

THE EFFECT OF SQ3R TECHNIQUE TO IMPROVE STUDENTS' READING ABILITY AT EIGHT GRADE STUDENTS OF SMPN 1 BATU LAYAR 2022/2023

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Abstract: The study aimed to assess the effectiveness of the SQ3R technique in enhancing the reading skills of eighth-grade students at SMPN 1 Batu Layar. It employed a quantitative research approach with a quasi-experimental design, utilizing control and experimental groups. The sample consisted of 52 students, divided equally between the two groups. The data collected from pre-tests and post-tests were analyzed using SPSS. The results of the statistical analysis, specifically the independent sample t-test, indicated that there was no significant difference in reading abilities between the control and experimental groups. Therefore, the study concluded that the use of the SQ3R technique did not yield significant improvements in the reading abilities of the eighth-grade students at SMPN 1 Batu Layar.

Keywords: *SQ3R technique, Reading Ability, Quasi-experimental Research Design.*

INTRODUCTION

Reading is regarded as an essential element for learners due to its valuable advantages in acquiring knowledge. One of important skill that students must be learned in order to improve their language skills is reading (Arora, 2012). According to Thohir et al (2019), reading is an interactive activity in which the reader interacts with the text in order to comprehend the meaning of the text being read. This is carried out so that the reader and the text describing the code or symbol can collaborate to build and gain meaning, giving to understanding, during the interactive process of reading (Sheeba & Mohd, 2018).

Throughout this time, some researchers have conducted research on reading ability technique. For instance, Rahayuningsih (2013) reported that some students, particularly junior high school students, having trouble understanding information in sentences and phrases, and they lack the capacity to make the connection between sentences. They simply translate the words one by one to comprehend the meaning.

Based on a pre-survey at SMPN 1 Batu Layar. The students' inability to completely describe information was due to their lack of understanding of the content. The students can easily read the content, but they find it difficult to comprehend the information and meaning included in the paragraph. That class adopt conventional method in their approach to reading. The teacher introduces the material to the students, then instructs them to read the text and answer questions from the text or those provided by the teacher. This environment does not promote active participation in the teaching and learning process. In other words, despite reading the texts are given, students struggle to comprehend it. In this matter, to help students

read the text effectively, the teacher should try another reading technique to solve that problem.

From those problems, to overcome students' difficulties in reading comprehension, the teacher should adopt a different teaching technique. One of teaching technique can be used in this problem is SQ3R technique. This is supported by the previous research that had been successfully conducted using this technique such as a study conducted by (Cataraja, 2022), he found the fact, SQ3R technique helps readers understand the content of the book and more effective than conventional reading technique in developing the students' reading ability.

The technique procedure involves the following steps: first, examine how the text is organized (survey); next, create questions that will be answered based on the text (question); then, start reading the material with the predefined objectives and questions in mind (read); after reading, students recall and articulate the information learned or jot down essential points for better retention (recite); finally, review the previously read material to ensure comprehension and recall (review).

RESEARCH METHOD

The purpose of this study was to determine whether the SQ3R technique effectively improves the reading ability of eighth-grade students at SMP 1 Batu Layar. The researcher proposed two hypotheses: the alternative hypothesis (H_a) suggesting a significant difference in reading comprehension after implementing the SQ3R technique, and the null hypothesis (H_0) suggesting no significant difference. To investigate this, a quantitative method was employed using a quasi-experimental research design. The use of parallel classes as a comparison group ensured comparability between the groups. The experimental group (VIII B) received instruction using the SQ3R technique, while the control group received conventional instruction (question-answer). The population in this study is a total of eighth-grade students of SMP 1 Batu Layar. There are 78 students divided into three classes. This study used the purposive sampling method. As stated by Sugiyono, (2013), purposive sampling is a technique of sampling when the researcher has certain consideration for taking the sample which has certain condition that fit the purpose of the research. Hence, the sample of this research selected through purposive sampling technique as the sampling technique by considering some relevant categories, such as those with a total population of less than 100 students, only have access to two classes from three classes, and those two classes are taught by the same teacher. In this case, two classes with a total of 52 students, VIII B consisting of 26 students, and VIII C consisting of 26 Students, was selected as the experimental and control groups. According to the suggestion from the English teacher who taught those classes, VIII B was chosen as the experiment group and VIII C as the control group.

The researchers collected data through a series of tests, including a pre-test and post-test, which were administered to both the control and experimental groups. Prior to the post-test, both groups received different treatments: the control group used a conventional technique, while the experimental group utilized the SQ3R technique. The collected data were then analyzed using IBM SPSS 25 statistical software for Windows. Various tests, such as normality test, homogeneity test, and independent sample t-test, were conducted to analyze the data and test the hypotheses.

FINDINGS AND DISCUSSION

This chapter presents the research findings and data interpretation acquired by some test as the instrument for collecting the research data.

1. Research findings

The following are the data descriptions, prerequisite testing, and discussion of the data that have been analyzed.

1.1 Data description of pre-test and post-test of control and experimental group

Table: 1.1 Statistical Data Description of Pre-test and Post-test Score of Experimental Group

		Statistics	
		Pretest ex.group	Posttest ex.group
N	Valid	26	26
	Missing	0	0
Mean		56.92	65.92
Median		56.00	64.00
Mode		56	64
Std. Deviation		8.786	8.551
Variance		77.194	73.114
Range		36	36
Minimum		40	48
Maximum		76	84

According to the data presented in Table 4.2, the pre-test scores of the experimental group varied from 40 to 76. The score of 56 was the mode, indicating that it was the most common score among the students, with seven achieving it. However, this score was relatively lower compared to the highest score of 76, which only one student obtained. This suggests that some students had lower reading abilities. Following the implementation of the SQ3R treatment, the post-test scores in the experimental group ranged from 48 to 84. Two students achieved the highest score of 84, and the most frequently occurring score was 64, indicating an improvement compared to the previous test. Based on these findings, it can be concluded that there is a noticeable difference between the pre-test and post-test scores in the experimental group.

Table: 1.2 Statistical Description of Students' pre-test and post-test scores of control group

		Statistics	
		Pre-test cont.group	Post-test cont.group
N	Valid	26	26
	Missing	4	4
Mean		56.54	64.77
Median		56.00	60.00

Mode	52	56
Std. Deviation	8.071	10.057
Variance	65.138	101.145
Range	28	32
Minimum	44	52
Maximum	72	84

Based on the information provided in Table 4.2, it is clear that the control group had pre-test scores ranging from 44 to 72. Following the treatment, the control group's post-test scores ranged from 52 to 80. When analyzing the pre-test scores of both the experimental and control groups, we can observe that the average score of the experimental group was 56.92, slightly higher than the control group's average score of 56.63. Additionally, looking at the post-test scores of both groups, the average score of the experimental group was 65.92, while the control group's average score was 64.76. Consequently, the post-test scores of the experimental group were higher than those of the control group. In summary, the study indicates that the experimental group achieved higher post-test scores compared to the control group.

A. Prerequisite testing

1. Normality test

The IBM Statistical Package for the Social Sciences (SPSS) version 25 was utilized to conduct a normality test on both the experimental and control groups, for both the pre-test and post-test data. In SPSS, there are two options for testing normality: the Kolmogorov-Smirnov test and the Shapiro-Wilk test. The choice of test depends on the number of respondents. As this research had 26 students as respondents in each class, the Shapiro-Wilk test was used to assess the normality of the data. If the normality test results in a p-value greater than the significance level α (0.05), it indicates that the scores are normally distributed.

Table 1.1.3 The Result Of Normality Test Of The Pre-Test Scores Of Experimental And Control Group

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Pre-test Experimental	.196	26	.012	.951	26	.244
Pre-test Control	.142	26	.190	.946	26	.186

a. Lilliefors Significance Correction

The result of the normality test showed that the experimental group and control group had normal distribution data in the pre-test because the sig. score which showed in the Shapiro-Wilk normality test are more than 0.05; 0.244 for experimental group and 0.186 for control group.

Table 1.1.4 The Result of Normality Test of The Post-Test Scores of Experimental And Control Group

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Post-test Experimental	.166	26	.064	.955	26	.298
Post-test Control	.213	26	.004	.945	26	.181

a. Lilliefors Significance Correction

The result of the normality test showed that the experimental group and control group had normal distribution data in the post-test because the sig. score which showed in the Shapiro-Wilk normality test are more than 0.05; 0.298 for experimental group and 0.181 for control group.

2. Homogeneity test

The homogeneity test was conducted to determine whether the data from both groups were homogeneous or heterogeneous. The data is considered homogeneous if the significance value (based on the mean) is greater than 0.05. In this study, the Levene statistical test in SPSS was employed to assess the homogeneity of the data.

Table 1.2.1 The Homogeneity test of the Pre-test scores of the Experimental and Control Group

Test of Homogeneity of Variances					
		Levene			
		Statistic	df1	df2	Sig.
Pre test	Based on Mean	.004	1	50	.952
	Based on Median	.003	1	50	.958
	Based on Median and with adjusted df	.003	1	47.149	.958
	Based on trimmed mean	.003	1	50	.959

Based on the table above, the Levene statistic table showed that the significance value (based on mean) of pre-test between both groups was 0.952. Hence, the pre-test data of experimental group and control group were homogeneous because the significance value was higher than 0.05.

Table 1.2.2 The Homogeneity test of the Post-test scores of the Experimental and Control Group

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Post test	Based on Mean	2.217	1	50	.143
	Based on Median	1.042	1	50	.312
	Based on Median and with adjusted df	1.042	1	47.950	.312
	Based on trimmed mean	2.009	1	50	.163

Based on the table above, the Levene statistic table showed that the significance value (based on mean) of post-test between both groups was 0.143. Hence, the pre-test data of experimental group and control group were homogeneous because the significance value was higher than 0.05.

3. Hypothesis test

Table 1.3.1 The Independent T-test of the Pre-test Scores of the Experimental Group and Control Group

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post test	Equal variances assumed	2.217	.143	.446	50	.658	1.154	2.589	-4.046	6.354
	Equal variances not assumed			.446	48.739	.658	1.154	2.589	-4.049	6.357

According to the table 4.9, it can be seen the result of the t-test was 0.446 with sig. (2 tailed) 0.658, and the degree of freedom (df) is 50 and by using the degree of significance of 5% it can get t_{table} 2.00. Moreover, the result showed that t_{value} (0.446) < t_{table} (2.00) and the sig. (2-tailed) is 0.658 > 0.05 ($\rho > \alpha$). As the result, it can be concluded that the technique is not effective to improve students' reading ability based on the criteria as follows:

“ If the t-test < t-table in sig.degree of 0.05, H_0 is accepted”

“ If the t-test > t-table in sig. degree of 0.05, H_0 is rejected

Based on the analysis, the conclusion can be drawn that the null hypothesis (H_0) was accepted, while the alternative hypothesis (H_a) was rejected. This indicates that there was no significant difference observed when using the SQ3R technique to enhance students' reading ability in the eighth-grade at SMPN 1 Batu Layar during the academic year 2022/2023.

2. Discussion

After being calculated the data through SPSS, the researcher got the result that the t_{table} of df 50 at the degree of significance 0.05 was 2.00, while the t_{value} was 0.446. By comparing the t_{value} and t_{table} , the data was revealed that $t_{value} < t_{table}$. Hence, the alternate hypothesis (H_a) is rejected and the null hypothesis (H_0) is accepted. It means, there is no significant difference after using SQ3R technique on students' reading ability on the eighth-grade junior high school students.

The data for this study were collected through a comprehensive testing process, which included a pre-test and post-test. Both the control group and the experimental group were subjected to the same test at the beginning of the study to establish a baseline for their reading skills. However, before the post-test was administered, both groups underwent different treatments. The control group received instruction using a conventional technique, which is a commonly used method for teaching reading skills. On the other hand, the experimental group was taught using the SQ3R technique, a specific reading strategy that emphasizes active engagement with the text through a series of steps: Survey, Question, Read, Recite, and Review.

Once the treatments were completed, the post-test was administered to both groups to assess any changes in their reading abilities. The collected data were then subjected to statistical analysis using IBM SPSS 25, a widely used software for statistical analysis. To ensure the validity of the results, several tests were conducted on the data. First, a normality test was performed to assess whether the data followed a normal distribution. This is important because many statistical tests assume normality in the data. Additionally, a homogeneity test was conducted to determine if the variances of the two groups were equal. This is necessary for certain statistical tests, such as the independent sample t-test, which was used in this study.

Finally, the hypothesis test was conducted using the independent sample t-test to compare the mean scores of the control group and the experimental group. The t-test allows researchers to determine if there is a significant difference between the two groups. By analyzing the results of the t-test, the researchers were able to draw conclusions about the effectiveness of the SQ3R technique in improving the reading skills of the participants. In summary, this study employed a rigorous testing process, including pre-tests, post-tests, and different treatments for the control and experimental groups. The data were analyzed using IBM SPSS 25, and various statistical tests were conducted to ensure the validity of the results. The ultimate goal was to determine whether the SQ3R technique had a significant impact on the reading abilities of the participants.

Another study related to this research found that students tended to become more passive and faced difficulties in following the steps of the SQ3R technique. Additionally, it was observed that using this technique resulted in a longer time to complete a topic since students had to read the text twice (Supriadi, 2012). Based on this information, it can be concluded that teaching reading through the SQ3R technique still requires significant improvements in order to claim that it effectively enhances students' reading abilities. However, in a separate study conducted by Cataraja (2022), it was stated that the SQ3R technique was superior to the conventional technique used by the teacher in that research. Cataraja's study demonstrated that this technique can help organize students' reading

comprehension. In the current research, some challenges were encountered during the treatments in both the control and experimental groups. Both groups struggled with determining the meaning of unfamiliar words and concepts in the text. Additionally, the experimental group faced difficulties in formulating questions during the question step, but this issue was addressed by providing examples and guidance. Ultimately, they were able to understand how to formulate questions based on the topic. On the other hand, the control group took longer to find answers to the questions provided in the worksheets. However, they were assisted in finding the meanings of unfamiliar words based on the topic.

CONCLUSION AND SUGGESTION

Based on the analysis of the post-test results, hypothesis verification, and the discussion in the previous chapter, it can be concluded that both the experimental and control groups demonstrated improvement in their reading scores during the post-test. Although the mean post-test score in the experimental group did not yield a significant result compared to the control group, it is worth noting that the experimental group had a slightly higher mean score. This suggests that the SQ3R technique may have contributed to a slight improvement in the reading scores of the experimental group. However, further research and analysis are needed to establish more conclusive findings. The results of the hypothesis test indicated that there was no significant difference in students' reading ability after using the SQ3R technique. In light of this, some suggestions for theoretical and practical purposes were proposed to improve the teaching of reading in junior high school. Additionally, it is recommended for future researchers conducting similar studies to collaborate with other teachers to ensure fair treatment of variables and to address any potential implications that may arise during the treatments.

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