



Implementation of *Reading, Questioning and Answering* (RQA) Learning Strategies in Improving Learning Outcomes of Class XI Students of SMA 6 Kerinci

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Abstract

The RQA (reading, questioning, and answering) learning model is an active learning model that emphasizes reading, asking, and answering. This study aims to determine the application of reading, questioning, and answering (RQA) learning strategies in improving student learning outcomes in class XI SMA N 6 Kerinci. This research is a type of quantitative research with experimental methods. The research population came from class XI SMA N 6 Kerinci, amounting to 44 people. The sample came from class XI MIPA 2, which amounted to 22 people. The sampling technique in this research is the random sampling technique. Data collection techniques in the form of observation and tests. The test is used to see student learning outcomes using reading, questioning, and answering (RQA) learning strategies. The research instrument is a test in the form of objective questions totalling 30 items carried out for validity, reliability, difficulty index and discriminatory power. Data analysis technique using T-test and N-Gain. The results showed that 1) the results of the study before applying the RQA strategy the highest score of students was 70 and the lowest score was 40 with an average pretest score of 51.59, 2) student learning outcomes after implementing the RQA learning strategy obtained the highest score of 90 and the lowest score of 65 with the result the average posttest is 78.18, 3) there is a significant difference in the application of the RQA strategy in improving student learning outcomes in class XI SMA N 6 Kerinci.

Keywords: Strategy of RQA, Learning Outcomes,

A. Introduction

Education at the micro-level occupies an important position; education aims to equip students with various knowledge and knowledge so that they become quality human beings.

This follows national education goals as stated in Law Number 20 of 2003. The purpose of national education is to develop the potential of students to become human beings who believe and fear God Almighty, have a noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens. The learning process aims to increase the mastery of knowledge, abilities, skills and values in the formation and self-development of students.

Education must be given properly and adequately in schools (Setiawan & Anggererni, 2019). The educational process is expected to provide an active, effective and efficient learning environment (Setiawan & Indriwati, 2018). The educational process is oriented to students' mastery of the knowledge that has been obtained from the learning process. So educators, especially teachers, need to understand the characteristics of the material, students and learning strategies in the learning process, especially related to increasing student learning activities (Trianto, 2007). Biology learning is learning that emphasizes providing the direct experience.

Therefore, students need to be helped to develop many process skills to explore and understand the natural surroundings. This process skill includes observing with all the senses, proposing hypotheses, using tools and materials correctly, always considering work safety, asking questions, classifying, interpreting data, and communicating various findings. So basically, biology lessons try to equip students with multiple abilities on how to "know" and how to "do", which can help students to understand the natural surroundings in-depth (Lufri, 2007; Karmana, 2007). Another reason for the low quality of learning outcomes is that students are lazy in reading. Often we hear the term reading as a bridge of knowledge, and an intelligent nation is a nation that likes to read; that's why reading is essential (Lufri, 2007). The use of strategies, strategies or learning patterns is a significant aspect of the educational process in schools. The learning experience experienced by students during the learning process will play an essential role in forming the ability and quality of the learning. The quality of knowledge is one element of the new paradigm of education management. Therefore, teachers have a great responsibility in shaping student learning outcomes.

Based on the results of the researcher's initial observations on October 1, 2020, at SMA Negeri 6 Kerinci, which is seen from observations in the field, it is found that student learning outcomes are low. For example, many students perceive the classroom as boring, ignore the teacher when explaining the material and do not finish their homework. This is due to the lack of interest in student learning, the lack of student concentration in learning, and inappropriate learning strategies. In addition, students are less diligent in following the lesson. They show reluctance, try to avoid teaching and learning activities, and lack concentration in learning when the teacher explains the study. Based on the scores obtained from the Biology teacher in class XI of SMA Negeri 6 Kerinci, the average value of students in Biology Subjects is below the minimum completeness criteria (KKM) for Biology at SMA Negeri 6 Kerinci, namely: XI MIPA 1: 70.5 and XI MIPA 2: 64.5.

The results of initial observations at SMA Negeri 6 Kerinci show that teachers often use conventional learning strategies in the teaching and learning process. Still, by using this strategy, students are less enthusiastic about learning. Many students ignore the learning process, lack the motivation to take biology lessons, be interested in reading, and ask and answer questions from the teacher. This can be seen from the lack of student attention to the teacher presenting the subject matter. Many students leave the class for various reasons and are busy with other activities. Besides that, there are still students who do not work on the questions given by the Biology teacher, students are often late in collecting assignments, and the notes held by students are still incomplete.

Based on the description above, it is necessary to apply learning strategies to improve student learning outcomes. One of the appropriate learning strategies is the Reading, Questioning and Answering (RQA) Strategy. Corebima developed the RQA (Reading, Questioning and Answering) strategy in 2007. The RQA strategy arises because students often do not really like reading, especially for reading textbooks (Astuti et al., 2016). In the RQA model, the 'summarizing' stage can help students understand the concept. In addition, it can also help monitor understanding of the learning material (Bahri, 2016). The three steps can force students to read subject matter (Nuzulah & Budijastuti, 2018) and are expected to increase students' interest in reading and learning so that it can influence the aspects of concepts understanding (Abdullah, 2014).

Based on these problems, this study aims to determine the application of Reading, Questioning, and Answering (RQA) learning strategies in improving learning outcomes for class XI SMA N 6 Kerinci on the material of the human digestive system.

B. Literature Review

The Reading, Questioning and Answering (RQA) learning strategy allows students both individually and in groups to actively seek, explore, be motivated, express opinions, dare to ask questions, and have a great sense of responsibility, both group and individual responsibilities (Isjoni, 2009). RQA is considered as a learning strategy based on constructivism learning theory. Students are assigned to read specific material. Next, students are asked to make written questions and answer them themselves. Questions and answers made in groups presented and responded to by other students. The Reading, Questioning and Answering (RQA) learning strategy can help empower students' metacognition, which leads to students' ability to monitor their learning, become managers of themselves, and become assessors of their thinking and learning. The stages of the Reading, Questioning and Answering (RQA) learning strategy are reading (reading), questioning (asking) and answering (answering). Furthermore, according to Pierce 2018, summarizing will improve students' understanding and help them monitor their understanding (Bahri, 2016).

Research from Akhmaliya & Hapsari (2016) entitled "Learning model Reading Questions and Answering (RQA) to improve students achievement", with the type of research is the classroom actions research, the result shows the RQA learning model can improve students learning outcomes. This result is seen from the increase in learning outcomes in cycle I to cycle II. Learning outcome increased on the cognitive cycle I reached 73.52 % and in cycle, II reached 85.29 %, with an increase of 11.77 %

Research from Maulida & Mayasari (2019) entitled "*The Influence of Reading, Questioning And Answering (RQA) Learning Strategies on Student Learning Outcomes About the Human Coordination System in Class XI SMA PGRI in Banjarmasin City*". experiment) with a design strategy known as "nonequivalent pretest-posttest control group design", determining the sample using random sampling. Data collection techniques using essay tests. The research data were analyzed by statistical analysis of SPSS Anova version 17 for windows. The research analysis results show that there is an influence of the *Reading Questioning and Answering (RQA) Learning Strategy* on the Learning Outcomes of Class XI Biology PGRI Students in the city of Banjarmasin.

Research from Rintan (2017) entitled "*Application of Reading Questioning And Answering (RQA) Learning Strategies to Improve Student Learning Outcomes*, the results showed (1) an increase in teacher and student activities during the learning process, (2) an increase in teaching skills in managing to learn from good category to perfect (3) overall individual mastery increased from cycle 1 to cycle 3, and the percentage of classical completeness as a whole also increased, namely 73%, 81%, and 92%. (4) student responses tend to be positive, where 100% of students expressed pleasure in using this RQA learning strategy in the learning process. This study can conclude that the application of RQA learning strategies can improve student learning outcomes on the subject of Straight Movement.

C. Methodology

1. Research Design

This research is quantitative research with an experimental method. The population of this research is the students of class XI SMA N 6 Kerinci, amounting to 44 people. The sample of this study came from two classes, namely the experimental class and the control class. The experimental class, namely the MIPA 2 class, consisted of 22 people who were given treatment using the RQA learning strategy. The control class came from the MIPA 1 class, which amounted to 22 people taught using conventional learning strategies. The sample selection technique is the random sampling technique. The random sampling technique is a technique of selecting a sample that is done randomly, which has the same opportunity in the population to be sampled (Sukardi, 2008; Arikunto, 2006). This random technique is used because the population is normally distributed and homogeneous.

2. Instruments

It is collecting data in the form of observations and tests. The test determines learning outcomes using learning strategies using reading, Questioning, and Answering (RQA) research instrument used was an objective test, which consisted of 30 questions.

3. Technique of Data Analysis

The research instrument used was an objective test, which consisted of 30 questions. The data analysis technique is in a T-test and N-Gain with SPSS Version 21.

D. Findings and Discussion

1. Findings

The results of the normality test for each research variable can be seen in table 1

Table 1. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		22
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	6.03418069
Most Extreme Differences	Absolute	.145
	Positive	.145
	Negative	-.126
Kolmogorov-Smirnov Z		.679
Asymp. Sig. (2-tailed)		.747

On the normality test results, it can be seen that all pre-test and post-test values are more significant than 0.05 at ($p > 0.05$), so it can conclude that the data is normally distributed. The results of the data homogeneity test calculation carried out with the help of the SPSS for window 21.0 program showed that $F_h < F_t$, meaning that the data for both methods were homogeneous. The summary of the results of the homogeneity test of data variance is presented in the following table:

Table 2. Homogeneity Test Results

Test of Homogeneity of Variances			
Levene Statistic	df1	df2	Sig.
6,919	1	42	,012

A t-test was performed using the SPSS for the windows 21.0 program to test the hypothesis. Based on the results of the t-test analysis, it was concluded that there was a difference between the students' learning outcomes of Biology taught through the Reading Questioning And Answering (RQA) Learning Strategy. The complete data is presented in the following table:

Table 3. T-Test Results

Paired Samples Test					
		t	df	Sig. (2-tailed)	
Pair 1	Prestess – Postess	-11.276	21	.000	
Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Prestess	51.5909	22	10.04589	2.14179
	Postess	78.1818	22	6.08383	1.29708

Based on the results of the data analysis above, it can be concluded that the value of sig. (2-tailed) = 0.000 < = 0.05 so that there is a difference in the average student learning outcomes between before and after treatment. In addition, it is also known that the average score of learning outcomes before treatment is 51.59 and after treatment is 78.18. Thus, it is proven that the Reading Questioning And Answering (RQA) Learning Strategy affects improving the learning outcomes of class XI students of SMA Negeri 6 Kerinci. N-Gain test is used to determine the increase in student learning outcomes. The data used in the N Gain test are pretest and posttest data using the Microsoft Excel program. The following are the results of the N-Gain analysis:

Table 4. Value of N-Gain

	Value		Post - Pre	N-Gain score
	Pre	Post		
Total	1135	1720	585	0,52
Mean	51,59	78,18		
	Information			Currently

Table 4. above shows that there is an increase in student learning outcomes that are different in the Posttest class and Pretest class; it is known that the Pretest class has an average score of 51.59 while the Posttest class has an average score of 78.18. The results of the N-Gain calculation in the pretest and posttest have an N-Gain score of 0.52 with a medium category.

2. Discussion

The variables studied in this problem are Biology learning outcomes on the human digestive system. These results obtained the value of the posttest class and the pretest class of the two sample groups. Based on the analysis results, the average value of the posttest class was 78.18, and the pretest class was 51.59. Based on these results, there is an increase in learning outcomes using the Reading, Questioning and Answering (RQA) Learning Strategy on the subject matter of the digestive system in humans. Other research results from Ramdiah (2017) show that the F value is 30,382 with a significance value of $0.000 > 0.05$ which means that the RQA model influences the cognitive learning outcomes of students with low academic abilities in Class XI Biology SMA PGRI 6 Banjarmasin.

Isjoni (2009) states that the RQA model encourages students to understand the content of the reading because students try to find a substantial part to formulate questions and answer them. Students can use the ability to develop questions from the material read to assess thinking skills. According to Lufri, in the application of RQA learning there is a process of assimilation and accommodation. Assimilation is the process of using pre-existing structures or knowledge to deal with problems in the environment. This assimilation occurs when students finish reading activities. The assimilation process can be in the form of equating concepts. Students need to modify or change the existing mental structure in the accommodation process to respond to environmental challenges. This accommodation stage occurs in preparing questions and when students read the questions and answers. Thus, the RQA learning model provides a meaningful learning experience and has a positive impact on students' cognitive learning outcomes. This follows Pinem's opinion that in the learning process, teachers must encourage students to learn actively and provide adequate learning experiences by using learning methods following the material being taught.

In line with the research of Syarifah et al. (2016), explaining that the Reading Questioning and Answering (RQA) learning strategy is a strategy that asks students to read the material actively and makes students active to ask questions about unknown material. In addition, students are also led to be engaged in the learning process and express their opinions and answer questions from other students.

It differs from learning with less varied learning methods characterized by teacher-centred learning. This learning method is based on a behavioristic view. In less various learning, students tend to be more passive because they only listen to lectures given by the teacher. Students wait until the teacher finishes explaining, then record what the teacher provides without interpreting the concepts presented.

Students tend to become objects of learning through expository learning strategies, while the subject of learning is the teacher. Then the teacher tries to transfer the knowledge he has to the students. This situation tends to make students passive in receiving lessons from the teacher so that students will not be able to generate all their potential optimally and impact learning achievements that are less than optimal. In addition, success in the learning process after using the Reading Questioning and Answering (RQA) learning strategy is because the Reading Questioning and Answering (RQA) learning strategy has advantages including: (1) Helping students in understanding a topic or chapter; (2) Improve students' thinking skills; (3)

Make students more ready to take part in learning activities: (4) Increase student motivation: (5) Make students more independent.

By applying Reading, Questioning and Answering (RQA) learning strategies, problems that exist during the Biology learning process can be changed and improve low student learning outcomes.

E. Conclusion

1. Student learning outcomes before implementing the Reading, Questioning and Answering (RQA) Learning Strategy for Class XI at SMAN 6 Kerinci were shown with the highest score of 70 and the lowest score of 40. The average value of the Pretest class was 51.59.
2. Student learning outcomes after applying the Reading, Questioning and Answering (RQA) Learning Strategy for Class XI SMAN 6 Kerinci are shown with the highest score being 90 and the lowest score being 65. The average score for the Posttest class is 78.18.
3. Differences in learning outcomes in the application of reading, questioning and answering (RQA) learning strategies in improving student learning outcomes for class XI SMAN 6 Kerinci showed sig. (2-tailed) = 0.000 < = 0.05 then there is a difference in the average student learning outcomes between before and after treatment, so the Reading Questioning And Answering (RQA) Learning Strategy affects improving student learning outcomes in class XI SMA Negeri 6 Kerinci. The N-gain test for the posttest class has an average score of 78.18 at the level of student learning outcomes, and the posttest class has an N-Gain score of 0.70 in the high category.

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