word recognition, they are precise as well. The ability to recognize words rapidly and accurately is an important factor of reading ability.

Measuring Reading Comprehension

Reading comprehension is significant to be measured by giving test. Reading comprehension test are designed to reveal what the reader has taken away from various written materials and gauge their overall reading level.

According to Cain and Oakhill (2006), there are some reasons why researchers need to measure students' ability; for example to monitor progress, to detect and diagnose reading difficulties and to test psychological theories of the cognitive skills that underpin reading development and disorders. For each, an accurate assessment of reading ability is required.

Cain and Oakhill (2006) stated the most widely variables that is used to measure reading comprehension are:

- *Vocabulary*

Vocabulary is the set of words they are familiar with in a language. Vocabulary is very crucial in reading comprehension. Many studies have shown that good readers have good vocabulary knowledge. In order to understand a text, readers need to know the meanings of individual words. They construct an understanding of the text by assembling and making sense of the words in context. Vocabulary knowledge is difficult to measure.

It is however very important in learning to read and in future reading development. Words are recognized in print have to match a reader's oral vocabulary in order to be understood.

This is important for children who are developing oral proficiency, as well as for non-native speakers of a language. In later reading development, when students read to learn, they need to learn new vocabulary in order to gain new knowledge of specific subject matter.

- *Semantic Meaning*

Semantic meaning refers to the knowledge and comprehension of words. Semantic skills can be measured by various receptive vocabulary tests. In this variable, students should be focused on vocabulary which enables students to comprehend the text. It is often difficult to entirely separate semantics from the text level of language, syntax. Syntax refers to the formal relationships between words in phrases or sentences

- *Verbal IQ (Intelligence)*

Verbal IQ is the ability to analyze the problem and solve problem using language. This term involve skills such as the ability to listen and to recall spoken information, understanding the meaning of written or spoken information. Or in other words, verbal intelligence is the ability of students to share what they have known directly.

Teaching Reading Comprehension

Reading without comprehension or understanding is not reading. Many children can pronounce words fluently but when asked what they have just read, they are unable to respond. Although they may score high in terms of reading rate or fluency, they are not really good readers .Therefore, in order to become a good reader in understanding the print text, students must be able to decode the words on the page and extract meaning. In this case, teacher should realize that all aspects of the reading process have an effect on comprehension of written material.

Teacher should provide students with a purpose for reading to anticipate different types of text which are stimulating their interest and do not have an over familiar content. From the condition above, it is clear that teaching reading is not easy. Teacher often faces some challenges. Therefore, one way to solve that problem is a teacher must be able to choose a suitable strategy to help them to achieve the learning process.

Fuchs (2005), states that there is abundant evidence that reading strategies improve reading comprehension, not only to successful in comprehension, but to overcoming reading problems and become a better reader and comprehender. Research has shown that readers who receive explicit instruction in these strategies make significant gains on reading comprehension tests. These strategies include setting purposes for reading, making predictions, monitoring reading and realizing when something is not making sense, questioning during reading, making mental pictures of what is being read, drawing on prior knowledge, understanding story structure, and summarizing what is read. These strategies help the reader to make connections between the text and what they have already known.

Hedge (2003) states any component of the importance in teaching reading of an English course may include a set of learning goals for:

-The ability to read a wide range of text in English

-Building a knowledge of language which will facilitate reading ability

-Building schematic knowledge

-The ability to adapt the reading style according to reading purpose

-Developing an awareness of the structures of written texts in English

-By showing the importance of teaching reading above, teacher realize that is very needed to build a condition of learning process as comfort as possible in order to stimulus students' interest to be active during learning process occurred.

Venn Diagram Strategy

Basically, the term "Venn Diagram" was first introduced by John Venn and published in 1880 to teach mathematical concepts. But today's the Venn Diagram use expended to other subjects such as; scientist, economics, and also in English. That is why, the writer choose Venn Diagram strategy as a learning as a learning tools to help student in comprehending the passage.

Generally, Venn Diagram is the simple of Graphic Organizer Strategy. Venn diagram is used to promote the development and a refinement of students' knowledge. One of the ways to develop students' knowledge of something is trough comparison. Venn diagram is used to compare two concepts, topics or procedure. By using the comparison, students will be helped to organize their thought therefore, they can understand the reading passage.

During reading a text, the Venn diagram allows students to help them to structure the way they "think" about the similarities and differences between concepts. What they have compared will be put in the visual term namely circle. They work best when the students complete them, instead of having the teachers do it for them. It has endless possibilities for adaptations and can be used in all content areas.

The visual enables the teacher to check students' comprehension of material being studied and helps students examine similarities and differences among the material itself, characters in the material, and so on, Wiesendanger (2001:147) In doing comparison, students need to think a questions to be answered. Some of questions are; what do "I" know about the topic? What are the 3 most important element of this topic? What characteristics do the elements have in common? What characteristics do the elements not have in common?

These questions are the first step for the students in creating Venn diagram. These questions will help the students to facilitate the development of thinking skills by encouraging students to visually break down information into their various components.

The use of the Venn Diagram also allows for the verbalizing of thought processes as students share how they have broken down information into its components.

According to Karen Rohrich & Ansbery, Emily Rachel Morgan (2007: 238) in the book of *" More Picture Science Lesson",* a Venn Diagram is made of two or more overlapping circles and is useful for comparing two or more items of books, animals, plants, events or anything else that students wish to compare. Each circle is labeled with the similarities and differences. Similarities are written in the space where the circle intersects. Differences are written in the parts of the circle that do not intersect. This tool can help the students to organize their thinking and sort through information after reading process. The Venn diagram is a wonderful mind organizer that requires students to analyze two different objects. It forces the students cognitive level of thought to operate in a higher domain.

In order to develop students' cognitive abilities in understanding the reading passage, students have to be aware to the steps in creating or building Venn Diagram and the procedures in the process of during reading or after reading. Waxler (2005 listed the steps and the procedure of Venn Diagram. It can be seen in the following below:

- Students need to think some questions to prompt their answers
- Student need to take separately, brainstorms a list of characters/descriptions/opinion and ask them to write that under the item and idea.
- Students have to identify the key terms or concepts to be compared and contrasted.
- Students have to list or write the terms in the appropriate sections of the Venn Diagram on their paper
- Students should draw the structure of the Venn Diagram making circles for the concrete concepts with the appropriate overlaps areas for showing the similarities and then they need to label each circle with a concept name.
- Discuss students ideas and understanding; then have the students read the selection or read it aloud to them
- Encourage students to add ideas to the diagram during and after reading.

Clarc, (2007:126) also mentioned how to use Venn Diagram when comprehending the reading passage. The first steps that students have to done is list the unique

characteristics of two ideas, things, or event or students have to look how they are alike and how they are different and then put it in the outside of the left circle and one in the outside section of the right circle, while in the middle section where the circles overlap, students have to list characteristics that to have in common. This term can be called as a likeness. The result steps of creating Venn Diagram above can be seen in the following example below. For example:

Teacher and students are discussing about the concept of the impact of Internet for students and the Impact of television for students. In this case, students need to analyze the characteristics of each and then put it to the circle which is labeled.

Oxford Advance Learner's Dictionary, Hornby, explain the meaning of procedure, which means: 1) a formal or official order or way of doing something, 2) a series of actions that need to be completed in order to achieve something.

From the explanation above, it can be concluded that procedure is a series of process to do something. Based on the explanation above, Wakler (2005) listed the procedure in creating Venn Diagram in the following below:

- Teacher need to explain the purpose of this activity is to practice recalling the physical characteristic of the concrete concepts presented by creating a Venn Diagram.
- Divide students into pairs or small groups.
- Inform students create concepts for which they will create a Venn diagram.
- Have students create a Venn Diagram for the concrete concepts.
- Have students present their Venn Diagram.
- Provide feedback.
- Summarize the results of the activity.
- Diagram Venn and Activation on Reading

Listening, speaking, reading, and writing are essential elements for both written and oral communication. But, in this case, the researcher's study focuses on reading.

In practice, after teacher gives as reading passage in any time, students need to comprehend the text by creating Venn Diagrams. For example, student can create a Venn diagram on the similarities and differences between the North and the South at the beginning of the U.S. Civil War. War. Prior to the reading the students can create their Venn diagram based on what they already know about the topic. From there the students

can pair up and share their Venn Diagrams to further build on their background knowledge. Once the Venn diagram is completed the students read about the topic. After the students complete the reading they should go back and check their Venn diagram, make corrections, and add any new information. By encouraging the students to think about the topic prior to reading the assignment, the students will increase their reading comprehension.

Aims and Potential Benefits of Venn Diagram

Related to Leonard T (1999) there are some aims and potential benefits of Venn diagram. They are as follows:

- In teaching reading, Venn Diagram allows the student to comprehend the text faster without reading the whole passage.
- It allows the student to recall the meaning that they got from the text.
- It situates to be a strategic reader
- Potential benefits of the Venn diagram
- Helping students to become a strategic reader.
- Helping students to preview new material
- Making connections between new material and prior learning
- Recognizing patterns and main ideas in reading
- Understanding the relationship between the key idea
- Organizing information and take note
- Reviewing new material

Reading comprehension is an active cognitive process in which reader interacts with text and monitoring interpretation or understanding of what they think the writer intended to convey. To achieve the goal of teaching reading comprehension suitable teaching learning process is needed. Venn Diagram is the essential strategy to be applied to achieve that goal. It is knowledge general for learning, thinking, and problem solving. Venn Diagram has been used and studied in all content areas to improve students' understanding in reading a text. Many studies have integrated Venn Diagram strategy into daily instruction to improve students test scores in reading. When the students want to compare or contrast a lot information, it is difficult to see relationship in this format.

Venn Diagram enables students to organize visually so they are able to see relationship between two or three sets of items. When students read a text, a student only focuses to the unique terms that should be compared and contrasted and to the term that has a similarity. This condition makes them easy to understand what the text means without read the whole text. After students got the terms that should be compared, they put it into visual representation that has several advantages.

It is quickly and easily to recognize, and minimum use of text makes it easy to scan for a word, phrase, or the general ideas. Focusing on important concepts help the students see how concept is related, how concept is different, and how concept is similar. At last, teacher ask the students to represent what they have analyzed related to the term is compared and similar in order to help them become an active students.

By considering this aspect, students can know about different strategies for reading a textbook as strategies to monitor and check their comprehension as they read. Therefore, the students who are applying Venn Diagram Strategy on their reading comprehension will have higher achievement than those who are not playing it.

Based on the theoretical and conceptual framework above, students' reading comprehension which is taught by applying venn diagram strategy is significantly higher than those taught without venn diagram strategy. The hypothesis of this study is stated as follows:

Ho: There is no significant effect of Venn Diagram Strategy on reading comprehension

Ha: There is a significant effect of Venn Diagram Strategy on reading comprehension

METHODOLOGY

Research Design

The research will be conducted by using Experimental Research. Experimental Research is an observation in order to know the effect of *Venn Diagram Strategy o*n students' achievement in reading comprehension, where the sample is divided into two groups: experimental group and control group. The experimental group is the group that receives treatment by using Venn Diagram Strategy, while the control group is the one that receives the treatment by using the conventional method.

The research of this study consists of two variables. They are dependent and independent variable. The dependent variable of this study is venn diagram while the independent variable is reading comprehension. According to Ary (1979), the research design was figured as follows:

The Design of The Research

	Group	Pre-test	Independent Variable	Post-test
(R)	Experimental Group	*Y1*	Venn Diagram	*Y2*
(R)	Control Group	*Y1*	Conventional Method	*Y2*

Population and Sample

The population of this research will be taken from SMK PRAYATNA. The sample was taken from the first year students of SMK PRAYATNA which consist of 8 parallel classes where every class consists of 38 students, so the total of students in the first year were 304 students. The writer used randomized way of sampling. The first sample consists of 30 students for the experimental group and 30 students for control group.

Instrument for Collecting Data

The instrument which is used by the writer to collect the data is multiple-choice test. The test consists of 40 items to measure students' reading comprehension. Each item of test consists of four options namely, a, b, c, and d. Researcher realize that multiple choice test are the most widely used and highly regarded among the selection-type of items for test development. The test could be designed to measure the recall understanding and applying of specific concepts, or principle because the students can answer a large number of such questions in short time, a large sample of items can be incorporated in that test. They were used in pre-test, and post-test instrument.

There were some reasons why researcher used multiple choices to measure student' achievement in reading comprehension. First, is Effective for measuring. Second is objective scoring which is quick, easy, and consistent. Third, it usually encourages the students to develop a comprehensive knowledge of specific facts and the ability to make fine discrimination among them.

Research Procedure

The writer administers the procedures of research in three steps: pre-test, post-test, and scoring the test.

Pre-test

The pre-test is administered before the treatment. Both experimental group and control group are given the same pre-test. This test is used to find the students' reading comprehension achievement of both groups. The result of the tests will be compared to find out the effect of applying Venn Diagram Strategy on the students' reading comprehension achievement.

Treatment

In order to find out the effectiveness of Venn Diagram strategy in teaching reading comprehension, the sample is treated in different ways: Venn Diagram strategy and conventional method. Venn Diagram strategy is used for experimental group and conventional method is used for control group.

The treatment is conducted after administration of the pre-test. Both groups will be taught in 6 meetings including pre-test and post-test. The teaching procedure can be seen as in the following:

Scenario of the Treatment for Experimental and Control Group

Experimental Group Taught by Venn Diagram	Control Group taught by Conventional Method
Teacher gave a text to students and help the students to select two items or ideas/characters from the reading material and could be compared and constructed.	Teacher gave a text to the students
Asked the student to take separately, brainstorms a list of characters/descriptions/ opinion and ask them to write that under the item and idea.	Teacher read and explained the reading passage while the students should listen carefully, because they have to be able to comprehend the text.
Asked the students to identify a set of criteria to compare and contrast the item.	Teacher asked the students to find the difficult words from the text and look for the meaning from dictionary.
Have the students to draw 2 circles to the material being determined to be compared and contrasted.	Teachers have the students to translate the text.
	Teacher asked the students to do exercise

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From the two lists previously brainstormed, helped them to make a list of characters or description of the two ideas which was completed in the step two, have students select the words that include information in the interesting area in the interesting circle. From those same two lists, have student to determine information on how the items differ from the others. Asked the students to tell or present the result of their work. Teacher closed the activity by motivating the students to practice what they have been learned.	by answer the question based on the text. Teacher asked the students to tell the content of the text. Teacher gave some explanation about how to differentiate the fact and opinion Teachers tried to close the activity.

Post- test

The post-test was given after the treatment has been completed. It was meant to find out the differences in mean score of both experimental and control groups. In this case, teacher shared the test consist of 40 items. After students finishing the test, they have to collected it to the teacher and the result of both groups will be analyzed to find out if the effect of Venn Diagram Strategy on the students' reading achievements significant or not.

Validity and Reliability of the Test

According to Ary (1979) validity is concerned with the extent to which an instrument measures what one thinks it is measuring. It means that the test is given in order to know the instrument valid or not. In this case, the researcher used construct validity. It was concerned with the extent to which a test measures a specific trait or construct. This type of validity is essential for test that is used to assess individuals on certain philological traits and abilities. It involved both logical and empirical analysis. These abilities were theoretical, in the sense that researcher hypothesized that they affect the way researcher use language and how it perform on language test. It means that the test was made to measure students' reading comprehension in particular objectives for the material presented. The objective was stated on syllabus of grade ten

of vocational school. The objective was to comprehend functional text and multiple choices which are shaped of report text. To show that the test was valid in terms of construct, the table present below:

Table Specification

No	Report Text	Levels of Comprehension				Total
		Literal	Interpretation	Critical	Creative	
1.	Text 1: *Earthquake and Volcanic Eruptions*	9,10	2,4,5,7	3	1,5,6,	10
2.	Text 2: *Dog and Wolf*	20	12,15,18	14,16	11,13,17, 19	10
3.	Text 3: *Robot and Human*	27, 28	25	22,24,26	21,23,29	9
4.	Text 4: *The Senate and the House of Representatives*	32,34,37	33,36	35,38	30,31,39, 40	11
Total		8	10	8	14	40

Reliability refers to the consistency of the measurement. The internal consistency reliability of the test was used in this research because it was indicated the consistency of the test scores over part of the test. So, to obtain the reliability of the test, the writer used Kuder Richardson 21 formula as in following:

$$r = \frac{k}{(k-1)} \ [1\text{-M}] \ \frac{k-M}{ks}2$$

Where :

r$_{11}$: The reliability of the test

K   : The number of students

M   : Mean of items

S   : Standard deviation

According to Best (1981) states that the criterion for the evaluation of coefficient reliability (r) is :

0.00 - 0.20   : the reliability is Legible

     0.21 - 0.40   : the reliability is Low

     0.41 - 0.60   : the reliability is moderate

     0.61 - 0.80   : the reliability is substantial

     0.81 - 1.00   : the reliability is high to very high

Technique for Analyzing Data

After the data in the form of students' scores on reading comprehension are obtained, the following steps will be carried out :

Get the main score of each group (the experimental group and control group)

Compare the mean score of the two groups

Find out which one is higher

Explain the meaning of differences of the means score

Check the significance by using t-test (Hatch & Farhady 1982)

Explain the implication of the findings to the teaching of reading comprehension.

In order to know the difference effect between the two groups, the writer uses T-test formula as in the following :

$$t = \frac{M_x - M_y}{\sqrt{\left(\frac{x^2 + y^2}{N_X + N_Y - 2}\right)\left(\frac{1}{N_X} + \frac{1}{N_Y}\right)}}$$

In which :

M_X : mean of experimental group

M_Y : mean of control group

X   : the deviation square of experimental group

Y   : the deviation square of control group

N_X : the total number samples of experimental group

N_Y : the total number samples of control group

Data Analysis

The data were analyzed by computing reliability and t-observed which related to examine the hypothesis in order to answer the research problem.

Testing Reliability of the Test

In order to obtain the reliability of the test, the writer used Kuder- Richardson method formula 21 (KR-21) as following:

$$r_{11} = \left[\frac{K}{(K-1)}\right]\left[1 - \frac{M(K-M)}{KS^2}\right]$$

where:

K= 40

M= 25.06

S^2= 21.34

The calculation shows that the coefficient reliability of the test was 0.66. It means that the relation of coefficient reliability is high.   (See Appendix C)

Analyzing the Data by Using t-Test Formula

To find out whether applying Venn Diagram Strategy has a significant effect to students' reading comprehension, the writer used t-test formula as follows:

$$t = \frac{M_x - M_y}{\sqrt{\left(\frac{x^2 + y^2}{N_X + N_Y - 2}\right)\left(\frac{1}{N_X} + \frac{1}{N_Y}\right)}}$$

Where: M_X = 11.66

M_Y = 5.5

X^2 = 254.17

Y^2 = 1055

N_X = 30

N_Y = 30

The calculation shows that t-observed of this research was 5.02 (See Appendix D).

Testing Hypothesis

The basic of testing hypothesis in this research were:

If t-observed > t-table, the hypothesis will be accepted.

If t-observed < t-table, the hypothesis will be rejected.

In this research, the value of t-table for degree of freedom (df) 58 at level of significance (α) 0.05 was 2.000.

The result of calculating t-test shows that t-observed (t_{obs}) is higher than t-table (t_{table}) as follows:

t_{obs} > t_{table} (α= 0.05; df= 58)

5.02   > 2.000   (α= 0.05; df=58)   (See Table II)

Based on the data above, the writer concluded that the alternative hypothesis (Ha) is accepted and null hypothesis (Ho) is rejected. It means that "there is a significant effect of applying Venn Diagram Strategy on students' reading comprehension." Therefore, Ho is rejected and Ha is accepted.

RESULTS AND DISCUSSION

The result of this research shows that there is difference of output between both of classes, experimental and control classes. Based on the statistic calculation, the output score of the experimental group which is taught by applying Venn Diagram strategy (11.78) is higher than that in control group which is taught without Venn Diagram strategy (5.33). This difference take places because the effect of different treatment in each class. Besides that, the calculation of t-observed (5.02) is higher than t-table (2.000) for the degree of freedom (df) 58 at level of significance (α) 0.05. Based on the theoretical and statistical findings, this research concludes that teaching reading comprehension by applying Venn Diagram Strategy is significantly effective than that without applying Venn Diagram Strategy.

Discussion

In this research the researcher applied Venn Diagram as a strategy in helping students to improve their achievement in reading comprehension. In the previous chapter, the researcher explained that learning reading is not easy. Most of students find some difficulties in understanding the text. It was due to what Daniel S. Mc Manara (2009) stated that students sometimes failure to understand the words, the sentence, the sentence unity and organization, and the lack of interest or concentration. This case will

be frustrating and de-motivating, such attitudes due to unsuccessful experience in reading.

The condition above becomes big challenges for teacher as a person who transfers the knowledge.

They have to struggle in helping students to become a strategic reader, take the meaning from to printed page and then try to comprehend that. Therefore, one way to solve that problem is a teacher must be able to choose a suitable strategy to help them in achieving the learning process. Fuchs (2005) stated that there is abundant evidence that reading strategy improves reading comprehension, not only to successful in comprehension, but to overcoming reading problem and the last they can be a better reader and comprehended. By looking the explanation above, the writer tries to help the teacher in choosing the best strategy. The writer believes that applying Venn Diagram Strategy in teaching reading will be successes. This case based on the theory of The National Reading Panel (2000) which declared that it is one of the seven most effective teaching strategies for reading comprehension.

Basically, Venn Diagram is a visual learning tools which enabled the students to be interest in reading a text. This visual is used to break the information in the text into two parts, the differences and the similarities. This strategy really led the students to be focused on the terms to be compared or contrasted. It means that they do not need to read the whole paragraph in order to catch the meaning or in other words Venn Diagram strategy make learning reading become easier.

The effectiveness of Venn Diagram Strategy in teaching reading is supported when the researcher conducted an observation. During an observation, the researcher found that the students were very enjoying in reading the text. Creating Venn diagram was not the new thing for them because when they were in junior high school they have already applied this term in mathematics. It means that venn diagram was an easier strategy for students in making the comparison based on the text given.

The situation above can be proven when the researcher took 4 report texts which describe two or three things to show the improvement of students in their reading achievement. In showing the improvement, the researcher was conducted that observation by using experimental group and control group. The experimental group was taught by applying Venn Diagram Strategy, while the control group was taught

without Venn Diagram Strategy. The population of this research was tenth grade students of SMK Prayatna-1 Medan. The samples were taken namely X-AK1 for Experimental group and class AP-2 for control group. The research was started on January 16th 2012 and ended on February, 4th 2012. The treatment was done in five meetings during three weeks.

Firstly, the researcher gave pre-test to both of the groups in order to get the parallel class. Forty minutes was given to the students to finish the test. The mean score of the experimental group in the pre-test was 71.75 while the mean score of the control group is 72.08. In control group the teacher asked the students to read the text and translate the meaning of the difficult words by using dictionary, while in experiment group teacher encouraged students to read the text and to create a venn diagram to find the similarities and the differences of things. By using venn diagram strategy, the students in experimental group was asked to be a strategic reader in comprehending the text, while the control group was the monotone class. The students in experimental group are automatically more active than those in control group are.

After giving the treatment, the post test was given to both of the groups in 40 minutes. The researcher got that the mean score of the experimental group in post test was 83.5 and the control group was 77.41.
It means that the students in experimental group have higher score than those in control group have. It can be proved by looking the data in appendix D.

Appendix D shows that there was a significant improvement of students' score in the pre-test and post-test of the experimental group. The mean score of the experimental group in the pre-test was 71.75 while in the post test was 83.5. From the data above, there were fifth teen students whose score increased from 5- 10 points, thirteen students whose score increased 12.5-15 points, and two students whose score increased 17.5-20. It means that the treatment that applying Venn diagram strategy brought beneficial for those students in experimental group.

Appendix E shows the students' score in the pre-test and post-test in the control group. In the control group the increasing of the students' score from pre-test and post-test was low. The mean score in the pre-test was 72.08 and in the post-test was 77.41. There were five students whose score decreased 2.5 points, two students have the same score with the pre-test while twenty-three students whose score increased. In order to

know the differences of the mean score in each group, the researcher used t-test formula. T-test formula also helped the researcher to find the t-observed. Therefore, from the calculation, it is found that t-observed was 5.02 and t-table was (2.000) with the level of significance (α) 0.5. It means that t-observed is higher than t-table. Or in other words, applying Venn Diagram Strategy significantly affected reading comprehension.

CONCLUSION AND SUGGESTION

Conclusion

Based on the research finding, the researcher found that Venn Diagram Strategy significantly affects on students' achievement in reading comprehension. It is proved from the mean of scores of students in experimental group is higher than that of students in control group. It is also can be proved statistically with t-observed (5.02) is higher than t-table (2.000). Therefore, teaching reading comprehension by applying Venn Diagram Strategy significantly affect reading comprehension.

Suggestions

Based on the conclusion above, it would be better to offer suggestions:

- The English teacher should apply Venn Diagram Strategy in teaching process that gives much time for students for practice it.

- Before applying Venn Diagram Strategy, the teacher should prepare himself or herself and the material well in helping students' awareness of thinking about the topic by asking themselves questions.

- The students use Venn Diagram Strategy in order to improve their reading comprehension. Venn Diagram Strategy helps the students to focus on the terms or concept to be compared and contrasted. Therefore, the students do not need to read the whole paragraph in understanding the text.

- The English teacher should be more careful in choosing a suitable strategy in teaching reading that makes the students easier to comprehend the text, and it can be done well by applying Venn Diagram Strategy.

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