

ARIAS Learning Model (Assurance, Relevance, Interest, Assessment, Satisfaction) And Their Effect on Madrasah Tsanawiyah Student Creativity

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ABSTRACT

The purpose of this study is to determine students' creativity ability using model ARIAS. This study uses a quantitative study with an experimental method, with the entire population of students of class VIII MTs Sabilul Chalim Leuwimunding, as many as 136 students. The sample in this study using cluster random sampling was divided into two groups: VIIC class as the control class with a total of 34, and VIID class as a class experiment with several students as many as 34 students—research analysis using linear regression. The results showed that students' response to learning by using a model of ARIAS has a strong category with an average of 75.6%, and the creativity of students with models categorized ARIAS as more than enough for the average post-test score of 75.26. In contrast, students' creativity using conventional methods (lectures) was categorized less, with an average of 62.97, and the third use of the learning model ARIAS positively affected students' creativity by 20.7%.

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1. INTRODUCTION

Students often think of mathematics as one of the most challenging and even feared subjects, so they are lazy to learn it. Mathematics lessons also require reasoning and understanding to solve a problem. The emphasis on education is more on rote memorization, and finding the correct answer to the questions given by the creative thinking process is rarely trained [1]. Thus the development of children's mental-intellectual abilities as a whole is ignored.

Departing from the problems above, we should direct mathematics learning to educate students to think mathematically so that students understand in-depth the

mathematical concepts they are learning. Developing students' creativity will be an essential part of learning mathematics in the development of mathematics like this [2], [3].

Based on the results of observations made at MTs Sabilul Chalim Leuwimunding class VIII, in the learning process, many students think that mathematics is complicated, even scary. Students are still influenced by other friends when asked to give opinions. Students still have difficulty when asked to give examples. Students still look stiff when asked to explain their ideas in front of their friends. Students are still reluctant to try when asked to work on questions related to the presented material. When asked to give an opinion, students are still reluctant because they feel that the opinion to be conveyed is wrong. Students still rarely ask questions or express their opinions.

With the above problems and the assumption of the importance of in-depth understanding of mathematical concepts and the development of creativity, especially in mathematics subjects, researchers need to find the right solution to solve these problems. One of them is the use of appropriate and efficient learning models. The learning model can be used as a pattern of choice, meaning that teachers may choose an appropriate and efficient learning model to achieve their educational goals [4]–[6].

The learning model used by the teacher can affect student learning outcomes. The problem now is that teachers are faced with problems related to the learning process [7]–[12]. Teachers must be able to overcome obstacles that arise directly related to the learning process in the classroom so that student learning outcomes are good and increase [13]–[19]. The results of observations that have been made at MTs Sabilul Chalim Leuwimunding related to the learning model, namely the less precise learning model used by the teacher so that in the learning process, the dominance of the teacher is very high, not using varied methods. Students easily forget to remember the material that the teacher has delivered.

Based on the problems above, the researchers are interested in studying further whether there is an effect of using the ARIAS learning model on students' creativity. Therefore, on this occasion, the researcher raised the title of the research, "The Influence of the ARIAS Learning Model (Assurance, Relevance, Interest, Assessment, Satisfaction) on Student Creativity".

2. METHOD

The research method used in this research is an experimental method and a quantitative approach. Data were collected using a sampling technique. The design used is The Posttest-Only Control Design. This research is more directed to determine whether there is an influence on the application of the ARIAS learning model to students' creativity. The Posttest-Only Control Design, in this design, two groups are given treatment (X), and the other group is not given treatment as a control to treatment (C). The group that was given the treatment was called the experimental group, and the group that was not given the treatment was called the control group. Then both groups were given a final test (posttest).

The target population in this study were all students of MTs Sabilul Chalim Leuwimunding, while the accessible population was class VIII of MTs Sabilul Chalim Leuwimunding, which consisted of four classes with a total of 136 students. The sample in this study was determined using the Cluster Random Sampling technique. Cluster random Sampling is a way of taking samples from members of the population by using a random method without considering the strata (levels) in the population members [20], [21]. The researcher used the lottery method to determine the sample. Sampling by lottery is like people doing a lottery. From the results of the draw, class VIIIA was selected as the experimental class with 35 students, class VIIC as the control class with 34 students, and class VIID as the experimental class with 34 students. Data collection techniques used to collect data are tests and questionnaires.

The use of the test aims to determine the creativity of students. The test used in this study was a formative test in the form of a description test with a total of 8 items. In this instrument, the author performs a test once, namely the final test (posttest). At the same time, the questionnaire given to students aims to determine student responses to learning using the ARIAS Model.

3. RESULTS AND DISCUSSION

After the data is obtained from the results of research in the field using tests and questionnaires, data processing is carried out, and then the results of statistical calculations are obtained. Data analysis begins with a prerequisite analysis test to analyze each sample that comes from a normally distributed population or not. The normality test results show that the data is usually distributed because the significance value is more significant than 0.05, which is 0.200. Furthermore, the homogeneity test was carried out with the help of

SPSS 20 software with a significance level of 0.05, while the homogeneity test results obtained a significance value of 0.423. Because the significance is more significant than 0.05, it can be concluded that the data has the same variance or is homogeneous.

Table 1. Linear Regression Analysis

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	50,500	4,590		11,002	,000
	Model ARIAS	12,471	2,903	,467	4,296	,000

a. Dependent Variable: Creativity

Based on the research results obtained and presented in table 1 above, the application of the ARIAS learning model affects the creativity of class VIIID students at MTs Sabilul Chalim Leuwimunding. This can be seen from the simple regression equation is $50.500 + 12.471X$. This means that the constant is 50.500, meaning that if the ARIAS learning model is 0, then the student's creativity (Y) is 50.500. While the regression coefficient of the ARIAS learning model variable (X) is 12.471, it means that if the ARIAS learning model has increased by one time, then the students' creativity ability (Y) will increase by 12.471. The count value in the ARIAS learning model is 4.296. At degrees of freedom $(df) = N - 2 = 68 - 2 = 66$, the table value at the 95% confidence level (significance 5%) is 1.996. This shows the value of count > table ($4.296 > 1.996$). Because of the value of count > table, H_0 is rejected, and H_a is accepted. So it can be concluded that there is an effect of the ARIAS learning model on students' creativity.

Table 2. Coefficient of Determination Test

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,467 ^a	,219	,207	11,969

a. Predictors: (Constant), Class

The ARIAS learning model variable and student creativity variable have a significant relationship. This can be seen in Table 2, the significance value of the two variables, which is smaller than 0.05, which is $0.000 < 0.05$. From the results of testing the coefficient of determination of 20.7%, it can be interpreted that the ARIAS learning model

contributes to student creativity by 20.7%, and other factors determine the remaining 79.3%.

Table 3. The results of the ARIAS model learning questionnaire

Aspect	Percentage	Category
Assurance	75.68%	strong
Relevance	79,52%	strong
Interest	76,37%	strong
Assessment	75,68%	strong
Satisfaction	77,22%	strong

Based on the results of the questionnaire distributed to students, as shown in Table 3, in general, students' responses to applying the ARIAS learning model were positive. So it can be concluded that students well received the application of the ARIAS learning model. The descriptive statistics explain that the relevant aspect of applying the ARIAS learning model has strong criteria with the highest percentage. This is because students feel that the learning activities they participate in have value and are helpful and valuable for their lives. Because students will be motivated to learn something if what they learn is related to their lives and has a clear purpose. Something that has a purposeful direction, clear goals, benefits and is relevant to life will encourage individuals to achieve these goals [22], [23]. With clear goals, they will know what abilities they will have and what experience they will gain.

Meanwhile, in assurance and assessment, the percentage is the lowest but has strong criteria. This is due to an attitude of self-confidence or belief that it will succeed in encouraging individuals to achieve something. Students are encouraged to do activities as well as possible. This follows Prayitno's opinion that students with a confident attitude and a positive assessment tend to display exemplary achievements continuously. Furthermore, the assessment aspect evaluates students to see how far their abilities have been achieved; this aspect can encourage students to learn better. In line with that, that assessment is a tool to monitor student progress as individuals and as a group, record what students have achieved, and assist students in learning [24]–[26].

The results of statistical tests showed differences in students' mathematics learning outcomes between students who took mathematics lessons using the ARIAS learning model and those who took mathematics lessons using the lecture method. The difference is that the mathematics learning outcomes of students who take mathematics lessons using the ARIAS learning model are better than those who take mathematics lessons using the

lecture method. This difference can be seen in the average value of the experimental class, which is 75.44, while the average value of the control class is 62.97.

The conclusion of the final result shows that there is a positive effect of the application of the ARIAS learning model on creativity. This is to Rahman and Amri's statement that the role of ARIAS learning is to stimulate and train students' creative abilities. One of the benefits of learning with the ARIAS model can be self-development and creativity. The more students have expertise and creativity, the better a person's quality will be.

4. CONCLUSION

Based on the results of the formulation of data processing and data analysis that researchers have carried out, it can be concluded: Student response to learning using the ARIAS model is positive. This is usually seen from the results of the criteria that five aspects have a strong category, where the first aspect is worth 75.68%, the second aspect is 79.05%, the third aspect is 76.37%, the fourth aspect is 75.68%, and the fifth aspect is worth 77.22%. So it can be concluded that the use of the ARIAS learning model is strong. The ARIAS learning model affects the creativity of class VIID students at MTs Sabilul Chalim Leuwimunding. This can be seen from the simple regression equation $= 50.500 + 12.471X$. This means that the constant is 50.500, meaning that if the ARIAS learning model is 0, then the student's creativity (Y) is 50.500. While the regression coefficient of the ARIAS learning model variable (X) is 12.471, it means that if the ARIAS learning model has increased by one time, then the students' creativity ability (Y) will increase by 12.471. The count value in the ARIAS learning model is 4.296. At degrees of freedom (df) $= N - 2 = 68 - 2 = 66$, the table value at the 95% confidence level (significance 5%) is 1.996. This shows the value of count $>$ table ($4.296 > 1.996$). Because of the value of count $>$ table, H_0 is rejected, and H_a is accepted. So it can be concluded that the ARIAS learning model influences students' creativity. The ARIAS learning model has an effect of 20.7% with low criteria, and other factors determine the remaining 79.3%.

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