

## The effect of the implementation of the Learning Start with a Question (LSQ) learning strategy on the learning outcomes of economics students in class X at MA Muhammadiyah Pekanbaru

Asri Neli Putri<sup>1</sup>, Paijan Rambe<sup>2</sup>, Suparmi<sup>3</sup>, Sukma Setia Ningsih<sup>4</sup>, Syahrul Amin<sup>5</sup>

<sup>1,2,3,4</sup> Sekolah Tinggi Keguruan dan Ilmu Pendidikan (STKIP) 'Aisyiyah Riau, Indonesia

<sup>5</sup> Texas A&M University, United States

e-mail: [asrineliputri87@gmail.com](mailto:asrineliputri87@gmail.com)

\*Corresponding Author.

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**Abstract:** This study aims to find out whether there is a difference in learning outcomes after applying the Learning Start With A Question (LSQ) learning strategy to student learning outcomes in financial institutions (banks) in Economics in class X MA Muhammadiyah Pekanbaru. The subjects in the study were 33 students. Data collection was carried out from posttest questions given to students in the control class and experimental class. The learning outcomes obtained when conducting research were an average score of 71.76, while for the experimental class the average score was 76.25. Thus, the average score obtained from the experimental class that was treated in the form of LSQ strategy was higher than that of the control class that was not treated. In the normality test, the data obtained was not normal, so the researcher processed the data using a non-parametric test obtained the hypothesis that the processed value was  $0.601 > 0.05$ , indicating that  $H_a$  was rejected and  $H_0$  was accepted. This means that there is no significant average difference between the use of LSQ and conventional learning strategies.

**Keywords:** Learning outcomes, learning starts with questions (LSQ), learning strategies.

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### Introduction

A learning strategy is an action plan (sequence of activities) that includes all components of learning including the use of strategies and the use of various learning resources to achieve learning goals. Learning strategies can also be interpreted narrowly or broadly. In a narrow sense, strategies have similarities as a way to express how to achieve certain learning goals. Strategy in a broad sense, on the other hand, can be interpreted as a method to determine all aspects related to the achievement of learning objectives, including planning, implementation, and evaluation of learning (Hadion Wijoyo Buzz Sunarsi, 2020).

LSQ Learning Strategies in particular are learning strategies that emphasize students' ability to ask questions before receiving explanations from teachers. By asking questions, it means that students can complete parts of the reading that they do not understand, so asking questions can make students aware of their progress and achievements. Therefore, the LSQ strategy was created to enable questioning skills. During the learning process, not only one or two pairs of students ask questions, but all pairs have the same opportunity to ask questions. With this strategy, learning will be more interesting and can increase student activity. This strategy can create a learning atmosphere that encourages students to ask questions as the key to learning so that maximum learning outcomes are achieved (Ariska Siti, 2021).

Learning outcomes appear as behavioral changes in students, which can be observed and measured as changes in knowledge, attitudes and skills. These changes can be interpreted as improvements and better developments than before, for example from unknown to known, from rude to polite, and so on. Changes that occur in a person's human disposition or ability are in the form of mastery of knowledge and skills acquired through earnest efforts made in a certain period of time or over a relatively long period of time and not through the process of development. Therefore, learning outcomes can be understood as a process that is carried out with effort and intention to achieve attitude change. Output standards are also the result of the interaction between the learning process and the educator's teaching process. The teaching process ends with the learning outcome process. Thus, learning outcomes are the result of a continuous and comprehensive student learning process about the process and the results it achieves (Budiyono , 2020).

In student learning outcomes, more than 50% of the number of students who obtained daily test scores with low or incomplete Economic Minimum Completeness Criteria (KKM). It is known that in the learning process in the classroom, the learning strategies used are still less varied. The use of methods or media still uses conventional learning, namely lectures and discussions. This study aims to find out whether the use of the start With A Question (LSQ) learning strategy has an effect on the learning outcomes of students who apply the LSQ learning strategy with the learning outcomes of students who do not apply the LSQ class X learning strategy in Economics at MA Muhammadiyah Pekanbaru. In line with the results of Ali Masyudi and Subhan Adi Santoso's 2022 research entitled *The Effect of the Start with a Question Learning Strategy on the Learning Outcomes of Students in the Field of Fiqh at MTS Al-Aman Payaman Solokuro Lamongan*. In the study, results were obtained that showed that the learning outcomes of students by applying the LSQ strategy affected the learning outcomes of the field of fiqh studies in grade VIII MTs Al-Aman Payaman Solokuro Lamongan by obtaining quite good results compared to the learning outcomes of students who did not apply the LSQ learning strategy (Subhan Adi Santoso, 2022).

### **Method**

The type of research used in this study is quantitative research using quasi-experimental research methods. The researcher's design uses a Posttest Only Control Design, where this design has two groups that are each selected by considering the average student. The test used is in the form of multiple-choice questions that are answered by students after completing providing the material. The experimental class was treated and the control class was not treated. So the observation or measurement of the two class groups is only carried out after the treatment for the experimental group is completed. Posttests for group members are carried out at the same time. The test used was in the form of multiple-choice questions totaling ten questions, where the questions that had been made were tested in class XI IPS as a trial class that had studied the material in class X before in order to find out the validity of the questions and the reliability of the questions. This design can be described as follows.

The research will be conducted in September 2023. The place of research was conducted at MA Muhammadiyah Pekanbaru. The subjects in this study are 33 students. The sample used in the study is (Kamza et al , 2021) a purposive sampling technique with certain considerations. The consideration made to determine the control and experimental classes is to determine the average daily test scores of students in comparison with these two classes have almost the same average score of Economics learning outcomes. With each class totaling 16 students for class X-1 of the Experiment class and 17 students of class X-2 of the control class. This research instrument is in the form of a test that has been tested for reliability and reliability to find out that the questions that will be done by students have valid and reliable results. With the data analysis technique used, namely the normality test is used to find out whether the data that has been obtained is normal or not. In this study, the normality test of a data uses the Spiro-Wilk Test using SPSS V25 and abnormal results are obtained. Soin the next study, it is

necessary to use a nonparametric test as an analysis test to find out the research hypothesis using the (Ismail, 2018) Mann-Whitney U T-test. Mann-Whitney Test ( Birahi dkk., 2022). This test is also an alternative to the t-test if abnormally distributed data is obtained (Sugiono, 2017).

**Results and Discussion**

In this study, the results are obtained in the form of descriptive data or values presented in the following table:

**Table 1.** Desain posttest only control design

Group	Control	Experiment
Treatment	-	X
Posttest Results	70	30
	30	80
	80	70
	40	80
	70	70
	90	80
	80	70
	80	90
	90	90
	90	80
	70	90
	80	80
	90	80
	80	50
	50	90
40	90	
90		

From the picture above are the scores that students have obtained in the control class and the experimental class after participating in the learning and implementation of the test that has been given. Furthermore, in the data description, each variable can then be seen from the mean, average, maximum-minimum, and standard deviation values. Descriptive data using spss Ver.25.

**Table 2.** Descriptive statistical table

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
control	17	30	90	71.76	19.760
experiment	16	30	90	76.25	16.279
N that is valid (listwise)	16				

From the table above, it shows that the mean value for the control class is 71.76, the standard deviation value is 19.760, the minimum value is 30, the maximum value is 90, while for the experimental class the mean is 76.25, the standard deviation value is 16.279, the minimum value is 30 and the maximum value is 90. This analysis is used to find out if the data studied is spreading normally. The normality test uses the shapiro wilt method with a significant ( $\alpha$ ) = 0.05 so that Ha = if the results obtained > 0.05 then the data is normally distributed while H0 = if the results obtained <0.05 then the data is not normally distributed as the results of the normality test are as follows:

Table 3. Shapiro-Wilk table

		Normality test					
		Kolmogorov-Smirnova			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
value	group	s			s		
	Control group	.250	17	.006	.823	17	.004
	Experimental group	.279	16	.002	.770	16	.001

a. Lilliefors Significance Correction

From the table above, it can be seen that the significance value of the learning outcome data in the control class is 0.004 and the experimental class is 0.001. Therefore, it can be concluded that  $H_a$  is rejected and  $H_0$  is accepted, based on the results of both normality tests using the shapiro-wilk test show that the results are smaller than the significance value, which is  $0.004 < 0.05$  for the control class and  $0.001 < 0.05$  for the experimental class. This means that from the data above, it can be concluded that the data obtained is not normally distributed.

Hypothesis testing on student learning outcome data was carried out using the Mann-Whitney (U) test with an average difference to find out whether variable X, namely the LSQ strategy, has an effect on variable Y, namely learning outcomes. This can be seen from the following table:

Table 4. Mann-Whitney test results table

Statistical Test <sup>a</sup>	
	value
Mann-Whitney U	122.000
Wilcoxon W	275.000
Z	-.523
Asim. Sig. (2-tail)	.601
Sig. Exact [2*(1-tailed Sig.)]	.631b

a. Grouping Variables: Groups

b. Uncorrected for bonding.

Based on the Mann-Whitney table above, the result is 0.601. With a risk level of  $\alpha = 0.05$ . This means that the data obtained has a value greater than the significance, which is  $0.601 > 0.05$ . In accordance with the applicable provisions that (Utomo Handayani, 2017).

$H_a$  = if the value of sig (2-tailed)  $< 0.05$ , then there is a significant difference between the learning outcomes in the control class and the experiment.

$H_0$  = if the sig value (2-tailed) is  $> 0.05$ , then there is no significant difference between the learning outcomes in the control and experimental classes.

**Student learning outcomes after using the LSQ strategy**

Based on research that has been conducted in class X-1 MA Muhammadiyah Pekanbaru. The researcher manages the data that has been obtained from the answer sheets of questions or tests used to determine the learning outcomes of students during the learning process by answering multiple-choice questions that have been given by the researcher. The results of the posttest of the learning outcomes of Economics students after the implementation of the LSQ strategy were at least 30, maximum 90, average score of 76.25 and standard deviation of 16.279, while in the control class that was not treated, a minimum score of 30 and a maximum score of 90, an average score of 71.76 and a standard deviation of 19.76 were obtained. It can be concluded that in the learning outcomes of students after using the LSQ strategy, a higher average score was obtained with a score of 76.25 with a control class of 71.76.

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The normality test that has been carried out on the student learning outcome data at the significant level used is 0.05. Based on data processing, data with a value of 0.004 for the control class and 0.001 for the experimental class were obtained. This means that the value of the processed data is greater than the significant values ( $0.004 < 0.05$ ) and ( $0.001 < 0.05$ ). Thus, the values that have been obtained on the normality test show that the tested data is abnormally distributed. The Mann-Whitney test was used to test the significance of the comparative hypothesis of two independent samples when the data were in ordinal form. The processing of hypothesis data carried out using (Sugiono, 2017) the Mann-Whitney test obtained a value of 0.601. This means that the value obtained is greater than  $0.601 > 0.05$ . Based on the above research, the results obtained in the form of not having influencers or strategies used are better than the LSQ strategy in the research conducted. This shows that the study can conclude that there is no significant average difference between the control class and the experimental class. Thus,  $H_a$  is rejected and  $H_0$  is accepted. This means that there is no significant influence on learning outcomes between students who apply LSQ learning strategies and students who apply conventional learning methods.

### Conclusion

The learning outcomes of students after the implementation of the Learning Start With A Question learning strategy in the Economics class X-1 MA Muhammadiyah Pekanbaru had a higher average of 76.25 while in the Economics class X-2 MA Muhammadiyah Pekanbaru did not use the Learning Start With A Question strategy so that the average was 71.76.

The results of the data obtained in this study showed that the processed data was not normally distributed where  $0.004 < 0.05$  for the control class and  $0.001 < 0.05$  for the experimental class. In the hypothesis test, the U Mann-Whitney test was used by obtaining a sign result of  $0.601 > 0.05$  so that  $H_a$  was rejected and  $H_0$  was accepted. This means that there is no significant influence on learning outcomes between students who apply LSQ learning strategies and students who apply conventional learning methods.

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