Education Quarterly Reviews

The Asian Institute of Research *Education Quarterly Reviews* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of education, linguistics, literature, educational theory, research, and methodologies, curriculum, elementary and secondary education, higher education, foreign language education, teaching and learning, teacher education, education of special groups, and other fields of study related to education. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Education Quarterly Reviews* aims to facilitate scholarly work on recent theoretical and practical aspects of education.

ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide

The Effect of Expository and Cooperative Learning Strategies on Student Learning Result in Class X Office Governance Automation of State Vocational High School I Palembang

Samsilayurni[1], Rambat Nur Sasongko[2], Muhammad Kristiawan[3]

[1] Universitas Muhammadiyah Palembang, Indonesia. Email: yurni.samsila66@gmail.com
[2] Universitas Bengkulu, Indonesia. Email: rambatnursasongko.unib.ac.id
[3] Universitas Bengkulu, Indonesia. Email: muhammadkristiawan.ac.id

Correspondence: Samsilayurni, Universitas Muhammadiyah Palembang, Indonesia.
E-mail: yurni.samsila66@gmail.com

Abstract
The purpose of this study was to determine the effect of expository learning strategies and cooperative learning strategies that can affect student learning result in archiving subjects in class X Office Governance Automation of Vocational High School 1 Palembang. The total population of 96 students, the 96 students were sampled in this research. This research technique is by conducting observations, questionnaires and documentation. This study consisted of three variables X1, namely expository learning strategy, cooperative learning strategy variable X2. Then variable Y student learning results. Based on the results of the ANOVA test or F test, the results of the study show that H0 is rejected and Ha is accepted, meaning that there is a significant effect of X1 expository learning strategy and X2 cooperative learning strategy together on student Y learning result in Archives class X Office Governance Automation Middle School subjects. Vocational State I Palembang. It is recommended that educators make efforts to make improvements and improve the quality of the teaching and learning process in order to obtain better learning result. Therefore, appropriate learning strategies are needed to realize effective learning.

Keywords: Expository Strategy, Cooperative, Learning Results

1. Introduction

The rapid development of science and technology or often called science and technology has led people to the 4.0 industrial revolution which currently demands the creation of quality human resources (Religion & Gunungkidul, n.d.) including learning carried out by teachers where researchers carry out this research. Furthermore, another opinion explains that the demands of the industrial era 4.0 work world can only be fulfilled if graduates become human resources forged from an educational process that meets educational standards 4.0 (Putra et al., 2019). This means that teachers must be professional, who have the obligation to plan learning, carry out a quality learning process and assess and be able to evaluate learning outcomes (Square, 2019) Another

opinion also says that teachers can create a conducive learning atmosphere (Dewi & Riswanto, 2019), Gestiana et al. explained that teachers also provide guidance so that it can encourage students to be enthusiastic, active in the learning process (Ragin et al., 2020). From some of the opinions above, it is very clear that a teacher is required to be a highly professional individual in improving the quality of future generations.

In the learning and teaching process, the teacher pays attention to aspects related to the achievement of learning objectives including learning strategies (Fakhrurrazi, 2018). There are several previous studies on expository and cooperative learning strategies on learning outcomes including: Budianto, et al. Showed a significant influence in the use of expository strategies on student learning result in the material of the nervous system in class XI IPA (Budianto & Arbaini, 2018). Novi et al. analyzed the application of expository learning strategies on physics learning achievement, only 3.33% achieved student learning completeness (Dewi & Riswanto, 2019). This means that the expository learning strategy is not appropriate to use in learning physics. Contrary to Afnan's opinion, who revealed the results of his research, that expository learning strategies can improve student learning result in physics (Afnan, 2018). Sudarsana, conducted research on the effect of cooperative learning models on improving the quality of learning outcomes, and the results showed no significant effect, both on cognitive, effective and psychomotor learning outcomes (Sudarsana, 2018). The results of research conducted by Muhlis et al., differ slightly, that there is a significant influence between the cooperative learning model and learning outcomes and learning motivation (Inapi, 2018). Research by Rina et al., in examining the use of Expository and cooperative Learning Strategies that students who have low independence provide better English learning outcomes when compared to the STAD Cooperative Learning Strategy (Jou et al., 2019). It can be concluded from this study that the expository strategy is more appropriate to use than the cooperative strategy in the teaching process of English.

With a variety of learning strategies applied in the teaching process to students can motivate the independence of students in learning, this was emphasized by Nurhayati that there was a significant influence on the application of cooperative learning strategies on learning outcomes of the Qur'an and Hadith (Sataloff et al. al., nd). Rosdiati argues that the JIGSAW cooperative learning strategy can improve the quality of learning in Economics but has not been able to improve student learning achievement completely, so this research recommends when using cooperative learning strategies, the teacher must be really careful to choose the subject in order to obtain optimal results (Rosdiati, 2020). In line with the findings of research conducted by Masyudi et al, that there are differences in student learning outcomes in Arabic subjects. Where the expository learning strategy is higher when compared to the cooperative learning strategy on Arabic learning outcomes (Masyudi, 2019),

Based on the phenomenon of the research results from several researchers above, it was revealed not because the students' abilities were low so that students were not active, but because the teacher learning strategies applied were not in accordance with the situation and conditions of students and teachers were less skilled at the time of choosing the subject to be delivered with expository or cooperative learning strategies. Therefore it is necessary to have research to reveal and describe expository and cooperative learning strategies in archiving subjects. The results of the search have not been conducted research using a compilation of both expository and cooperative learning strategies. The virtue of this research is that the compilation of both expository and cooperative learning strategies can make the most appropriate choice to carry out an effective learning process, so that it can improve student learning outcomes, especially in the era of the COVID-19 pandemic. So that researchers raise this problem in a study with the formulation of the problem as The following, the Effect of the Application of Expository and Cooperative Learning Strategies on Student Learning Outcomes in Class X Office Governance Automation Archival Subjects at Vocational High School 1 Palembang.

2. Method

The research was carried out at Palembang I Vocational High School, South Sumatra, and the population in this study were all students of class X Automation of Office Administration for Vocational High School 1 Palembang in the academic year 2020/2021, which consisted of three classes, with a total of 96 students. So, using total sampling, the researcher took the sample, and the researcher determined that the number of samples was all class X Office Governance Automation, which amounted to 96 students. The data analysis technique

used in this study is quantitative and employs statistical methods. The data analysis technique used in this study is quantitative and employs statistical methods (Herawati et al., 2019). Taking into account that the research data from 96 class X Office Governance Automation students at Palembang 1 Public Vocational High School were processed using parametric statistics. To perform metric statistical analysis, the data must be normally distributed and have the same or homogeneous variance, so tests for normality, homogeneity, and linearity are required. After the data has been collected, it will be processed and tested using the F test (Hitung = 9,315, 2018).

In this study, test questions and questionnaires were used as instruments (Masyudi, 2019). The test was carried out to determine student learning outcomes in archiving subjects using material about implementing procedures for using archiving equipment. The researcher created 40 questions for the test based on the guidelines in the syllabus, Lesson plan. The 40 questions were developed based on bloom's taxonomic level, which includes cognitive, affective, and psychomotor aspects. So, before distributing the test questions and questionnaires to be tested on the respondents, the validity and reliability are first tested (Jou et al., 2019). As a result, students who learned using expository learning strategies received 33 valid questions, while students who learned using cooperative learning strategies received 35 valid questions. while 34 questionnaire statements were distributed to 96 students in order to determine the effect on student learning outcomes.

3. Results and Discuss

This study was carried out at Palembang 1 Public Vocational High School. All students in class X Palembang 1 Public Vocational High School participated in this study. The data used in this study were the learning outcomes of class X Palembang 1 Public Vocational High School. This study's sample size was 96 students. This study had three variables: the class that was learning using an expository learning strategy, which was given a test of 33 multiple choice questions, and the class that was not learning. Furthermore, the class that is learning through cooperative learning strategies is given a test consisting of 33 multiple choice questions. Then, on student learning outcomes (variable Y), respondents were given a questionnaire with 34 statements.

a. Variables Affecting Student Learning Outcomes

The results of the variable Y analysis show that the average value for the variable student learning outcomes is 147.03; the standard deviation is 7,084; the median is 147.00; and the mode is 147.00. These data show that the mean, median, and mode counts are not significantly different. Table 4.3 shows more information about the variable frequency distribution of student learning outcomes in class X Palembang 1 Public Vocational High School: While the frequency of the histogram is shown in the figure below:
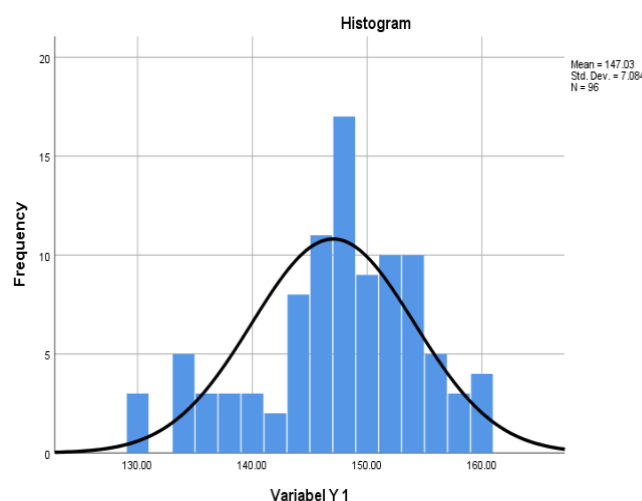

Figure 1: Histogram Graph of Student Learning Outcomes

Based on the graph above, the frequency distribution of student learning outcomes, the data distribution tends to be normally distributed, as seen by the curve in the middle. Despite the fact that there is a slope, it is easily classified.

b. Expository Learning Strategies That Vary

The lowest score was 55, and the highest score was 100, based on the results of the analysis of the expository learning strategy variables through the test instrument as many as 33 multiple choice questions given to 96 respondents, then from the data collected after being processed, the mean value for the expository learning strategy variable was 77, 38; standard deviation: 10.52; median: 76.00; and for mode 76. These data show that the mean, median, and mode arithmetic mean are not significantly different.
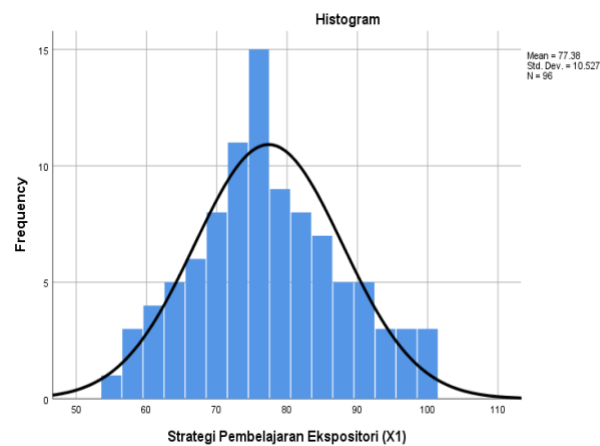 While the frequency of the histogram can be seen in the figure below :

Figure 2: Expository Learning Strategies Histogram Graph

The graph above shows that the frequency distribution of the expository learning strategy variable is normally distributed; the curve is in the middle, forming a bell-like image that can be well classified.

c. Variables in the Cooperative Learning Strategy

According to the findings of the analysis, the mean value for the cooperative learning strategy variable is 81.49; the standard deviation is 9.34; the median is 83.00; and the mode is 80.00. These data show that the mean, median, and mode mean are not significantly different, as shown in the table below:
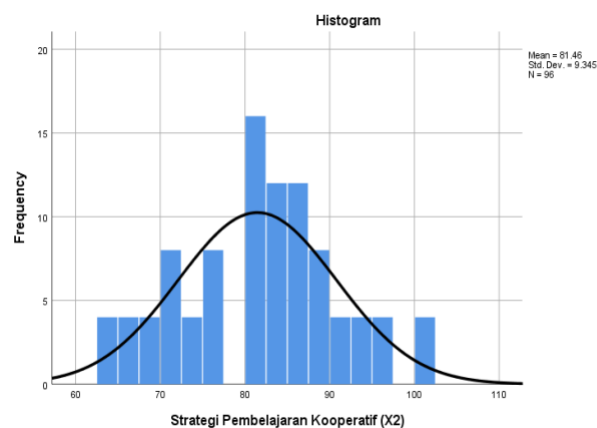

Figure 3: Cooperative Learning Strategies Histogram Graph

The graph above depicts the frequency distribution of the cooperative learning strategy variable, the data distribution tends to be normally distributed, and the curve is in the middle, forming a bell-like image; although there is a slope, it can be classified as good.

1. Test Requirements Analysis

a. Normality Test

The Kolmogorov-Smirnov statistic, also known as the K-S test, is available in the SPSS program for testing the normality of data distribution. The following table illustrates how to test the normality of data distribution.

Table 1: The Results of the Homogeneity Test

		Student learning outcomes (Y)	Expository Learning Strategies (X_1)	Cooperative Learning Strategies (X_2)
N		96	96	96
Normal Parameters(a,b)	Mean	147,03	77,38	81,49
	Std. Deviation	7,084	10,527	9,345
Most Extreme Differences	Absolute	,119	,104	,103
	Positive	,057	,104	,078
	Negative	-,119	-,058	-,103
Kolmogorov-Smirnov Z		1,168	1,019	1,013
Asymp. Sig. (2-tailed)		,131	,250	,257

It is obtained for the student learning outcomes variable (Y) by the sig value. (2-tailed) for kolmogorov-smirnov = 0.131, for the expository learning strategy variable (X1) by the sig value. (2-tailed) for kolmogorov-smirnov = 0.250, and for the cooperative learning strategy variable (X2) by the sig value. (2-tailed) for kolmogorov-smirnov = 0.257. As can be seen, the sig. > 0.05, it can be concluded that the variable data is normally distributed and its regression can be examined.

b. Homogeneity Test

Furthermore, the homogeneity test was performed to ensure that the data came from a homogeneous population by using the Chi-Square test and determining a significance of 5% (= 0.05). The interpretation of data homogeneity is calculated using the Asymtotic Significance value. If Asymp. Sig. > 0.05, the data is said to be homogeneous, as shown in the table below.

Table 2: The Results of the Homogeneity Test

	Student learning outcomes (Y)	Expository Learning Strategies (X_1)	Cooperative Learning Strategies (X_2)
Chi-Square(a,b,c)	39,417	32,000	29,125
Df	24	15	13
Asymp. Sig.	,205	,235	,350

It was obtained using Asymp for the student learning outcomes variable. Sig = 0.205, whereas Asymp = 0.205 for the expository learning strategy variable. If Sig = 0.235, then the Asymp. for the cooperative learning strategy variable is Sig is equal to 0.350. As can be seen, sig. > 0.05 indicates that the population has a homogeneous variance, allowing regression analysis to proceed.

c. Linearity Test

When the regression obtained is used to make conclusions between the variables being analyzed, the linearity test is used to determine whether it is "meaningful." The One-way Anova SPSS program was used to test the linearity of the independent variables and the dependent variable. The linearity test employed a 5% significance level (= 0.05). Data interpretation is performed if F-count is greater than 0.05 and the independent variable and dependent variable have a linear relationship, as shown in the table below.

Table 3: X1 and X2 Linearity Test Results with Y

			Sum of Squares	Df	Mean Square	F	Sig
Unstandardized Residual *Unstandardized Predicted Value	Between Groups	(Combined)	3864,462	78	49,544	1,857	,076
		Linearity	,000	1	,000	,000	1,000
		Deviation from Linearity	3864,462	77	50,188	1,881	0,072
	Within Groups		453,667	17	26,686		
	Total		4318,129	95			

Depending on the sign value. In the line Deviation from Linearity table ANOVA above, it is obtained sig. = 0.072 is greater than = 0.05, then H0 is accepted, indicating that the student learning outcome variable (Y) has a linear relationship with the expository learning strategy variable and the cooperative learning strategy, so regression analysis can be continued.

2. Statistical Analysis (Inferential)

In this study, inferential statistical analysis was used to determine the effect of the variables expository learning strategies and cooperative learning strategies on student learning outcomes. As a result, multiple linear regression analysis is employed. The results of data processing using SPSS 25.0 are shown in the table below.

Table 4: Correlation analysis and coefficient of determination for X1 and X2 with respect to Y

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,307(a)	,094	,075	6,814	,094	4,833	2	93	,010

In the table above, the R value is 0.307, indicating that the influence of the variable expository learning strategy and cooperative learning strategy on student learning outcomes is low and positive.

Table 5: Regression analysis for X1 and X2 with Y

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	172,046	8,117		21,196	,000
	Strategies Learning Ekspositori (X1)	-,151	,066	-,224	-2,268	,026
	Strategies Learning Cooperatif (X2)	-,164	,075	-,216	-2,190	,031

The regression equation is derived from the table above as follows:

$\hat{Y} = 172{,}046 + 0{,}224X_1 + 0{,}216X_2 + e$

a) A constant of 172.600 indicates that the student learning outcome score (Y) is 172.046 if the expository learning strategy (X1) and cooperative learning strategy (X2) are ignored.

b) The regression coefficient X1 of -0.224 states that each additional one unit score of the expository learning strategy (X1) increases the learning outcome score by -0.224, implying that the expository learning strategy has a linear effect on student learning outcomes by -0.022 percent.

c) The X2 regression coefficient of -0.216 indicates that each additional one unit score of cooperative learning strategy (X2) increases the learning outcome score by -0.216; in other words, the cooperative learning strategy affects student learning outcomes linearly by -0.021 percent.

The hypothesis test

The simultaneous F test is used in this study to determine whether all independent variables have the same effect on the dependent variable. If the significance probability is greater than 0.05, H0 is accepted; if the significance probability is less than 0.05, H0 is rejected. The results of the F test are shown in the table below.

Table 6: Results of Simultaneous Tests (Test F)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	448,777	2	224,389	4,833	,010(a)
	Residual	4318,129	93	46,431		
	Total	4766,906	95			

The following are the study's hypotheses:

$H_a : \rho_0 = \rho_1 = 0$: Expository learning strategies and cooperative learning strategies have an effect on student learning outcomes in archiving subjects at Palembang 1 Public Vocational High School: class X Office Governance Automation .

$H_o : \rho_0 \neq \rho_1 \neq 0$: Expository learning strategies and cooperative learning strategies have no effect on student learning outcomes in archival subjects in class X Office Governance Automation of Vocational High School Palembang 1 Public Vocational High School.

The Fcount is 4,833 with a significance level of 0.010 based on the ANOVA test or F test results. Ftable 3.094 is obtained by inspecting Ftable with degrees df = 2-1 and df = n-k (df = 96-2) at a significance level of 0.05. Because the probability (0.010) is much lower than the probability (0.05), and Fcount > Ftable. This demonstrates that H0 is rejected and Ha is accepted, indicating that there is a significant effect of expository and cooperative learning strategies combined on student learning outcomes in the Archive subject of State Vocational High School 1 Palembang's class X Office Governance Automation

a. **Student Archive Learning Outcomes Using Expository Learning Strategies in class X Automation of Vocational High School Office Management 1 Palembang.**

The test results of 96 students in class X Office Governance Automation of Palembang 1 Public Vocational High School, the lowest score was 55 and the highest score was 100 with the average value obtained 〚x〛_1 = 77.38 and the standard deviation value of S1 = 10.52, This demonstrates that the results of archiving learning using the expository learning strategy in the experimental class 1, which are class X Office Governance Automation students of Palembang 1 Public Vocational High School, are categorized as sufficient.

Previous research by Budianto (Budianto & Arbaini, 2018)found that there is a significant effect on learning outcomes in science subjects in the human nervous system, with an average value obtained x _1 = 74.80 and a

standard value deviation S1 = 7,7. This means that using expository learning strategies can help students learn better. Being actively involved in expository learning strategies qualifies as sufficient because expository learning strategies necessitate students thinking independently (Budianto & Arbaini, 2018) .As a result, the study's findings indicate that there is consistency between previous research and student learning outcomes that occur in the field using expository learning strategies, which are categorized as sufficient.

b. Student Archive Learning Outcomes Using Cooperative Learning Strategies (Variable X2) in Automation of Senior High School Office Governance for Pembina 1 Palembang class X.

The test results were given to 96 students in class X Automation of Senior High School Office Governance for Pembina 1 Palembang, with the lowest score being 63 and the highest score being 100, with an average value of $x\_1 = 81.49$ and a standard deviation of S1 = 9.34. This demonstrates that the results of archiving learning using cooperative learning strategies in experimental class 2, which consists of class X Office Governance Automation students from Palembang 1 Public Vocational High School, are rated as good.

Previous research (Budianto & Arbaini, 2018) found a significant effect on learning outcomes in science subjects with an average value of $x\_1 = 80.1$ and a standard deviation of S1 = 11.64. This means that cooperative learning strategies are categorized as good because cooperative learning strategies are a type of learning that is used to train teamwork and be creative with mind mapping, and students become more active and directly involved in the teaching and learning process. As a result, the study's findings indicate that there is consistency between previous research and student learning outcomes that occur in the field using cooperative learning strategies that are categorized as good.

c. Student Learning Outcomes

In this study, particularly in the student learning outcomes variable, 96 respondents were given 34 statements via a questionnaire. The researcher used the Google Form application to administer the questionnaire. Researchers can use this application to distribute questionnaires in the form of a link, which will then be distributed via the application *Google Class Room.* The researcher's implementation goal was to determine how much influence the expository learning strategy and cooperative learning strategy had on the learning outcomes of Palembang 1 Public Vocational High School class X Office Governance Automation students.

Based on the results of calculations tested with SPSS, the learning outcomes variable is created, in which respondents are given as many as 34 statements via a questionnaire, with the lowest score being 130 and the highest score being 160. The average score for the variable student learning outcomes is then 147, 03. In addition, the standard deviation is 7,084.

d. The Effect of Expository Learning Strategies and Cooperative Learning Strategies on Student Learning Outcomes

After calculating the three variables, the next hypothesis testing shows that "there is a significant influence between expository learning strategies and cooperative learning strategies together on student learning outcomes in archiving subjects in class X Automation of Office Administration for Vocational High School I Palembang ". This is evidenced by the results of the ANOVA test or F test, it is obtained that the F_{count} is 4,833 with a significance level of 0.010. While F_{table} 3.094 is obtained by looking at F_{table} with degrees df = 2-1 and df = n-k (df = 96-2) at a significance level of 0.05. Because the probability (0.010) is much smaller than 0.05 and $F_{count} >$ F_{table}. So thus it can be stated that H_0 is rejected and H_a is accepted, meaning that there is a significant effect of expository learning strategies and cooperative learning strategies together on student learning outcomes in archival subjects in class X Office Governance Automation of State Vocational High School 1 Palembang.

This study is supported by several previous research results, such as research conducted by Budianto et al. Afnan et al. The research results revealed that there was a significant influence between expository strategies on student learning outcomes with the same subjects. Then Muhlis et al, Nurhayati et al, and Rosiati revealed the findings

of their research that there was a significant effect of cooperative learning strategies or models on learning outcomes even with different subjects.

This study rejects the results of research conducted by previous researchers such as Novi et al. Novi et al described the results of their research that the expository learning strategy was not appropriate to use in learning physics. Sudarsana did not have a significant relationship between cooperative learning strategies and learning outcomes seen in the cognitive affective and psychomotor domains. Then Marsyudi, Rina et al, in their research by comparing expository and cooperative learning strategies to student learning outcomes simultaneously, but found different results. Where the expository learning strategy is better or significant for learning outcomes, when compared to cooperative learning strategies for learning outcomes.

4. Conclusion

According to the findings of the experiment, "there is a significant influence between expository learning strategies and cooperative learning strategies combined on student learning outcomes in archival subjects in class X Office Governance Automation State Vocational High School 1 Palembang." This means that expository learning strategies and strategies for cooperative learning outcomes can improve student learning outcomes in archiving subjects in Vocational High School 1 Palembang's class X Office Governance Automation. This is supported by the ANOVA test or F test results, which show that the Fcount is 4,833 with a significance level of 0.010. Ftable 3.094 is obtained by examining Ftable at a significance level of 0.05 with degrees df = 2-1 and df = n-k (df = 96-2). Because the probability (0.010) is much smaller than the probability (0.05), and Fcount > Ftable. As a result, it can be stated that H0 is rejected and Ha is accepted.

References

Afnan, A. (2018). [Application of Expository Learning Strategies to Improve Learning Outcomes of Physics. *Madania*: *Journal of Islamic Sciences]*, 8 (1), 21–52.

Religion, K., & Gunungkidul, K. (n.d.). [*Improving Teacher Competence in Operating Microsoft Excel for Processing Learning Outcomes at MI Negeri 8 Gunungkidul and MI Muhammadiyah Munggur Semanu]. 5* (November 2020), 229–236.

Budianto, B., & Arbaini, J. (2018). [The Effect of Expository Strategies on Student Learning Outcomes in Submaterial Human Nervous System in Class XI YAPIM Medan Private High School]. Best Journal (*Biology Education, Science and Technology*), 1 (2), 1–6. https://doi.org/10.30743/best.v1i2.772

Dewi, N. A. K., & Riswanto, R. (2019). [Analysis of the application of expository learning strategies on physics learning achievement in terms of student learning styles. *Journal of Research and Studies in Physics Education],* 6 (1), 17. https://doi.org/10.12928/jrkpf.v6i1.12643

Fakhrurrazi, F. (2018). [The Nature of Effective Learning]. *At-Tafkir*, 11 (1), 85. https://doi.org/10.32505/at.v11i1.529

Herawati, Y., Studi, P., Teacher, P., Ibtidaiyah, M., Tarbiyah, F., & Tadris, D. A. N. (2019). [*Against Student Learning Outcomes in Class V SD Negeri 116 Bengkulu Selatan].*

Inapi, M. L. (2018). [The Effect of Cooperative Learning Model on Motivation and Student Learning Outcomes in the Colloid System Material of SMAN 4 Bantimurung Maros. *LEARNERS: Journal of Education, Teacher Training and Learning]*, 2 (1), 12. https://doi.org/10.26858/pembelajar.v2i1.4135

Jou, A., Of, N. A. L., Medical, G., Feb, S., & Modeling, F. (2019 Talking about the spine manipulative simulation exercises with the practice of teaching on behalf of teachers as the main body 1 2 * 3 #. 8 (1), 3–5.

Masyudi, M. (2019). [Cooperative Learning Strategy Model Student Teams Achievement Division (Stad) Against Arabic Learning Outcomes. *Tawazun*: *Journal of Islamic Education]*, 11 (2), 247. https://doi.org/10.32832/tawazun.v11i2.1672

Putra, J. S., Johar, R., & Ikhsan, M. (2019). [Improvement of Student Achievement and Learning Motivation through Cooperative Learning Model Type Group Investigation at SMA Negri 8 Banda Aceh. Opportunity Journal], 7 (1), 116–126. https://doi.org/10.24815/jp.v7i1.13513

Ragin, G., Refando, A., & Utami, D. (2020). [Implementation of Expository Learning Strategies to Improve Mathematics Learning Outcomes in Primary Schools. *Journal of Education and Da'wah]*, 2 (1), 54–60. https://ejournal.stitpn.ac.id/index.php/pandawa

Rosdiati. (2020). [Application of the Jigsaw Model of Cooperative Learning Strategy to Improve Learning Achievement]. INTRODUCTION. Socius, 9 (2), 123–133.

Sataloff, R. T., Johns, M. M., & Kost, K. M. (n.d.). *No The main body's sense of health is centered and the person in the house is high. The health-related index is the analysis of the co-decentralized structure. Title.*

Square, W. (2019*). [Application of the Word Square Cooperative Learning Model Odel].* 4 (I), 90–111.

Sudarsana, I. K. (2018). [The Influence of Cooperative Learning Model. *Journal of Quality Assurance]*, 4 (1), 20–31.