



Learning Styles and Reading Comprehension Achievement: A Correlation Study

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Abstrak

Penelitian ini bertujuan untuk mengetahui korelasi antara gaya belajar siswa dengan tingkat pemahaman membaca mereka. Penelitian ini menerapkan metode kuantitatif yakni studi korelasi. Terdapat 20 siswa kelas XI salah satu sekolah Islam Negeri di Kabupaten Bintan yang berpartisipasi sebagai subjek penelitian ini. Data penelitian dikumpulkan melalui tes dan kuesioner. Gaya belajar siswa diperoleh dengan menggunakan kuesioner dan kemampuan mereka dalam pemahaman membaca ditentukan melalui tes. Penulis menggunakan teknik *Pearson Product Moment* untuk menganalisis data dan mendapatkan koefisien korelasi. Dalam penelitian ini ditemukan *r-value* dari gaya belajar *visual*, *auditory*, dan *kinesthetic* sebesar 0,99 sedangkan *r-table* nya sebesar 0,468. Dengan demikian, dapat dikatakan bahwa adanya korelasi yang signifikan antara gaya belajar siswa dan tingkat pemahaman membaca siswa. Untuk mengadaptasi strategi dan prosedur pengajaran mereka sehingga metode, materi, dan sumber daya mereka sesuai dengan gaya belajar siswa, guru harus memiliki pengetahuan tentang berbagai gaya belajar di antara siswanya. Hasilnya, baik lingkungan belajar maupun potensi siswa secara individu akan meningkat secara signifikan.

Kata kunci: gaya belajar; korelasi; pemahaman membaca; pencapaian

Abstract

This study sought to determine whether there was a relationship between students' reading comprehension performance and their preferred learning styles. This research applied quantitative method, i.e., a correlation study. There were 20 eleventh-grade students of one of the state Islamic schools in Bintan Regency participated as respondents of this research. Through a test and a questionnaire, the data were gathered. The students' learning preferences were ascertained using a questionnaire, and their proficiency in reading comprehension was determined by a test. The authors utilized the Pearson Product Moment technique to analyze the data and get the correlation coefficient. In this research, the authors found that R-values of visual, auditory, and kinesthetic learning styles were 0.99, while the value of R-table was 0.468. Therefore, it can be said that there was a significant correlation between students' learning styles and their reading comprehension achievement. In order to adapt their teaching strategies and procedures so that their methods, materials, and resources are suitable for their students' learning styles, teachers should be as knowledgeable of the various learning styles among their students as feasible. As a result, both the learning environment and individual student potential will be significantly enhanced.

Keywords: achievement; correlation; learning styles; reading comprehension

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INTRODUCTION

Reading is an important activity in the learning process. Through reading, someone can obtain information, idea, and knowledge (Subroto et al., 2021). In addition, Gilakjani & Ahmadi (2011) assert that the primary objective of reading is to understand the message that the author intends for the reader to take away from a text. Then by reading, students can get many vocabularies that they need to be applied in other language skills.

In Indonesia, reading skills are needed in the school final examination, so the students will face comprehension test. Hence, the students must have good reading comprehension if they want to pass the exams. The students do not only have to read a text, but they also have to comprehend the content of the text. For many students, comprehend a text in English is not an easy thing to do. Sometimes they felt difficult to comprehend the longer text. When they read a text, they will face some obstacles, such as vocabulary problems, and cannot find the main idea of the text. Therefore, to increase the achievement in reading comprehension, someone must do learning process.

Every student has a different way to learn. Some students find it easier to receive information by looking, some prefer to learn by listening, and others prefer to learn by touching and moving. The way students learn is often referred to as a learning style (Zapalska & Dabb, 2008). According to Oksattridywi et al. (2017), learning style is a habitual method of digesting knowledge and changing it into learning skills to increase an individual's intellectual capacity.

One of the ways students can grasp information in learning is to understand their learning style. El-Hmoudova (2015) argues that one of our main problems is assisting students in determining the learning styles that work best for them and giving them the chance to utilize all of their senses and many intelligences. Therefore, as a teacher, it is necessary to implement an interesting strategy

to make his/her students feel enjoy in learning process in the class.

To make students easy in the process of learning especially in reading comprehension, teachers have to consider the appropriate learning strategies. The appropriate strategies in teaching reading comprehension can be decided based on understanding students' learning styles because every student has a different method and way to enjoy the learning. A teacher should be more creative in order to make his or her students enjoy learning English so that they can absorb the material effectively (Subroto & Andriani, 2018). Teachers must be aware of students' different learning styles and employ a variety of teaching techniques. When teachers concern of the importance of students' learning style, they can provide a good way to teach their students because every student has a different way to receive the lessons (Zapalska & Dabb, 2008).

Sousa (2017, 2022) designates three primary learning styles that comprise our classroom learners. The first type of style is auditory. Auditory learners are the ones who remember the most of what they hear. They enjoy lectures, adapt well to them, and are generally successful in our traditional schools. The visual learning style is the second type. Visual learners require a physical representation of their mental model. One of the best resources for visual learners is the use of graphic models, commonly referred to as tangible models. They assist students in comprehending and remembering concepts that would be difficult to visualize otherwise. Kinesthetic learning is the third learning style. Movement and touch are the most effective ways for kinesthetic learners to learn. The best strategy to teach kinesthetic learners is to give them opportunity to work outside of the classroom, such as through field trips, making them move around the room, and engaging in games and simulations. (Zapalska & Dabb, 2008).

Students' learning styles (Aisami, 2015; Dantas & Cunha, 2020; Gohar &

Sadeghi, 2015; Kannan et al., 2020; Oksatridywi et al., 2017; Omar et al., 2015; Rezaeinejad et al., 2015; Riduan et al., 2021; Rujani, 2019; Setiowati, 2019) have been being researched for many years. Aisami (2015) undertook a research to the second semester Diploma students of Electrical Engineering program at a Polytechnic in Malaysia. He found that those with multiple learning styles can be beneficial from multiple instructional strategies. Omar et al. (2015) found that the main factors to improve students' achievement is not learning style, but it can be used to identify the students' learning styles tendency. Rezaeinejad et al. (2015) conducted research to the second and third grade female high school students in the city of Ilam, Iran. They concluded there is a significant correlation between educational achievement and the learning styles.

Other researchers, Oksatridywi et al. (2017), studies the eleventh-grade students of Madrasah Khulafaur Rasyidin in Pontianak, Indonesia. Their research revealed visual learning style gives the most contribution to vocabulary achievement than auditory and kinesthetic. Rujani (2019) examined graduate students of the English Department Faculty at UIN Antasari Banjarmasin, Indonesia. He came to a conclusion that learning styles gave a minor effect on students' reading comprehension ability. Setiowati (2019), in her study, disclosed the second semester students of reading class of IAIN Metro applied three types of learning style. Among those learning styles, visual is the most dominant learning style the students have. Kannan et al. (2020) mention a teacher who has a good mastery of a learning style will be able to help explain the learning strategies that students are interested in according to their taste. Riduan et al. (2021) investigated the first grade of senior high school 3 Bandar Lampung, Indonesia. According to their research, students' reading comprehension achievement varied significantly depending on their learning preferences.

None of those earlier studies examined the relationship between students' learning preferences and their success in reading comprehension. Therefore, the purpose of this study was to determine whether there was a relationship between students' achievement in reading comprehension and their preferred learning styles.

RESEARCH METHOD

This study was a correlational analysis (Ary et al., 2014; Creswell, 2015; Creswell & Creswell, 2018; Mills & Gay, 2019; Sugiyono, 2010) that looked at the relationship between students' learning preferences and their reading comprehension. There were 20 students of eleventh grade of one of the state Islamic schools in Bintan Regency involved in this research. A questionnaire and a test were two instruments used in this research. The first one was used to know types of students' learning styles, and the second one was to measure their reading comprehension. O'Leary (2017) states that questionnaire have many uses, most notably to discover what the masses are thinking. The authors tested the data for normality, homogeneity, and linearity in order to determine the reading comprehension and learning preferences of the students.

The data of students' learning styles and their reading comprehension achievement were normally distributed, homogeneous, and linear. The data were normally distributed because the p-value of significance (> 0.150) was higher than the alpha (0.05). The data were also homogeneous because the p-value of Levene's test (0.191) was higher than the significance alpha (0.05). The data were proven linear because the p-value of significance (0.826) was higher than the alpha (0.05).

FINDING AND DISCUSSION

Research Findings

After collecting the answers of questionnaire and reading comprehension test from the students, the authors analyzed the

data quantitatively. Here are the findings of this study.

Students' Learning Styles

Students' learning styles were obtained from the questionnaire filled out by the students. The data can be seen in Table 1 below.

Table 1. Statistics Description of Students' Learning Styles

Students' Learning Styles			
	Visual	Auditory	Kines- thetic
Total of participants	10	4	6
Mean	52.1	47.25	46.50
Median	51.5	48	44.50
Minimum	48	43	43
Maximum	57	50	54
Sum	521	189	279

Table 1 showed that 10 students were visual category, 4 students were auditory, and 6 students were kinesthetic. The total score of the students with visual learning styles was 521, the total score of auditory students was 189. And the total score of students with kinesthetic was 279. It can be concluded that most dominant students' learning styles was visual learning styles.

Students' Reading Comprehension Achievement

The reading comprehension scores was obtained from the reading comprehension test. The following tables are presented the score of reading comprehension test of the three learning style groups.

Table 2. Statistics Description of Reading Comprehension Score of Visual Learning Style

Reading Comprehension Scores of Visual Learning Style	
Total Score	765
Mean	76.5
Minimum	65
Maximum	85

Table 3. Statistics Description of Reading Comprehension Score of Auditory Learning Style

Reading Comprehension Scores of Auditory Learning Style	
Total Score	295
Mean	73.75
Minimum	70
Maximum	80

Table 4. Statistics Description of Reading Comprehension Score of Kinesthetic Learning Style

Reading Comprehension Scores of Kinesthetic Learning Style	
Total Score	455
Mean	75.83
Minimum	70
Maximum	80

Based on Table 2, 3, and 4 above, the highest score of reading comprehension was 85 and it was obtained by visual learner group. For the lowest score was 65, it comes from visual learners. For the mean of the score, the highest reading comprehension mean was 76.5 it was obtained by visual learner group and the lowest score of mean 73.75 it was obtained by auditory learner group and the lowest score of mean was 73.75 obtained by auditory learners.

Discussion

In analyzing the data, the authors conducted normality, homogeneity, linearity, and correlation testing for student' learning styles and reading comprehension achievement. The data analysis could be seen as follows:

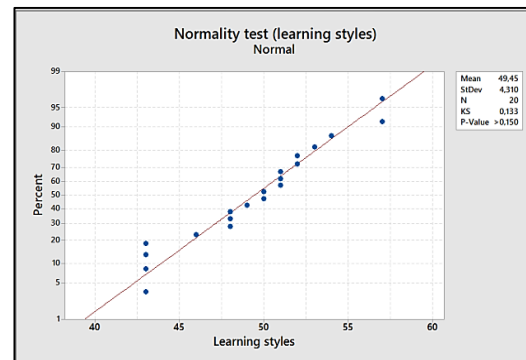


Figure 1. The Normality Test Result of Students' Learning Styles

Normality Testing

Normality test was used to know that whether the data in variables were normally distributed or not with the significance level 5%. The authors used Minitab 17 to test the variable in this research.

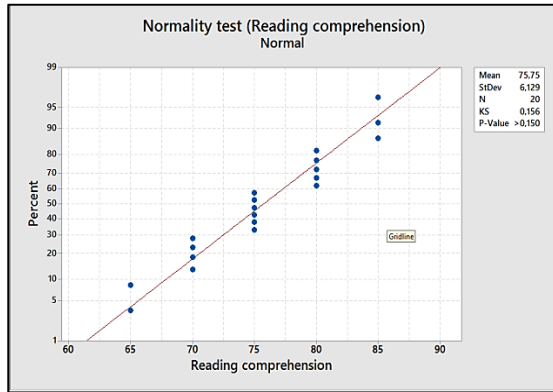


Figure 2. The Normality Test Result of Students' Reading Comprehension Achievement

Table 5. Normality Test Summary of Students' Learning Styles and Reading Comprehension Achievement

Variable	P-value	Alpha	Conclusion
Learning style	0.05	> 0.150	Normal
Reading comprehension achievement	0.05	> 0.150	Normal

Based on Figure 1, 2, and Table 5 above, it could be concluded that students' learning styles and reading comprehension achievement were in the normal distribution.

Homogeneity Testing

Homogeneity test intended to test whether the data came from the same variance or not. In this research, the authors conducted statistical computation by using Minitab 17 for windows to analyze the data. The data would be said homogenous or same variance if p-value is higher than $\alpha = 0.05$

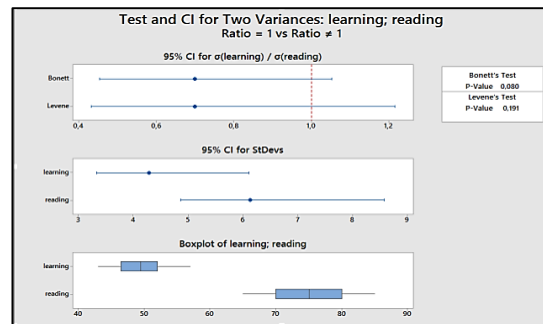


Figure 3. The Homogeneity Test Results of Data

Based on the figure above, it can be said that the data of learning styles and reading comprehension are homogeneous because the p-value is higher than significance alpha by seeing Sevene's result. It means that $0.191 > 0.05$ was homogeneous or the same variance.

Linearity Testing

To determine the relationship between the dependent and independent variables, a linearity test is utilized. The authors of this study used SPSS 25 for Windows to examine the data and do statistical computation. If the p-value (sig) is more than 0.05, the data would be considered to be linear.

			Sum of Squares	df	Mean Square	F	Sig.
Reading comprehension * Learning styles	Between Groups	(Combined)	186,667	8	23,333	,487	,842
		Linearity	23,522	1	23,522	,491	,498
		Deviation from Linearity	163,145	7	23,306	,486	,826
	Within Groups		527,083	11	47,917		
Total			713,750	19			

Figure 4. Linearity Test of Learning Styles and Reading Comprehension

Figure 4 above showed that the data of students' learning styles in form of the questionnaire data and students' reading comprehension in the form of essay test both were linear because the p-value was 0.826. It was higher than significance alpha, 0.05. It meant the learning styles and reading comprehension achievement had a linear distribution.

Correlation Testing

Correlation testing is aimed to know whether both variables involved in this research. The authors used the formula of product moment correlation (Ary et al., 2014) to know the coefficient correlation. From the result of visual learning styles and reading comprehension achievement coefficient correlation calculation, it was obtained 0.99 and it can be interpreted as very strong correlation (Sugiyono, 2010). After knowing the coefficient correlation of visual learning styles and reading comprehension achievement, the authors obtained the result of auditory learning styles and reading comprehension achievement coefficient correlation score, i.e., 0.99 and be categorized as strong correlation. Surprisingly, the coefficient correlation score of kinesthetic learning styles and reading comprehension achievement was also 0.99 and be categorized as strong correlation.

Hypothesis Testing

In hypothesis testing, the authors compared the R-value and R-table. There was a high correlation between students' different learning styles and their achievement in reading comprehension if R-value > R-table. There was no strong correlation between students' different learning styles and their accomplishment in reading comprehension if R-value < R-table.

Based on the results obtained, the R-value of visual, auditory and kinesthetic learning styles was higher than R-table, i.e., $0.99 > 0.468$. It means the Null hypothesis was rejected. In another word, coefficient correlation among visual, auditory and

kinesthetic learning styles and reading comprehension achievement was significant.

CONCLUSION

Based on the discussion, the authors came to the conclusion that there was a strong relationship between students' reading comprehension proficiency and their learning styles. It was proved by the result of R-value and R-table. For visual, auditory, and kinesthetic learning styles and reading comprehension achievement correlation, R-values were higher than R-tables, i.e., $0.99 > 0.468$. Based on the results above, the authors believe that by knowing the students' learning styles, especially in reading comprehension, it helps the teacher in the process of teaching-learning and help the students enjoy the process of learning.

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