Jurnal Pedagogi dan Pembelajaran
Volume 7, Number 3, Tahun 2024, pp. 381-392
P-ISSN: 2614-3909 E-ISSN: 2614-3895
Open Access: https://doi.org/10.23887/jp2.v7i3.75435

The Impact of Collaborative Strategic Reading and Cognitive Style on Students' Reading Comprehension in Senior High School

Abdul Hamid Bachtiar[1]*

[1]Teacher Professional Education Program, Universitas Wisnuwardhana, Malang, Indonesia

ARTICLE INFO

Article history:
Received February 10, 2024
Accepted August 25, 2024
Available online October 25, 2024

Kata Kunci:
Collaborative Strategic Reading, *Gaya Kognitif, Pemahaman Bacaan*

Keywords:
Collaborative Strategic Reading Cognitive Style, Reading Comprehension

ABSTRAK

Penelitian ini dilatarbelakangi fakta bahwa sebagian besar siswa mengalami kesulitan memahami teks bacaan karena tidak menggunakan strategi membaca yang sesuai. Oleh karena itu, guru perlu menerapkan strategi membaca yang efektif, seperti Collaborative Strategic Reading (CSR). Penelitian ini bertujuan untuk menganalisis dampak Collaborative Strategic Reading dan gaya kognitif terhadap pemahaman bacaan siswa. Penelitian ini merupakan eksperimen dengan subjek 130 siswa kelas X Sekolah Menengah Atas. Pengumpulan data dilakukan dengan menggunakan metode tes, dengan instrumen berupa tes gaya kognitif dan pemahaman bacaan. Teknis analisis data menggunakan Analysis of Variance (ANOVA). Hasil penelitian menunjukkan bahwa: pertama, terdapat perbedaan signifikan pemahaman bacaan antara siswa yang diajar dengan CSR dan SQ3R (nilai signifikansi 0.00 < 0.05); kedua, terdapati perbedaan signifikan pemahaman bacaan antara siswa dengan gaya kognitif FI dan FD (nilai signifikansi ρ<0.05); ketiga, terdapat pengaruh signifikan interaksi antara strategi membaca dan gaya kognitif terhadap pemahaman bacaan (nilai t-test 20.252, ρ<0.05). Berdasarkan hasil tersebut, dapat disimpulkan bahwa CSR terbukti efektif meningkatkan pemahaman bacaan dan bisa menjadi alternatif strategi membaca dalam pembelajaran.

ABSTRACT

This study was motivated by the fact that most students face difficulties in comprehending reading texts due to the lack of appropriate reading strategies. Therefore, teachers need to implement effective reading strategies, such as Collaborative Strategic Reading (CSR). This study aims to analyze the impact of CSR and cognitive styles on students' reading comprehension. The study employed an experimental design involving 130 tenth-grade high school students. Data were collected using test methods, with instruments comprising cognitive style tests and reading comprehension tests. Data analysis was conducted using Analysis of Variance (ANOVA). The results of the study indicated the following: first, there was a significant difference in reading comprehension between students taught using CSR and those taught with SQ3R (significance value 0.00 < 0.05); second, there was a significant difference in reading comprehension between students with Field-Independent (FI) and Field-Dependent (FD) cognitive styles (significance value ρ < 0.05); third, there was a significant interaction effect between reading strategies and cognitive styles on reading comprehension (t-test value 20.252, ρ < 0.05). Based on these findings, it can be concluded that CSR is proven effective in improving reading comprehension and can serve as an alternative reading strategy in the learning process.

1. INTRODUCTION

Many students face difficulties in understanding English texts due to various factors. Firstly, vocabulary limitations often pose a significant barrier as students may struggle with specific words in the text (Masrai, 2019; Pascual et al., 2022), making it challenging for them to grasp the main ideas and comprehend the text as a whole (Khalif Rizqon et al., 2021). Secondly, a lack of knowledge about text structures also presents an issue. Additionally, the insufficient application of critical reading skills in the classroom hinders students from effectively analyzing or evaluating texts. Moreover, low reading speed further compounds the challenge as students require more time to read and comprehend texts (Sulaiman et al., 2020). Research has shown that factors such as vocabulary knowledge significantly impact students'

Corresponding author
*E-mail addresses: wahyu_nia07@yahoo.co.id (Abdul Hamid Bachtiar)

reading comprehension abilities. Studies have indicated that inadequate vocabulary size can impede students' reading and understanding of academic material (Khalif Rizqon et al., 2021).

Reading is one of the skills in English that must be mastered by all students. To master this reading skill, they need to practice reading extensively and also master effective and correct reading techniques. Additionally, to gain maximum knowledge, one must also have good reading skills (Fina & Susanto, 2023). In other words, reading skills have a significant impact on acquiring knowledge or information through written media such as texts (Sumirat et al., 2019). Reading skills are essential for success in understanding English texts as proficient reading skills enable students to comprehend content easily and express opinions or summarize the text. Many students struggle to enjoy what they read, leading to a decline in reading comprehension abilities and perceiving reading as a tedious task (Labrigas, 2022). Adequate reading comprehension will make it easier for students to get information from various written sources. Reading comprehension is the main goal of reading. Therefore, a good understanding of the reading content is greatly needed by students because knowledge learned is mostly found in the written material. Results of reading in the form of reading comprehension are determined by the method used.

In the process of learning reading comprehension of English texts in the classroom, all this time, teachers do not develop reading skills, because they think that students' reading comprehension of students will develop naturally during the students know the meaning of vocabulary that exists in the text. Mastering vocabulary is still considered important in understanding a text (Allal-Sumoto et al., 2023; Dong et al., 2020; Simanungkalit & Tombeng, 2023). Vocabulary can indeed become one of the capitals that is sufficient to understand a text and students who are weak in mastering vocabulary will face serious problems with reading comprehension (Al-Khasawneh, 2019; Cavalli et al., 2016; Gruhn et al., 2020). However, vocabulary alone is not enough to help students understand texts; they also need to be taught skills and strategies for comprehending texts (Insuasty Cárdenas, 2020; Moon et al., 2019; Yapp et al., 2023). In other words, students face difficulty in understanding a text because they are not able to use reading skills with effective strategies (Alahmadi & Foltz, 2020)

The students tend to not want to know about the strategies that will help them in the process of reading such as how to visualize the text, making the relationship between text and reader, making inferences, predicting, and making the essence of reading (Isozaki, 2022). Therefore, students need to be taught the skills or reading strategies to improve their skills in reading comprehension (Banditvilai, 2020). In other words, solving problems in improving reading comprehension abilities basically, can be done through effective reading strategies and according to the characteristics of subjects and dimensions of student growth. To achieve success in reading comprehension learning needs to pay attention to some basic principles of designing reading comprehension learning. Some basic principles are: (1) pay attention to authenticity (conformity with the context of the students) and legibility discourse chosen; (2) apply the model of interactive ways for reading; (3) use reading strategies that develop students' intrinsic motivation; (4) apply reading strategies are most appropriate for each reading (Brown, 2001)

Several types of reading strategies are considered effective or able to help in overcoming the difficulties in understanding the content of reading, among others: (1) Collaborative Strategic Reading (CSR), (2) SQ3R (Survey, Question, Read, Recite, Review). Collaborative Strategic Reading (CSR) was created to improve the understanding of the text. CSR is designed for students to improve their skills in reading comprehension as they collaboratively work in groups to find ideas from the text (Nurdiana et al., 2024). CSR presents strategies that can enhance students' understanding of texts and their ability to improve and transfer new knowledge (Bermillo & Merto, 2022; Vaughn, S. Klingner, J.K., Bryant, 2001). CSR is designed to be a reading strategy in which students are exposed to the four strategies and specific procedures on how to apply them freely. Students use these four strategies in collaborative groups with each of the group members having their respective roles (Klingner, J. K., Vaughn, S., Dimino, J., Schumm, J. S., & Bryant, 2001; Vaughn, S. Klingner, J.K., Bryant, 2001).

Four strategies used in CSR are as follows: First, preview which is designed to activate or activate students' basic knowledge and to make predictions about the text before they start reading. The purpose of the preview strategy is to stimulate students to understand the basic knowledge about the topic, encouraging interest and motivation to read the text and to make predictions about the text. *Second*, Click and Clunk which is designed that students to monitor themselves in reading and enable them to develop a vocabulary for reading. Currently, students are Click (start), they recognize words and meanings in a text. When students experience Clunk when they read, they have to find a word or a part they do not understand that obstructs their understanding of the text. At such a time they wrote difficulties (clunks) encountered. After the students complete a section of the text, they discuss and solve their difficulties. In CRS, solving difficulties is termed de-clunking. Students work in groups to solve their difficulties by using the strategy of "fix (fix-up) or re-reading (Herda et al., 2023)

Third, finding its main idea (get the gist). This strategy teaches students to identify the main ideas in each part of the text as they read. Get the gist is also known as finding the main idea while reading the

text. Students are required to get the gist after reading each section of the text and then tell the main ideas with a short (not necessarily in detail) (Vaughn, S. Klingner, J.K., Bryant, 2001). Fourth, summarizing (Wrap-up). In this strategy, ask students to summarize the important ideas of the text that have been read. the significant ideas that have been identified by a question to deepen understanding of the content of the readings. the questions that have been prepared may be answered by the group members themselves or submitted to the other group (Klingner, J. K., Vaughn, S., Dimino, J., Schumm, J. S., & Bryant, 2001; Vaughn, S. Klingner, J.K., Bryant, 2001).

CSR had a significant effect on an increased ability to understand the content of reading (Ramadhani, 2021). Students who had difficulty understanding the contents of the reading experienced improvement after being given CSR treatment (Linung, 2019). In addition, CSR can also significantly improve students' vocabulary (Herda et al., 2023). CSR can significantly improve word recognition skills and reading fluency, but does not improve reading comprehension for students with special needs (Bryant, D.P., Vaughn, S., Linan, T.S., Ugel, N., Hamff, A. & Hougen, 2000). In other words, CSR can help or make it easier for students to understand the contents of the reading (Ruswandi et al., 2023; Sarshogh et al., 2024)

In addition, CSR is considered effective for improving reading comprehension in SQ3R (Survey, Question, Read, Recite, Review), this strategy was used as a comparison of CSR in this study because the researchers assumed that the strategy is not too far from their difference. SQ3R is a reading strategy that presents steps in detail about what should be equipped and completed by the reader when reading. The letter S in SQ3R shows the survey. This was done at the beginning and should be no more than five minutes (Robinson, 1970). According to Robinson, the reader should begin to survey the title and main headings of the text to form ideas about the main points of the material. It is also recommended that the reader should read the conclusion of paragraphs at the end of the reading if there is one (Robinson, 1970). Robinson stated that the "survey" before reading the text, the reader will understand the main ideas. This allows the reader to organize what she is reading

The second letter is Q (question). Step questioning (ask) is started by changing the headline of the text into the questions. Questions made by readers can help the process of reading that cause the reader is look for answers to these questions. Robinson said it would evoke curiosity and increase understanding. The next step is reading (R-1-reading). Reading (reading) in the reading activity to find answers to questions that are made from the canopy readings. The portion read from SQ3R as "an active search of the answer (Robinson, 1970). The second letter R (R-2) showed reciting. Destination step "reciting" is a decisive answer to the question that has been made. Teachers requested to discuss the answers to the questions that had been developed in the group. On this occasion trained to answer the questions without looking at the text or notes that have been made.

The final step of the SQ3R is a review (R-3) when finished making notes, the reader must the records, and after that, the teacher asks each group to present the results of group discussions along with answers to questions in worksheets in the class. Several studies proved that SQ3R is very effective in improving students' reading comprehension, namely: experimental research to determine the effectiveness of SQ3R. In that study, students were given a pre-test before they were treated by SQ3R (Robinson, 1970). the pretest results showed that only 43% of students were able to understand the content of reading significantly, but after treatment with SQ3R, their ability rose significantly was 22% to 65%. This showed that the use of SQ3R was very effective in helping students who had a weakness in understanding the content of reading. SQ3R can improve reading achievement and also increase students' reading motivation in learning English (Sudarsono, 2024).

In addition, reading strategies that can affect students' reading comprehension ability are characteristic of students themselves. The characteristics of the students referred to the learning conditions that affect reading comprehension (Reigeluth, C.M., 2009). Characteristics of students are the aspects or qualities possessed by the students themselves as motivation, talent, enthusiasm, intelligence, and cognitive style. One of the characteristics that need to be considered by the English teacher is the student's cognitive styles, which are thought to contribute to the student's reading comprehension skills (Azizi et al., 2020).

Students' reading strategies and cognitive styles are two very important things to consider in reading learning because when a person reads the text, it is physical and psychological. The activity of reading is a very complex process because it involves processes that are both physical and psychological (Wahyono, 2019). When reading, someone must activate psychic components such as attention, and memory skills, and examine all the content of the reading. The activities of the psychic components are activity or cognitive work. Reading comprehension strategies as actions or cognitive behavior made in a particular context to develop some aspects of understanding (Haryono, 2023). In short, the reader's success depends on when and how to use strategy to improve comprehension.

The position of cognitive style in the learning process cannot be ignored because it is one of the learning condition variables considered in designing learning (Arifin et al., 2020). The knowledge of cognitive styles is needed to design or modify the learning materials, learning objectives, and learning

strategies (Salim et al., 2020). The cognitive styles of students should be considered when learning activities are designed for students (Stander et al., 2019) Furthermore, they said that cognitive styles can be used to predict the type of the most effective learning strategies. The cognitive style refers to the way individuals process information and use strategies to accomplish tasks (Sokol et al., 2022). The cognitive style is the tendency of consistency and characteristics of individuals in receiving, remembering, organizing, processing, thinking, and solving problems (Zhelezniakova, 2019). In other words, cognitive style is characteristic of individuals in using a cognitive function (thinking, remembering, solving problems, making a decision, organizing, processing information, and so on) that is consistent and long. Cognitive style refers to an individual's characteristic approach to organizing their environment conceptually and processing environmental stimuli to extract psychological meaning (Indahwati & Basri, 2024).

From some opinions above can be concluded that cognitive style is the ability of someone to remember, receive, and process information and the ability to solve problems. Cognitive style is part of a learning style that uses relatively fixed habits of behavior in a person receiving, thinking, solving problems, and storing information (Sucipto et al., 2024). From two definitions of cognitive style, it is known that cognitive style involves a person's intellectual ability to process and store information. Furthermore, the experts had identified a dimension or a variety of cognitive styles. The dimension of cognitive styles are field dependence (FD) and field independence (FI). The individuals who belong to the field dependence are less able to separate relevant groups and irrelevant groups in a situation if compared with individuals who belong to a group of the cognitive style of FD (Witkin, 1976). The individuals who had the cognitive style of field independence (FI) tended to do the analysis and synthesis of information learned. While an individual who has a cognitive style of FD tends to receive information as it is. Individuals with the cognitive style of FD are underprivileged in developing the structure (Witkin, 1976).

There was a difference in the acquisition of learning between an individual who had a cognitive style of FD compared with individuals who had the cognitive style of FI (Dafit et al., 2020). In addition to the interaction between cognitive styles with different types of learning strategies (Dilo, 2024; Hasbullah, 2020). The extent of cognitive styles provides direct influence and the influence of the interaction with the learning strategy on the understanding of the text, particularly the English text is very important to investigate. Based on all the explanations above, the purposes of this research were to examine the differences in reading comprehension between students taught with CSR and SQ3R; to examine the differences in reading comprehension between students with Field Dependence (FD) and Field Independence (FI) cognitive styles; examine the effect of the interaction between reading strategies and cognitive styles on reading comprehension

2. METHOD

This type of research was quasi-experimental because it did not fully control the independent variables due to limitations in the arrangement of sample groups. The researcher did not randomly assign subjects to experimental and control groups but still conducted interventions to test the effect of the treatment on the dependent variable. In other words, subject selection did not use full randomization.

The research design used in this study was the Nonequivalent Control Group Design, which consisted of experimental and control groups that were not randomly assigned. Both groups were given pre-tests and post-tests. After that, the reading strategies were applied by comparing two existing classes: one class received CSR (the experimental group) and the other class received SQ3R (the control group). Thus, the design of this study was a version of the nonrandomized control group pretest-posttest design (Ary, D., Jacobs, L. and Razavieh, 2002), also known as the pretest-posttest nonequivalent factionalized control group design in version factorial design 2x2.

The subject of study was the Public of Senior High School 10 was chosen four classes of sixth classes randomly and Wisnuwardhana Senior High School was selected four classes of five classes randomly. After conducting cluster random sampling, then done the technique of random sampling was to determine the subject to be treated CSR strategy and the subject to be treated with the SQ3R strategy. Through random sampling technique obtained several subjects as follows: for the State of Senior High School, 10 were 90 students with details of 45 students as the experimental group and 45 students as the control group. Each group consisted of students who had FD and FI cognitive styles. For the experimental group, 19 students had a cognitive style of FD, 26 students had a cognitive style of FI, and in the control group, 24 students had a cognitive style of FD, and 21 students had a cognitive style of FI. The subject of the Senior High School of Wisnuwardhana were 40 students with details of 20 students as the experimental group and 20 students as the control group. Each group also consisted of students who had different cognitive styles. In the experimental group, 12 students had a cognitive style of FD and 8 students had cognitive styles of FI. The control group consisted of 11 students who had a cognitive style of FD and 9 students who had cognitive styles of FI.

This study applied two groups of reading strategies, i.e. CSR strategy and SQ3R strategy. Thus, there were two treatment groups, in which one group was taught by using the CSR strategy and the other group was taught by using the SQ3R strategy. Before the experiment, both groups were given tests of cognitive style GEFT (Group Embedded Figures Test) to determine the type of their cognitive styles. After that, the pre-test to determine the level of prior knowledge in understanding the reading of the two groups. The results of the pretest were done normality test and homogeneity test to see the data distribution of the two groups. The technique of data analysis used in this study was the Analysis of Variance (ANOVA). Before performing inferential analysis to test the hypothesis of the research is necessary to test the analysis assumption, i.e. the distribution of data normality test and test homogeneity of variance. The normality test was done with the test Lilliefors Significance Correction of Kolmogorov-Smirnov by using the Statistical Package for Social Science (SPSS) 20.0 program for Windows. The homogeneity of data test was done to Laverne's test which is one component of the package of analysis program of variance. The decision to declare the distribution normality and homogeneity of variance based on the level at the significance level of 5% or α = 0.05. The hypothesis test was done to determine the effect of reading strategy consisting of two types: Collaborative Strategy Reading (CSR) and SQ3R (Survey, Question, Read, Recite, Review), and the effect of cognitive style on reading comprehension. To examine the hypothesis used Analysis of Variance (ANOVA) technique. The Factorial pattern of ANOVA was analyzed using the computer software Statistical Package for Social Science (SPSS) 20.0 for Windows. This ANOVA was also used to determine the interaction of two independent variables, namely reading strategies and cognitive style on English reading comprehension. The decisions were used to express the influence of independent variables on the dependent variable based on the significance level α = 0.05 (standard error of 5%) or 95% confidence level.

3. RESULT AND DISCUSSION

Result

The results of the normality test on the post-test results of the student group based on reading strategies are presented in the following Table 1.

Table 1. Results of the Post-Test Data Normality Test Based on Reading Strategies

	Reading Strategies	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Reading Comprehension	CSR	0.096	65	0.200	0.988	65	0.771
	SQ3R	0.106	65	0.066	0.970	65	0.109

The results of the Lilliefors Significance Correlation test from Kolmogorov-Smirnov showed that: (1) the significance value of the reading comprehension ability of the group of students treated with the CSR reading strategy is 0.200 > 0.05, and (2) the significance value of the reading comprehension ability of the group of students treated with the SQ3R strategy is 0.066 > 0.05. So it can be concluded that the data on the results of the reading comprehension ability of both the group of students taught with the CSR reading strategy and the group of students taught with the SQ3R reading strategy are normally distributed.

The results of the normality test on the post-test data are based on students' cognitive styles (field dependence cognitive style and field independence cognitive style) and can be seen in Table 2.

Table 2. Results of the Posttest Data Normality Test Based on Cognitive Style

	Cognitive Styles	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Reading Comprehension	FD	0.118	59	0.081	0.984	59	0.613
	FI	0.108	1	0.098	0.960	71	0.023

The results of the Lilliefors Significance Correlation test from Kolmogorov-Smirnov showed that: (1) the significance value of the ability to understand reading based on the FD cognitive style is 0.081 > 0.05, and (2) the significance value of the ability to understand the contents of the reading based on the FI cognitive style is 0.098 > 0.05. So, it can be concluded that the data on the results of the ability to understand reading from students who have an FD cognitive style and students who have an FI cognitive style are normally distributed. After the normality test was conducted, the Homogeneity test was conducted. The results of the homogeneity test calculation can be seen in the following Table 3.

Table 3. Results of the Data Homogeneity Test for Reading Understanding with Levene's Tests

Dependent Variable	Parameters	Levene Statistic	df2	Sig.
Reading Comprehension	Based on Mean	1.595	128	0.209

Table 3 of the homogeneity of variance test showed that Based on the Mean from the reading comprehension data obtained by the Levene test is 1.595; df2 = 128; and the significance level is 0.209. Because the significance level of 0.209 > 0.05, it can be concluded that the reading comprehension ability data is homogeneous. Before each group (group CSR and SQ3R) could be treated, the two groups were given a pre-test to determine the level of their different ability to understand the text of English if there are significant differences, the two groups cannot be used as a comparison. To determine the level of differences of pretest results of each group data analysis by using a t-test. The results of the pretest can be shown in the Table 4.

Table 4. The Result of Analysis of the Different Tests for Pretest of Group CSR and SQ3R

Reading Strategy	N	Mean	Std. Deviation
CSR	65	66.73	3.369
SQ3R	65	66.64	4.007

Table 4 explains that as many as 65 students who were taught with CSR strategy obtained the mean value of pre-test equals 66.73 and a standard deviation is 3.369. While groups of students taught by an SQ3R strategy which also amounts to 65 students obtained the mean pretest value was 66.64 with a standard deviation of 4.007. To determine significant differences between the pretest results between the two groups of the treatment, it is necessary to statistically analyze the independent samples t-test. The results of the statistical analysis of the independent sample t-test are presented in Table 5.

Table 5. The Results of T-test analysis (Independent Sample t-Test)

Parameters		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Pretest	Equal variances assumed	2.444	0.120	0.139	128	0.890

From Table 5 can be explained that the results of the calculation of the value of the pre-test by using a t-test showed that the value of F for the pre-test with Equal Variances Assumed t-test equals 2.444 with probability or significance level was 0.120 the value of the t-test results equals 0.139 with df equals 128 at the level of significance was 0.890, because the value of the t-test equals 0.139<table equals 1.978 it can be concluded that there was no significant difference in the results of the pretest between the groups with group SQ3R CSR. The data of the posttest of reading comprehension both the group of students were treated by CSR and the group of students was treated by SQ3R analyzed by using descriptive statistical analyses. The result of the posttest of the students' reading comprehension was treated with CSR and the students were treated with SQ3R can be shown in Table 6.

Table 6. The Summary of Results Analysis Data of Posttest for Reading Comprehension

Reading Strategies	Cognitive Style	Mean	Std. Deviation	N
CSR	FD	85.81	2.106	29
	FI	88.93	2.755	36
	Total	**87.54**	**2.921**	**65**
SQ3R	FD	81.12	1.937	30
	FI	80.29	2.888	35
	Total	**80.67**	**2.511**	**65**
Total	FD	83.42	3.101	59
	FI	84.67	5.176	71
	Total	**84.10**	**4.388**	**130**

Table 6 presents the results of post-test data analysis, both data post-test of CSR and post-test data of the group of students who received treatment with the SQ3R Strategy. The data that was presented related to the average (mean), standard deviation, and number of students (N). The post-test data of reading comprehension ability in a group of students who received treatment with CSR strategy of the cognitive style of field-dependent (FD) obtained a mean is 85.81; SD (Standard Deviation) equals 2.106, and N equals 29. The students who had the cognitive style of field independence (FI) obtained a mean is 88.93; SD equals

2.755 and N equals 36. Overall the data of reading comprehension ability were treated with CSR strategy, both students who had a cognitive style of FD ((Field Dependence) and cognitive style of FI obtained a mean is 87.54; SD equals 2.921, and N equals 65. The result of examining the variables' effect can be shown in the following Table 7.

Table 7. The Summary of Results Analysis Data of the variables' effect individually

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1701.080	3	567.027	91.331	0.000
Intercept	910015.174	1	910015.174	146576.288	0.000
Reading Strategies	1432.897	1	1432.897	230.797	0.000
Cognitive Styles	42.207	1	42.207	6.798	0.010
Reading Strategies * Cognitive Styles	125.733	1	125.733	20.252	0.000
Error	782.268	126	6.208		
Total	**922032.750**	**130**			
Corrected Total	**2483.348**	**129**			

Table 7 can be explained that the result of the ANOVA 2x2 test on the effects of CSR on reading comprehension showed that the score of F obtained by reading strategy for a variable of ability to understand the content equals 230.797 with a probability value or significance equals 0.00 <0.05, then Ho hypothesis is rejected. It means that there were significant differences between students' reading comprehension abilities who were treated with the reading CSR strategy with students who were treated with SQ3R. The result of the hypothesis Test About the effect of cognitive style on reading comprehension showed that the score of the F-test of the student's cognitive style equals 6.798 with a probability value or significance equal 0.010 <0.05. Therefore, the null hypothesis (H_o) was rejected. This means that the ability of reading comprehension among students who had the cognitive style of Field Dependence (FD) with students who had a cognitive style of Field Independence (FI) were significantly different. The result of the hypothesis showed that the value of the F-test for the interaction of reading strategies with a cognitive style that is contained in Table 4 equals 20.252 with a probability value or significance equals 0.00 <0.05. it means that there was an interaction effect between reading strategies with cognitive style on reading comprehension.

Discussion

Based on the hypothesis test results indicated that there were significant differences in reading comprehension ability between groups of students who were taught by CSR strategy and groups of students who were taught by reading SQ3R strategy. the total group of students who were treated with the reading CSR strategy had a higher average result than the group of students who were treated with the SQ3R strategy. This was evidenced by the result of the calculation of the data of the reading comprehension test, in which students were treated by CSR strategy obtained an average value equal to 87.54. While groups of students taught by the SQ3R strategy obtained an average score equal to 84.10. Thus, it can be concluded that the application of the CSR strategy had an influence better than the SQ3R strategy. As well as the results of a hypothesis test. Hypothesis test results showed that the F-test value of the reading strategy equals 230.790 with a probability value or significance of 0.00 <0.05. This means that reading strategies had a significant impact on students' reading comprehension.

Many previous studies supported the results of this study and indicated that the application of CSR strategy can improve reading comprehension. CSR strategy in fourth-grade students with a variety of different literacy levels students who were taught by CSR significantly outperformed students taught by reading another strategy in reading comprehension or the CSR group showed better performance than other groups in understanding the content of the reading (Khampool & Chumworatayee, 2023). Teachers who used the CSR strategy were more effective than teachers who used another reading strategy that only focused on vocabulary and grammar in increasing the score of students' reading comprehension. The students who were taught with CSR were more controlled in the retelling than students who were taught by non-CSR and their motivation to learn English showed an increase from previous (Bermillo & Merto, 2022).

Using CSR and non-CSR in reading comprehension differs significantly. It means that a CSR strategy is very effective in improving students' reading comprehension achievement. The CSR strategy has helped students in four aspects: simplifying reading comprehension, increasing curiosity about the content, enhancing students' ability to use higher-order thinking skills (connecting), and enriching their vocabulary. In short, the use of the CSR strategy has a significant effect on students' reading comprehension (Aritonang & Swondo, 2021; Oktorianisarry et al., 2023).

The implementation of the CSR strategy also showed differences in the student's ability to interpret difficult words and identify the main idea. The students were taught by CSR faster in interpreting the words was difficult and finding the main idea than the students taught SQ4R strategy. Several factors made the CSR strategy more effective in improving reading comprehension than the SQ3R strategy. First, the instruction was more student-centered learning. The learning process is more filled with students' activities, thus the motivation and attention of students to learn reading comprehension increased. This is an important element of a successful teaching strategy (Dong et al., 2019; Wang, 2023). The preservation of motivation and the attention of the students in learning the material is a factor that enhances the learning outcomes (Farikah, 2019). Secondly, the differences in syntax or the strategies contained in two reading strategies (CSR and SQ3R) provide opportunities for students to the difference in improving reading comprehension. The strategies contained in the CSR are thought to be more supportive in improving reading comprehension ability compared with the existing strategies in SQ3R strategy although there are some similar strategies

Another factor was the cause of the difference in the effect of CSR better than SQ3R in improving reading comprehension ability because of all the strategies contained in the CSR undertaken collaboratively by all group members (Ruswandi et al., 2023). By collaborating, all group members engaged in the activities actively implemented in the CSR strategy. They can share or interact with each other, solve problems together, and by mutual agreement. In addition, CSR requires students to learn cooperatively so that they mutually help each other in solving the existing problems so that all the difficulties found when understanding the text can be resolved together. Cooperative learning uses a variety of teaching methods that encourage students to work together in small groups so that they can help each other in studying the learning material (Noor et al., 2023; Yusuf et al., 2019)

The result of the hypothesis test about the effect of cognitive style explained that cognitive style had a significant influence on the ability to understand the reading. It was evidenced by the results of the post-test data analysis showed that students who had a cognitive style of FI gained an average score was 84.67 with a standard deviation equal to 5.176. While groups of students who had a cognitive style of FD obtained an average score was 83.42 and a standard deviation was 3.101. If seen from average results it could be concluded that students who had cognitive styles FI could understand literature better than students who had cognitive styles FD. The hypothesis testing results also showed that the number of significance (sig.) 0.01 is less than 0.05. This case showed that there were differences in the ability of reading comprehension among students who had a cognitive style of FD with a group of students who had a cognitive style of FI. The research suggested that different cognitive styles will have a different effect on reading comprehension.

Much research found about cognitive style largely showed that cognitive styles have a significant influence on learning outcomes. The research findings also indicated that the students' stylish cognitive demonstrated learning achievement better than students who had a cognitive style of FD. The results of the study showed that the cognitive style of FI had significantly better results in the post-test than the students who had a cognitive style of FD in reading comprehension (Fatemi et al., 2014; Nozari & Siamian, 2015). The other research indicated that there was a significant difference between students' cognitive style of FI with students of FD on learning outcomes. The mean learning outcomes of students who had the cognitive style of FI were better than students who had the cognitive style of FD. The students who had the cognitive style of FI obtained higher average values than students who had the cognitive style of FD (Batubara, 2023). The students who had cognitive styles of FI were better at obtaining information from the text, understanding the implicit message in the text, and making a summary of the text than the students who had a cognitive style of FD (Sabet, M. K & Mohammadi, 2013).

The exposure above confirmed that when the reading instruction is implemented with attention or related to students' cognitive style the students' reading comprehension is increased, especially in accepting, thinking, processing, and storing information, solving problems, and making the activity of learning ongoing active and fun.

The results of the hypothesis test on the relationship between the interaction between reading strategies and cognitive styles on reading comprehension ability showed that the results of hypothesis testing using ANOVA showed that the score of the F-test is 20.25 with a significance level was 0:00 less than 0.05 (0.00 <0.05), so it can be concluded that the reading strategy is also influenced by cognitive style in improving reading comprehension ability. In other words, the enhancement of students' reading comprehension ability was not only due to the implementation of a strategy to read but also influenced by the students' condition themselves namely the cognitive style.

The learning conditions influence the effectiveness and efficiency of learning strategies learners are affected by the students' characteristics. One of the characteristics that cannot be manipulated is a cognitive style (Lyle, K.S & Robinson, 2001). Concordance between learning strategy and cognitive style will keep learners motivated and improve learning outcomes faster (Wolfolk, 2009). This study's finding was also consistent with several previous studies that showed that students who had a cognitive style of FI showed better reading achievement than cognitive style students of FD when students used a reading strategy that

was more portion than the students' cognitive style of FD (Shan, L.; Niannian, 2006). The results of the study differed from the most previous research which stated that students who had a cognitive style of FI had better achievement than students who had a cognitive style of FD. It means that the cause of the difference in the student's reading comprehension is the reading strategy used. The more the use of reading strategy and the more relevant the use of reading strategy with the cognitive style of students, the more support or help the student to his ability in reading comprehension. That is, the reading strategy may have contributed to the improvement of reading comprehension because it is supported by the cognitive style (FD-FI) owned by each student.

A similar study by Napitupulu showed that the results of the analysis for the interaction of learning strategy with the cognitive style to reading comprehension acquired a significance level was 0.002 <0.05, which means that there was an interaction effect between teaching strategy and cognitive style on the ability of reading comprehension (Napitupulu, 2013).

In reading comprehension is needed to think through the process to analyze what the author wanted to convey in his writing. The thinking process is also known as a cognitive work process. a very important role in creating cognitive reading skills (Dilo, 2024; Toste et al., 2020). Thus, if someone experienced retardation or discrepancy in the cognitive development process, the ability to understand a text would be retardation. Reading is a cognitive activity in which the reader interacts with the author via text (Ballenghein et al., 2020). In other words, the reading strategy is one of the manifestations of cognitive work that can be a factor in success in reading comprehension (May, 2001; Zare, 2012). Alexander & Jetton also said that during reading, the cognitive effort is expressed through strategy and procedural. The readers are intentional or not should use a strategy that can improve their ability to understand the text that is read (Friesen et al., 2022).

Based on the results of this study, CSR can be used in reading comprehension instruction as it can assist students who struggle with understanding English texts. Additionally, designing reading comprehension lessons needs to consider students' cognitive styles (FI and FD) to optimally achieve the established objectives. However, this study has limitations, as it only uses cognitive style as a moderating variable and focuses solely on high school students. Therefore, future research should incorporate self-efficacy as a second moderating variable and target junior high school students, as they tend to face more difficulties in understanding texts.

4. CONCLUSION

This study indicate that there were significant differences in reading comprehension ability between groups of students taught using the CSR strategy and those taught using the SQ3R strategy, with the CSR strategy proving to be more effective in enhancing reading comprehension. Additionally, significant differences were found between students with a cognitive style of Field Dependence (FD) and those with a cognitive style of Field Independence (FI), with students exhibiting the FI cognitive style demonstrating better reading comprehension ability. Finally, an interaction effect between the reading strategy and cognitive style on reading comprehension ability was observed, further supporting the significance of these variables in the learning process.

5. REFERENCES

Al-Khasawneh, F. (2019). The impact of vocabulary knowledge on the reading comprehension of Saudi EFL learners. *Journal of Language and Education*, *5*(3), 24–34. https://doi.org/10.17323/jle.2019.8822.

Alahmadi, A., & Foltz, A. (2020). Effects of Language Skills and Strategy Use on Vocabulary Learning Through Lexical Translation and Inferencing. *Journal of Psycholinguistic Research*, *49*(6), 975–991. https://doi.org/10.1007/s10936-020-09720-9.

Allal-Sumoto, T. K., Miyoshi, K., & Mizuhara, H. (2023). The effect of productive vocabulary knowledge on second language comprehension. *Frontiers in Psychology*, *14*(April), 1–9. https://doi.org/10.3389/fpsyg.2023.1049885.

Arifin, S., Setyosari, P., Sa'dijah, C., & Kuswandi, D. (2020). The Effect of Problem-Based Learning By Cognitive Style. *Journal of Technology and Science Education*, *10*(2), 271–281. https://doi.org/10.3926/jotse.790.

Aritonang, R. P., & Swondo, A. P. (2021). the Effect of Using Collaborative Strategic Reading (Csr) on Students' Reading Comprehension. *Journal MELT (Medium for English Language Teaching)*, *6*(1), 31. https://doi.org/10.22303/melt.6.1.2021.31-53.

Ary, D., Jacobs, L. and Razavieh, A. (2002). *Introduction to Research. 6th Edition*.

Azizi, M., Tkáčová, H., Pavliková, M., & Jenisová, Z. (2020). Extensive Reading and the Writing Ability of EFL Learners: the Effect of Group Work. *European Journal of Contemporary Education*, *9*(4), 726–739.

https://doi.org/10.13187/ejced.2020.4.726.
Ballenghein, U., Kaakinen, J. K., Tissier, G., & Baccino, T. (2020). Cognitive Engagement During Reading on Digital Tablet: Evidence From Concurrent Recordings of Postural and Eye Movements. *Quarterly Journal of Experimental Psychology*, *73*(11), 1820–1829. https://doi.org/10.1177/1747021820931830.
Banditvilai, C. (2020). The Effectiveness of Reading Strategies on Reading Comprehension. *International Journal of Social Science and Humanity*, *10*(2), 46–50. https://doi.org/10.18178/ijssh.2020.v10.1012.
Batubara, A. A. (2023). Dependent and Independent Cognitive Style Learning Model in Mathematics Subject Outcomes. *Randwick International of Education and Linguistics Science Journal*, *4*(2), 323–331. https://doi.org/10.47175/rielsj.v4i2.701.
Bermillo, J. E., & Merto, V. L. T. (2022). Collaborative Strategic Reading on Students' Comprehension and Motivation. *European Journal of English Language Teaching*, *7*(1), 71–103. https://doi.org/10.46827/ejel.v7i1.4148.
Brown, H. . (2001). *The principle of Language Learning and Teaching*. Prentice Hall.
Bryant, D.P., Vaughn, S., Linan, T.S., Ugel, N., Hamff, A. & Hougen, M. (2000). Reading outcomes for students with and without reading disabilities in general education middle-school content area classes. *Learning Disability Quarterly*, *23*(3), 24–38. https://doi.org/10.2307/1511347.
Cavalli, E., Casalis, S., Ahmadi, A. El, Zira, M., Poracchia-George, F., & Colé, P. (2016). Vocabulary skills are well developed in university students with dyslexia: Evidence from multiple case studies. *Research in Developmental Disabilities*, *51–52*, 89–102. https://doi.org/10.1016/j.ridd.2016.01.006.
Dafit, F., Mustika, D., & Melihayatri, N. (2020). Pengaruh Pojok Literasi Terhadap Minat Baca Mahaisswa PGSD FKIP UIR. *Jurnal Basicedu*, *4*(1), 117–130. https://doi.org/10.31004/basicedu.v4i1.307.
Dilo, A. U. (2024). The Influence of Learning Methods and Cognitive Style on the Ability to Understand English Texts About Islam in Students. *Tafkir: Interdisciplinary Journal of Islamic Education*, *5*(1), 62–78. https://doi.org/10.31538/tijie.v5i1.777.
Dong, Y., Tang, Y., Chow, B. W. Y., Wang, W., & Dong, W. Y. (2020). Contribution of Vocabulary Knowledge to Reading Comprehension Among Chinese Students: A Meta-Analysis. *Frontiers in Psychology*, *11*(October). https://doi.org/10.3389/fpsyg.2020.525369.
Dong, Y., Wu, S. X., Wang, W., & Peng, S. (2019). Is the Student-Centered Learning Style More Effective Than the Teacher-Student Double-Centered Learning Style in Improving Reading Performance? *Frontiers in Psychology*, *10*(November). https://doi.org/10.3389/fpsyg.2019.02630.
Farikah, F. (2019). Developing the Students' Character through Literacy Activities in A Child-Friendly School Model. *Dinamika Ilmu*.
Fatemi, A. H., Vahedi, V. S., & Seyyedrezaie, Z. S. (2014). The effects of top-down/bottom-up processing and field-dependent/field-independent cognitive style on Iranian EFL learners' reading comprehension. *Theory and Practice in Language Studies*, *4*(4), 686–693. https://doi.org/10.4304/tpls.4.4.686-693.
Fina, F., & Susanto, R. (2023). Analisis penerapan media literacy cloud terhadap minat baca siswa. *JRTI (Jurnal Riset Tindakan Indonesia)*, *8*(1), 164. https://doi.org/10.29210/30033227000.
Friesen, D. C., Schmidt, K., Atwal, T., & Celebre, A. (2022). Reading comprehension and strategy use: Comparing bilingual children to their monolingual peers and to bilingual adults. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.986937.
Gruhn, S., Segers, E., & Verhoeven, L. (2020). Moderating role of reading comprehension in children's word learning with context versus pictures. *Journal of Computer Assisted Learning*, *36*(1), 29–45. https://doi.org/10.1111/jcal.12387.
Haryono, P. (2023). Implementation of Metacognitive Strategies on Students' Ability to Read English Texts. *Sustainable Jurnal Kajian Mutu Pendidikan*, *6*(2), 543–548. https://doi.org/10.32923/kjmp.v6i2.3770.
Hasbullah, S. U. S. (2020). Dependent on Students ' Mathematical Problem Solving. *Aksioma Jurnal Program Studi Pendidikan Matematika*, *9*(2), 387–394. https://doi.org/10.24127/ajpm.v9i2.2778.
Herda, R. K., Margana, M., & Putro, N. H. P. S. (2023). Role of Collaborative Strategic Reading in Post-Pandemic Efl Reading Class: A Quasi-Experimental Study. *Issues in Language Studies*, *12*(2), 211–226. https://doi.org/10.33736/ils.5491.2023.
Indahwati, R., & Basri, H. (2024). Students' Mathematical Argumentation with the Visualizer Cognitive Style in Proving the Congruence of Triangles. *JagoMIPA: Jurnal Pendidikan Matematika Dan IPA*, *4*(1), 113–126. https://doi.org/10.53299/jagomipa.v4i1.453.
Insuasty Cárdenas, A. (2020). Enhancing Reading Comprehension through an Intensive Reading Approach. *How*, *27*(1), 69–82. https://doi.org/10.19183/how.27.1.518.
Isozaki, A. H. (2022). What if they are set free? Using Autonomous Reading-Listening and Book Clubs in

Reading Fluency Development. *Tesl-Ej*, *26*(3), 1–26. https://doi.org/10.55593/ej.26103a18.

Khalif Rizqon, M., Andreani, S., & Astuti, U. P. (2021). The Problems Faced by Senior High School Students in Reading Narrative Text. *JoLLA: Journal of Language, Literature, and Arts*, *1*(11), 1508–1522. https://doi.org/10.17977/um064v1i112021p1508-1522.

Khampool, W., & Chumworatayee, T. (2023). Collaborative Strategic Reading (CSR) Instruction and its Effects on Thai EAP University Learners' Reading Comprehension across Two Proficiency Levels. *LEARN Journal: Language Education and Acquisition Research Network*, *16*(2), 8–24. http://files.eric.ed.gov/fulltext/EJ1401062.pdf.

Klingner, J. K., Vaughn, S., Dimino, J., Schumm, J. S., & Bryant, D. (2001). *From clunk to click: Collaborative Strategic Reading*. Sporis West.

Labrigas, M. A. (2022). Factors affecting reading Comprehension in Cebuano and English Language Texts. *International Journal of English Literature and Social Sciences*, *7*(4), 110–120. https://doi.org/10.22161/ijels.74.17.

Linung, Y. G. (2019). the Effectiveness of Collaborative Strategic Reading on Students' Reading Comprehension. *Jurnal Ilmiah Bahasa Dan Sastra*, *5*(2), 103–110. https://doi.org/10.21067/jibs.v5i2.3169.

Lyle, K.S & Robinson, W. R. (2001). *Teaching Science Problem Solving: An Overview Experiment*.

Masrai, A. (2019). Vocabulary and Reading Comprehension Revisited: Evidence for High-, Mid-, and Low-Frequency Vocabulary Knowledge. *SAGE Open*, *9*(2). https://doi.org/10.1177/2158244019845182.

May, F. . (2001). *Unraveling the seven myths of reading*. Allyn and Bacon.

Moon, Y., Choi, J., & Kang, Y. (2019). Does reading and vocabulary knowledge of advanced Korean EFL learners facilitate their writing performance? *Journal of Asia TEFL*, *16*(1), 149–162. https://doi.org/10.18823/asiatefl.2019.16.1.10.149.

Napitupulu. (2013). *The Effect of Teaching Strategy and Cognitive Style on Reading Comprehension.* https://digilib.unimed.ac.id/id/eprint/3828/.

Noor, F., Jainah, N., Anwar, M., Darmawaty, R., & Muhmood, M. F. A. (2023). The Implementation of Cooperative Learning Method for Arabic Language Learning. *Arabiyatuna: Jurnal Bahasa Arab*, *7*(2 November), 589. https://doi.org/10.29240/jba.v7i2.6791.

Nozari, A., & Siamian, H. (2015). The Relationship between Field Dependent-Independent Cognitive Style and Understanding of English Text Reading and Academic Success. *Materia Socio Medica*, *27*(1), 39. https://doi.org/10.5455/msm.2014.27.39-41.

Nurdiana, N., Afrizal, A., & Puspita, M. (2024). The Efficacy of Collaborative Strategic Reading in Enhancing Narrative Text Comprehension among Tenth-Grade Learners. *Jurnal Bahasa Dan Sastra*, *11*(3), 158. https://doi.org/10.24036/jbs.v11i3.126109.

Oktorianisarry, M., Yulitriana, Y., Nova, S. I., & Norahmi, M. (2023). Effect of Collaborative Strategic Reading (CSR) on Students' Reading Comprehension of Narrative Text. *EBONY: Journal of English Language Teaching, Linguistics, and Literature*, *3*(1), 23–32. https://doi.org/10.37304/ebony.v3i1.7857.

Pascual, L. C., Dionisio, G., & Ilustre, R. (2022). Vocabulary Acquisition and Learning Strategies in Second Language Learning: A Review Paper. *International Journal of English Language Studies*, *4*(3), 58–62. https://doi.org/10.32996/ijels.2022.4.3.9.

Ramadhani, S. P. (2021). Analisis Kebutuhan Desain Pengembangan Model IPA Berbasis Project Based Learning Untuk Meningkatkan Berpikir Kritis Siswa di Sekolah Dasar. *Jurnal Basicedu*, *5*(4), 1819–1824. https://doi.org/10.31004/basicedu.v5i4.1047.

Reigeluth, C.M., E. (2009). *Instructional Design Theories and Models: A New Paradigm of Instructional Theory. Mahwah*. Lawrence Erlbaaum Associates.

Robinson, F. P. (1970). *SQ3R: Effective Study (4th Edition)*. Harper & Row.

Ruswandi, R., Ayundhari, V. L., & Mudrikah, R. R. (2023). Investigating the Implementation of Collaborative Strategy Reading To Students' Reading Narrative Text. *Tatar Pasundan: Jurnal Diklat Keagamaan*, *17*(2), 170–183. https://doi.org/10.38075/tp.v17i2.325.

Sabet, M. K & Mohammadi, S. (2013). The Relationship between Filed Independence/Dependence Styles and Reading Comprehension Abilities of EFL Readers. *Theory and Practice in Language Studies*, *3*(11), 2142–2150. https://doi.org/10.4304/tpls.3.11.2141-2150.

Salim, C., Firdaus, A. I., & Saputra, N. (2020). Pengaruh digital engagement dan gamifikasi terhadap work engagement karyawan yang bekerja di Jakarta dan Tangerang. In *Jurnal Akuntansi, Keuangan, dan Manajemen* (Vol. 1, Issue 4, pp. 265–286). Goodwood Publishing. https://doi.org/10.35912/jakman.v1i4.45.

Sarshogh, M., Rezvani, E., & Karimi, F. (2024). Effects of Collaborative Strategic Reading (CSR) on EFL Learners' Reading Comprehension, Reading Motivation, and Metacognitive Awareness. *Innovare Journal of Education*, *12*(1), 34–40. https://doi.org/10.22159/ijoe.2024v12i1.50053.

Shan, L.; Niannian, Z. (2006). The Influence of Cognitive Style and Reading Strategies on English Reading: An Empirical Study. *Celea Journal (Bimonthly)*, *29*(3), 56–63. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=013fef4688863a08eb77dbeb030e8ebdf4e5472a.

Simanungkalit, A. G., & Tombeng, J. E. (2023). Students Vocabulary Mastery and Their Reading Comprehension at the Selected Private Junior High School in Airmadidi. *Journal Ilmu Pendidikan*, *1*(c), 104–112. https://ejournal.unklab.ac.id/index.php/sumikolah/article/view/1021.

Sokol, A., Figurska, I., Gozdek, A., & Malkowska, A. (2022). Study of the Impact of Managers' Attitudes Towards Creativity in Terms of Taking up Creative Activities. *European Research Studies Journal*, *XXV*(Issue 3), 244–255. https://doi.org/10.35808/ersj/3007.

Stander, J., Grimmer, K., & Brink, Y. (2019). Learning styles of physiotherapists: A systematic scoping review. *BMC Medical Education*, *19*(1), 1–9. https://doi.org/10.1186/s12909-018-1434-5.

Sucipto, S., Setiawan, W., & Hatip, A. (2024). The effectiveness of collaborative learning on civic education problem-solving abilities based on cognitive styles. *Research and Development in Education (RaDEn)*, *4*(1), 149–161. https://doi.org/10.22219/raden.v4i1.32253.

Sudarsono, F. W. (2024). Evaluating the Effectiveness of The SQ3R Method in Enhancing Students' Reading Proficiency. *Journal of Linguistics and English Teaching*, *9*(1). https://doi.org/10.24903/sj.v9i1.1598.

Sulaiman, N. A., Salehuddin, K., & Khairuddin, R. (2020). Reading English academic texts: Evidence from ESL undergraduates' eye movement data. *3L: Language, Linguistics, Literature*, *26*(1), 60–78. https://doi.org/10.17576/3L-2020-2601-05.

Sumirat, R., Padilah, C. F. R., & Haryudin, A. (2019). the Use of Predictions Strategy in Improving Students' Reading Comprehension. *PROJECT (Professional Journal of English Education)*, *2*(4), 521. https://doi.org/10.22460/project.v2i4.p521-525.

Toste, J. R., Didion, L., Peng, P., Filderman, M. J., & McClelland, A. M. (2020). A Meta-Analytic Review of the Relations Between Motivation and Reading Achievement for K–12 Students. *Review of Educational Research*, *90*(3), 420–456. https://doi.org/10.3102/0034654320919352.

Vaughn, S. Klingner, J.K., Bryant, D. P. (2001). Collaborative Strategic Reading as a Means to Enhance Peer-Mediated Instruction for Reading Comprehension and Content Area Learning. *Remedial and Special Education*, *22*(2), 66–74. https://doi.org/10.1177/074193250102200201.

Wahyono, E. (2019). Correlation between Students' Cognitive Reading Strategies and Reading Comprehension. *Jurnal Studi Guru Dan Pembelajaran*, *2*(3), 256–263. https://doi.org/10.30605/jsgp.2.3.2019.61.

Wang, L. (2023). The Impact of Student-Centered Learning on Academic Motivation and Achievement: A Comparative Research between Traditional Instruction and Student-Centered Approach. *Journal of Education, Humanities and Social Sciences*, *22*, 346–353. https://doi.org/10.54097/ehss.v22i.12463.

Witkin, H. . (1976). *Cognitive Style Academic Performance and Teacher Student Relation*. Jossey-Bass.

Wolfolk, A. E. (2009). *Educational Psychology*. Allyn & Bacon.

Yapp, D., de Graaff, R., & van den Bergh, H. (2023). Effects of reading strategy instruction in English as a second language on students' academic reading comprehension. *Language Teaching Research*, *27*(6), 1456–1479. https://doi.org/10.1177/1362168820985236.

Yusuf, Q., Jusoh, Z., & Yusuf, Y. Q. (2019). Cooperative learning strategies to enhance writing skills among second language learners. *International Journal of Instruction*, *12*(1), 1399–1412. https://doi.org/10.29333/iji.2019.12189a.

Zare, P. (2012). Language learning strategies among EFL/ESL learners a review of literature. *International Journal of Humanities and Social Science*, *2*(5), 162–169.

Zhelezniakova, E. (2019). Challenges and Prospects of Studying Cognitive Styles and Strategies of Bilingual Children. *In International Conference on European Multilingualism: Shaping Sustainable Educational and Social Environment*, *360*(Emssese), 278–284. https://doi.org/10.2991/emssese-19.2019.21.