

# THE EFFECTIVENESS OF QUESTION-ANSWER RELATIONSHIP (QAR) STRATEGY IN ENHANCING STUDENTS' READING COMPREHENSION ABILITIES

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## Abstract

The study reported here aimed to examine the effectiveness of the Question-Answer Relationship (QAR) strategy on students' ability in comprehending narrative texts. Using a quasi-experimental method, this study compared two English classes: one was assigned as the experimental group and the other as the control group, in terms of reading comprehension improvement, which was measured through a pretest and posttest. The study involved a total of 46 eighth-graders of a junior high school in Kerinci regency, Jambi Province, Indonesia. The control group was taught using a conventional strategy while the experiment group was engaged in the QAR strategy to answer reading comprehension questions of narrative texts. The findings revealed that the QAR strategy was effective in enhancing students' scores in reading comprehension, which was indicated by a significant difference in the pretest and posttest scores of the experimental group. The findings of this study add to the current literature on the significance of using the QAR strategy to foster student reading. Practical implications for EFL teaching in the Indonesian context are put forward.

**Keywords:** Effectiveness, Question-Answer Relationship (QAR) Strategy, Reading Comprehension, Narrative Texts

## INTRODUCTION

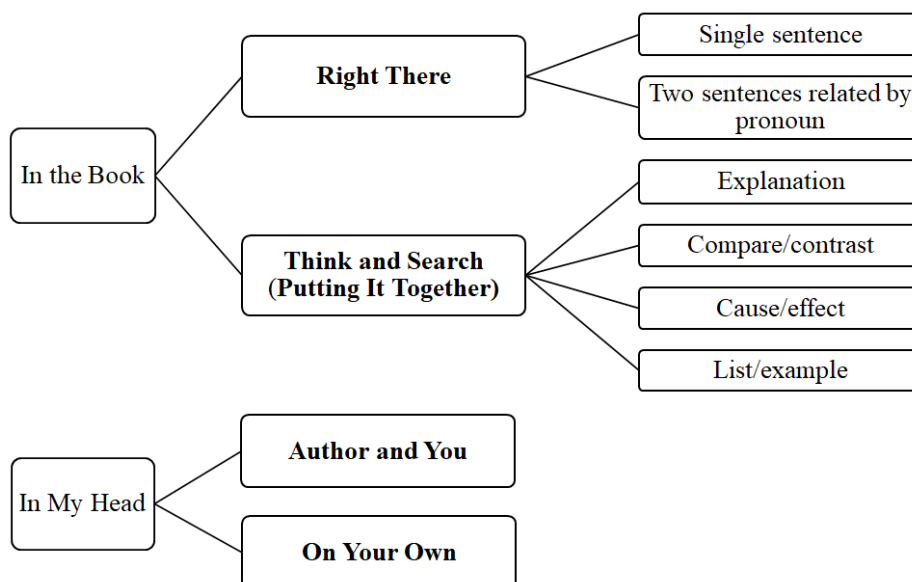
In this globalized era, English has been progressively used as an international language in many life sectors such as business, economics, and education. It is a major international *lingua franca* and the utmost used language all over the world (Cholakova, 2015). In the Indonesian educational system, English has long been taught as a compulsory subject from secondary (junior and senior high schools) to tertiary levels. Among the purposes of English language teaching is to advance the students' verbal and written communication skills to attain a *functional* level of literacy in the junior high school (BSNP, 2006a) and an *informational* level in the senior high school (BSNP, 2006b). The *functional* level involves the capacity to cope with daily life needs that are conveyed in writing. Meanwhile, the *informational* level is associated with the function of literacy to convey knowledge with the emphasis on reading and writing but predominantly reading to access information (Wells, 1987). This suggests that reading comprehension is one of the essential language competencies that need to be possessed by the students. Reading comprehension is important because it is one of the objectives that must be achieved in the Indonesian English language teaching curriculum (Poedjuastutie, Akhyar, Hidayati & Gasmi, 2018).

Reading comprehension refers to the capacity to extract meaning from printed pages and make interpretations of the information accordingly (Grabe & Stoller, 2002). It is a process of interplay between texts, readers, and contexts concerning the language and cognitive competencies as well as knowledge of the readers (Nuttall, 2005) and a process of extracting

meaning from associated text, which entails word cognizance, thinking, and reasoning (Pang, Muaka, Bernhardt & Kamil, 2003). Thus, reading comprehension is not a passive process. Rather, it is a process that requires readers’ active involvement in the construction of meaning, which involves the utilization of previous knowledge.

Since reading is a thinking process, readers need reading strategies to understand what they read before, during, and after reading and to improve their reading performance. Duffy (2003, p. 9) stated that the students with insufficient knowledge of what and how to do will struggle with their reading. Therefore, the students should be taught strategies on how to feel what they read to attain conceptual knowledge (Swan, 2003). Reading strategies refer to means for facilitating and extending comprehension (Hardebeck, 2006). Timothy (2006) found that readers of different ages and grades benefit from being taught the conscious and intentional use of comprehension strategies during the reading process.

One of the reading comprehension strategies is the Question-Answer Relationship (QAR) strategy, which was invented by Taffy Raphael in 1986. The QAR refers to a strategy to elucidate the approaches employed by students to define reading strategies to comprehend texts by understanding question types (Raphael, 1986). In its implementation, this strategy requires students to complete the task that contains QAR questions. According to Raphael (1986, pp. 517-519), the QAR strategy is divided into two types of questions, they are ‘In the Book’ and ‘In My Head’. Each of these two types has two forms of situations. ‘In the Book’ category, questions are categorized as either ‘Right There’ (when the answer is explicitly stated within a single sentence in the reading text) or ‘Think and Search’ (when the answer exists in the text, however, the reader needs to compile information from different sections in the text). Meanwhile, ‘In My Head’ questions are divided into ‘Author and You’ (when the answer is not available in the text but the reader is required to recall his/her prior knowledge, what is conveyed by the author in the text, and how it is linked) and ‘On Your Own’ (when the answer does not exist in the text and the reader needs to use his/her own experience). The connections among the four types of question-answer relationships are shown in figure 1 below.



**Figure 1.** Relationships among four types of QAR (Raphael, 1986)

The QAR strategy is used to assist students in tracking down information through comprehending and answering the questions (Green, 2016; Raphael & Au, 2005; Raphael,

Highfield & Au, 2006). Training students with QAR strategies help them be aware of the importance of considering both information written in the reading passage and their prior knowledge (Raphael, 1984). Raphael's (1984) study suggested that without QAR instruction, students frequently demonstrated a dearth of strategic performance in reading and answering questions. They frequently depended mainly on either their background knowledge without taking into account the importance of the text they had just accomplished or relied mainly on the text without bearing in mind the information obtained from their experiences.

In practice, the QAR strategy is not only useful for students as a means of tracing information and making decisions about the deployment of the reading passage and prior knowledge but also helping teachers to conceptualize and develop comprehension questions (Raphael, 1986). As for the students' tool, QAR strategy training can provide students with the foundation for comprehension strategies such as how to find information, determine the structures of the text and the way the information is delivered in those structures, and determine when an inference is needed. For the teacher, on the other hand, the QAR classification offers how to think about what sorts of questions are most suitable for different points in directing students through a story (Raphael, 1986, p. 521).

Although numerous studies have been done on the effectiveness of the QAR strategy in improving reading comprehension abilities, the results are still inconclusive. Several studies showed the use of the QAR strategy had a positive effect on students' reading comprehension abilities (e.g. Cummins, Streiff & Ceprano, 2012; Rothong, 2013). However, several other studies showed no or negative effect of using the QAR strategy on students' reading comprehension abilities (e.g. Kucera, 2009; Stafford, 2012). Additionally, despite the abundance of studies, very few inquiries on this topic have been undertaken in the Indonesian context. This paper, therefore, aimed to fill these gaps by examining whether the QAR strategy is effective for enhancing Indonesian junior high school students' abilities to comprehend narrative texts.

## **METHOD**

This study employed a quasi-experimental method and took the non-equivalent control-group design. With this design, both the experimental group and the control group are not selected randomly. Both groups are given a pretest and posttest but only the experimental group is given the intervention (Creswell & Creswell, 2018). A total of 46 eighth-graders from two parallel classes in a junior high school in Kerinci Regency, Jambi Province were recruited as the participants of this study. Of the two classes, one class was assigned as the experimental group and the other as the control group. Each of the groups comprised 23 students. The experimental group is the group that received the treatments using the QAR strategy while the control group was taught using a conventional strategy. This research used a pretest and posttest as the instrument of data collection. Both of the groups were given a pretest before the treatments and a posttest after the treatments. The purpose of the pretest and the posttest was to examine the effect of the QAR strategy on students' reading comprehension. Each of the tests consisted of 20 multiple-choice questions and 5 essay questions. Before being used as a data collection instrument, the validity and reliability of the instrument were ensured. First, the difficulty index and discrimination index of each item was calculated. Only the items that met the criteria were used for both the pretest and posttest question items. The content validity was assessed with the Pearson's Product Moment Correlation and the reliability was calculated using Cronbach's Alpha Coefficient with the help of SPSS Version 23.0. All the items used in both tests were

found valid, with a Cronbach's Alpha of .983 for the pretest instrument and .985 for the posttest instrument.

## RESULTS AND DISCUSSION

### Results

The present study aimed to examine whether using the question-answer relationship (QAR) strategy was effective to improve students' reading comprehension of narrative texts. First, the *Paired Samples t-Test* was calculated to see whether there was a statistically significant difference in the means of students' reading comprehension scores obtained in both the pretest and posttest in the control group. The calculation results showed there was no statistically significant difference in students' reading comprehension mean scores of both tests or before and after the interventions ( $t = -1.273$ ,  $df = 22$ ,  $p = .216$ ). In other words, the achievements of reading comprehension of the students in the control group before and after being given treatments were similar. Another *Paired Samples t-Test* was also performed to check whether there was a statistically significant difference in the mean scores of students' reading comprehension in the experimental group. The results of the analysis showed that there was a statistically significant difference in the mean scores of students' reading comprehension obtained before and after the treatments ( $t = -18.182$ ,  $df = 22$ ,  $p = .000$ ). In other words, the reading comprehension scores of the students in the experimental group improved significantly after the intervention, indicating that the QAR strategy is more effective compared to the conventional strategy to improve students' reading comprehension scores. The results of the *Paired Sample t-Test* for the control and experimental groups are displayed in Table 1 below.

**Table 1**  
The results of the t-Test for the control group and the experimental group

		Paired Differences				T	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Cont. Group's Pretest and Posttest	-5.04348	19.00114	3.96201	-13.26019	3.17323	-1.273	22	.216
Pair 2	Exp. Group's Pretest and Posttest	-51.82609	13.67031	2.85046	-57.73757	-45.91460	-18.182	22	.000

### Discussion

The results of the data analysis revealed that the QAR strategy had a positive and significant effect on students' reading comprehension of narrative texts. The finding of this study is similar to the findings achieved in other previous research conducted in several diverse contexts (e.g. Cummins et al., 2012; Mongkolrat, 2017; Thuy & Huan, 2018). It also corresponds to the literature that endorses that using the QAR strategy in reading comprehension instruction could assist students in improving their ability in reading comprehension (Raphael, 1986; Raphael et al., 2006).

The benefits of the QAR strategy for the teaching of reading comprehension have been suggested by both theoretical literature and empirical studies. Raphael et al. (2006) stated that the QAR strategy can assist students in learning a number of reading strategies. Specifically,

teaching students the ‘Right There’ questions allows them to scan for key features and make use of context hints. ‘Think and Search’ questions enable them to encapsulate, think about the organization of the text, envisage, illuminate, and construct links and uncomplicated inferences. ‘Author and You’ questions assist students in relating the information from the reading passage to their background knowledge to make predictions, envisage, and construct links and more complicated inferences. Whereas, ‘On Your Own’ questions assist students in activating their background knowledge and making links between themselves and the text. Raphael and Au’s (2005) study indicated that the QAR strategy motivated students to be more strategic and competent readers. The strategy could help them make efficacious questions as they read and respond to the passage. Peng et al. (2007) suggest that the students who were trained with the QAR strategy had higher self-confidence in answering comprehension questions.

## CONCLUSION

The finding of this study showed that the QAR strategy was effective in improving students’ scores in comprehending narrative texts. This finding adds to the contemporary literature on the use of the QAR strategy in teaching reading comprehension, which is expected to be useful for EFL teachers in teaching reading comprehension to high school students, particularly in the Indonesian context.

Since this study is rather narrow in scope, it may not be appropriate to draw any apparent conclusions for the field. However, several recommendations can be made for practical practice in the teaching of reading comprehension to junior high school students in the Indonesian context. It is advisable that teachers use the QAR strategy in teaching reading comprehension and train students on how to recognize question types and choose suitable strategies for each kind of question. Teachers also need to give students varied exercises with different kinds of text that are suitable for students’ proficiency levels.

This study has some limitations. First, the study involved a small number of students at one junior high school. Future studies should involve a larger number of participants from different geographical regions in Indonesia. Second, the present study used only a quantitative method with a quasi-experimental design. Future research should employ mixed-method research and collect the data using other types of instruments such as observations, interviews, or think-aloud to obtain a better picture of the advantages of using the QAR strategy in teaching reading comprehension.

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