Using Question – Answer Relationship (QAR) Strategies in Reading Practice for High School Students.

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Abstract: This study aims to use a question-answer relationship strategy to improve reading comprehension skills for grade 10 students at Dong Hy High School. During the research, 20 grade 10th students participated in the survey questionnaire and 20 students participated in the experiment. There are 20 students who took the pre-test to check their level and then were divided into two groups: the experimental group and the control group, and each group had exactly 10 learners. Members of the control group did reading comprehension exercises. They also performed both before and after tests to compare the effects of using the Question-Answer Strategy on the experimental group. While the experimental group had the same level as the control group after pre-test. They were asked to read short or medium passages applying each question type in the strategy once a week. The researchers also created groups on Facebook to exchange and sent practice links to the exercises and tests to the participants so that the researchers could review and track their learning and progress their sets. The researchers used questionnaires and a reading comprehension test as the two main tools, and SPSS 20 was used to analyze the data. The findings of this study led to several conclusions. The question-answer relationship strategy had a positive impact on students' reading comprehension. Furthermore, all students participating in the study expressed satisfaction and enthusiasm during the study period.

Index Terms: Question – Answer Relationship, Reading comprehension, Reading comprehension strategies.

Introduction

English can be considered as a global language because it is the official language of more than 53 countries and territories. Moreover, it used by more than 400 million people worldwide as a mother tongue and more than 1 billion people use it as a language the second language. Because of that, a lot of learning materials or documents of educational institutions and big universities are written in English. In addition, many global browsers, newspapers and online services are written in English.

For Vietnam, a country that is standing before the era of development, globalization, the importance of learning English is even more important. Vietnam's education system has made English a compulsory subject in schools since elementary school. Learning and teaching foreign languages has always been interested in by the Education Sector. The innovation of teaching methods and learning materials is considered to change according to international requirements and actual local situations. English is also a compulsory subject at National High School Exam.

English has four skills to be mastered such as listening, speaking, reading, and writing during which reading skills is a very important role in increasing students' public knowledge, thereby creating a foundation for college students to still improve other skills, contributing to finish development skills when learning a far off language. In addition, with this structure of tests and exams, students have to appropriately apply reading skills. Rivers (1981) considers that, "reading is that the most significant activity in any language class, not only as a source of knowledge and an enjoyable activity, but also as a method of consolidating and increasing one's which are knowledge of the language" (p. 147).

Through studying the general situation at Dong Hy High school, the researchers found that many students have correctly realized the importance of reading skill in learning a foreign language. However, there is still a subset of students who do not pay attention or show an interest in their reading abilities. Many students consider this a boring and difficult skill to improve because reading a text means that students must know all the vocabulary in the text as well as understand content all parts of text or they must understanding meaning of author want to show in the text. Meanwhile, students' vocabulary is still limited, but the content of the topics in reading skills is too diverse, with many new topics, sometimes including scientific terms. In other aspect, students often have the habit of translating word by word, so it takes a lot of time to read a text and they will easily forget the main ideas and key points of the text. Furthermore, many students themselves lack background knowledge and a basic understanding of the fields, so it becomes more difficult to practice reading skills.

Nowadays, the form of English language examinations and tests in the high school system has changed to an objective multiple-choice form. For that reason, many of you do the English reading comprehension by randomly choosing the answers. This further reduces the reading comprehension level of those students because the answers they choose are not from the knowledge they have received from the text.

In addition to doing the test in the form of a random selection, many students use Google Translate to do the test. Even though they finished the tasks very quickly, those students did not use their own vocabulary and skills.

Currently, a variety of methods and strategies are available to assist students in improving their reading abilities, one of which is the "QUESTION - ANSWER RELATIONSHIP." The "Q&A" strategy is an effective strategy because it helps students form the habit of thinking about questions before reading a text, identify reading intent, locate information in the text, and then continue to use the appropriate reading strategies for each question type. In addition, after learning QAR strategies, students will realize the importance of combining information from the text with their previous knowledge to make inferences or implications to answer questions. It can be expressed simply that, with a QAR strategy, students know how to identify the type of question and look for information in many different places in the text to find the answer.

Many English learners often have the habit of doing reading tasks in the style of skimming and scanning the entire text before reading the questions. Moreover, determining the type of question in a reading task is something few people do. So the strategy of "questioning-answer relationship" is not popular with them. On the other hand, there is a lot of information regarding the "Q&A relationship", but it's really hard to find some information and research related to this strategy. Based on the background of previous studies and the novelty of "Question-Answer Relationship", the researchers wanted to conduct a study title "Using Question – Answer Relationship (QAR) strategies in reading practice for High School students."

Literature Review

Definitions of reading comprehension

Many studies have attempted to define reading comprehension. Reading comprehension, according to most scholars, is more than merely recognizing all of the words in a text. Reading comprehension is a two-way process in which the reader interacts with the text. In order for a text to make sense, the reader must be able to apply his or her prior knowledge in order to comprehend the information provided by the author (Bos and Vaughn, 1994). Reading comprehension, according to Lipson & Wixson (2003), is the capacity to apply one's prior knowledge to make sense of a text. Ommagio (2006) has defined reading comprehension as the process of finding meaning from a given text through the use of the reader's knowledge of words, reasoning and critical thinking. Reading comprehension is not easy because the reader must understand the content of the text, the message that the author wants to convey through the words contained in the text. In other words, as readers' comprehension abilities develop, they may effectively proceed from the stage of learning to read to the ultimate objective of reading (Alonzo, Duesbery, Tindal & Yovanoff, 2005). Reading comprehension is difficult because the reader must comprehend the text's substance and the message that the author wishes to express through the text's words. Graham (2007) asserted that reading comprehension is fundamentally a complicated, multi-component process, involving various interactions between readers and what they are presented with the text, as well as text-related factors. To understand the ideas provided by the author in the text, the reader must expand their thinking beyond the text's words (Seyed, 2010).

Types of reading comprehension

From experience in teaching, reading and analyzing documents, five types of reading comprehension have been proposed and it is agreed upon by Pearson & Johnson (1978).

Literal understanding

This is a type of concentrates on the text's main idea of the text. Literal understanding refers to the ability to understand the text's core meaning, such as concepts, dates, times, and locations mentioned in the text. Students can use the information provided in the text to answer fundamental questions such as who, what, when, where, and why. To collect information quickly, students might use literal comprehension abilities including highlighting keywords, skimming, and scanning.

Understanding reorganization

Students must combine knowledge from several parts of the text to answer relevant questions. For example, in a reading passage, students learn about a person named Mark. At the beginning of the text, the author gives the information that he was born in 1970, and each chronology of important events in his life is in the middle of the text and at the end of the text. After reading the entire text, students need to organize the information to answer questions like "How old was Mark when he entered college?" Students must combine pieces of information from different areas of the text.

Inferential understanding

Inferences are more important than literal understanding. Because the information in the text is not explicitly expressed, students will have difficulties understanding it. Students must combine their literal understanding of the text with their own knowledge and intuitions to create an inference in order to solve comprehension questions of this sort. Readers must answer the comprehension questions using their own understanding of the topic as well as the information provided in the text.

Assess understanding.

While reading English, students must make a judgment on some part of the text, and they must know how to integrate their real-life experience with current knowledge or opinion. This type of understanding employs the information gleaned from the text to generate new concepts. This helps students to make connections between their own experiences and the literature, as well as evaluate the text's quality, values, and generalizations.

Affective understanding

Affective understanding is the ability to understand how a story's plot works, how the characters fit into the tale, and how readers feel about the story. Students must be able to recognize the social and emotional dimensions of each text. This form of understanding necessitates pupils to grasp the story's underlying meaning. Learners can also indicate how they feel about the reading passage.

Reading comprehension strategy:

A reading comprehension strategy is a cognitive or behavioral action performed under specific contextual conditions, with the goal of improving some aspect of comprehension. In other words, strategies are a set of rules of knowledge and skills that are activated and integrated. Applying a strategy to reading practice is an integrated process that both activates stored knowledge in long-term memory and acquires new concepts, content, and skills. Using effective reading comprehension strategies is perhaps the most important means of helping readers improve their ability to understand and learn from texts. Initially, applying reading strategies will require more time and effort, and it may even be unproductive. However, frequent practice will help readers learn and recall more words in less time than they would if they did not use reading strategies. When readers exercise such tactics on a regular basis, strategies become more familiar. And they eventually become an automatic part of the reading process.

Types of reading comprehension strategies

Gerald G. Duffy suggests numerous reading comprehension tactics, for example:

Prognosis

Basic comprehension is built on the careful application of prior knowledge. Base on reading intent, topic hints, and the sort of text read, readers can form predictions.

Oversight

This is the process of asking yourself if the meaning you're encountering is the intended meaning, and if your original prediction is correct.

Make inquiries

Questioning is a process of self-talk about whether the meaning makes sense, and it's essentially equivalent to questioning surveillance.

Make a recording

Re-description is the process of adding new information to the text.

Pictures

It's a method that requires the reader to forecast and use prior knowledge. Experience with words and descriptive language are the first things readers look for. Readers construct images using descriptive language that helps them ponder.

Definitions of "Question-Answer Relationship" Strategy

In previous experiments on QAR strategy, researchers have offered different definitions of QAR strategy. According to Raphael (1986), who developed QAR regarded that is a strategy for students can explain their approaches in framing reading strategies by comprehending questions kinds in order to grasp texts. Moreover, Preszler (2005) also pointed out that QAR is a popular strategy for assisting learners in better understanding texts. Besides being a testing tool, QAR is also a means of monitoring learner understanding. It assists learners to recognize different sorts of questions and discover how they relate to one another. QAR is a metacognitive method that helps students how to recognize and categorize a range of questions based on the sort of response they demand (Claire J Becker, 2012). According to Dewi Sartini (2018), the QAR strategy means that the reading strategy helps learners how to combine the content of the text and their own knowledge to get the solution to questions. As a result, it will be easier for them to understand and respond to the question based on the text or what they have read.

Types of questions are examined in the QAR

1. The questions are clear

It is questions that the reader can look at the passage and find the appropriate details to answer. According to Muzammil (2017), this type of question is a literal type of question because the reader can find the exact answer located in the text.

2. Questions that need a combination

It is a question where the reader needs to consider the relationship between pieces of information in the passage and put them together to get an answer.

3. Writers and readers

They are questions where the reader needs to connect content and details that are not clearly defined in the passage to solve the question. In addition to relying on information provided in the text, learners also need to relate it to their own experiences.

4. Apply your own background knowledge.

It is a type of question that can be answered using the reader's perception of a topic. In this type of question, students need to think about what they already know from reading and experience (prior knowledge) to form an answer.

Progression for teaching the strategy

The researchers adapted from Taffy Raphael, who developed QAR, suggested the following lesson progression for teaching the strategy (1982):

1) Introduce types of strategies showing the relationship of the Questions to Answers.

2) Create QAR questions from small sections of text for each of the four levels.

3) a) Right There: the solution appears in the text, frequently as a phrase inside a single sentence.

 b) Think and Search: the learner must integrate distinct portions or bits of text to answer the question while the answer is in the text.

 c) The Author and You: Because the solution is not explicitly mentioned in the text, the student must rely on past knowledge as well as what the author has written to respond to the question.

 d) On Your Own: challenges students to create a response based on what they already know from their reading and experience (prior knowledge).

3) Assign students to small groups to answer example questions and determine which of the QAR levels they utilized.

4) Have students work on questions from larger texts individually. Encourage pupils to look at the many sorts of questions in their textbooks.

Advantages and Disadvantages of Question – Answer Relationship.

The QAR strategy was developed to meet the need for a framework for arranging questioning activities and understanding training across grades and disciplines. It teaches students how to think in multiple ways in response to different types of questions, as well as where to look for answers in the text. It encourages students to improve their reading skills and become more strategic readers. Students learn how to ask questions regarding their reading and where to go for answers from the teacher. It also aids the learner in asking excellent questions while reading and responding to the content. When students use higher-level thinking skills, they learn to think creatively and collaborate. It also encourages students to reflect on the text they are reading. QAR assists students in

differentiating between questions based on whether the answer was discovered in the book or in their heads. (Caldwell & Leslie 2005).

Despite its many advantages, the QAR strategy still has some limitations. According to Rafael and Au, the QAR strategy can assist in solving the lack of a general language among instructors and students in order to improve questioning practices, whether in the classroom, outside of school, or in high-stakes assessment circumstances. This will be a difficult challenge for students who struggle to think beyond the text, and it will take a long time to apply to their own readings. These students will need to practice determining the sort of thinking that the text requires of them on a regular basis.

Methodology

In this study, the researchers used an experimental research approach in this investigation. To gather data, the researchers employed two methods: questionnaires and tests to answer the study questions. The study included 20 students in the 10th grade from Dong Hy High School.

Instruments for collecting data

The researchers adopted from Creswell (2005), "A questionnaire is a form used in a survey design that participants in a study complete and return to the researchers. The participant chooses answers to questions and supplies basic personal or demographic information." In this study, the researchers employed the questionnaire firstly because the researchers were able to the collection of embrace data from a large number of persons in a short amount of time. The series of questions looks at reading comprehension skills that 10th-grade students are already familiar with and employ. One of the most successful data collecting tools is tests. There are two tests to perform: a pre-test and a post-test. They are created suitable with the student's abilities in mind. At the outset of the research, pre-trials were conducted. It was used to assess the performance of students in both the experimental and control groups.

Participants

The researchers worked with 20 students in grade 10 at Dong Hy High School. Most of them are between the ages of 15 and 16. One group was assigned to the experiment, while the other group was assigned to the control. The QAR method was taught to the experimental group (10 participants). That method was not presented to the control group (10 participants). These 20 students also have a basic understanding of English. They also have to cope with a lot of difficulties when it comes to reading comprehension. The researchers assisted students in understanding the new strategy for learning English and how to apply it to English reading comprehension.

Findings & Discussion

Findings from the questionnaire
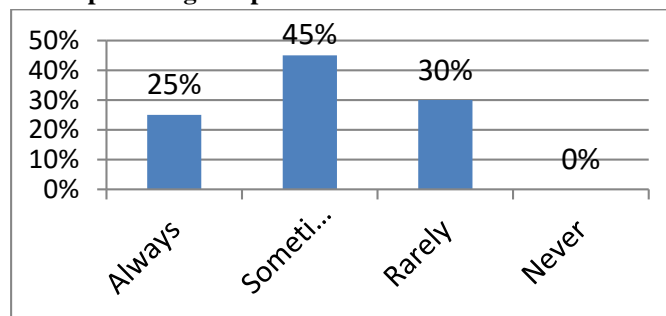**Students' methods to practice and develop reading comprehension skills.**

Figure 4.1. Students' frequency of using strategy in practicing reading skills

Figure 4.1 illustrates how often students use strategies when practicing reading skills. In particular, 25% is the percentage of those who always use reading strategies when practicing reading texts. Almost half of the participants (45%) responded that they sometimes use reading strategies when reading English. 30% of students said they rarely use reading methods. The percentage of students who chose the "Never" option was 0%. The above data undoubtedly proves that students understand and know how to use reading strategies when reading long English texts..
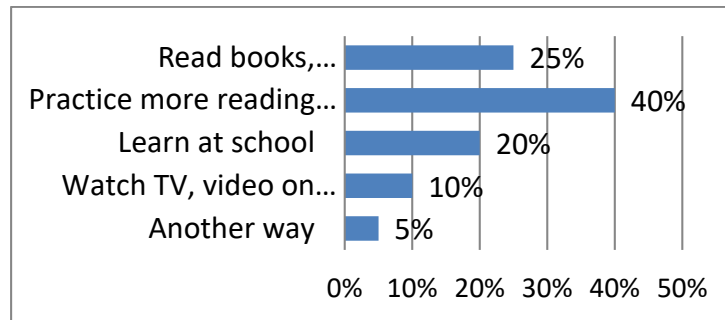
Figure 4.2. Students' ways of improving reading skills

The bar chart 4.2 mentioned some activities that students can do to improve their reading skills. Four options were shown for students to choose, so that they usually read books, newspapers, magazines,... practice more reading texts; learn at school; and watch TV or videos on the internet. The largest number of students (40%) agreed that the most frequent thing that they did to improve their reading skills was practice more reading texts. There was a lower percentage of students (25%) who read books, newspapers, magazines,... Four students (20%) frequently only learn to read comprehension at school. And just 10% of total participants watch TV or videos on the internet to improve their reading skills. The results above show that the participants were also aware of the ways they used to read in English and how much they had to struggle with the challenging texts.

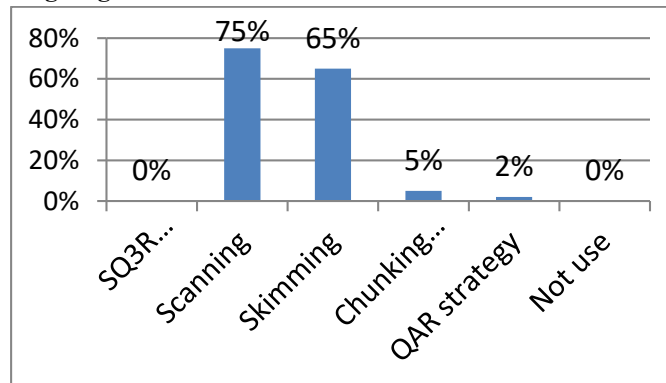**Students' use of stragies while reading English**

Figure 4.3. Students' use of strategies while reading English

Figure 4.3 shows the proportion of the use of these techniques in developing reading skills. As can be seen from the graph, all students used skills and strategies on a regular basis in terms of reading ability. More specifically, 75% of the participants chose scanning as the most popular technology for reading text in English. Likewise, 60% of students thought that skimming was an effective way to tackle challenging passages and reading exercises in English. Only a minority of students (5% of participants) believed they understood chunking techniques and QAR strategies and used them to improve reading skills. No one knows about SQ3R technology.
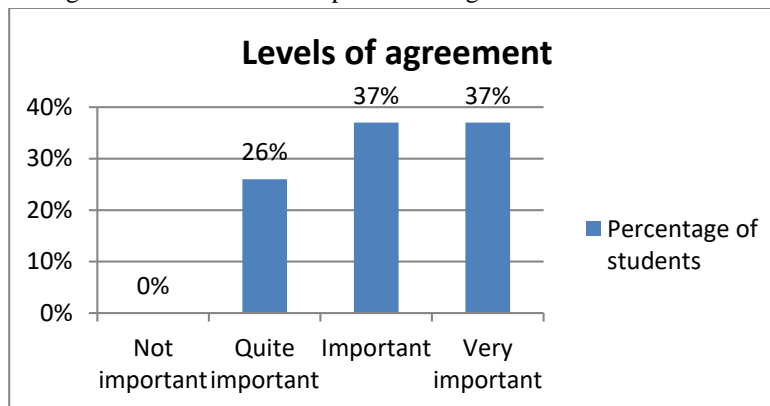
Figure 4.4: Students' agreement about the importance of using tips and methods in reading comprehension

The bar chart above presents the percentages of the students' attitudes towards the effectiveness of using tips and techniques in their reading comprehension. It is clear that all of the students agreed that the techniques enhanced their reading skills. Reading techniques

are important, according to 37% of students polled. Not all of the students used tips and techniques while reading, but they could not deny the importance of tips and techniques in English reading comprehension.

The novelty of the question-answer relationship strategy for grade 10 students at Dong Hy High School.

Table 4.1: The number of students who knew the question-answer relationship strategy before participating in this study

Questionnaires items	Percent
Yes	2%
No	98%

Figure 4.5: Students' awareness of the question-and-answer relationship strategy

The two questions in the questionnaire addressed the novelty of the question-and-answer relationship strategy to students by asking them if this was the first time they had experienced a question-and-answer relationship strategy or not. 98% of students responded that this was the first time they knew about the question-answer relationship strategy, and only 2% of them knew a little about this strategy before.

The effectiveness of the use of a question-and-answer strategy (QAR) in improving the reading skills of 10th graders
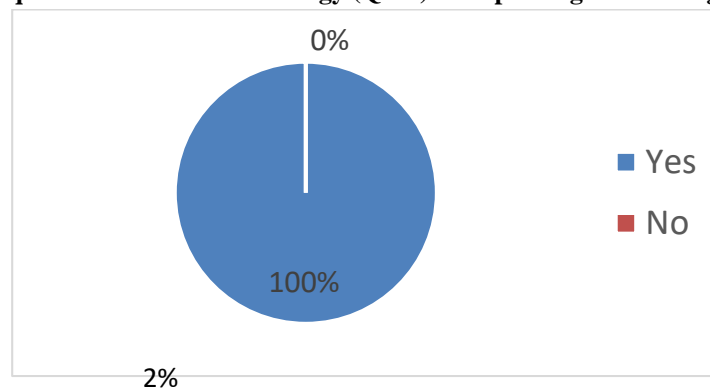

Figure 4.6. Students' agreement about using QAR strategy can develop reading skills

It can be seen from the given graph that nearly all surveyed students (100%) agreed that learning with a question-answer relationship strategy helped them develop their English reading skills, while no one had the opposite opinion. In explaining their answers, they showed some reasons, such as practicing reading texts with QAR helped them to read more quickly and correctly and gained an interest in learning to read than before. It means that their feedback towards using QAR to improve reading skills seems to be optimistic.
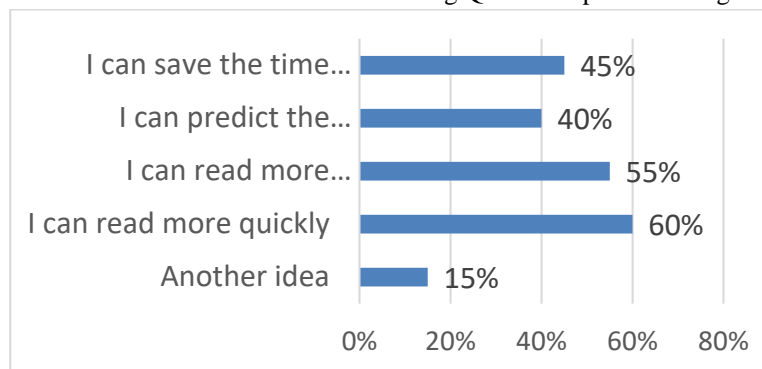

Figure 4.7. Students' reading skills improved after this study

Overall, the students felt that their reading skills improved significantly after this study by applying QAR strategies while practicing reading the text. "I can read faster" was the option most frequently chosen by students, accounting for 60% of all participants. That is, the QAR strategy had a positive effect on their reading ability; therefore, they could do several reading exercises. 55% of students selected "I can read more," which means that participants felt comfortable if they had to read more passages. 45% saw that when they used strategies they might save them time. This can be explained by the fact that students put in more time to practice their reading skills, so they are familiar with this schedule and are less tired of reading comprehension passages than before. Using the QAR

strategy, students said they were better able to predict the meaning of words (40%). This can help them do these reading exercises containing many new words that they do not know. Besides, 15% of participants have another idea about their thoughts on developing reading skills through the QAR strategy.

In addition to the above findings, the researchers also designed two more essay questions at the end of the two tests to know exactly the students' views on using the QAR strategy in developing reading skills for high school students. Although these questions took longer to answer than multiple-choice questions, they enthusiastically responded: "What do you think of the QAR strategy in this study?" and "How has the QAR strategy impacted you?". Almost all the participants said that QAR really had a significant impact on their reading skills, it made them find reading comprehension enjoyable. Their reading comprehension skills have clearly improved, and they can do reading exercises more easily and read English texts faster and more accurately. Overall, using a QAR strategy is a positive way for high school students to develop reading skills.

Results from the tests

Students' reading comprehension was measured on pre-test and post-test to determine whether a question-answer relationship strategy was helping students improve their English reading comprehension.

The comparison of students' pre-test and post-test scores between the experimental and control group

Table 4.2. The comparison of students' pre-test and post-test scores between the experimental and control group

Students	Experimental group			Control group		
	Pre-test	Post-test	Mean gain score	Pre-test	Post-test	Mean gain score
1	4.0	4.5	**0.5**	3,5	4,0	**0.5**
2	7.0	7.5	**0.5**	7,5	7,75	**0.25**
3	6.25	6.25	**0**	6,0	6,0	**0**
4	6.0	6.0	**0**	5,5	5,5	**0**
5	7.5	8.0	**0.5**	6,25	6,5	**0.25**
6	6.25	6.5	**0.25**	4,0	4,0	**0**
7	6.5	7.0	**0.5**	7,25	7,0	**-0.25**
8	5.0	5.5	**0.5**	5,0	5,25	**-0.25**
9	3.5	4.0	**0.5**	6,5	6,25	**0.25**
10	4.5	6.5	**2**	4,5	5,0	**0.5**
Mean	**5.65**	**6.175**	**0.525**	**5.6**	**5.725**	**0.125**

The table above shows the effectiveness of using QAR strategies based on the students' reading performance reflected in their pretest and posttest.

Regarding the mean pre-test score of the experimental group, it was 5.65. The highest score in this section was 7.5 and the lowest score was 3.5. In terms of post-test, the mean score of post-test was 6.175 with the highest and the lowest score being 8.0 and 4.0, respectively. It is clear that there was a positive impact on students' reading accuracy after using QAR strategies. With reference to the control group, the mean pre-test score was 5.6, which was almost as same as the pre-test score of the experimental group. In pre-test, the unsuccessful group achieved 7.5 as the highest score, and the lowest was 3.5. The group's mean post-test score was 5.725. The highest mark was 7.75 and the lowest was 4.0. As can be seen from the table, there was no significant difference between the scores of pre-test and post-test in the control group. It is obvious that the control group was given no instruction to use QAR strategies to practice reading, while the experimental group was taught to use QAR strategies in 8 weeks of experiment.

Moreover, the given table also illustrates the mean gain score of the two groups. The experimental class obtained a mean gain score of 0.525. The highest gain score was 2 and the lowest was 0. For the control class, the mean gain score was 0.125. The highest gain score and the lowest gain score were 0.5 and -0.25, respectively. After applying QAR strategies to practice reading, almost all readers improved their reading scores. There were two students who did not change in their post-test scores, so it is possible that they did not practice reading using QAR strategies enough. By contrast, half of the readers had a considerable change in their post-test scores, and others had the same scores as the pre-test or lower scores compared to their pre-test scores.

Classification of scores before and after the test of students in the experimental and control groups

Before implementing the strategy, the researchers pre-tested both the experimental and control groups. The results of the previous test are collected to determine the student's reading comprehension level. After giving the pre-test, the student's score is calculated and graded. The 20 participants' pre-test scores are shown in the table below.

Table 4.3 The data percentage of students' score of pre-test

No	Classification	Score	Experimental Group		Control group	
			F	P (%)	F	P (%)
1	Excellent	9.5 to 10	0	0%	0	0%
2	Very Good	8.5 to 9.4	0	0%	0	0%
3	Good	7.5 to 8.4	1	10%	1	10%
4	Fairly Good	6.5 to 7.4	2	20%	2	20%
5	Fair	5.5 to 6.4	3	30%	2	20%
6	Poor	4.5 to 5.4	2	20%	3	30%
7	Very poor	0 to 4.4	2	20%	2	20%
	Total		10	100%	10	100%

Table 4.3 shows the students' scores on the pre-test for both the experimental and control groups. As can be seen in this table, only one person in the experimental group read well, and this was similar to the control group. In both groups, about 20% of students have scores of 6.5 to 7.4 and are classified as good. And the percentage of students with fair good scores in the control group was about 30% higher than in the experimental group. Three students (30%) were graded as fair in the experimental group, and the percentage of students at this level in the control group was about 20% lower. Besides, the experimental group had two students with poor English reading skills, and the higher control group had three students. Similarly, two students read very poorly in both groups.

The data demonstrates that students' reading comprehension is still poor. Students' reading ability was graded on a scale including seven levels, but overall scores ranged from very poor to fair-good, with good scores making up the smallest percentage of the scale. Therefore, the researchers tried to apply a question-answer relationship strategy in the classroom to demonstrate whether a question-answer relationship strategy might improve students' reading comprehension. Furthermore, the reading ability of students in the control group, as shown in the pre-test, was similar to that in the experimental group. In other words, the reading comprehension proficiency levels of both groups were initially fairly even. There was not much difference between the experimental group and the control group. As a result, the researchers could compare and analyze data easily, and the research would become more reliable.

The experimental group was taught to apply the new reading comprehension strategy, which is the question-answer relationship strategy, while the control group practiced without using the question-answer relationship strategy. Both groups were given a post-test to find out if reading comprehension improved after treatment. The post-test scores of students in both groups can be viewed in the table below:

Table 4.4 The data percentage of students' score of post-test

No	Classification	Score	Experimental Group		Control group	
			F	P (%)	F	P (%)
1	Excellent	9.5 to 10	0	0%	0	0%
2	Very Good	8.5 to 9.4	0	0%	0	0%
3	Good	7.5 to 8.4	2	20%	1	10%
4	Fairly Good	6.5 to 7.4	3	30%	2	20%
5	Fair	5.5 to 6.4	3	30%	3	30%
6	Poor	4.5 to 5.4	1	10%	2	20%
7	Very poor	0 to 4.4	1	10%	2	20%
	Total		10	100%	10	100%

Table 4.4 shows the post-test scores of students in both the experimental and control groups. It is clear that in the experimental group with two students achieving good scores (20%) the results increased compared to the previous test with only one student achieving this score. For the control group, the good score was still only one. There was a significant increase in students scoring fair, good and fair in the experimental group. That ratio with the control group did not change much.

The number of students with poor and very poor scores decreased significantly in the experimental group, specifically only two students (20%) while in the control group it was twice as much as 40%. The increase in the number of high-scoring students and the decrease in the low-scoring students demonstrated that participants were taught a question-and-answer relationship strategy improved their English reading comprehension. The students who practiced without using a question-and-answer relationship strategy did not improve as much because they still did not change their scores.

Participants' reading comprehension before and after experiment

To confirm the conclusion that it was the question-answer relationship strategy that helped students improve their reading comprehension, the researchers used paired sample T-tests in SPSS 20 software. Score The averages of the participants in the pre-test and post-test are calculated and compared with each other. Moreover, the critical value of the score is also displayed to verify the reliability of the data.

The differences of mean scores between experimental group and control group

Table 4.5 The mean scores of pre-test in experimental group and control group

Participants	N	Mean
Experimental group	10	5.65
Control group	10	5.6

The researchers compared the average scores of two groups, including the experimental and control groups. Table 4.5 shows that the mean score of the control group was almost the same as the experimental group because the gap between the two groups was not considerably significant, exactly 0.05. The figure showed that the initial level of reading competence in both groups was similar. Moreover, the average scores of both groups were 5.65 and 5.6, respectively. This means that almost all students had difficulties reading and answering questions.

Table 4.6 The mean scores of post-test in experimental group and control group

Participants	N	Mean
Experimental group	10	6.175
Control group	10	5.725

The table above shows the difference in mean scores between the experimental group and the control group in the post-test. After applying QAR strategies in reading practice for 10 high-school students in the experimental group, there was a significant change in the average score, which increased to 6.175. By contrast, the mean score of the post-test in the control group only slightly increased by approximately 0.1, from 5.6 to 5.725. It is clear that the mean score of the experimental group was higher than the control group by about 0.45. From these results, the QAR strategies had a positive impact on the reading competence of students in the experimental group.
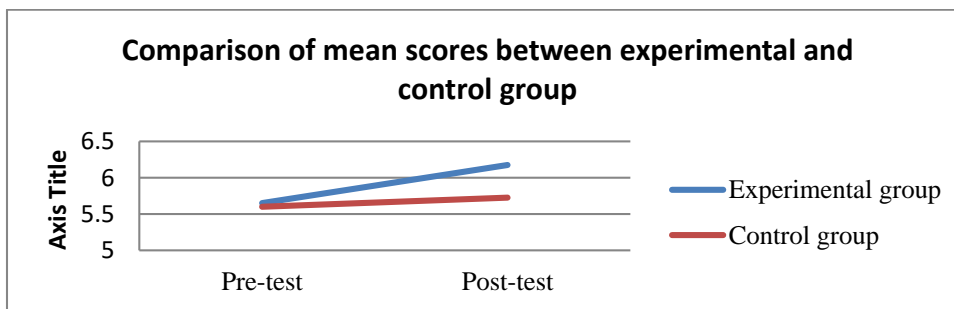

Figure 4.8. The difference of mean scores between experimental group and control group

Regarding the mean scores of both groups in pre-test and post-test, the average score of the experimental group increased, while the control group insignificantly rose. As can be seen clearly from the figure, the experimental group achieved more correct answers than the control group, and just a few students of the control group had higher scores than the pre-test. This is due to the fact that readers practiced QAR strategies to practice reading efficient. By contrast, the control group wasn't taught to use QAR strategies to answer the questions and practice drills related to English reading texts, so it is hard for readers to comprehend the reading texts.

The researchers employed the Paired Sample T-tests and Independent Sample t test in SPSS 20 software to clarify whether QAR strategies truly helped the students enhance their reading skills. The scores of each individual in the pre- and post-tests were calculated and then compared by using SPSS. The significant value of the scores was also displayed to confirm the data's reliability.

Table 4.7. Mean score and standard deviation of pre-test and post-test in both groups

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pre-test	**Experimental group**	10	5.6500	1.32916	.42032
	Control group	10	5.6000	1.34474	.42525
Post-test	**Experimental group**	10	6.1750	1.24750	.39449
	Control group	10	5.7250	1.22162	.38631

The researchers used an Independent Sample t test to compare the averages of both groups, including the experimental and control group. Table 4.6 represents the descriptive statistics for two groups. In the experimental group, the average score on the pre-test was 5.65, and the average score on the post-test was 6.175. There was a significant increase in the mean of the experimental group at 0.525. However, the difference in the average score between pre-test and post-test in the control group was not too much, merely 0.1, and it is not considerable. The mean scores of the two groups represented that the results of the pre-test and post-test in the experimental group weren't the same, and the results of the experimental group also weren't the same as the control group after using QAR strategies to practice reading.

**Table 4.8. Descriptive statistics for the experimental students' performance
in the pre-test and post-test**

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	**Pre-test**	5.6500	10	1.32916	.42032
	Post-test	6.1750	10	1.24750	.39449

The average scores of the individuals in the experimental group increased significantly between the pre-test and post-test, as shown in the table. After almost 8 weeks of practicing, the participants' average pre-test score was 5.65, and their post-test score was 6.175. As a result, the post-test standard deviation was 1.2475, which was lower than the pre-test standard deviation (1.32916). The figure tends to show that the gap between students' scores in the post-test was narrower than the gap between students' scores in the pre-test based on the following considerations. This is because practically all experimental students' post-test results were labeled as "Fairly Good," whereas pre-test scores were classified as "Fair." The analysis formed the useful underpinnings for the effectiveness of using QAR strategies to improve students' reading skills in terms of mean scores and standard deviation. However, the researchers had to determine whether the difference was statistically significant, as some of the differences were due to sampling error.

**Table 4.9. Descriptive statistics for correlations
between pre-test and post-test**

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pretest & Posttest	10	.908	.000

As can be observed, Table 4.9 provided a full explanation of the correlation between the pre-test and post-test in the experimental group. The significant result (p-value) was less than 0.05, indicating that there was a correlation between the first and second attempts. If the p-value is less than 0.05, the Mann-Whitney U tests reveal significant differences.

Conclusion

In general, through the research process, there were some conclusions about using the question-answer relationship strategy to improve English reading skills, as identified by 20 students at Dong Hy High School. Information was collected using questionnaires, pre-test, post-test and practice test with data analysis to answer two research questions. It can be understood as follows:

First, the students' responses to questions revealed the fact that most students used a variety of methods to improve reading comprehension. Besides, they mainly use only two techniques of skimming and scanning in doing reading comprehension passages. New methods, such as chunking or question-and-answer relationship strategies, are known to very few scholars. Due to overcrowded classrooms, limited space and resources, narrowly defined regular reading programs, tightly controlled schedules and schedules, children are less likely to learn methods or strategies. New reading comprehension strategies. In particular, students are influenced by reading habits such as reading each word and trying to translate all the words, so it is often very time consuming and difficult to find the main idea and remember specific details. This is why a question-and-answer relationship strategy can play an important role in fostering students' reading ability as well as reading attitudes in an English context.

Second, the researchers found that there was a large difference between the pre-test scores and the post-test scores of participants in the experimental group. While there was an insignificant gap between the pre-test and post-test scores of students in the control group. This shows that the reading comprehension ability of the participants was improved when learning the question-answer relationship strategy. For the control group, the students' reading comprehension improvement was not significant throughout the process.

Third, the researchers may discover that study participants have never used a question-and-answer relationship strategy before by analyzing practice tests; however, the researchers have found that they were unknowingly using a question-and-answer relationship strategy without knowing it. By analyzing the students' questionnaire responses, the researchers found that the new method stimulated students' interest and desire to learn to read. In other words, they still have a positive attitude, so it can be summed up that the model puts them under no pressure at all.

Finally, the researchers would like to point out some of the study's limitations and offer some practical ideas for increasing the efficacy of teaching and learning reading comprehension. It is hoped that my research can be useful to students and teachers in improving reading comprehension.

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