Jurnal Pendidikan Bahasa Inggris Proficiency | p-ISSN: 2716-4950
Vol. 8, No. 1, January 2026 | e-ISSN: 2775-0450

THE EFFECTIVENESS OF USING SQ4R STRATEGY COMBINED WITH LIVEWORKSHEET IN READING COMPREHENSION AT EFL CLASSROOM

[1]Afnenda Vanola Aszahra, [2] Muh Fajar
[1,2] English Education, University of PGRI Jombang, Indonesia
[1]vanolaaszahraa@gmail.com*; [2]fajarstkipjb@gmail.com
*Corresponding author

Article History
Received: 2025/11/05
Reviewed: 2025/11/07
Accepted: 2026/01/06
Published: 2026/01/09

ABSTRACT

Reading is one of the basic skills in learning English that has to be mastered by the students. Reading becomes the most important activity as a means of consolidating and extending one's which are knowledge of the language. In the context of teaching reading in EFL classroom, the issue of poor reading comprehension has become a recurring problem. For this reason, a suitable strategy is needed that can help students to improve their reading comprehension achievement. One of the teaching strategies for reading comprehension is SQ4R. The researcher also combines the SQ4R strategy with Liveworksheet. This study aims to investigate the effectiveness of using SQ4R strategy combined with Liveworksheet in reading comprehension at EFL classroom. This research method is quantitative with a quasi-experimental research design. In determining the research sample, this study used a purposive sampling technique. The tenth-grade students of SMKN 3 Jombang were selected to participate in this study. The researcher used tenth-grade TKR 2 as the experimental class and tenth-grade DPIB 2 as the control class. The finding of the significant value 2-tailed of the Mann-Whitney U test is 0.000, lower than 0.05. The findings showed a significant difference between students who were taught by using SQ4R strategy combined with Liveworksheet and those who were not. It means that the alternative hypothesis (Ha) is accepted. In conclusion, the combination of SQ4R strategy and Liveworksheet as learning media significantly affects students' reading comprehension.

Keywords: SQ4R Strategy, Liveworksheet, Reading Comprehension, EFL Classroom

INTRODUCTION

Reading is a fundamental skill in learning English, crucial for consolidating and extending one's knowledge of the language to obtain information and gain knowledge. There are many definitions of reading proposed by experts of language. According to Nisa and Helmanda (2020), reading entails comprehending the text's language and content. It refers to the process of comprehending both the words and the precise information contained within a text is the basic definition of reading. This entails paying attention to both the underlying message (content) and the linguistic components (language). Furthermore, Richard (2015 as cited in Churat et al.,2022), defines reading as

constructing meaning from written text, aiming to obtain information, acquire knowledge, and derive pleasure. Effective reading involves grasping the author's message, recognizing main ideas, and understanding vocabulary in context (Nurdianingsih, 2021). Reading cannot be separated from comprehension. Reading comprehension, an essential aspect of reading, requires the ability to understand and interpret text, involving skills such as vocabulary knowledge, sentence structure understanding, making inferences, and drawing conclusions (Rojabi, 2020).

Reading comprehension can be particularly challenging in English as a Foreign Language (EFL) classroom. In the context of teaching reading in EFL classroom, the issue of poor reading comprehension has become a recurring problem. Problems faced by EFL students in reading comprehension are understanding long sentence or text, problem in using the appropriate reading strategies, and the problem in concentration (Khar-Diya A. Abbas, 2021). Meanwhile (Lestari 2025; Ramadhianti & Somba, 2023) reported most problems often found by EFL students are getting main idea between paragraphs, the topic of the text, understanding vocabulary, and inferring the text. Regarding with the reading problems, teacher can apply the appropriate reading strategy that can be used in teaching reading skill.

Several studies conducted over the past five years have demonstrated the effectiveness of the SQ4R strategy in reading skills. Ginting et al. (2021) found that SQ4R significantly enhances reading comprehension skills by improving concentration, reading efficiency, and interest. Churat et al. (2022) reported positive effects on students' critical reading skills. Mahastu et al. (2022) found that the SQ4R strategy increased reading comprehension and student interest. ZA & Khatmi (2020) noted significant improvements in reading comprehension abilities, and Kusmelinda & Swondo (2024) found improved reading comprehension scores.

A potential research gap in the existing literature on the effectiveness of the SQ4R strategy in students' reading comprehension lies in the need for research that incorporates the role of technology in modern education to optimize the SQ4R strategy, thus providing a more robust and inclusive approach to learning and comprehension. The novelty of this study is that the researcher combines teaching strategies and learning media. In this study, the researcher focuses on the implementation of SQ4R strategy combined with Liveworksheet in EFL classroom. Liveworksheet is an online platform that provides a wide variety of interactive educational materials in the form of digital worksheets ((Masrul & Erliana, 2024; Nissa et al., 2021). LiveWorksheet allows educators to create interactive worksheets and educational activities for students. The website provides a variety of interactive exercises, including multiple-choice questions, fill-in-the-blank, matching activities, crossword puzzles, word searches, and more. Some worksheets also include multimedia elements such as videos, images, and audio clips, which enrich the learning experience and make it more engaging for students (Widiantho et al., 2023).

Furthermore, there are no well-documented studies that look at both SQ4R and LiveWorksheets in a single intervention for reading comprehension in EFL classrooms; instead, existing research typically looks at either SQ4R or LiveWorksheets alone. The majority of SQ4R studies do not incorporate internet platforms into their technique. The majority of LiveWorksheets research ignores reading strategies like SQ4R in favor of concentrating on the efficacy of digital learning materials. Despite the proven effectiveness of SQ4R, there is a need for research incorporating the role of technology in modern education to optimize this strategy. This study combines the SQ4R strategy with Liveworksheet, an online platform offering interactive educational materials, to

enhance reading comprehension in EFL classrooms. Liveworksheet is an online platform that provides a wide variety of interactive educational materials in the form of digital worksheets (Nissa et al., 2021). Liveworksheet provides interactive exercises, multimedia elements, and opportunities for active engagement, which can improve students' understanding and interest in reading materials (Widiantho et al., 2023; Rusdan & Mulya, 2023). The interactive features of Liveworksheet are expected to make reading materials more engaging and enhance students' learning outcomes. Based on the explanation above, the purpose of this study is to investigate the effectiveness of using the SQ4R strategy combined with Liveworksheet in improving reading comprehension in EFL classrooms.

This study is significant for a number of reasons. First, it offers factual proof of how well the SQ4R technique and Liveworksheet work together to enhance students' reading comprehension in an EFL classroom. The results demonstrated how combining digital learning resources with structured reading techniques can greatly improve students' learning outcomes, which advances the subject of teaching English. Furthermore, it is helpful for English teachers since it provides a different and creative teaching method that can improve students' motivation, engagement, and understanding during reading exercises. Ayua (2017), cited in Mulyanti et al. (2021), defines teaching strategy as an educational technique or plan aimed at achieving specific learning goals. One effective reading strategy is the SQ4R (Survey, Question, Read, Reflect, Recite, Review), which promotes active engagement and comprehension. SQ4R involves surveying the text, generating questions, reading actively, reflecting on information, reciting key points, and reviewing material periodically (Ryandani, 2017). The application of the SQ4R reading strategy is designed to engage students in reading activities, and encourage students to enjoy reading activities, as a result, students can improve information retention so as to improve students deeper understanding. According to Rojabi (2020), SQ4R advises students to use what they already know to help learning new content. By offering empirical evidence on the efficacy of the SQ4R strategy when paired with Liveworksheet, this study advances EFL reading pedagogy and enhances current ideas of reading comprehension strategies. By combining SQ4R with online interactive worksheets, which are currently scarce in EFL environments, the study expands on earlier studies on the subject.

The reasons the researcher chooses to combine Liveworksheet with the SQ4R strategy is because the interactive features of Liveworksheet are designed to make the subject matter more vivid. LiveWorksheet contains material that includes recordings, MP3s, interesting pictures, and images that can enhance students' interest in understanding the material and doing assignments so that students' learning outcomes can improve (Rusdan & Mulya, 2023). LiveWorksheet's interactive features also provide opportunities for students to engage actively with reading materials, such as interactive quizzes. Besides that, composite Liveworsheet has its strengths and weaknesses. According to Widiantho et al., (2023), the Liveworksheet website offers many benefits, including personalized learning, immediate feedback, increased engagement, progress tracking, flexibility, and accessibility. These advantages empower students to take ownership of their learning journey, enhance their understanding of the subject matter, and improve academic performance. However, potential challenges such as the need for internet connectivity and technological issues should be considered. Several studies have investigated related to Liveworksheet with positive results. For instance, Widiantho et al., (2023); Ratnawati et al., (2023); and Madden et al., (2023) in their research found that Liveworksheet is an interactive, fun tool that is relevant to educational needs, and

enhances students' learning outcomes, making it effective and feasible for teaching, especially in the context of narrative text. Based on the research background also the consideration above, the researcher will conduct research with the title "The Effectiveness of Using Survey, Question, Read, Reflect, Recite, Review (SQ4R) Strategy Combined with Liveworksheet in Reading Comprehension at EFL Classroom".

METHOD

Design

In this research, a quantitative research design is employed by the researcher. According to Rukminingsih et al., (2021) quantitative research is an approach to test certain theories by examining the relationship between variables. The researcher opted for a quasi-experimental design within the realm of quantitative research. As stated in (Creswell & Creswell, 2018), quasi-experimental designs are used when full randomization is not possible or unethical, but the researcher still wants to examine the effect of the independent variable on the dependent variable. In quasi-experimental, two groups are formed: the experimental class, and the control class. The experimental class receives treatment being tested in research while in the control class does not. The research design can be seen in Table 1.

Table 1.
Research Design

Group	Pretest	Treatment	Posttest
Experimental	O_1	SQ3R combined with Liveworksheet	O_2
Control	O_3	Conventional method (without SQ3R)	O_4

Subject of Research

Because this study used a quasi-experimental design, the sampling process used a non-random sample technique. All tenth-grade students at SMKN 3 Jombang, which consists of 51 study groups, 17 tenth-grade classes, 16 eleventh-grade classes, and 17 twelfth-grade courses, made up the study's population of 1,632 students. A little percentage of the pupils are female, but the majority are male. Since random assignment was not feasible, the researcher used intact classes to choose a non-random sample from this group. The research subjects were selected from two tenth-grade classes. X TKR 2 was designated as the experimental group, while X DPIB 2 was designated as the control group. There were thirty students in each class, for a total of sixty students in the sample. A reading comprehension pre-test was given to both groups before to the start of the treatment in order to determine the students' starting reading proficiency. According to the pre-test results, the experimental group's mean score was 76.13, while the control group's mean score was 74.80. This suggests that both groups had comparable reading comprehension skills before the treatment.

To improve comparability, the two groups were chosen based on the following factors, although coming from different academic majors, they are (1) Comparable Instructional Context in English. Both majors used the same textbooks, followed the same English curriculum, and were instructed using the same national curriculum-mandated syllabus and learning objectives. All majors at this level are required to take English, and no major-specific English resources were employed. (2) Similar Exposure to Instruction.

Teacher- and instruction-related variability was reduced since the two courses were taught by the same English teacher, had the same amount of instructional time, and were exposed to similar classroom settings and (3) Similar Grade Placement and Academic Level. In order to minimize variations in general academic preparation, both courses were put in parallel class streams, had similar school entry requirements, and were at the same grade level (Grade 10).

Instrument

This study used multiple-choice tests as the main instrument to assess students' reading comprehension. The test consisted of 30 items focusing on key reading skills, including identifying main ideas, factual information/details, meaning vocabulary in context, identifying references, and making inferences in narrative texts. The items were developed in accordance with curriculum indicators. The items were used in both the treatment and control groups. To ensure the validity of the instrument, face validity was first examined by an English Language Education lecturer at PGRI Jombang University and an English teacher at SMKN 3 Jombang. The expert validates the instrument by checking the instrument blueprint and providing suggestions for revising several errors in the instrument. In addition to expert assessment, the test items underwent empirical validation using IBM SPSS Statistics 22, where validity was measured through item-total correlation. Items that did not meet the minimum threshold (calculated r > table r) were revised or deleted. Calculations using IBM SPSS Statistics 22 obtained item-total and correlation tests. From the results of the item-total and correlation tests, the researchers found the results of the pre-test and post-test instrument validity tests. Below is a table of the validity test results.

Table 2.
Validity Test Results

No	R-count	R-Table	Valid (Pre-Test)	R-count	R-Table	Valid (Post-Test)
1.	0.345	0.395	Valid	0.440	0.487	Valid
2.	0.352	0.399	Valid	0.465	0.489	Valid
3.	0.339	0.393	Valid	0.464	0.503	Valid
4.	0.485	0.437	Valid	0.482	0.529	Valid
5.	0.322	0.378	Valid	0.525	0.566	Valid
6.	0.538	0.582	Valid	0.515	0.557	Valid
7.	0.627	0.663	Valid	0.364	0.408	Valid
8.	0.647	0.683	Valid	0.567	0.608	Valid
9.	0.464	0.513	Valid	0.594	0.631	Valid
10.	0.403	0.451	Valid	0.593	0.631	Valid
11.	0.589	0.629	Valid	0.559	0.597	Valid
12.	0.550	0.590	Valid	0.697	0.729	Valid
13.	0.627	0.664	Valid	0.704	0.732	Valid
14.	0.389	0.442	Valid	0.386	0.429	Valid
15.	0.448	0.498	Valid	0.641	0.677	Valid
16.	0.643	0.679	Valid	0.623	0.661	Valid
17.	0.635	0.673	Valid	0.535	0.579	Valid
18.	0.615	0.653	Valid	0.565	0.607	Valid
19.	0.478	0.526	Valid	0.752	0.778	Valid
20.	0.522	0.567	Valid	0.353	0.406	Valid
21.	0.595	0.633	Valid	0.509	0.554	Valid
22.	0.653	0.688	Valid	0.435	0.485	Valid
23.	0.550	0.593	Valid	0.413	0.464	Valid
24.	0.547	0.584	Valid	0.642	0.678	Valid
25.	0.519	0.559	Valid	0.479	0.524	Valid
26.	0.663	0.697	Valid	0.634	0.669	Valid
27.	0.487	0.531	Valid	0.626	0.660	Valid
28.	0.448	0.492	Valid	0.517	0.559	Valid
29.	0.452	0.482	Valid	0.371	0.421	Valid
30.	0.558	0.594	Valid	0.379	0.424	Valid

Reliability analysis was also conducted using Cronbach's alpha to ensure internal consistency. The score of reliability is 0,923. It means that the item of tests is consistent. However, before conducting an independent t-test, it was necessary to ensure that the data followed a normal and homogeneous distribution. Therefore, normality and homogeneity tests were conducted to ensure the distribution and homogeneity of the data.

Table 3.
Normality Test (Pre-Test)

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	class	Statistic	df	Sig.	Statistic	df	Sig.
pretest	experimental class	.283	30	.000	.842	30	.000
	control class	.175	30	.020	.919	30	.025

a. Lilliefors Significance Correction

To make a decision, it can be seen in the Shapiro-Wilk table. The data can be said to be normally distributed if the significance > 0.05 and it can be said that it is not normally distributed if the significance < 0.05. From the results of the analysis using the Shapiro-Wilk formula, the significance results obtained were 0.000 for the experimental class and 0.025 for the control class. Both groups were below the significance of 0.05 so that statistically, the data obtained were not normally distributed for experimental class and the control class.

Table 4.
Normality Test (Post-Test)

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	class	Statistic	df	Sig.	Statistic	df	Sig.
posttest	experimental class	.200	30	.003	.894	30	.006
	control class	.148	30	.092	.931	30	.051

a. Lilliefors Significance Correction

From the results of the analysis using the Shapiro-Wilk formula, the significance results obtained were 0.006 for the experimental class and 0.051 for the control class. Control class was above the significance of 0.05, so it can be said that the data obtained was normally distributed. While the experimental class was below the significance of 0.05 so that statistically, the data obtained was not normally distributed.

Table 5.
Homogeneity Test (Pre-Test)

Test of Homogeneity of Variance					
		Levene Statistic	df1	df2	Sig.
pretest	Based on Mean	7.268	1	58	.009
	Based on Median	4.295	1	58	.043
	Based on Median and with adjusted df	4.295	1	37.490	.045
	Based on trimmed mean	7.221	1	58	.009

As with normality tests, data can be considered homogeneous if the significance value is greater than 0.05. From the results of the Levene homogeneity test, the Sig. is 0.009. This value is below the specified significance value, which is < 0.05. So that researcher can assume that the data is not homogeneous.

Table 6.
Homogeneity Test (Post-Test)

Test of Homogeneity of Variance					
		Levene Statistic	df1	df2	Sig.
Posttest	Based on Mean	.951	1	58	.333
	Based on Median	.892	1	58	.349
	Based on Median and with adjusted df	.892	1	55.785	.349
	Based on trimmed mean	.839	1	58	.363

From the results of the Levene homogeneity test, the Sig. is 0.333. This value is above the specified significance value, which is > 0.05. So that researcher can assume that the data is homogeneous.

Data Collection Technique

A four-step process was used to collect data. Control class: (1) May 22, 2024: Students took a pre-test in the form of a written test. (2) May 27, 2024: The teacher explained the narrative text using the lecture method. (3) May 28, 2024: The teacher used the discussion method to ask questions to reinforce the narrative text material. (4) May 30, 2024: Post-test, students take a written test. Meanwhile, the experimental class: (1) May 22, 2024: pre-test, students took a written test. (2) May 28, 2024: understanding of narrative texts and implementation of the SQ4R strategy. (3) May 29, 2024: implementation of the SQ4R strategy through narrative text assignments in Liveworksheet. (4) May 30, 2024: Students took a post-test consisting of 30 questions identical to the SQ4R strategy in the experimental class combined with Liveworksheet. The session lasted 60 minutes, allowing for a direct comparison of performance before and after the intervention.

Data Analysis Technique

This study used IBM SPSS 22 for inferential and descriptive statistical analysis to assess the effectiveness of each reading strategy. Data obtained from pre-tests and post-tests consisted of students' reading comprehension scores, which were measured on a numerical scale. Pre-test scores served as baseline data to determine students' initial reading comprehension levels before treatment. Conversely, post-test scores reflected

their progress after receiving treatment. To ensure that the data met statistical assumptions, tests of homogeneity (Levene's statistic) and normality (Shapiro-Wilk test) were conducted. After confirming that the data were not normally distributed, the researcher used the nonparametric Mann-Whitney U test to compare the post-test mean scores of the experimental and control groups to assess the effectiveness of the two reading strategies. This test was used to compare the means of two independent groups and determine whether there was statistical evidence that the related population means were significantly different. The hypotheses tested in this study were as follows:

Ho = There is no significant difference in students' reading comprehension between those who are taught by using SQ4R strategy combined with Liveworksheet and those who are not.

Ha = There is a significant difference in students' reading comprehension between those who are taught by using SQ4R strategy combined with Liveworksheet and those who are not.

The conclusion-making criteria for the test are:

1) If the significance value (Sig.) <0.05, then Ho is rejected.
2) If the significance value (Sig.) ≥ 0.05, then Ho is accepted.

FINDINGS AND DISCUSSION

Findings

This section provides a comprehensive presentation of the research findings, offering both numerical and visual insights into the effectiveness of the applied instructional strategy. The discussion begins with descriptive statistics to illustrate the overall performance trends of the experimental and control groups, followed by hypothesis testing to determine the statistical significance of observed differences. Additionally, visual representations are included to enhance clarity and emphasize the magnitude of improvement achieved through the intervention.

Descriptive Analysis

To provide an initial overview of the data, descriptive statistics were calculated for the post-test scores of both the experimental and control groups. This analysis aims to highlight the central tendency and variability within each group, offering insights into overall performance trends. By examining the mean scores and standard deviations, it becomes possible to understand not only which group achieved higher results but also the consistency of those results across participants. The following table summarizes these descriptive findings.

Table 7.
Descriptive Statistics

Class	Mean	Std. Deviation	N
Experimental	90.13	6.642	30
Control	73.33	8.988	30

The descriptive statistics reveal not only a difference in mean scores but also provide insights into the distribution and consistency of student performance. The experimental group achieved a mean score of 90.13, which is substantially higher than the control group's mean of 73.33, indicating that the intervention had a strong positive effect on reading comprehension. Furthermore, the standard deviation values highlight

the stability of these results. The experimental group's standard deviation of 6.642 suggests that most students performed close to the group average, reflecting consistent improvement across participants. In contrast, the control group's standard deviation of 8.988 indicates greater variability, meaning that while some students performed well, others lagged significantly behind.

This pattern implies that the SQ4R strategy combined with Liveworksheet not only raised overall achievement but also reduced performance gaps among students, creating a more equitable learning outcome. The relatively low variability in the experimental group suggests that the structured approach and interactive features of Liveworksheet provided a uniform learning experience, benefiting students with different initial proficiency levels. These findings underscore the importance of integrating systematic reading strategies with digital tools to enhance both effectiveness and consistency in EFL classrooms.

Visual Representation of Results

To complement the numerical findings, a visual representation is provided to illustrate the magnitude of differences between the experimental and control groups. This figure offers an intuitive comparison of mean post-test scores, making it easier to observe the performance gap resulting from the applied instructional strategy.

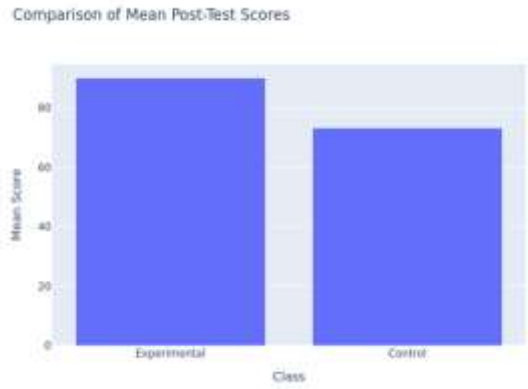

Figure 1. Comparison of Mean Post Test Score

Figure 1 clearly demonstrates the superiority of the experimental group over the control group. The bar representing the experimental class reaches a mean score of 90.13, significantly higher than the control group's 73.33. This visual gap reinforces the statistical evidence presented earlier and highlights the practical impact of integrating SQ4R with Liveworksheet. The sharp contrast between the two bars indicates not only improved comprehension but also the effectiveness of combining structured reading strategies with interactive digital tools in EFL classrooms.

Mann-Whitney U-Test Results

To verify whether the observed differences between the experimental and control groups are statistically significant, the Mann-Whitney U test was employed. This non-parametric test was chosen because the data did not meet the assumption of normality, making it suitable for comparing two independent groups. The following table summarizes the key test statistics and significance level.

Table 8.
Hypotesis Testing

Statistic	Value	Sig.
Z	-5.679	0.000

Based on the table above, the Mann-Whitney U test obtained Z-count amounting to -5.679 with a significance value of 0.000. The significance value < 0.05, so Ho is rejected, and Ha is accepted based on the decision-making criteria. So, the result is that there is a significant difference in students' reading comprehension between those who are taught by using SQ4R strategy combined with Liveworksheet and those who are not. Based on the data analysis and hypothesis testing, the SQ4R strategy combined with Liveworksheet is effectively in reading comprehension. The non-parametric Mann-Whitney U test results indicate a significant difference between the experimental class, which used SQ4R strategy combined with Liveworksheet, and the control class, which did not. The experimental class achieved a higher mean score (90.13) than the control class (73.33), and the mean rank for the experimental class was significantly higher. With a significance value of 0.000, which is well below the threshold of 0.05, the null hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted. This demonstrates that students taught using SQ4R strategy combined with Liveworksheet show superior performance in reading comprehension compared to those who are not, validating the effectiveness of SQ4R strategy combined with Liveworksheet as a teaching strategy for this purpose.

Discussion

Related to the findings in the previous section of this chapter, the results show differences in the means between classes requiring treatment. There is a significant difference between students who are taught using SQ4R strategy combined with Liveworksheet and those who are taught using conventional method. Students who taught using SQ4R strategy combined with Liveworksheet in reading comprehension got higher scores compared to those who did not.

SQ4R Method Facilitates Deep Information Processing from A Cognitive Standpoint.

The findings showed that there was a significant difference in students' reading comprehension in which the experimental class students' mean rank outperformed the control groups. So, the result is that there is a significant difference in students' reading comprehension between those who are taught by using the SQ4R strategy combined with Liveworksheet and those who are not. Thus, it could be concluded that using the SQ4R strategy combined with Liveworksheet in reading comprehension at EFL classroom is effective. This finding confirms the findings from (Mahastu et al., (2022); Churat et al., 2022)), which showed that the implementation of the SQ4R increased students' interest and participation in the learning process. In this study, students who received the SQ4R strategy treatment were more involved in reading activities and encouraged to enjoy reading activities. This increased engagement led students to invest effort in understanding and retaining the material. The students' positive attitude towards the SQ4R strategy indicates its potential to be applied more widely in reading instruction. Liveworksheet turns static worksheets into dynamic exercises by incorporating interactive elements such as drag-and-drop, audio responses, and clickable answers. This interactivity makes learning more hands-on and enjoyable for students. Additionally, the

platform provides real-time feedback, allowing students to immediately see their progress and correct mistakes, which keeps them actively involved in the learning process

SQ4R method is made much more effective by the incorporation of Liveworksheet.

The findings also provide additional evidence supporting the effectiveness of the SQ4R strategy in teaching reading comprehension, aligning with several studies. The SQ4R strategy has been proven to significantly affect students' reading comprehension skills, as it helps students develop a deeper understanding of the content of the text. This deeper understanding results from the structured approach of the SQ4R strategy, which guides students through the process of actively engaging with the text, asking questions, also reviewing key concepts, ultimately enhancing students' comprehension and retention of the material (Ginting et al., 2021). It has also been proven effective for teaching reading comprehension abilities since after the implementation of this strategy, students' scores increased significantly. The scores show that many students reached the minimum standard of completion (ZA & Khatmi, (2020); Kusmelinda & Swondo (2024)).

Moreover, this study combined the SQ4R strategy with Liveworksheet, an online platform that provides a wide variety of interactive educational materials in the form of digital worksheets (Nissa et al., 2021). The interactive features of Liveworksheet provide opportunities for students to engage actively with reading materials, enhancing students' involvement and interest. This combination of SQ4R strategy and Liveworksheet not only helps students understand and retain material better but also makes the learning process more enjoyable and dynamic. The results of this study show that students' reading comprehension was much enhanced by using the SQ4R (Survey, Question, Read, Recite, Review, Reflect) technique. This finding is consistent with constructivist learning theory, which holds that students actively create meaning by fusing new information with what they already know. This approach is made easier by SQ4R, which leads students through organized phases that encourage active interaction with texts as opposed to passive reading.

CONCLUSION

Based on the results of the analysis carried out by comparing the results of the 2 groups consisting of 1 experimental group and 1 control group, each consisting of 30 students. On the post-test scores, showed that there was a significant difference between the experimental group and the control group. The experimental group got a post-test score with an average of 90.13 and the control group with an average of 73.33. This shows that the experimental group got a higher average score than the control group.Based on the Mann-Whitney U hypothesis testing, it shows that there is a rejection of Ho. This is based on the Mann-Whitney U results which produce a significance number of 0.000 which is lower than 0.05. It means there is a significant difference in students' reading comprehension between those who are taught by using SQ4R strategy combined with Liveworksheet and those who are not.

So, the (Ha) alternative hypothesis is accepted, and the (Ho) null hypothesis is rejected. It is clear from the data analysis results that using Liveworksheet in conjunction with the SQ4R technique significantly improves students' reading comprehension. Better learning outcomes were demonstrated by the experimental group's significantly higher post-test mean score (90.13) than the control group's (73.33). Additionally, the statistical significance of the difference between the two groups is confirmed by the Mann-Whitney U test results (Sig. = 0.000 < 0.05). As a result, the null hypothesis (Ho) is rejected and

the alternative hypothesis (Ha) is accepted, proving that teaching reading comprehension with the SQ4R technique in conjunction with Liveworksheet is more successful than traditional education.

ACKNOWLEDGEMENT

In the name of Allah SWT, the most gracious and merciful, because of Allah's blessing and mercy, the researcher was able to complete this journal. The researcher is also pleased with the lectures of the University PGRI Jombang who have supported this research and students of SMKN 3 Jombang who have been involved in this research.

REFERENCES

Arhasy, Ebih. AR., Ratna, R., dan Heryano, Yeni. (2015). KontribusiPembelajaran Kontekstual dengan Teknik SQ4R terhadap PeningkatanKemampuan Pemahaman dan Berpikir Kritis Matematis.1(1): halaman 2131. FKIP Universitas Siliwangi.

Ary, D., Jacobs, L. C., & Sorensen, C. (2010). Introduction to Research in Education Eighth Edition. Canada: Nelson Education, Ltd.

Churat, J., Prommatha, R., Pengsawat, W., Upanit, W., Chaemchun, S., Intasena, A., & Yotha, N. (2022). The Use of the SQ4R Technique in Enhancing Grade 11 Student Critical Reading. *Higher Education Studies*, *12*(4), 113. https://doi.org/10.5539/hes.v12n4p113

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed). SAGE Publications.

Ginting, D., Manik, S., Sinambela, E., & Pasaribu, A. N. (2021). The Effect of Using Snowball Throwing Method and SQ4R Method for Student s ' Reading Comprehension Skill a t SMA Negeri 1 Kuala Stabat. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, *4*(November), 10990–10997. https://doi.org/10.33258/birci.v4i4.3155

Khar-Diya A. Abbas. (2021). *78-Article Text-736-1-10-20220518*. *4*(6), 581–602.

Kusmelinda, D. R., & Swondo, A. P. (2024). *Increasing Students ' Reading Comprehension Of Descriptive Text By Using Survey , Question , Read , Reflect , Recite And Review (SQ4R) Strategy*. *2*(2).

Lestari, E. (2025). The Effectiveness of Round-Robin Techniques Aided with Guided Questions on Reading Comprehension. *Jurnal Pendidikan Bahasa Inggris Proficiency, 7*(1), 13-25. doi:10.32503/proficiency.v7i1.6414

Mahastu, P. J., Fahas, R., Husaini, R., & Richy, D. (2022). Using SQ4R to Improve Students' Reading Comprehension in Vocational High School. *Allure Journal*, *2*(2), 72–78. https://doi.org/10.26877/allure.v2i2.11964

Masrul, M., & Erliana, S. (2024). THE EFFECT OF ORDINARY CRUCIAL SKILL TO IMPROVE UNIVERSITY STUDENTS' ACADEMIC READING SKILLS. *Jurnal Pendidikan Bahasa Inggris Proficiency, 6*(1), 73 - 92. doi:10.32503/proficiency.v6i1.4500

Mulyanti, S., Nadrun, & Waris, A. (2021). Teachers' strategies in teaching speaking at high school. *Journal of Foreign Language and Educational Research*, *4*(2), 1–11. https://www.jurnal.unismuhpalu.ac.id/index.php/JOFLER/article/view/1673

Nissa, I. C., Febrilia, B. R. A., & Astutik, F. (2021). Live worksheets matematika: dalam perspektif siswa menurut model motivasi ARCS. *Prosiding Seminar Nasional Matematika Dan Pendidikan Matematika*, *6*, 266–273. https://orcid.org/0000-0002-9075-5946

Nisa, R., & Helmanda, C. M. (2020). Analysis of reading comprehension final test at English department of University of Muhammadiyah Aceh. Getsempena English Education Journal, 7(1), 72–85. https://repository.uinjkt.ac.id/dspace/bitstream/123456789/73543/1/11180140000040_NUR%20FAIQOTUL%20HAFIDAH_%20watermark.pdf

Nurdianingsih, F. (2021). Teachers' Strategies in Teaching Reading Comprehension. *PROJECT (Professional Journal of English Education)*, *4*(2), 285. https://doi.org/10.22460/project.v4i2.p285-289

Ramadhianti, A., & Somba, S. (2023). *Journal of English Language Teaching and Literature (JELTL) 1*. *6*(1), 1–11.

Rojabi, A. R. (2020). Exploiting SQ4R Cooperative Learning Method to Enhance EFL Students' Reading Comprehension. *Edulingua: Jurnal Linguistiks Terapan Dan Pendidikan Bahasa Inggris*, *7*(1). https://doi.org/10.34001/edulingua.v7i1.1160

Rukminingsih, Adnan, G., & Latief, M. A. (2021). *METODE PENELITIAN PENDIDIKAN.* Yogyakarta: Erhaka Utama.

Rusdan, M., & Mulya, D. B. (2023). The Effect of Using Live Worksheet-Based Electronic Worksheets to Measure Cognitive Learning Outcomes. *Edunesia: Jurnal Ilmiah Pendidikan*, *4*(3), 983–998. https://doi.org/10.51276/edu.v4i3.481

Ryandani, J. (2017). The Effect of Using SQ4R (Survey, Question, Read, Recite, Relate and Review) in Teaching Reading on Students' Reading Comprehension at the Eight grade of SMPN 8 Kediri in Academic Year 2016/2017. *Simki-Pedagogia*. 1(3)

Widiantho, Y., Hia, N. V., & Sinar, T. S. (2023). Enhancing Learning with Liveworksheet: Perceptions, Advantages, Disadvantages, and Impacts. *LingPoet: Journal of Linguistics and Literary Research*, *4*(3), 42–49.

ZA, M., & Khatmi, K. (2020). the Effectiveness of Sq4R Cooperative Learning Method on Reading Learning for Efl Students. *JETLi: Journal of English Teaching and Linguistics*, *1*(2), 126–133. https://doi.org/10.55616/jetli.v1i2.24