

## **QUESTION ANSWER RELATIONSHIP (QAR) STRATEGY: AN EXPERIMENTAL RESEARCH ON STUDENTS' READING COMPREHENSION**

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### **ABSTRACT**

The objective of this research was to find out the effect of QAR strategy towards reading comprehension on descriptive text. Experimental design was applied in this research. The population and sample of this research were the eighth grade students of SMP Swasta Dwi Tunggal Tanjung Morawa with total number of students was 60. Class VIII-A was the experimental class and class VIII-B was the control class. Each class consisted of 30 students. The cluster random sampling with lottery technique was applied to decide the sample group. The instrument of collecting the data was multiple choice tests consisted of 30 items. To obtain the reliability of the test, Kuder Richardson 21 (KR-21) formula was applied and Biserial Point Correlation formula was used to calculate the validity. The t-test was used for the data analysis and it was obtained that t-observed (8.601) was higher than t-table (2.001) with level of significance 0.05 and  $df = 58$ . The hypothesis testing proved that alternative hypothesis ( $H_a$ ) was accepted and null hypothesis ( $H_o$ ) was rejected. Thus, it was concluded that the Question Answer Relationship (QAR) Strategy significantly affected the students' reading comprehension on descriptive text.

**Keywords:** Question Answer Relationship (QAR) Strategy, reading comprehension, descriptive text

### **ABSTRAK**

*Tujuan penelitian ini adalah untuk mengetahui pengaruh strategi QAR terhadap pemahaman membaca teks deskriptif. Penelitian ini menggunakan desain eksperimental. Populasi dan sampel penelitian ini adalah siswa kelas delapan SMP Swasta Dwi Tunggal Tanjung Morawa dengan jumlah keseluruhan 60 siswa. Kelas VIII-A adalah kelas eksperimen dan kelas VIII-B adalah kelas kontrol. Masing-masing kelas terdiri dari 30 siswa. Sampel kluster acak dengan teknik lotre digunakan untuk memilih kelompok sampel. Instrumen pengumpulan data adalah tes pilihan berganda berjumlah 30 butir. Reliabilitas tes dihitung menggunakan rumus Kuder Richardson 21 (KR-21) dan rumus Biserial Point Correlation formula digunakan untuk menghitung validitas tes. Uji-T digunakan untuk analisis data dan diperoleh bahwa t-hitung (8.601) lebih tinggi dari t-tabel (2.001) dengan level signifikan 0.05 dan  $df = 58$ . Uji hipotesis membuktikan bahwa hipotesis alternatif ( $H_a$ ) diterima dan hipotesis null ( $H_o$ ) ditolak. Dengan demikian, dapat disimpulkan bahwa strategi Question Answer Relationship (QAR) secara signifikan mempengaruhi pemahaman membaca teks deskriptif siswa.*

**Kata kunci :** Strategi Question Answer Relationship (QAR), pemahaman membaca, teks deskriptif

## **A. Introduction**

Although the reading purpose is very essential, students still have difficulty in comprehending a passage. According to Astuti (2021) wrote that reading is the activity to obtain and understand the information from written resources. While Nurhayati, Muslem, and Manan (2019), reading can be said as an activity that aims to find, to see, and to understand the contents of a reading or writing. She also added that reading is one of the basic skills that must be taught to make students skillful in decoding a message or information carries out. In line with the concept of decoding, Pratiwi (2020) also explained that reading text which presents letters, word, sentences, and paragraphs encodes meaning. In the reading process, the readers use knowledge, skills, and strategies to determine what the meaning encrypted in the text. Thus, reading comprehension more relates to decode the meaning of the text.

For Indonesian students who want to learn and speak English as a foreign language fluently, reading comprehension is one important key they should achieve. In line with this, if students do not comprehend what they read, it means they just only read or see word one by one without grasping the information or the content of the reading text. If students read the written text by catching and comprehending the meaning of the text being read, then it is called reading. The aim of reading comprehension is to get better understanding while reading a text (Anggraini, 2021).

As stated as well in Kurikulum 2013 in Indonesia, it is said that reading comprehension is the main focus of reading activity in English. This means that reading comprehension is essential in education. In the eighth grade level, students have to comprehend some types of text, such as narrative, descriptive, recount, report, procedure, etc.

However, understanding a text can be difficult. Commonly the students are lack of reading comprehension that causes the students difficult to grasp and find important information contained in a text. When students are given a passage to be read,

mostly they do not understand the content, although the teacher has given them time to comprehend the text. Even, after the time given to read a passage has finished, some students still ask the teacher about the text. It means that students do not comprehend the passage well. This situation leads the students achieve low score in English tests, especially in reading comprehension tests. Reading comprehension is the mental process by which readers take the word encoded by a writer and use them to construct an interpretation of what they think the writer intended convey. Reading refers to the understanding the information presented in written form. Reading involves students' prior knowledge, experience and vocabulary. Astuti (2021) Some studies of reading prove that the important part of teaching reading is background knowledge of the students, what is learned and recalled or what they have already known.

The objective of this research was set up after identifying several problems in the research location such as the students had difficulties in comprehending a passage, students were lack in vocabulary, students were not used to read an English passage, students had difficulties in understanding the content of reading text, and students had difficulty in finding answer of the questions from the reading text. Their score is below 70, which is far from the KKM of English subject that is 75.

Research conducted by Pratiwi (2020) tried to solve almost the same problems such as students unable to answer questions of reading text because they were unable to comprehend where the information was. Besides that, students' reading ability was low because of lacking vocabulary and most students only looked up the meaning of the unfamiliar words in dictionary and lazy to memorize them. They also lack of interest to learn to read the correct English word. They also felt not interested in reading the materials given because sometimes they were difficult to read. The method used also added the problems. Teacher only gave monotonous lessons and applied the same learning method every week. Students felt lazy to pay attention what the teacher explained. Nurhayati, Muslem, and Manan

(2019) also emphasized that teacher's teaching strategies are believed as the main factor in students' failure in reading comprehension. They described the way how the teachers commonly asked students to read individually, read aloud, translate sentences one by one, or answered questions based on reading texts. Those activities were considered unsuitable in the context of learning reading. In the end, this way of teaching affected the students' motivation. Therefore, besides the technique or strategy or method used in teaching learning reading comprehension, appropriate texts given by teachers are another factor which should be taken into consideration.

A certain strategy is needed to make teaching process more effective in teaching reading comprehension. There is a need for teachers to teach comprehension strategy to help students read with understanding and hope to choose appropriate techniques in their teaching learning process. Because of the importance of this skill, there are many ways to improve the students' reading and comprehend a passage. One of them is using Question Answer Relationship (QAR) strategy. Related to this idea, it is supposed that this strategy will help students to understand the different types of questions and know how to approach the text based on the different question types effectively and efficiently.

Question Answer Relationship (QAR) is strategy developed by T.E Raphael (1986). Quoting from internet website <https://fcit.usf.edu/> QAR is a questioning strategy emphasizes that a relationship exists between the question, the text, and the background of the reader. In this strategy, students are taught to use four question/answer relationships (QAR's) to find the information they need to answer the question. Nurhayati, Muslem, and Manan (2019) concluded that QAR strategy is a teaching strategy that assists students relates their prior knowledge to the information provided in the text. Nadia (2014) wrote that QAR strategy refers to a series of instructional activities that help students figure out how to go about answering questions based on a given text and understand different types of questioning

and the relationship between questions and answers. Quoting from NBSS website, QAR shows students the relationship between questions and answers, how to categorize different types and levels of questions (Right There, Think and Search; the Author and You and On My Own questions), as well as how the text does not have all the answers. NBSS website also displays how to teach using QAR which includes 4 steps.

#### STEP 1

Introduce the strategy showing the relationship of the Questions to Answers. An enlarged chart of this can be hung in the classroom where students can refer to it.

#### STEP 2

Create QAR questions from small sections of text (not longer than five sentences) for each of the four levels. Using these questions, model how each level of the QAR questions can be identified and answered.

Discuss the differences between questions using the class textbook and subject exam papers.

- Right There: the answer is found in the text, usually as a phrase contained within one sentence.
- Think and Search: while the answer is in the text, the student is required to combine separate sections or pieces of text to answer the question.
- Author and You: as the answer is not directly stated in the text, the student draws on prior knowledge as well as what the author has written to answer the question.
- On Your Own: requires students to think about what is already known from their reading and experience (prior knowledge) to formulate an answer.

#### STEP 3

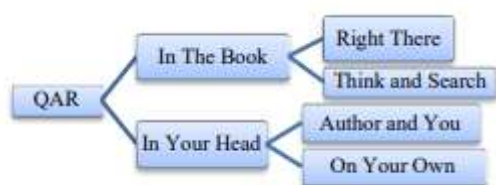
Give the students sample questions to answer in small groups and identify which of the QAR levels they used.

#### STEP 4

Have students work individually on questions from longer passages. Get students to examine the types of questions in their textbooks.

Quoting from Baqi (2019), here is the simple diagram of the steps conducting QAR strategy. In this diagram, it is clearly seen that there are two separate parts when using this strategy. In part "In The Book" there are two steps carried out by the students while in part "In Your Head" there are also two steps carried out the students as well. This diagram shows that there is difference source of information processed by the students using QAR strategy.

**Figure 1 Diagram of QAR Strategy**



Question Answer Relationship (QAR) strategy helps the students to clarify and comprehend what they are reading in the text encourages students to learn how to answer questions better. QAR strategy also gives the advantages that help students to understand how to differ types of information from the text and from their own knowledge. This strategy is expected to be able to organize the students' motivation to be more interested in reading. It is also expected can improve their reading comprehension.

Considering through many references about strategy applied for reading comprehension, Question Answer Relationship (QAR) Strategy appears to be one of the suitable strategy. Therefore, based on the problems of this current research elaborated above, it was decided to conduct a research using Question Answer Relationship (QAR) Strategy on students' reading comprehension. It was aimed to find out the effectiveness of Question Answer Relationship (QAR) strategy for students reading comprehension. This research hypothesis was formulated as follows:

Ha : The QAR Strategy is effective in the teaching reading comprehension

Ho : The QAR strategy is not effective in the teaching reading comprehension

**B. Research Method**

The research was conducted by using experimental research design. This research used two different classes to collect the data and these classes were used to arrange the sample group. They were control group and experimental group. QAR Strategy was applied in the experimental group. On the other hand, in control group, the conventional teaching strategy was given in which the students were taught in the same way as they were usually taught. The research design is illustrated in the following table.

**Table 1 Research Design**

| Group      | Pre-test | Treat-ment | Post-test |
|------------|----------|------------|-----------|
| Experiment | ✓        | QAR        | ✓         |
| Control    | ✓        | -          | ✓         |

From the table, it can be seen that both group were given pre-test as a preliminary test to gather information about students' background knowledge in reading comprehension. Then, the treatment was conducted for each group. The post-test was administered to both groups after conducting the treatment.

The population of this research was the eighth grade students of Perguruan SMP Swasta Dwi Tunggal Tanjung Morawa, Medan with the total number of students was 60 students. It consisted of VIII-A class with 30 students and VIII-B class with 30 students. According to Arikunto (2006) if the subject is less than one hundred it is better to take the entire subject; if the subject is more than hundred it can be taken between 10-15% or 20-25% or more than will be taken. The following table showed the population and sample taken.

**Table 2 Population and Sample**

| No. | Class  | Population | Sample |
|-----|--------|------------|--------|
| 1   | VIII-A | 30         | 30     |
| 2   | VIII-B | 30         | 30     |
|     | Total  | 60         | 60     |

The cluster random sampling with a lottery technique was used to determine the group division whether it was experimental group or control group. The two classes were selected out randomly by using lottery technique. The names of the two classes were written on a piece of lottery paper for each, and then the papers were taken randomly. The first class taken was experimental group and the second one taken was control group.

The instrument for collecting data in this research was reading text completed with question as test. The test consisted of some reading passage and 30 multiple choice questions. The same test was administered to both groups in pre-test and post-test. Before giving the test to the groups as research instruments, the test already has been validated through validity and reliability test. According to Best and Khan (2002) validity is the ability of the test to measure what it is supposed to measure. This research used content validity to measure the test. Content validity is a matter of determining whether the sample is representative of the large universe and supposed to present. Biserial Point Correlation was applied to calculate the validity of the test. Below is the formula of Biserial Point Correlation.

$$r_{pbis} = \frac{m_1 - m_o}{sd_1} \sqrt{\frac{p}{q}}$$

The reliability of the test concerns with its precession as a measuring instruments or it can be said the reliability refers to the consistency of the measurement. To obtain the reliability of the test, Kuder-Richardason 21 formula (KR-21) was used in this research. Below shall be the formula.

$$KR_{21} = \frac{K}{(K-1)} \left( 1 - \frac{M(K-M)}{K(S)^2} \right)$$

To analyze the data in order to find out the difference means of scores of both experimental and control group, the T-test formula used is written below.

$$t = \frac{Mx - My}{\sqrt{\left[ \frac{dx^2 + dy^2}{n_x + n_y - 2} \right] \left[ \frac{1}{n_x} + \frac{1}{n_y} \right]}}$$

The research procedures were conducted in three steps namely pre-test, treatment, and post-test.

#### 1. Pre-test

Pre-test was given with the intention to find out whether there were students who already know about the material to be taught. Pre-test can also be interpreted as an activity to test the level of students' knowledge of the material to be delivered. Pre-test activity was carried out before giving the teaching activities. The questions asked were the material that was taught that day (new material). The questions were usually done by the teacher at the beginning of the opening lesson. The benefit of holding a pre-test was to find out the students' initial abilities regarding the lessons delivered. By knowing the students' initial abilities, the researcher as the teacher was able to determine how to deliver the lessons that was taken later.

#### 2. Treatment

Treatment was conducted for both experimental group and control group. Both groups were administered in two meetings for the treatment. The experimental group was taught by using Question Answer Relationship (QAR) strategy while the control group was taught by applying conventional strategy.

#### 3. Post-test

Post-test was conducted for both groups after the treatment. The post-test was exactly the same as the pre-test. It was intended to find out the mean scores of experimental and control group.

### C. Result and Discussion

Based on the detail scores of pre-test and post-test obtained for experimental group with total number of 30 students, it was achieved the lowest score of the pre-test was 43 and the highest score was 73 while the lowest score of post-test was 80 and the highest score was 96. The average score then was calculated and it was obtained that

the average score of pre-test was 54.36 and the average score of post-test was 86.73 for experimental group.

While in control group, with total number of 30 students, it was achieved the lowest score of pre-test was 30 and the highest score was 70 while the lowest score of post-test was 60 and the highest score was 83. The average score was calculated and obtained 53.06 for pre-test and 70.73 for post-test.

In order to complete the data needed for T-test, then the mean score of both groups was calculated along with the deviation. It was obtained the mean score of experimental group was 32.36 with deviation value was 1730.97 while the mean score of control group was 17.66 and the deviation value was 1092.67 respectively. Obtaining those values, the calculation of T-test was conducted thoroughly. The value of T-observed was 8.601 and this value was compared to the value of T-table by conducting the hypothesis testing.

The hypothesis testing aimed to show the result of the analysis. In this research, the T-table value was obtained from the standard value of t-distribution table under the level of significance 0.05 and degree of freedom (df) 58. The T-observed and T-table then were compared as shown below.

|            |   |         |
|------------|---|---------|
| T-observed | > | T-table |
| 8.601      | > | 2.001   |

The value of T-observed was higher than the value of T-table. Therefore, it can be concluded that there was a significant effect on students' reading comprehension of descriptive text by using QAR strategy. This meant that the alternative hypothesis (Ha) which stated that QAR strategy significantly affected the students' reading comprehension in descriptive text was accepted and the null Hypothesis (Ho) stating that QAR Strategy did not significantly affect students' reading comprehension in descriptive text was successfully rejected.

Others previous research with the same topics also concluded the same result. A research conducted by Anggrain, Afriani, and Riswanto (2020) described the data analysis by using t-test obtained that t-test was 2.690 and t-table was 1.76; thus, t-test is

higher than the t-table ( $2.690 > 1.76$ ). The hypothesis testing proved that null hypothesis (Ho) was rejected and the alternative hypothesis (Ha) was accepted. Another research by Anggun (2017) concluded that this strategy was effective to teach reading. There was significant different between experimental and control group seeing from the hypothesis result. She concluded that QAR strategy could improve students' reading comprehension. Besides, students could learn by working in groups and more active in discussion when they used QAR strategy. Anggraini (2020) also revealed the same result. She compared the value of t-table and t-test and obtained that t-test was higher than the t-table ( $2.690 > 1.76$ ). Thus, the null hypothesis (Ho) was rejected and the alternative hypothesis (Ha) was accepted.

In conclusion, all the research mentioned above resulted that Question Answer Relationship Strategy was effective in teaching reading comprehension.

#### **D. Conclusion and Suggestion**

Based on the data obtained, it was concluded that the Question Answer Relationship (QAR) strategy significantly affected the students' reading comprehension on descriptive text. There was a significant difference of mean score obtained by experimental group (32.36) and control group (17.66). The result of calculation by employing T-test formula showed that T-observed value was higher than T-table value ( $8.601 > 2.001$ ) at level of significance 0.05 with degree freedom (df) 58. It was concluded that alternative hypothesis (Ha) was accepted and null hypothesis (Ho) was rejected.

In line with the conclusion, here are some suggestions to be offered from this research. First, the English teacher should give more attention to students' motivation and stimulate the students to make the activity of reading as a pleasure time while applying QAR. Second, students will be more active in the class when they are taught by QAR Strategy because it relates with their prior knowledge while they are obtaining information by reading.

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