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READING COMPREHENSION TOWARDS QAR STRATEGIES AT SMPN 4 PEMATANGSIANTAR

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Abstract

This study aims to (1) determine the significant difference in reading comprehension skills between students who were taught using the QAR strategy and students who were taught without using the QAR strategy in class VIII SMP Negeri 4 Pematangsiantar. This research is a quantitative research with a quasi-experimental research method. The research design was a pretest and posttest control group design. The data analysis technique used was t-test with a significance level of 5%. T-test analysis of posttest data of the experimental group and the control group, obtained th of 3.523 and p of 0.001 (p <0.05). The results of the t-test analysis of the experimental group's pretest and posttest data obtained th 12,919 and p of 0.000 or (p <0.05). The average gain score for the experimental group was 5.41 and the control group average was 2.78. Based on these data, the conclusions of this research are (1) there is a significant difference in reading comprehension ability between students who are taught using the QAR strategy and those taught without using the QAR strategy in class VIII SMP Negeri 2 Tempel, (2) the QAR strategy is effectively used in learning reading comprehension in grade VIII SMP Negeri 4 Pematangsiantar.

Keywords: *Qar, Quantitative Research, Post-test and Pre-test, Comprehension*

1. INTRODUCTION

Reading activities help students obtain information from various sources to support learning at school. In addition, daily activities cannot be separated from reading activities. Various information can be obtained by reading, such as reading news in newspapers, internet, billboards, story books and so on. Based on *Kurikulum Tingkat Satuan Pendidikan* (KTSP) applicable in junior high schools, reading is one of the skills that must be mastered in Indonesian subjects. Reading is listed in the competency standard, so it is very important in achieving the completeness of the value of these subjects. In learning to read, students often experience problems which ultimately result in their reading ability

The QAR strategy was developed by Raphael in 1986 (Ruddell, 2005). The QAR strategy is designed as a means for students to understand the relationship between answers and questions directly through the types of questions asked. QAR helps students consider the information obtained based on the text as well as from their own background knowledge.

The level of these questions is the key to the advantage of the QAR strategy in learning reading comprehension. With the three levels in QAR, teachers can assist students to be more thorough, careful, and understand what they read. Thorough and careful in the sense that students can classify the three levels of questions and are able to determine how to get answers to the various levels of difficulty of the questions available. To find out Reading Comprehension Using QAR Strategies at SMP 4 Pematangsiantar, based on the researcher's knowledge, the QAR strategy has never been studied and applied in learning reading

comprehension, especially for class VIII students of SMP Negeri 4 Pematangsiantar. Therefore, this study aims to test whether the Question-Answer Relationship (QAR) strategy is effective in learning to read comprehension in class VIII SMP Negeri 4 Pematangsiantar.

2. LITERATURE REVIEW

2.1. Reading

Reading is an important skill in many different settings especially in educational setting (Grabe, 2009). Students, nowadays, encounter the great demands of reading activity since all knowledge is in the written form. The students should have a good reading ability to discover the content of the text. In addition, Harrison (2004) argues that the importance of reading is not only related to the development of knowledge but also it is related to the people thinking capability. This capability will be the basic development of emotional, moral and verbal intelligence.

Spratt et al. (2005) define reading as a process of responding to, making sense a text being read and connecting it with readers' prior knowledge. In making sense of information, readers connect new knowledge obtained from the text with the known knowledge they know already. It is believed that relating to readers' prior knowledge will make readers memorize the new knowledge longer. Therefore, a reading activity is an interaction between readers' mind and the text.

Reading Skills In order to be a good reader, people need to master several reading skills. The reading skills consist of two major elements namely micro-skills and macro-skills.

2.2. Reading Comprehension

Klingner, Vaughn and Broadman (2011) define reading comprehension as a complex process involving interaction of many components. Those components are readers, their background 12 knowledge, their reading strategy, the text, their interest in the topic, and their knowledge of text types. Those components interact with one another in comprehending a printed text. When interference appears in those interactions, the readers find difficulties in their reading comprehension.

Based on Identification of the Problem, the researcher can formulate research of the oproblems

1) Is there a significant difference in reading comprehension skills between students who are taught using the QAR strategy and students who are taught without using the QAR strategy in class VIII SMP Negeri 4 Pematangsiantar?
2) Is the QAR strategy effective in teaching reading comprehension for class VIII SMP Negeri 4 Pematangsiantar?

3. RESEARCH METHOD

3.1. Research Design

This research is a quantitative research with a quasi-experimental research method. The research design used is the pretest and posttest control group design. This study used two groups, namely the experimental group which was taught using the QAR strategy and the control group which was taught without using the QAR strategy. To test the ability to read comprehension, each group took the same test, namely pretest and posttest.

3.2. Technique of Collecting Data

The instrument used in this research is an instrument in the form of a reading comprehension test, this is done because the data measured is in the form of student achievement. The test used is an objective test with a total of 40 questions with four alternative answers. The grid of the reading comprehension test is structured according to Barrett's Taxonomy. The readings used are selected based on the number of words, which is around 300-350 words per reading. The themes and content in the readings are adapted to problems that are close to students or contextual. Readings also contain useful information and do not frighten students.

The data analysis technique in this study used a t-test with the help of the SPSS 20 computer program. The use of this analytical technique was intended to determine the significant difference in reading comprehension ability between students who were taught using the QAR strategy and those taught without using the QAR strategy in class VIII SMP Negeri 4 and test the effectiveness of the QAR strategy in learning to read comprehension in class VIII SMP Negeri 4.

The analysis prerequisite test was carried out by means of the distribution normality test and the homogeneity of variance test. This was done before statistical analysis was carried out to test the hypothesis. If these two prerequisites are not met, the next step of statistical analysis cannot be carried out.

4. RESULT AND DISCUSSION

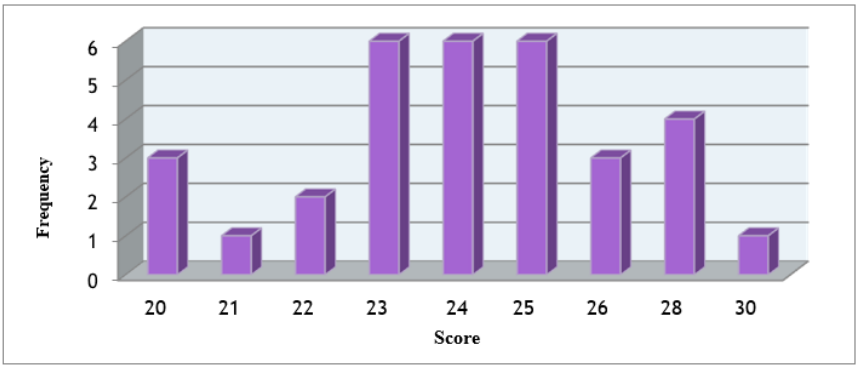
4.1. Result Research

Table 1 Pretest Score Frequency Distribution Reading the Understanding of Experimental Groups

No.	Score	Frequency	Frequency (%)	Cumulative Frequency	Cumulative Percentage (%)
1.	20	3	9,4	3	9,4
2.	21	1	3,1	4	12,5
3.	22	2	6,2	6	18,8
4.	23	6	18,8	12	37,5
5.	24	6	18,8	18	56,2
6.	25	6	18,8	24	75,0
7.	26	3	9,4	27	84,4
9.	28	4	12,5	31	96,9
10.	30	1	3,1	32	100,0
Total		32	100		

The data in Table 1 can be presented in the form of the following histogram.

Figure 1 Histogram f Pretest Score Frequency Distribution Reading Understanding of Experimental Groups



Based on table and figure above, it can be known the distribution of pretest score data of experimental groups with the frequency of students each score. The data presented showed that 32 students of the experimental group had a score range ranging from 20 to 30. The score range is no more than 15, so the data can still be presented into a single distribution table, while the trend score can be seen

Table 2 Category of Distribution Tendencies Pretest Ability to Read Comprehension of Experimental Groups

No	Category	*Mean*	*Sd*	Score of Tendency	Frequency (%)
1	High	24,28	2,45	26,73 - 30	15,6
2	Medium			21,83 - 26,73	71,9
3	Low			20 - 21,83	12,5

Based on table above, the experimental group students had the most frequency scores in the moderate score category. This suggests the experimental group had a normal distribution of scores. In the moderate category, the score of the experimental group students is still below KKM. The KKM standard that must be obtained is 30. It can be concluded that more than 84% of the experimental group students at the time of pretest comprehension reading skills had scores that were still below KKM standards.

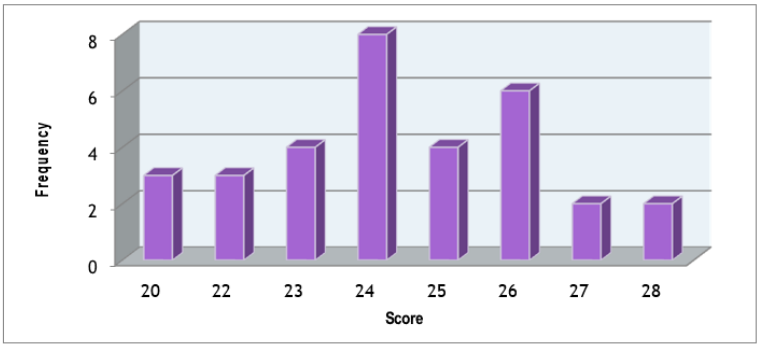
Table 3 Pretest Score Frequency Distribution Reading the Understanding of Control Groups

No.	Score	Frequency	Frequency (%)	Cumulative Frequency	Cumulative Percentage (%)
1.	20	3	9,4	3	9,4
2.	22	3	9,4	6	18,8
3.	23	4	12,5	10	31,2
4.	24	8	25,0	18	56,2
5.	25	4	12,5	22	68,8
6.	26	6	18,8	28	87,5
7.	27	2	6,2	30	93,8

8.	28	2	6,2	32	100
Total		32	100		

The data on Table 3 can be presented in the following histogram form.

Figure 2 Pretest Score Frequency Distribution Histogram Reads Control Group Understanding



Based on table and figure above, it can be known the distribution of pretest score data of the control group with the frequency of students per score. The data presented showed that of the 32 students the control group had a score range ranging from 20 to 28. The score range is no more than 15 so the data can still be presented into a single distribution table, while the trend score can be seen in table 7 below.

Table 4 Category of Distribution Tendencies Pretest Reading Ability to Read Understanding Control Groups

No	Category	*Mean*	*Sd*	Score of Tendency	Frequency (%)
1	High	24,25	2,12	26,37-28	12,4
2	Medium			22,13-26,37	68,7
3	Low			20-22,13	18,8

Based on table 4, it can be known that the students of the control group had the most frequency scores in the moderate score category.

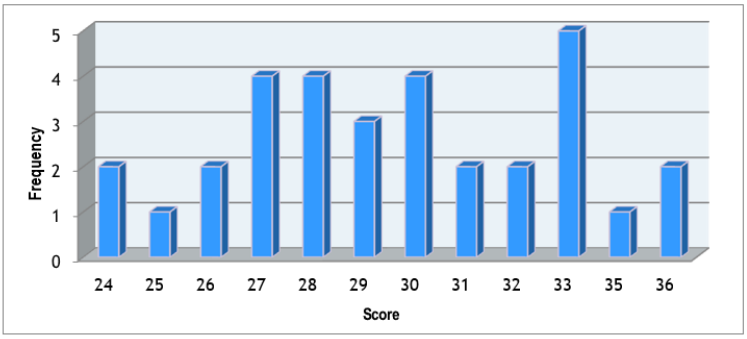
Table 5 Posttest Score Frequency Distribution Reading the Understanding of Experimental Groups

No.	Score	Frequency	Frequency (%)	Cumulative Frequency	Cumulative Percentage (%)
1.	24	2	6,2	2	6,2
2.	25	1	3,1	3	9,4
3.	26	2	6,2	5	15,6
4.	27	4	12,5	9	28,1

5.	28	4	12,5	13	40,6
6.	29	3	9,4	16	50,0
7.	30	4	12,5	20	62,5
8	31	2	6,2	22	68,8
9	32	2	6,2	24	75,0
10	33	5	15,6	29	90,6
11	35	1	3,1	30	93,8
12	36	2	6,2	32	100
Total		32	100		

The data on table 5 can be presented in the following histogram form.

Figure 3 Posttest Score Frequency Distribution Histogram Reading the Understanding of Experimental Groups



Based on table and figure above, it can be known the distribution of posttest score data of experimental groups with the frequency of students of each score. The data presented showed that of the 32 students of the experimental group had a score range ranging from 24 to 36. The score range is no more than 15 so the data can still be presented into a single distribution table, while the trend score can be seen in table 9 below.

Table 6 Posttest Distribution Tendency Category of Experimental Group Comprehension Reading Ability

No	**Category**	***Mean***	***Sd***	**Score of Tendencies**	**Frequency (%)**
	High	29,69	3,28	32,97-36	25,0
	Medium			26,41-32,97	64,4
	Low			24-26,41	15,6

a. At the time of posttest, the score of the experimental group that reached KKM had a frequency of 50%. The data also showed an increase in the frequency of experimental group students who achieved KKM scores compared to previous pretest results. Posttest Score Data Reading Control Group Understanding

The provision of posttest reading comprehension in the control group is intended to determine the achievement of the final ability to read comprehension of students who are taught without the use of QAR strategies. Posttest is done with the same problem and number of questions as the pretest problem. Subjects on the posttest control group were 32 students. The control group's posttest results data can be seen in the following figure.

Table 7 Posttest Score Frequency Distribution Reading Control Group Understanding

No.	Score	Frequency	Frequency (%)	Cumulative Frequency	Cumulative Percentage (%)
1.	22	1	3,1	1	3,1
2.	23	2	6,2	3	9,4
3.	24	3	9,4	6	18,8
4.	25	4	12,5	10	31,2
5.	26	4	12,5	14	43,8
6.	27	6	18,8	20	62,5
7.	28	2	6,2	22	68,8
8	29	3	9,4	25	78,1
9	30	4	12,5	29	90,6
10	31	1	3,1	30	93,8
11	32	1	3,1	31	96,9
12	33	1	3,1	32	100
Total		32	100		

Moreover, the data on table 7 can be presented in the following histogram form.

Figure 4 Posttest Score Frequency Distribution Histogram Reading Control Group Understanding

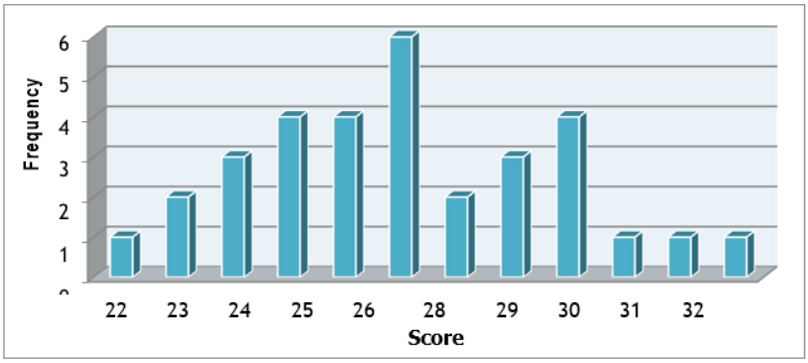


Table 8 Posttest Distribution Tendency Category of Control Group Comprehension Reading Ability

No	Category	*Mean*	*Sd*	Score of Tendencies	Frequency (%)
1	High	27,03	2,73	29,76-33	21,8
2	Medium			23,30-29,76	68,7
3	Low			22-23,30	9,4

Based on table above, the group's posttest tendency category of control group students had the most frequency in the moderate score category. This indicated the control group had a normal score distribution category.

Table 9 Summary of Pretest and Posttest Score Data Reading the Understanding of Experimental Groups and Control Groups

Data		Lowest Score	Highest Score	Mean	Median	Modus	Standard deviation
Pretest	**KE**	20	30	24,28	24,00	23,00	2,453
	KK	20	28	24,25	24,00	24,00	2,125
Posttest	**KE**	24	36	29,69	29,50	33,00	3,277
	KK	22	33	27,03	27,00	27,00	2,730

Based on table above, there can be a comparison of the scores of experimental groups and control groups. At the time of pretest, both had a balanced average score. This shows that before the treatment both have the same ability to read comprehension. At the time of posttest, the control group's average score increased compared to pretest but the score was lower than the experimental group. It can be concluded that the average pretest and posttest score the control group and the experimental group experienced an increase, but a more significant increase in the average score was experienced by the experimental group.

4.2. Discussion

This research was conducted at SMP Negeri 4. The research sample was class VIII A which consisted of 32 students as the experimental group and class VIII B which consisted of 32 students as the control group. The purpose of the study was to determine the significant difference in reading comprehension skills between students who were taught using the QAR strategy and those taught without using the QAR strategy to class VIII students of SMP Negeri 4 and to test the effectiveness of the QAR strategy in learning reading comprehension in class VIII B students of SMP Negeri 4

The QAR strategy is an activity plan in which students categorize comprehension questions according to how and from what source of answered question (Raphael in Ruddell, 2005:372).

QAR Strategi Strategy for use in learning reading comprehension for middle to high school students. To find out the effectiveness of the QAR strategy in learning reading

comprehension, it is necessary to conduct research on reading comprehension skills in class VIII students of SMP Negeri 4 Pematangsiantar

4.2.1. The Differences in Reading Comprehension in the Experimental Group and the Control Group

The initial ability to read comprehension of the experimental group and the control group showed that both groups were at the same ability. After knowing this, each group can be treated. The treatment of reading comprehension learning in the experimental group was taught using the QAR strategy and the control group was taught without using the QAR strategy. In the final stage, a posttest was carried out, this aimed to determine the final ability of each group.

1) The steps in the QAR strategy led students to think more actively using the QAR level of questions. The learning step using the QAR strategy developed by Tompkins (2010) consists of five steps as follows. The first step, students read the questions first before reading the reading text. In this process students are able to find ideas or descriptions of the contents of the text they are going to read. Tompkins (2010) explains "students read the questions as a preview before reading the text to give them an idea of what to think about a they read".
2) The second step is to understand the level of the QAR question. The teacher introduces the level of questions that QAR has. Students are required to learn about the level of thinking needed to answer these questions. At this stage students are able to understand the level of difficulty in comprehensive questions commonly encountered in learning to read comprehension.
3) The third step is reading the reading text, students read the reading text while thinking about the answers to the questions they have read before. At this stage students are able to decipher the reading and understand it using questions that have been read before and students are also able to find answers to these questions while reading.
4) The fourth step is to answer questions, in this step students read the questions again and answer them. Students determine where to get answers according to the QAR level and write down the answers. In the QAR steps, it can be seen that the questions are not only used after students read the text, but also at the stages before, during, and after reading. This is useful so that students get a better understanding of the reading. As stated by Durkin (in (Duke & Pearson, 2009)), “no comprehension activity has a longer or more pervasive tradition than asking students questions about their reading, whether this occurs before, during, or after the reading”.
5) The last step is sharing answers, in this step students share answers to the questions they have worked on. Students present their answers to their classmates. Students also provide examples of other questions based on the text that has been read according to the level of QAR questions. At this stage, students are able to express their answers and ideas they have boldly.

The control group is still very simple which only uses a lecture strategy, the steps are 1) reading the reading text, 2) concluding the contents of the reading, and finally 3) answering

questions on the reading. The treatment in this control group did not get a good response and students experienced boredom and were less enthusiastic in learning reading comprehension.

The difference in reading comprehension ability of the experimental group and the control group can also be seen from the level of students' understanding of reading. The level of understanding is reflected in the pretest-posttest questions which are prepared using the level of understanding of Barrett's Taxonomy. The classification owned by Barrett's Taxonomy (Zuchdi, 2008) is classified into four sub-headings, namely: 1) literal understanding, 2) inferential understanding, 3) evaluation, and 4) appreciation and in more detail, one subtitle is added, namely reorganization. The level of reading comprehension is composed of a low to high level of understanding so that it can show how far the level of understanding possessed by students is.

By using questions that have a level of understanding, the experimental group and control group students measured their reading comprehension ability. The result is that students in the experimental group who received treatment using the QAR strategy in learning reading comprehension experienced a significant increase in reading comprehension ability, while the control group learning reading comprehension using the lecture strategy did not experience a significant increase in reading comprehension ability.

Based on the data from the analysis of the results of the t-test, the posttest scores of the experimental group and the control group obtained t of 3.523, with df = 61 and obtained p of 0.001, at a significance level of 0.05. The p value is smaller than the significance level of 0.05 (0.001 < 0.05). The final ability of the two groups that have been t-tested shows that there is a significant difference in reading comprehension ability between the experimental group taught using the QAR strategy and the control group taught without using the QAR strategy.

4.2.2. The Effectiveness of Using the QAR Strategy in Learning Reading Comprehension of Class VIII Students of SMP Negeri 4

The effectiveness of the QAR strategy in learning reading comprehension for grade VIII students of SMP Negeri 4 can be known after students receive treatment for learning reading comprehension using the QAR strategy. This effectiveness can be seen from the comparison of the average gain score achieved by students in the experimental group and the control group.

The level of QAR questions is very influential on the level of students' reading comprehension so that the QAR strategy is very effectively used in learning to read comprehension. Tompkins (2010) describes the effectiveness of questions in their influence on reading comprehension, namely “the questions students ask shape their compretention: If they ask literal questions, their compretention will be literal, but if students generate inferential, critical, and evaluative questions, their comprehension will be higher-level”. The questions that students ask determine the condition of their understanding, if they ask literal questions, their understanding is limited to literal knowledge, but if students produce inferential, critical, and evaluation questions, their understanding will be at a higher level.

The level of QAR questions has a level of thinking from low, medium, to high levels. At a low level are questions from the text explicit or "right there". At this level students can get answers easily in the form of words or phrases, examples of questions are asking the name (who), the place (where), the time (when), and so on. At the moderate level question

is the "think-and-search" level, questions are formed from implicit texts or answers can be obtained by students from thinking and searching. Questions at this level require students to look for answers in reading and think more than low-level questions. This level usually has sample questions asking cause or effect, comparisons, seeking information (how and why). At the last level of question or high level question is "*on my own*". The information obtained in the reading text can be combined with the knowledge or experience possessed by students so that a higher level of thinking is obtained. Examples of questions can be asking what students know about the topic of reading and other information they know, their experiences and impressions regarding the topic of reading, or their opinion about the topic in the reading.

By using the indicator QAR strategy in learning reading comprehension in VIII grade of Junior High School students can be achieved.

1) These indicators include the first that students are able to understand the content of reading through intensive reading. The QAR strategy makes it easier for students to understand the reading using the QAR question level. In accordance with the objectives of the QAR strategy expressed by Raphael (in (Wiesendanger, 2001)), the QAR strategy aims to teach students to focus on meaning in context.
2) The second indicator is that students are able to identify sentences of facts and opinions in discourse. By using the first level of QAR questions, namely "right there" students can understand the reading text explicitly including identifying sentences of facts and opinions in discourse.
3) The third indicator is that students are able to find information as discussion material. In the last level of QAR questions, the information obtained in the reading text can be combined with the knowledge or experience possessed by students. This can motivate students to discuss with friends about their experiences and information outside of reading.

Based on what has been described above, it can be concluded that the QAR strategy is effectively used in learning reading comprehension for class VIII students of SMP Negeri 4 Pematangsiantar.

5. CONCLUSION

Based on the results of research and discussion in chapter IV, can be concluded as follows. There is a significant difference in comprehension reading skills between students who are taught using QAR strategies and students who are taught without using QAR strategies in students of grade VIII of SMP N 4 Pematangsiantar. The difference in comprehension reading ability was shown by the results of the test-t posttest of the experimental group and the control group. The calculations show that t is 3.523 with df = 62 and p is 0.001. The value of p is less than the significance level of 0.05 or 0.001<0.05. Qar strategy is effectively used in reading comprehension learning in students of grade VIII of SMP N 4 Pematangsiantar. This can be known from the results of the test-t analysis of the sample related to the experimental group as well as the comparison of the gain score of the experimental group and the control group. The results of the test-t test analysis of pretest and posttest experimental groups were obtained th 12.919 and p by 0.000 001<0,05.

Qar strategy is effectively used in reading comprehension learning in students of grade VIII of State Junior High School 2 Tempel. This can be known from the results of the test-t analysis of the sample related to the experimental group as well as the comparison of the gain score of the experimental group and the control group. The results of the test-t test data pretest and posttest experimental groups obtained th 12.919 and p amounted to 0.000 ($p < 0,05$). The experimental group's average score gain was 5.41 and the control group was only 2.78. Thus, the experimental group had a significant gain score of average pretest and posttest compared to the control group.

Implicature

Based on the conclusion, there are significant results in the use of QAR strategies in reading comprehension learning in students of grade VIII of State Junior High School 2 Tempel. In addition, QAR strategies are effectively used in reading comprehension learning. This can have implications that with the right learning strategy will help teachers in managing the classroom during learning, and teachers can get maximum results from classroom learning.

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