THE EFFECTIVENESS OF ROUND-ROBIN TECHNIQUES AIDED WITH GUIDED QUESTIONS ON READING COMPREHENSION

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ABSTRACT

This study evaluates the impact of the round-robin technique with guided questions on reading comprehension among 8th-grade students at SMPN 1 Jogoroto Jombang. (Azzahra & Al-Gazhali, 2024). Using a quasi-experimental design, the research compared two groups: one using round-robin with guided questions (29 students) and the other using round-robin alone (26 students). Pre-tests and post-tests assessed reading comprehension. The significance level of 0.655 from the ANCOVA analysis indicated that there was not a noticeable distinction between the two groups. The study found that covariates like prior English knowledge and vocabulary mastery were influential. Therefore, these factors should be considered when implementing the round-robin technique.

Keywords: guided questions, reading comprehension, round-robin

INTRODUCTION

A crucial reading skill that students must enhance during their education, particularly in learning English, is reading comprehension. Lambe (2017) defines reading comprehension as the process of extracting information from context and synthesizing many pieces into a cohesive whole. Students with a robust understanding of reading will find it far easier to comprehend the many types of reading materials presented by the instructor during the learning process. Effective comprehension enables the reader to thoroughly grasp the facts and concepts conveyed, which can express various types of messages, including emotions (Azzahra, 2024). Reading comprehension entails the capacity to analyze and assimilate information acquired directly. Reading comprehension plays a significant impact not just in academic contexts but also in daily life (Syaichul Muchyidin & Jiwani, 2020).

Round-robin strategies in education offer numerous advantages when implemented in the teaching-learning process, as their effects are directly experienced by the students instructed by educators. Kagan & Kagan (2009) and Jayantika (2000) identify five advantages of the round-robin technique: it motivates students, builds confidence, develops a scheme, promotes understanding, assesses reading ability, and enhances reading fluency. The Round-Robin technique is more appropriate for use with kids proficient in reading skills. The study by

Kristina & Bunau (2023) titled "Improving Students' Reading Comprehension Through Round Robin Technique on Narrative Text" concluded that the round-robin technique significantly enhances student reading, fostering greater enthusiasm and improved attitudes throughout the teaching-learning process.

The round-robin technique effectively enhanced students' reading comprehension by actively engaging them in the educational process, facilitating collaboration and idea exchange, and augmenting their motivation and engagement. Utilizing the round-robin strategy encourages student creativity, enhances the teaching environment, and increases student motivation (Habib et al., 2024). The technique enhanced students' comprehension, as demonstrated by improved skills, more confidence in articulating their thoughts, and a better grasp of the text's structure and core concepts (Dahlina & Wahyuni, 2021).

The round-robin technique, as articulated by Barkley et al. (2014), entails group members sequentially responding to a question with a word, phrase, or brief statement, so fostering the elaboration and assessment of ideas. One key procedure is ensuring students generate ideas without interruption or evaluation to maintain the flow, which requires clear teacher guidance. Syafryadin & Widiastuti (2013) introduced modifications to this technique, adapting it to different contexts. Their procedure involves the teacher assigning a discussion topic, forming groups that sit in a circle, and having each member take turns speaking. Like Barkley's approach, clear instructions are crucial for effective implementation. This study used the theory by Syafryadin & Widiastuti (2013)

In this study, round-robin techniques were combined with guided questions. Guided questions are a directional tool for fostering understanding through the use of fundamental inquiries, facilitating active learning and engagement within an interactive classroom environment, as emphasized by Indrasari & Julita (2018), Sinabariba (2021) and Pertiwi & Kareviati (2021). The purpose of guided questions is to help students understand the learning material, direct their thinking in a particular direction, encourage reflection, and promote meaningful discussion. Guided questions can be open questions that stimulate discussion or closed questions that ask students to provide concrete answers. With that, the learning process is effective and directed.

Sholihah (2017) in her research the findings indicated that the round-robin summarizing technique had a positive significance and was effective in students' reading comprehension of narrative texts. This study suggests that future researchers should be more creative in discussion

activities, prepare materials well, and ensure students have adequate vocabulary knowledge. Dahlina and Wahyuni (2021) discovered that the round-robin technique greatly enhanced learners reading comprehension abilities, resulting in heightened motivation and favorable attitudes. However, it is important to acknowledge that obstacles, specifically classroom noise and time management issues, were reduced by the application of the technique. The study emphasized the significance of preparation, patience, and confidence in building students' trust in themselves and improving their reading comprehension skills. The recent study by Kristina and Bunau (2023) revealed substantial enhancements in students' reading comprehension of narrative texts with the application of the round-robin technique. This study exhibits a deficiency in the execution of the initial cycle, as seen by the data collected by the researcher, which revealed that students' performance in reading assessments remained subpar; nevertheless, following the implementation of the second cycle, an improvement was observed compared to the earlier cycle.

From intensive finding studies, it can be settled that most of the round-robin techniques have positive and effective impact on students' speaking and reading skills. In addition, there are weaknesses in each study, ranging from the importance of preparation, patience, and confidence in building students' confidence (Dahlina & Wahyuni, 2021); to being more creative in discussion activities, preparing materials well, and knowing the ability students to have (Sholihah, 2017); overcoming students' confusion about the techniques used, managing noise levels, and increasing active participation (Wahyuni, 2021). From the weaknesses above, researchers are interested in the weaknesses of Sholihah's (2017) research which suggests being more creative in discussion activities. Including guided questions in this technique, it allows pupils to be more creative in discussion activities and able to overcome confusion in the application of this technique.

Guided questions are a teaching technique that helps students solve a problem by providing structured questions that guide their thinking process and help them organize their ideas effectively (Wardani & Waris, 2014). By using guided questions, the development of other skills can be more focused, helping individuals to explore various aspects of the skills they want to improve. The study by Siregar et al. (2021) demonstrated that the implementation of Guiding Questions significantly impacts student performance in writing descriptive paragraphs. This finding validates that the strategy is efficacious in enhancing students' capacity to construct structured and coherent descriptive paragraphs. The implementation of leading questions

substantially enhances students' proficiency in composing descriptive texts. Structured and guided inquiries promote students' comprehension of essential writing tasks, including concept organization, appropriate word usage, and sentence clarity (Marpaung et al., 2023; Salu et al., 2022). Furthermore, studies conducted by Ismail et al. (2022) and Nuraeni Muhtar et al. (2020) demonstrated that the Guiding Questions Technique effectively enhanced the quality of students' writing, particularly in the composition of recount texts. This outcome demonstrates that the strategy is successful in assisting pupils to arrange their ideas and enhance their overall writing proficiency.

For this study, the researcher implemented this technique aided with guided questions in English subjects focusing on reading comprehension. From this weakness, the researcher wants to add guided questions in technique of round-robin applicated in reading comprehension students. On the basis of the explanation that was provided before, the researcher is interested in determining how the round-robin method affects the results aided with guided questions on reading comprehension and learning engagement.

METHOD

This study employed a quantitative research methodology with a quasi-experimental design. Experimental quasi is a research methodology employed when researchers are unable to exert complete control over the variables included in a study, rendering randomization, as utilized in true experiments, unfeasible. Thyer (2012) asserted that quasi-experimental research resembles experimental research in that it involves the modification of an independent variable. It contrasts with experimental research due to the absence of a control group, random selection, random assignment, and/or active manipulation. Therefore, it is important to adjust the quasi-experimental to the specific conditions of the research so that the results are reliable and valid. Ary et al. (2010) elaborates that quasi-experimental designs involve manipulating independent variables and do not provide full control. They are considered useful because they allow researchers to reach reasonable conclusions even when full control is not possible.

This study took two classes Experimental 1 and Experimental 2, both groups received a pretest and posttest. The experimental class 1 was taught reading using round-robin technique, while the experimental class 2 was given round-robin technique aided with guided questions in learning reading. Non-randomized control group design implemented in this research were adapted from Ary et al. (2010). However, instead of using the control class this research used

two experimental classes. Below is the table of non-randomized control group designs implemented in this research.

The population in this study was students from SMPN 1 Jogoroto. The total number of students at SMPN 1 Jogoroto is 847 consisting of 430 males and 417 females. There were 237 eight students divided into eight classes namely VIII-A until VIII-I. The samples of this research were class VIII-G and VIII-H. Those classes were chosen by teacher recommendation. Thus, the sampling technique used in this research was included in the non-randomized sampling technique. The classes were then assigned to experimental group 1 (VIII-G) and Experimental group 2 (VIII-H).

In this study, data were collected through a structured process involving pre-tests, treatment, and post-tests to evaluate the effectiveness of the round-robin technique with and without guided questions on students' reading comprehension.

a. Pre-Test. Initially, a pre-test was administered to both Experimental Group 1 and Experimental Group 2. The pre-test aimed to establish a baseline measure of the student's reading comprehension skills before any treatment was applied. This assessment provided
b. Treatment. The treatment carried out in this study was only 2 times, carried out on different days, namely on the first and second days. Experiment Group 1 received the round-robin technique accompanied by directed questions. The treatment involved students engaging in a round-robin reading activity where they took turns reading and discussing passages of text, guided by structured questions designed to encourage deeper analysis and critical thinking. Meanwhile, Experiment Group 2 was exposed to the round-robin technique without additional directed questions. They participated in a similar round-robin reading activity, but without structured questions, focusing only on the collaborative reading and discussion process.
c. Post-Test. Upon conclusion of the treatment period, both groups undertook a post-test that mirrored the format of the pre-test. The post-test sought to assess alterations in reading comprehension attributable to the intervention. Through the comparison of pre-test and post-test scores, the study assessed whether the round-robin technique with or without guided questions led to improvements in reading comprehension.

In this study, the researcher used an instrument in the form of a test that measures students' reading comprehension. Ary et al, (2010) a test is a set of items given to a particular

individual to generate answers that will allow a score to be assigned. This research uses validity and reliability to strengthen the instrument to be used.

a. Validity. Validity is carried out on try-out questions that have been done by students, try-out questions are divided into two, namely the pre-test and post-test. The validity of the questions was carried out three times using the SPSS Windows 26.0 version. Where the number of questions that were tried out each amounted to 30 multiple choice questions until after validity was carried out to 15 questions both pre-test and post-test.
b. Reliability. In this study, the researcher tested the reliability using Cronbach's Alpha which produces a reliability coefficient between 0 and 1. The level of significance is α = 5% or 0.05. In this research, the researcher used SPSS software version 25 to calculate the reliability of the pre-test and post-test. The pre-test and post-test reliability results are presented in Table 1 and Table 2.

Table 1
The Reliability of Pre-Test

Cronbach's Alpha	Cronbach's Alpha Based On Standardized Items	N of Items
0.862	0.864	15

Table 2
The Reliability of Post-Test

Cronbach's Alpha	Cronbach's Alpha Based On Standardized Items	N of Items
0.850	0.853	15

The reliability result of the pre-test is very high, 0.80< rxy <1.00. The Cronbach's Alpha value of the pre-test was 0.853. This value is higher than the r table value 0.456. This means that the instrument is reliable.

RESULTS AND DISCUSSIONS

This study employed Analysis of Covariance (ANCOVA) utilizing the IBM SPSS Statistics 26.0 software for Windows. ANCOVA is employed to analyse the variance in the

means of dependent variables attributable to the influence of a controlled independent variable. The ANCOVA test requires the fulfilment of various assumptions, including normality, homogeneity, linearity, homoscedasticity, and homogeneity of regression slopes. Each assumption test is marked below.

1. Normality of the data distribution

Table 3
Normality Test

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Kelompok	Statistic	df	Sig.	Statistic	df	Sig.
Residual for Post-Test	1	.140	29	.153	.917	29	.052
	2	.146	26	.160	.939	26	.129

a. Lilliefors Significance Correction

The Shapiro-Wilk test evaluates the normality of data by determining whether it originates from a normal distribution. The results indicate that the post-test scores in both the experimental (sig = 0.052) and control groups (sig = 0.129) do not substantially differ from a normal distribution, as both values exceed the alpha level of 0.05. This signifies that the data follows a normal distribution.

2. Homogeneity Variance

Table 4
Homogeneity Test

Levene's Test of Equality of Error Variances[a]

Dependent Variable: Post-Test Reading Comprehension

F	df1	df2	Sig.
.968	1	53	.330

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + pre-Test + kelompok

According to the findings of the homogeneity of variance test, there was not a significant difference in the variability of the post-test scores between the experimental group and the control group (Levene's test for equality of variances, F = 0.968 and sig = 0.330). This was the conclusion reached by the participants in the study. The fact that the obtained sig value was 0.330 (p > 0.05) suggests that the data are consistent with one another.

3. Linearity

Table 5
Linearity Test

ANOVA Table

			Sum of Squares	Df	Mean Square	F	Sig.
Postest * Pretest	Between Groups	(Combined)	4194.007	10	419.401	2.152	.040
		Linearity	1161.916	1	1161.916	5.962	.019
		Deviation from Linearity	3032.091	9	336.899	1.729	**.111**
	Within Groups		8574.902	44	194.884		

The table above shows the relationship between Round-Robin techniques with guided questions and reading comprehension. The alpha value is 0.05. The ANOVA results indicate a significant linear relationship (p-value for linearity = 0.019) and no significant deviation from linearity (p-value = 0.111), supporting that the regression model meets the linearity assumption.

4. Homoscedasticity

Table 6
Homoscedasticity Test

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	6.843	4.336		1.578	.120
	Intervention	3.069	2.698	.154	1.137	.261

a. Dependent Variable: Abs_RES

The homoscedasticity test, based on the regression analysis for the 'Intervention' variable, shows a p-value of 0.261. Since this is greater than the 0.05 significance level, there is no evidence of heteroscedasticity, indicating that residual variance is consistent across the range of independent variable values. Thus, the homoscedasticity assumption is met, and the regression model is valid regarding residual variance stability.

5. Homogeneity of regression slopes

Table 7
Homogeneity of Regression Slopes Test

Tests of Between-Subjects Effects

Dependent Variable: Pos-test

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1240.020[a]	3	413.340	1.828	.154
Intercept	16318.808	1	16318.808	72.189	.000
Intervention	63.107	1	63.107	.279	.600
Pretest	1117.308	1	1117.308	4.943	.031
Intervention * Pre-test	33.287	1	33.287	.147	.703
Error	11528.889	51	226.057		
Total	202458.000	55			
Corrected Total	12768.909	54			

a. R Squared = .097 (Adjusted R Squared = .044)

The p-value for the interaction between the intervention and pre-test, as seen in the table above, is 0.703. Given that this p-value substantially above the conventional significance threshold of 0.05, there is insufficient evidence to reject the null hypothesis. This signifies that the regression slope between the intervention and post-test does not differ significantly among pre-test levels. The assumption of homogeneity of regression slopes is satisfied, as there is no significant interaction between the intervention and pre-test affecting the post-test results.

6. Hypothesis Test

Table 8
Test of Between-Subjects Effect

Tests of Between-Subjects Effects

Dependent Variable: Post-Test Reading Comprehension

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1206.733[a]	2	603.367	2.714	.076	.095
Intercept	16435.121	1	16435.121	73.916	.000	.587
Pre-Test	1168.450	1	1168.450	5.255	.026	.092
Technique	44.817	1	44.817	.202	.655	.004
Error	11562.176	52	222.350			
Total	202458.000	55				
Corrected Total	12768.909	54				

a. R Squared = .095 (Adjusted R Squared = .060)

The significance value of the approach, as indicated in the table above, is 0.655, exceeding the threshold of 0.05 ($\alpha = 0.05$). Consequently, the Null Hypothesis (H0) is affirmed, whereas the Alternative Hypothesis is dismissed. This indicates that there is no statistically significant difference between experimental groups 1 and 2 after controlling for the pre-test score covariate. Consequently, the use of the interventions (round robin technique and round robin technique supplemented with guided questions) did not influence the dependent variable of reading comprehension.

However, the significance value of the covariate (prior reading skill) is 0.026, which is lower than the α value, indicating that prior reading skill significantly affects reading comprehension. From the Partial Eta Squared column, the technique has a value of 0.004, while the pre-test has 0.092. This means the students' background knowledge has a 9.2% effect, whereas the technique only has a 0.4% effect.

DISCUSSION

This research investigated the impact of the round-robin technique supplemented with guided questions on students' reading comprehension. Two groups were compared: Experimental Group 1 used round-robin with guided questions, while Experimental Group 2 used round-robin alone. The study involved pre-tests and post-tests to measure changes in reading comprehension. Results revealed no significant difference in comprehension scores between the two groups. Both groups showed improvements, but the addition of guided questions did not yield better outcomes than the round-robin technique alone. Observations indicated that while students actively participated and collaborated effectively in both settings, the guided questions introduced potential distractions rather than enhancing the learning process.

Previous research, by Kristina & Bunau, (2023), found that round-robin techniques significantly improved reading comprehension and other language skills. Yet, this study's findings diverge, suggesting that guided questions may complicate the round-robin process. Factors such as students' initial reading interest and vocabulary knowledge, combined with the complexity of integrating guided questions into the round-robin framework, likely contributed to the lack of significant improvement. In conclusion, while the round-robin technique remains effective for student engagement and collaboration, its combination with guided questions may need refinement to enhance its impact on reading comprehension. Future research should

explore simplifying the integration of guided questions or consider alternative methods to optimize this approach.

CONCLUSION

This research examined the effectiveness of the round-robin technique with guided questions on reading comprehension among 8th-grade students at SMPN 1 Jogoroto Jombang using a quasi-experimental design. Two groups were compared: one with round-robin and guided questions, and one with round-robin alone. Pre-tests and post-tests showed improvements in both groups, with experimental group 1's average scores increasing from 45.21 to 59.52 and control group scores from 33.08 to 57.85. ANCOVA analysis revealed a significance value of 0.655, indicating no significant difference between the two groups. Therefore, the study concluded that the round-robin technique with guided questions does not significantly impact reading comprehension for these students.

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