



The Relationship Between Students' Reading Anxiety, Metacognitive Reading Strategies, and Their Reading Comprehension

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Abstract: This study aims to find out the relationship and the contribution of reading anxiety and the use of metacognitive reading strategies to students' reading comprehension. The results show that reading anxiety and the use of metacognitive reading strategies have a strong relationship to students' reading comprehension by .658. Further, reading anxiety and the use of metacognitive reading strategies contribute by 43.3 percent to students' reading comprehension which each is 0.17 percent and 43.17 percent. In conclusion, reading anxiety and the use of metacognitive reading strategies have strong relationship with students' reading comprehension achievements and the use of metacognitive reading strategies gives the most contribution in students' reading comprehension.

Keywords: reading comprehension; reading anxiety; metacognitive reading strategies

Abstrak: Penelitian ini bertujuan untuk mencari korelasi dari kecemasan siswa dalam membaca dan penggunaan strategi metakognitif membaca pada pemahaman membaca siswa. Penelitian ini menemukan jika adanya korelasi yang kuat dari kecemasan membaca dan penggunaan strategi metakognitif membaca pada pemahaman membaca siswa sebesar .658. Terlebih, ditemukan juga jika kecemasan membaca dan penggunaan strategi metakognitif membaca berkontribusi sebesar 43.3 persen pada pemahaman membaca siswa dimana secara terpisah berkontribusi sebesar 0.17 persen dan 43.17 persen. Sebagai kesimpulan, ditemukan jika dari kecemasan membaca dan penggunaan strategi metakognitif membaca memiliki korelasi yang kuat dengan pemahaman membaca siswa dimana penggunaan strategi metakognitif membaca memberikan kontribusi paling besar.

Kata kunci: pemahaman membaca; kecemasan membaca; strategi metakognitif membaca

1. Introduction

In students' reading activity, students' reading comprehension is influenced by some factors. According to Lien (2011), students' reading anxiety and the use of metacognitive reading strategies are crucial factors in students' reading comprehension. Therefore, students' anxiety levels and how they engage metacognitive reading strategies in their reading activities influence their comprehension levels. Lu & Liu (2015) explain when facing a concrete language task, the associated anxiety language students experience and the use of strategies may be different and interact with each other, mediating their performance. As a result, how challenging reading activities are for students can be measured by their reading anxiety levels and the implementation of metacognitive reading strategies in their reading activities.

In students' reading activities, students' feeling of anxiety is associated with a hampering factor in students' reading comprehension activity. The feeling of anxiety in students' reading anxiety prevents the students from properly comprehending the reading text. Hu & Wang (2014: 122) mention the existence of anxiety in the language learning process creates a feeling of nervousness and afraid that contributes to more anxiety and even worse performance.

Furthermore, the mention that the feeling of afraid and nervousness are connected to the cognitive side of anxiety, which is worry. The feeling of worry limits the use of the students' memory and task processing in their minds to finish their tasks. Consequently, the higher students' reading anxiety level contributes to the lower level of comprehension level of a reading text. It is in line with Eysenck & Calvo's (Mohammadpur & Ghafournia, 2015) explanation that anxiety takes up processing capacity and diminishes the amount of attention that should be used to complete a certain task. Thus, students' reading anxiety comes as an impairing factor that prevents the students' from properly comprehending the reading text.

On the other hand, the use of metacognitive reading strategies is associated with a facilitating factor in students' reading comprehension. By engaging metacognitive reading strategies in students' reading activities, students are able to properly comprehend the reading text to get information within the text. Carrell, et al. (1998) posit that The use of strategies is not limited to how students interact with the text but also relates to how students manage the use of the strategies to have effective reading comprehension. Thus, by considering the difficulties in reading activities, selecting appropriate reading strategies can contribute to helping the students to overcome the difficulties to help them appropriately comprehend the reading text. Moreover, by utilizing reading strategies the students are able to control the flow of information from the reading text at a certain rate to make the connection and inferences which are needed in reading comprehension activity (Bojovic, 2010). As a result, the students' students can sort the information based on their reading purposes which allows the students to gain more knowledge. In addition, Ahmadi, Ismail, & Abdullah (2013) describe that students who are metacognitively aware of their difficulties in reading will choose the appropriate strategies to help them to comprehend the text in their reading activity. This means that students with certain difficulties in reading will choose certain reading strategies to help them in their reading activities. Also, they mention that using metacognitive reading strategies enhances performance and understanding in students reading activities. Consequently, engaging metacognitive reading strategies in reading activities will be helpful to gain a deeper comprehension level of the text.

Some studies have been conducted to find the relationship between students' reading anxiety and the use of metacognitive reading strategies in students' reading comprehension activities. In relation to students' reading anxiety, some recent studies by Indrawati (2016) on students in third grade of senior high school; Pratiwi & Marunung (2019) on tenth graders of vocational high school; and Trisnayanti, Agustini, & Tantra (2020) on students in the tenth grade of a senior high school show same results. Those studies show that students' reading anxiety has a negative relationship with students' reading comprehension scores. Based on recent studies, students' reading anxiety prevents the students' comprehension of a reading text in their reading activities. Furthermore, in relation to the use of metacognitive reading strategies recent study by Islam (2019) on eleven graders of senior high school shows that the use of metacognitive reading strategies has a positive relationship with students' reading achievements. Moreover, studies by Aziz, Nasir, & Ramazani (2019) on third graders of senior high school and Muhid, et al. (2020) on eleven graders of senior high school. Aziz, Nasir, & Ramazani's (2019) study has revealed that students who had high reading performance utilized more metacognitive reading strategies to help them to comprehend the content of the text rather than those who had a low reading performance. Then, Muhid, et al.'s (2020) study showed that teaching metacognitive reading strategies gave a significant effect to improve students' reading comprehension which contributed to their reading achievements. Therefore, recent studies suggest that students' reading anxiety is a hampering factor in students' reading

comprehension activities while the use of metacognitive reading strategies is a facilitating factor in students' reading comprehension activities.

However, the previous studies above only measure how students' reading anxiety and the use of metacognitive reading strategies as a single variable influence students' reading comprehension activities. It should be noted that reading activities involve many variables at the same time to process students' comprehension of a reading text. Therefore, there is a chance that students' reading anxiety associating with the use of metacognitive reading strategies to influence students' reading comprehension. Even so, there is a lack of information on how the associated students' reading anxiety and the use of metacognitive reading strategies are related to students' reading comprehension. Therefore, to fill this gap this study tries to measure how associated students' reading anxiety and the use of metacognitive reading strategies influence students' reading comprehension in their reading activity as the most influencing factors in students reading activities. To accommodate these needs, this study tries to find the relationship and the contribution of the associated students' reading anxiety and the use of metacognitive reading strategies to students' reading comprehension achievements.

2. Method

This study was meant to find the relationship and the contribution of students' reading anxiety and the use of metacognitive reading strategies to students' reading comprehension. To accommodate these needs, a multiple regression analysis research design was used in this study. Pallant (2016) mentions that multiple regression analysis research design allows for measuring the relationship and the contribution of a number of independent variables to one dependent variable. Furthermore, there were 68 eleventh graders from one of the senior high schools in Wagir Kabupaten Malang participated in this study. Those students consisted of 23 male students and 45 female students from the science program and the social science program. The participants were purposively selected since the focus of the teaching and learning of English was on reading activities due to the shift to online teaching and learning activities during the COVID-19 pandemic.

Furthermore, three instruments were used to collect the required data in this study. The first questionnaire was Foreign Language Reading Anxiety Scale by Saito, Horwitz, & Garza (1999). The Foreign Language Reading Anxiety Scale was used to measure students' reading anxiety levels which were based on two aspects: unfamiliar scripts and writing systems; and unfamiliar cultural materials. To measure students' reading anxiety levels, The Foreign Language Reading Anxiety Scale consisted of 20 statements that had 5 points Likert scale to reflect their agreement on each statement. The second questionnaire was the Survey of Reading Strategies by Ismail & Tawalbeh (2015). The Survey of Reading Strategies was used to measure how the use of metacognitive reading strategies in students' reading activities. The Survey of Reading Strategies was developed based on three reading strategy categories: Global Reading Strategies, Problem Solving Strategies, and Support Strategies. Moreover, The Survey of Reading Strategies consisted of 20 statements that had 5 points Likert scale to reflect the use of reading strategies in their reading activities. The last instrument was a reading test from ESOL (2008). The reading test was used to collect information on students' scores in reading comprehension activities. The test consisted of 30 questions based on two long passages and four short passages to test the students' comprehension of reading texts. Afterward, the collected data from the questionnaires were used to measure the relationship and the contribution of students' reading

anxiety and the use of metacognitive reading strategies by using a multiple regression analysis research design.

3. Results and Discussion

3.1. Results

The results of the analysis show that the correlation coefficient (R) value of associated students' reading anxiety and the use of metacognitive reading strategies to students' reading comprehension achievements in Table 1 is .658. with the level of significance of .000 through ANOVA measurement in Table 2. Thus, the correlation coefficient (R) value indicates that there is a strong positive relationship between associated students' reading anxiety and the use of metacognitive reading strategies to students' reading comprehension achievements. Consequently, the results of this study suggest that the associated students' reading anxiety and the use of metacognitive reading strategies influence students' reading comprehension achievements.

Table 1. Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.658 ^a	.433	.415	6.62095

a. Predictors: (Constant), Reading Strategies, Reading Anxiety

b. Dependent Variable: Reading Score

Table 2. ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	2174.125	2	1087.063	24.798	.000 ^b
Residual	2849.404	65	43.837		
Total	5023.529	67			

Furthermore, the results of the analysis show that the R square value of the associated students' reading anxiety and the use of metacognitive reading strategies in students' reading comprehension in Table 1 is .433. Hence, based on the R square value of the associated students' reading anxiety and the use of metacognitive reading strategies contributes to 43.3% of students' reading comprehension achievements. Moreover, the contributions of students' reading anxiety and the use of metacognitive reading strategies to students' reading comprehension achievements are measured by using the formula below.

$$EC_X = \frac{B_x \cdot CP \cdot R^2}{Regression} \quad (1)$$

- EC_X = Effective contribution of X component (students' reading anxiety / the use of metacognitive reading strategies)
- B_x = Coefficient of X component (students' reading anxiety/ the use of metacognitive reading strategies)
- CP = Cross-Products (students' reading anxiety/ the use of metacognitive reading strategies)
- R^2 = Total effective contribution of X component
- $Regression$ = Regression value

Based on Table 3, it is found that the coefficient value (B) of students' reading anxiety is .006 and the coefficient value (B) of the use of metacognitive reading strategies is .549. Then, Table 4 shows that the cross-products (CP) value of students' reading anxiety is 1391.765 while the cross-products (CP) value for the use of metacognitive reading strategies is 3948.039. Afterward, Table 1 shows the R^2 value is 433. Lastly, Table 2 shows that the regression value for both the students' reading anxiety and the use of metacognitive reading strategies is 2174.125.

Table 3. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-9.680	7.696		-1.258	.213
Reading Anxiety	.006	.117	.005	.050	.960
Reading Strategies	.549	.088	.655	6.221	.000

Table 4. Correlations

		Reading Comprehension Score	Reading Anxiety	Reading Strategies
Reading Comprehension Score	Pearson Correlation	1	.308*	.658**
	Sig. (2-tailed)		.011	.000
	Sum of Squares and Cross-products	5023.529	1391.765	3948.039
	Covariance	74.978	20.773	58.926
	N	68	68	68
Reading Anxiety	Pearson Correlation	.308*	1	.462**
	Sig. (2-tailed)	.011		.000
	Sum of Squares and Cross-products	1391.765	4057.882	2493.353
	Covariance	20.773	60.565	37.214
	N	68	68	68
Metacognitive Reading Strategies	Pearson Correlation	.658**	.462**	1
	Sig. (2-tailed)	.000	.000	
	Sum of Squares and Cross-products	3948.039	2493.353	7169.691
	Covariance	58.926	37.214	107.010
	N	68	68	68

Based on the measurement using the formula above, it is found that students' reading anxiety contributes to 0.17% of students' reading comprehension achievements while the use of metacognitive reading strategies contributes to 43.17% of students' reading comprehension achievements.

Table 5. Effective Contribution of Reading Anxiety and Metacognitive Reading Strategies

Variable	Coefficient (B)	Cross-Products (CP)	Regression	Total effective contribution (R ²)	Effective contribution (EC)
Reading Anxiety	.006	1391.765	2174.125	.433	0.17%
Metacognitive Reading Strategies	.549	3948.039			43.17%

3.2. Discussion

Based on the analysis in this study, associated students' reading anxiety and the use of metacognitive reading strategies have a strong positive relationship with students' reading comprehension achievements which is shown by a correlation coefficient of .658. Thus, the associated students' reading anxiety and the use of metacognitive reading strategies facilitate the students in their reading comprehension activities. Moreover, the analysis in this study shows that the associated students' reading anxiety and the use of metacognitive reading strategies contribute to 43.3% of students' reading comprehension achievements. In detail, this study measures that students' reading anxiety gives 0.17% contribution to students' reading comprehension achievements while the use of metacognitive reading strategies gives 43.17% contribution to students' reading comprehension achievements. Therefore, this study suggests that students' reading anxiety gives an insignificant contribution to students' reading comprehension achievements even though it gives a positive influence on students' reading comprehension achievements based on the results of the analysis. Therefore, the results of the previous studies by Indrawati (2016); Pratiwi & Marunung (2019); and Trisnayanti, et al.(2020) that find students' reading anxiety has a negative relationship with students' reading comprehension achievements that hamper students' comprehension of a reading text is not supported by this study. On the other hand, this study finds the use of metacognitive reading strategies gives a significant contribution to students' reading comprehension achievements as a facilitating factor in students' reading activities. Hence, the results of the previous studies by Islam (2019); Aziz, et al. (2019); and Muhid, et al. (2020) that find the use of metacognitive reading strategies gives a positive influence on students' reading comprehension achievements is supported in this study.

Although students' reading anxiety gives an insignificant contribution to students' reading comprehension achievements in this study, the possibility of anxiety as a facilitating factor in students' reading activities should be observed more. According to Eysenck, et al. (2007), there is a possibility that students' anxiety does not impair performance effectiveness (quality of performance) when it leads to the use of compensatory strategies to help their performance. As a result, students' anxiety may promote students' comprehension as long as it leads the students to use strategies in their reading activities. Moreover, the feeling of anxiety leads the students to be more deliberative in their reading activities as a means to reduce their sense of uncertainty (Yin, et al., 2014). Thus, the feeling of anxiety makes the students more careful in their reading activities to cope with their feeling of uncertainty. Also, the feeling of anxiety leads the students to be more focused on their reading activities to make sure they comprehend the content of the reading text. Trang, et al. (2013) exert that the feeling of anxiety indeed made students more focused on their studying to help them to obtain better results. In

addition, the feeling of anxiety in students' reading comprehension activities may boost students' cognitive resources to help them comprehend reading texts. Cakıcı (2016) poses that students' anxiety helped them to be more alert to cognitive individual thoughts and the individual's ability to construct and organize thoughts or to concentrate on the task or testing. As a consequence, the students will pay more attention to the details in the reading text to make connections among those details to construct better comprehension of the reading text.

Furthermore, the use of metacognitive reading strategies is found as a facilitating factor in students' reading comprehension activity in this study. Ismail & Tawalbeh (2015) describe that using reading strategies contributes to students' reading activity by helping them to solve the problems that are appeared in foreign language reading activities that contribute to their reading comprehension. Hence, it is easier for the students to gain more comprehension of the reading text when the problems during the students' reading activities can be solved by them. Therefore, there is a need for the students to have sufficient knowledge of metacognitive reading strategies to assist their reading comprehension activities. Halim, Arif, & Supramaniam (2020) state that metacognitive reading strategies assist the students to use suitable techniques to comprehend the reading text and answer the reading comprehension questions. Consequently, by having sufficient knowledge of metacognitive reading strategies, the students will be more adept at various reading situations since they may select the appropriate strategies to overcome the reading difficulties during their reading activities and gain more comprehension of a reading text. In a more detailed explanation, Soodla, Jōgi, & Kikas (2017) describe that a conscious understanding of different reading strategies, conditions, and tasks in which these strategies should be used most appropriately tends to contribute to reading comprehension ability. Thus, providing the students with appropriate knowledge of reading strategies will help the students to survive in their reading activities. Also, Habibian (2015) notes that having metacognitive knowledge for selecting and applying relevant strategies, means that students are not only thinking but also consciously deciding the process of their learning. Accordingly, by selecting and applying relevant metacognitive reading strategies the students are able to deepen their comprehension levels to fulfill their reading purposes. Even more, students who are proficient in reading activities, make use of strategies more effectively and adapt their reading rate to confusing words in a text, and may reiterate unpredictable sentences several times to examine in contrast within the text (Islam,2019).

4. Conclusion

This study tries to measure the relationship and the contribution of the associated students' reading anxiety and the use of metacognitive reading strategies in students' reading comprehension achievements. This study finds that the associated students' reading anxiety and the use of metacognitive correlate with students' reading comprehension achievements by .658 which suggests a strong positive relationship among those variables. Moreover, this study finds that the associated students' reading anxiety and the use of metacognitive reading strategies give 43.17% contribution to students' reading comprehension achievements which students' reading anxiety gives 0.17% contribution to students' reading comprehension achievements and the use of metacognitive reading strategies give 43.17% contribution to students' reading comprehension achievements. Thus, this study suggests that students' reading anxiety does not give a significant influence on students' reading comprehension activity. On the contrary, the use of metacognitive reading strategies give a significant influence to help the students in their reading comprehension activity.

Although students' reading anxiety is associated with the use of metacognitive reading strategies during students' reading comprehension activities in this study, only the use of metacognitive reading strategies gives a significant contribution to students' reading comprehension. However, it should be noted this study finds that students' reading anxiety helps the students in their reading comprehension activities even though the contribution is insignificant. Therefore, the results of this study are against the results of the previous studies that find students' reading anxiety as a hampering factor in students' reading comprehension activities. Thus, there is a need for further research to find the circumstance of students' reading anxiety as a hampering factor and a facilitating factor in students' reading comprehension activities. Then, the results of the study suggest there is a need to introduce metacognitive reading strategies to the students and develop their awareness of metacognitive reading strategies. On top of those, for future research, this study suggests there is a need to find other contributing factors in students' reading comprehension activities since students' reading anxiety and the use of metacognitive reading strategies only give a part of the contribution to it..

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