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## Improving Students' Reading Comprehension and Critical Thinking Skills Through the Implementation of QAR Strategy at SMA PGRI Dobo

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#### Article Info

## ABSTRACT

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Keywords: Students' Reading Comprehension, Students' Critical Thinking, OAR Strategy, The ability to comprehend English text and to think critically in the learning process is important for students in English as Foreign Language (EFL) context. However, it is a common phenomenon faced by the teachers in the teaching and learning process that those two essential abilities are still becoming students' problems in Indonesia, especially in Dobo, Aru Island Regency. In fact, the use of inappropriate teaching strategy is one of the main causes of the problems. This classroom action research aims to overcome the problems by implementing the Question-Answer Relationship (QAR) strategy. In its implementation, this research employed two cycles with four meetings on each cycle. The research subjects were 36 students of eleventh grade on the science program. The data are in the form of qualitative and quantitative data. The result of this research found that; 1) after the implementation of the QAR strategy, the students' reading comprehension was improved, 2) their critical thinking skills were also improved although only to the level of analyzing (C4) in blooms' taxonomy.

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## INTRODUCTION

Reading is an interactive and complex process between the reader and the text which aims to get information for different purposes. This process requires the effort of the reader to understand the reading text. However, in the process of understanding the text, a reader's perceptions and thoughts must be involved in order to get ideas. In simpler language, it can be categorized as a cognitive process that involves a lot of brainwork. When reading, some people tend to read only for pleasure while others read for academic purposes. According to Elita, et al (2013) there are

different purposes of reading namely reading to; understand the meaning of a text, learn from the text, find out information or entertain. Above all, it depends on the needs of the readers.

The English teaching and learning process in the context of English as Foreign Language (EFL) as in Indonesia reading skill is the most important skill a student should have. The main reason to prioritize this skill is due to the school materials are dominated in the text form. In addition, reality shows that in EFL schools, reading is mostly applied in the teaching and learning process among the four basics English skills. Moreover, in the reading process, students are also required to have critical thinking skills in order to process the information in the text. In doing that, they should be able to make interpretations, reasoning, and analysis of the information contained in the reading texts. In addition, implicit or explicit information requires the students' ability to think critically in responding to the questions about the text.

As a complex process, reading can potentially cause problems for students in understanding English text. This statement is approved by Gagen (2007) who said that one of the students' problems that often occur in reading is the poor understanding of the texts. In fact, this problem can generally be found among the students in the EFL context. However, the previous statement has strengthened the findings of a study by Mourtaga (2006) that in general, Arabic students have unsatisfactory reading comprehension. Moreover, this finding is relevant to the problem of the students in Dobo, Aru Island Regency. When conducting his preliminary study of this research in 2018, the researcher found that most of the students in SMA PGRI Dobo have poor reading comprehension in English text. However, it is a serious consideration that this problem will continue to affect the students' achievement latter at a higher level of their education.

The inability of students to comprehend English texts is caused by teachers' strategies in teaching that are less effective. Based on the observation, the researcher found that the teaching and learning process was basically teacher centered. In other words, the teaching strategies used by the teacher cannot open opportunities for students to improve their ability to understand the texts. For example, in the reading process, the teacher does not provide questioning sessions to build students' understanding of the text. Nevertheless, questioning during the reading process can develop students' way of thinking to understand the text. More importantly, English learning in the 21st century requires students to have the questioning skill to help them analyze, make conclusions or interpretation toward a text. According to Geothals, et. al. (2004), asking questions can encourage students to develop their thought processes to gather information in a text. If the students are able to do these things, they will have critical thinking skills. As a result, their understanding of the text being read will also increase. Hence, classroom questioning plays a key role in the teaching and learning process, effective questioning can help students join in classroom activities quickly (Yang, 2017).

Moreover, reading is categorized as a receptive skill. In this process, students will not only get new information, but they also will get a new vocabulary. This certainly has a lot of impact on students. Like, when reading, students not only read but they also use cognitive processes to process the meaning of printed symbols to get meaning from the text they are reading. For this reason, Alyousef (2005) claims that reading is not a simple process, rather it is an interactive process between the reader and the text. The most important thing in teaching reading is to help students understand the text to get information. Thus, students are not only expected to be able to

master the characteristics of the text but also to understand the meaning of the text being read. Reading to understand is not just a simple passive process, instead, this is a complex active process, in which students interact and actively engage with researchers through text (Snow et. al. as cited in Antoni, 2010).

Tompkins (2010) suggests two main factors that must be considered in teaching reading for understanding. These factors come from the students' side as readers and from the texts' side. First, as the readers, there are some factors that can influence students' understanding of the texts namely background knowledge, vocabulary and reading fluency. Having background knowledge about the text can motivate the students to read the text. Then if they have an adequate vocabulary, the students can easily understand the text. Furthermore, having fluency in a reading indicates that the students have good cognitive skills. Second, from the texts' side, the factors that can influence students' understanding of the text are text genre, text structure, and text features. The text genre determines its characteristics which are important for students to know. By knowing the characteristics of the text, students can easily build their understanding of it. The structure of the text makes the students easier to recognize the ideas in the text. At last, if the students can understand text features, they will have a deep understanding of the text.

Since reading activity emphasizes comprehension, students' critical thinking skills become important element which can not be separated. The ability to think critically in learning English in the 21st century is important due to some of the subject matter requires the ability of students to analyze, to make conclusions and to make interpretations. According to Halpern (2013), critical thinking is a process of thought which enables the cognitive strategies to get the desired result on a critical interpretation. In accordance to the previous statement, Wade (in Filsaime, 2008) proposes some elements of critical thinking skills namely: (1) asking questions, (2) identifying problems, (3) testing facts, (4) analyzing assumptions and biases, (5) avoiding emotional reasoning, (6) avoiding excessive simulations, (7) considering interpretation, and (8) tolerating multiple interpretations. In addition, in the results of the revised Bloom cognitive domain by Krathwol (2002), there are 6 levels of students' thinking abilities, namely; (1) knowing, (2) understanding, (3) applying, (4) analyzing, (5) evaluating and (6) creating. Therefore, critical thinking skills can be obtained by the students if they are actively engaged in the process that challenges them to use rational thinking to collect, interpret and evaluate information to get a decision.

Among the strategies in teaching reading, questioning strategies are believed can be effective to build students reading comprehension. One of the questioning strategies that can be implemented is the Question-Answer Relationship (QAR) strategy. Through this strategy, students are taught to understand how to answer questions based on the question types (Raphael & Au, 2005). The fundamental reason behind the name of this strategy is each question requires a different way of answering. For this reason, students are expected to understand the types of questions before they give answers. By understanding the relationship between questions and answers, students can easily give maximum answers to the questions. In other words, the QAR strategy shapes students' thinking that the answer to a question can be found "in the text" or "in their thought".

Several previous studies of the Question-Answer Relationship (QAR) strategy found that this strategy was very effective in helping students to improve their reading comprehension. First, the

study by Hoon, et. al. (2007) in Singapore found that this strategy had a positive impact on students in their efforts to understand the text. In addition, their students also gave a positive response to this strategy by saying that they felt more confident to answer the questions in their test sheets through the model of Question-Answer Relationship strategy. Secondly, in 2012, Cummins, Streiff & Ceprano conducted an experimental study in New York on 4th-grade students of elementary schools. Their results showed that students in the experimental class achieved higher scores on their post-tests than those in the control class. Finally, in the same year, Nugroho (2012) conducted a study in Indonesia to compare the Question-Answer Relationship strategy with the direct teaching method. In the results of his studies, he found that students who were taught using the Question-Answer Relationship strategy had better performance in their post-test than those who were taught using direct teaching. Therefore, it can be easily concluded that this strategy is more effective in helping students to improve their reading comprehension than direct teaching methods.

This research is conducted using the QAR strategy to improve the reading comprehension and critical thinking skills of the students at SMA PGRI Dobo, in Aru Island Regency. Theoretically, the result of this study provides relevant knowledge for teachers and students about a learning strategy that can be implemented to help improve the ability to understand texts and to think critically. Practically, this strategy can be used by the teachers to improve the quality of the teaching and learning process, especially on reading comprehension. In addition, this strategy can also be used by students during the process of reading texts to make them easier in obtaining information. However, in contrast to previous studies, in this study, the researcher focused on another perspective about the use of QAR strategy which is not limited only to improving students reading comprehension. More importantly, the researcher also aimed to use this strategy to improve students' critical thinking skills. In fact, during the process of understanding text, students are actually honing their critical thinking skills.

#### METHODS

This research was a classroom action research. According to Creswell (2012), classroom action research is conducted to overcome the problems of a teaching and learning process in order to improve students' achievement. Thus, the purpose of conducting this research was to improve students' reading comprehension and their critical thinking skills towards English texts at SMA PGRI Dobo, Aru Island regency. There were two cycles of implementation with 4 meetings in each cycle. The cycles were conducted through four main stages of the research namely; 1) Planning, 2) Implementation, 3) Observation and 4) Reflection. The research subjects were 36 students of the second grade who are majoring in the science program. This research was conducted in July until August 2019.

The data were obtained through a mixed approach of qualitative and quantitative method according to Sugiyono (2011). The qualitative data were obtained from an observation sheet of the learning process, field notes, and documentation. These data are explained in descriptive form. Furthermore, the quantitative data were obtained from the results of student tests during the research process and the results of questionnaires about students' responses to the implementation of the QAR strategy. The students' test results are analyzed based on the criteria of success that had been determined meanwhile descriptive analysis was used to describe the result of the

questionnaire. The indicator of success is more than 50% of students in the classroom should reach "good category" as the minimum achievement.

#### RESULTS AND DISCUSSION

After the implementation of the Question and Answer Relationship strategy, the researcher found that there was always an improvement in both students' reading comprehension and their critical thinking skills in each cycle of the research.

## Result of student' reading comprehension

After the implementation of the 2nd cycle in this research, students' ability in comprehending English texts was improved. The students' overall result in reading comprehension can be seen in the following figure.

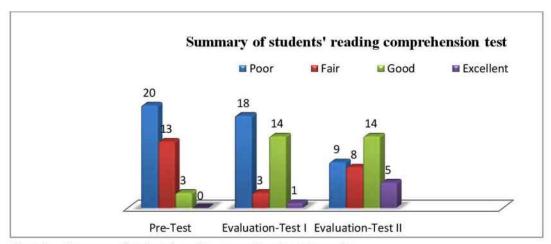


Chart 1: Summary of students' reading comprehension test-results

The pre-test is conducted on 18 July 2019. Based on the result in chart 1, it can be inferred that in the pre-test, there are 55.6% of students who get poor category, 36.1% get a fair category and only 8.3% who are capable to get a good category. It means that the students' problem with reading comprehension is still dominant. However, the implementation of the QAR strategy in the first cycle brings a positive effect on students reading comprehension. It can be proven by the result of the evaluation test 1 that is conducted on July 25th, 2019. As can be seen clearly in the chart, there are about 50% of students get poor category, 8.3% get a fair category, 38.9% get a good category and only 2.8% could get an excellent category. More significant improvement can be found in the evaluation test 2 which is conducted on August 1st, 2019. The result of this test shows that there are 25% students who still get poor category, 22.2% students get fair category, 38.9% student get good category and 13.9% student able to get the excellent category.

## Result of students' critical thinking

There are also some improvements in students' critical thinking skills after the implementation of the QAR strategy. To measure this ability, researchers conducted an analysis of the test results on each question of the test. Each question is arranged according to the level of thinking ability in blooms' taxonomy but only specify on the level of C1 (Remembering) until the level of C4 (Analyzing). The questions are divided into 3 different test forms, namely, multiple-choice tests,

true/false tests, and essay tests. The questions in the multiple-choice test are arranged from the level of thinking ability in C1 to C2. The questions in true/false tests are arranged from the level of thinking ability C2 to C3. At last, questions in the essay test are arranged from the level of thinking ability in C1 to C4. The percentage of test results in this section can be briefly displayed in the table in the following.

| Level of students' critical thinking | Pre-Test %  | Evaluation-test 1 % | Evaluation -test 2% |
|--------------------------------------|-------------|---------------------|---------------------|
| C1 : Knowing                         | 83.3 - 100  | 94.4 - 100          | 94.4 – 100          |
| C2 : Understanding                   | 52.8 - 91.7 | 83.3 - 94.4         | 83.3 - 94.4         |
| C3 : Applying                        | 36.1 - 52.8 | 44.4 - 80.6         | 61.1 – 91.7         |
| C4 : Analyzing                       | 52.8        | 69.4                | 77.8                |

Table 1: Summary of students' critical thinking skill test' results

Based on the result in the table above, it can be concluded that in general, students' critical thinking skills are improved. On each level of critical thinking skills from pre-test until the evaluation test 2, there is always an improvement that can be found. On the first (C1) and second level (C2) of critical thinking skills, most of the students have slight improvement on the pre-test result to evaluation test 1. This slight improvement has no change in the result of evaluation test 1 to evaluation test 2. However, a significant improvement of students' critical thinking skills happens on the third (C3) and fourth (C4) level, especially on the result of evaluation test 1 to evaluation test 2.

## Result of students' responses to the use of QAR strategies.

The researcher also finds out the students' attitudes towards the implementation of the QAR strategy. The result of the students' response questionnaire indicates that in general, all students give a good response to the implementation of the strategy. The result of the questionnaire can be seen in the following figure.

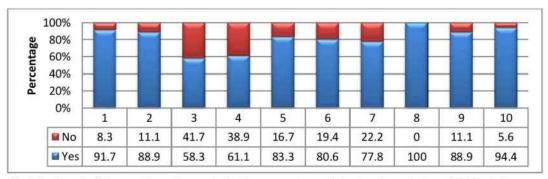


Chart 2: Result of the questionnaire on student' response towards the implementation of QAR strategy

In the table above, numbers 1 to 10 are the number of questions in the questionnaire. Each question is designed to obtain different information regarding students' attitudes during the implementation of the QAR strategy. The questionnaire covers some important information that the researcher wants to know about, such as students' eagerness to follow the QAR teaching and learning process, their progress on reading comprehension and critical thinking skills, the teacher's instruction as well as their intention to use QAR strategy as their new learning strategy. The summary of the questionnaire result can be described in the following table.

| No | Question  | Result Explanation   |
|----|---|--|
| 1  | Do you feel excited when learning<br>English on reading comprehension<br>skills?  | There are 91.7% of the students who felt excited to follow the learning process with the QAR strategy. This is proven by their response when the teacher asked them to do activities in the classroom; they were always enthusiastic when working either individually or in groups.  |
| 2  | Can you understand the teacher's instructions during the learning process using the QAR strategy?                                   | There are 88.9% of the students who claimed that all of the instructions were understandable. Instructions given by researchers in teaching are always in 2 languages, namely English and Indonesian.  |
| 3  | Is your ability to comprehend English texts improved?   | There are 58.3% of the students who confirmed that their ability to comprehend English text was improved. This number shows a more significant increase than before the implementation of the QAR strategy.  |
| 4  | Does the QAR strategy make it easy for you to answer the reading questions quickly?   | There were 61.1% of students who were easy in answering the questions of exercises and tests. They were helped by the QAR strategy in doing the exercises and tests.   |
| 5  | Can you answer 'literal' questions easily?  | There are 83.3% of students who admit that they can answer literal questions easily.   |
| 6  | Can you answer 'inferential' questions easily?  | There are 80.6% of students who admit that they can answer inferential questions easily.   |
| 7  | Does the implementation of the QAR strategy help you improve your critical thinking skills?   | There are 77.8% of students who agree that the implementation of the QAR strategy helps them improve their critical thinking skills. More specifically, the improvement in their critical thinking skills could only reach the level of C4 thinking (analyzing) in bloom's taxonomy. |
| 8  | Does the QAR strategy make reading comprehension activities more enjoyable?   | There are 100% of students who agree that the implementation of the QAR strategy makes reading comprehension activities more enjoyable.  |
| 9  | Does the QAR strategy make critical thinking skills activities more enjoyable?  | There are 70% of students who agree that the implementation of the QAR strategy makes critical thinking skills activities more enjoyable.  |
| 10 | Will you use the QAR strategy as one of the learning strategies to improve your reading comprehension and critical thinking skills? | There are 94.4% of students who confirmed that they will use this strategy as one of the strategies to help them improve their ability to understand texts and think critically.   |

Table 2: Result explanation of questionnaire on students' responses towards the implementation of QAR strategy.

## Discussion

The students' ability to comprehend English text should be taken as an essential consideration by the teachers in the EFL context. This is due to comprehension is the main purpose of reading activity. As argued by Elita, et. al. (2013) "comprehension is the only reason for reading, without comprehension, reading is frustrating, pointless exercise to do". Therefore, comprehension is needed to procure the information and understand the content of the text. In addition, in the

process of comprehending the text, the students' critical thinking skills also become very important elements. Students' critical thinking skills towards text can be seen from their ability to analyze facts, generalize and organize ideas, defend opinions, make comparisons, draw conclusions, test arguments, and solve problems to get the desired result on a critical interpretation (Halpern, 1986; Wade as cited in Filsaime, 2008). Yet, the problems on reading comprehension still become common findings by the teachers in the EFL context. However, it must become a particular concern that should be sought for a solution by the teachers.

There are many reading strategies that can help students to improve their reading comprehension one of them is the Question-Answer Relationship (QAR) strategy. Through this strategy, teachers can help their students to distinguish the types of questions based on where the answers can be found. According to Raphael and Au (2005), this strategy can help the students to improve their reading comprehension as well as their higher-order thinking skills. Practically, this strategy has been proven by Mourtaga (2011) as an effective strategy to improve students' reading comprehension. Furthermore, in 2012, the research findings from Cerpana et.al and Nugroho (2012) indicated that the QAR strategy was more effective than conventional teaching strategy. Therefore, it can be said that the QAR strategy is an effective strategy in the English teaching and learning process, especially in reading skills.

In this research, the effectiveness of the QAR strategy also contributes to positive improvement towards students' reading comprehension at SMA PGRI Dobo in Aru Island regency. The results on students' reading comprehension before and after the implementation of the QAR strategy were increased significantly. There were 52.8% of students who automatically exceeded the minimum standard of success for this study. Furthermore, the results on students' critical thinking skills indicated a fluctuate improvement of the student's number who could answer the question on the C4 level of thinking. Until the last evaluation test, the number of students on the C4 level of thinking is around 50% until 77%. These findings are also in line with the result of the students' attitude questionnaire. There are more than 80% of students said they can easily answer literal questions and inferential questions (C1, C2, C3) meanwhile there only around 70% of students who can answer the critical question (C4). In addition, during the teaching and learning process, almost all of the students showed their activeness and enthusiasm. This is in line with the result of the students' attitude questionnaire that more than 90% of the students are eager to follow the learning process with the QAR strategy.

The improvement in students reading comprehension and critical thinking skills in this research can be reached due to the implementation of the QAR strategy that was in line with the suggestion from Raphael and Au (2005). The experts suggested the implementation of the QAR strategy on each reading stage as can be seen in the following table.

| Reading<br>Stages | QAR Strategy  | Achievement Strategies     | Question samples  |
|-------------------|---------------|----------------------------|---|
| Pre-stage         | On my own     | Activating prior knowledge | From the picture, what do I already know that can connect me to the text? |
|                   | Author and me | Making prediction          | From the picture or illustration, what does the text will be about?       |

| Reading-<br>stage | Author and me       | Making simple and complex inferences          | How would you describe the thing in the picture and why is it important to be described?  |
|-------------------|---------------------|---|---|
|                   | Think and<br>Search | Scanning to find information                  | What is the characteristic of the thing in the picture?   |
|                   | Right there         | Summarizing, Clarifying,<br>Making inferences | Identify the topic sentence in this paragraph! What are the supporting sentences of the topic sentence?   |
| Post-stage        | Author and me       | Distinguishing fact and opinion               | Can the author convince you that the thing that described is something really interesting?  What is the important point of learning descriptive text? |

Table 3: The stages of the implementation of the Question-Answer Relationship (QAR) strategy at each reading stage adapted from Raphael & Au (2017)

Activating prior knowledge and making a prediction about the topics in the pre-reading stage make the students easier to get into the reading text. The question types in this stage refer to the cognitive domain C1 and C2 in Blooms' taxonomy. Then, in the reading stage, the students were directed to make simple and complex inferences to find information as well as to summarize, to clarify information. This is the stage, where the students' critical thinking skills are trained. The cognitive domain of blooms' taxonomy in this stage is started from C2 until C4. In the last reading stage, the critical thinking skill on cognitive domain C4 was emphasized. The purpose of this reading stage is to make students able to analyze the facts and opinions towards the information in the text.

The teaching and learning process based on the previous explanation is conducted repeatedly in whole cycles of this research. Thus, the students reading comprehension and critical thinking skills are always trained until meeting the criteria of success of this research. However, during its implementation, the teaching and learning process using the QAR strategy in this research did not run smoothly. Almost in each cycle, the researcher must conduct some revisions not only on the way of implementing the strategy but also on the content of the materials. The revisions are conducted in order to make students feel more comfortable learning and easier to gain information in the text.

#### CONCLUSION

Here are some conclusions that can be drawn based on the results of the study. First, students' ability to comprehend English texts can be improved after the implementation of the QAR strategy. The most striking ability is in the literal and inferential categories of information. In addition, their critical thinking skills in understanding information in English texts also have increased. The critical thinking skills of students in this study based on the blooms' taxonomy can only reach level C4 (analyzing). Almost all students have been able to reach the level of thinking ability C1 to C3 with the excellent category. Meanwhile, in reaching the level of thinking C4, there are only a few students who are capable. Hence, the results of this study support the results of previous relevant studies that QAR strategy help to improve the students' ability to understand

the text. More importantly, the implementation of this strategy also increases students' critical thinking skills.

## Implications

The results of this research contribute some practical implications such as 1) the implementation of the QAR strategy brings a positive impact on the quality of English teaching and learning process, specifically on reading skills. In the same framework of this implication, students at the eleventh grade of science program at SMA PGRI Dobo can be trained to think critically towards the reading materials. 2) As a new strategy for the teacher at that school, QAR strategy can be used as an alternative strategy by the teacher in teaching reading skills while trying to enhance students' critical thinking not only in the class which was taken as the sample of this research but also for the whole classes and grades at that school. 3) Since the teaching and learning process in the QAR strategy framework is considered enjoyable, the researcher believes that most of the students will use this strategy to help them comprehend English text while training their critical thinking skills.

## Suggestions

Based on the experience in conducting this research, several suggestions are then formulated as consideration for the further research, namely; 1) it is better to teach the students using authentic materials to make them easier to gain the essence of the material due to the information on authentic materials are already exists as their background knowledge. 2) Since the level students' English competencies in Dobo, Aru Island regency can be categorized as a beginner to medium, it is better for a teacher to consider the language in the materials. 3) In order to help the students to improve their critical thinking skills, the teacher should always consistent and give extra time due to it was a little bit hard for the researcher with only limited times.

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