



THE INFLUENCE OF GENDER & INTELLECTUALLY REPETITION (AIR) AUDITORY LEARNING MODELS ON STUDENT LEARNING OUTCOMES

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Article history	Abstract
<p>Keywords: Cooperative Learning, Learning Outcome, Equation</p>	<p><i>In this study, we want to know the effect of the Auditory Intellectual Repetition (AIR) learning model. In this study using a quantitative approach, with a Pre-Experimental Design research design with the type of One-Group Pretest-Posttest Design, where student learning outcomes will be reviewed in terms of student pre-test and post-test scores. Based on the analysis of research data, the average pre-test student learning outcomes are 40.94 and the average post-test student learning outcomes are 83.28. From these data, an analysis of Paired Sample t-Test data was performed, and the value of the calculated $t \leq t$-table ($7.758 < 8.281$) was calculated using the Sig. (2-tailed) of 0,000 then H_0 is accepted. The conclusions of this study are (1) Student learning outcomes before the treatment is lacking, (2) Student learning outcomes after treatment is good, (3) There is a positive influence from the use of the Auditory Intellectual Repetition (AIR) learning model.</i></p>

Introduction

Education in addition to seeking knowledge is also useful for increasing quality resources that are able to compete in all fields, especially in education (Maulyda, Sukoriyanto, Erfan, Hidayati, & Umar, 2020). By improving the quality of education it will be easier to improve the quality of learning Mathematics is one of the subjects of primary concern, and in reality, mathematics is still a difficult subject to learn by students is even a scary lesson for most students (Erfan et.al, 2020);(Jay, Rose, & Simmons, 2018). Studying mathematics is a means of scientific thinking and logical

thinking, and has an important role in improving the quality of human resources. As stated by Mante-estacio, Dumalay, & Rentillo (2018) that the desired learning of mathematics is mathematics for children in general are subjects that are not liked, if not as hated subjects. Thus the mathematics teacher in particular must be able to convince that mathematics is an easy subject and a necessity of life, it must be used in such a way as to be truly beneficial for life and it must be implanted in the minds of students from the beginning (Erdogan, Yazlik, & Erdik, 2014);(Retno, Junaedi, & Hidayah, 2018).

Based on preliminary observations in class VII SMP PGRI 2 Pagu, one of the subjects considered difficult for students is mathematics, where that perception is the student's problem, which results in students having lower learning outcomes than the KKM 75 standard. According to Cohn & Milne (2018) explain the reasons students find math difficult and frightening are: First mathematics is a tangle of interrelated concepts between one another Second; mathematics is an abstract lesson, we know that to understand an abstract is not an easy job for most students, third; learning mathematics requires an understanding that is far more difficult for students to master than remembering or doing algorithmic activities (Somantri & Apriliani, 2018);(Maulyda et.al, 2020).

Many factors must be considered in learning mathematics, including the willingness, ability, and certain intelligence, teacher readiness, student readiness, curriculum, and methods of presentation (Maulyda, Annizar, Hidayati, & Mukhlis, 2020). Factors that are not less important are the factors of the sex of students (*gender*) (Rathee, 2014). Gender differences naturally cause differences in physiology and affect psychological differences in learning. One type of learning koo-is *Auditory Intellectually Repetition* (AIR) (Agoestanto, Yuda, Priyanto, & Eko, 2018). *Auditory Intellectually Repetition* (AIR) emphasizes learning in the form of capturing the material, describing and explaining according to the student's line of thought, followed by drawing actual conclusions (Agustiana, Putra, & Farida, 2018).

In this study, researchers formulated the following hypotheses: (1) Class VIII student learning outcomes in SMP PGRI 2 Pagu on one-variable linear equation material before using the Auditory Intellectually Repetition (AIR) learning model Less, (2) Class student learning outcomes VIII at PGRI 2 Middle School Pagu on one variable variable linear equations before using the Auditory Intellectually Repetition (AIR) learning model, (3) The influence of the learning model on the learning outcomes of VIII students at SMP PGRI 2 Pagu on the one variable linear equations material.

In connection with the description above, the researcher examines it through quantitative research under the heading "Effect Of Gender And Auditory Intellectually

Repetition (Air) Learning Model For Student Learning Results".

Research Method

This study examines the improvement of mathematics learning outcomes through the learning model of Auditory Intellectual Repetition (AIR) in grade VIII students of SMP PGRI 2 Pagu. The research was carried out at PGRI 2 Junior High School in Pagu in August 2018, odd semester of the 2018/2019 school year. The research subjects were students of class VIII-A SMP PGRI 2 Pagu in the 2018/2019 academic year totaling 32 people.

The focus of this research is to intend to find out the influence of the Auditory Intellectual Repetition (AIR) learning model on student learning outcomes. In addition, the data in this study are in the form of numbers obtained from the results of student observations and tests. In this case the instrument used by researchers is in the form of tests. The test is given twice, namely at the beginning of the meeting or before being given a pre-test and at the end of the meeting after being treated with the Auditory Intellectual Repetition (AIR) learning model (post-test).

There are 2 data analysis techniques used by researchers, namely descriptive data analysis, normality test and inferential data analysis. The three data analysis techniques were operationalized as follows (Creswell, 2012):

(1) Descriptive analysis was carried out to determine the high and low quality of the two variables, namely the learning model and student learning outcomes of the final score. Furthermore, an average of all student's learning achievement test scores will be calculated. The results of the score calculation are then classified with the following conditions:

Table 1. Classification Score Student

Criteria	Score	Category
1	≥ 75	Good
2	< 75	Bad

Source: (Minimum Value Minimum SMP PGRI 2 Pagu)

(2) Normality test is conducted to find out whether the data is normally distributed or not; (3) Analysis of inferential data. In this study using 2 data analysis namely one sample T-Test (One Sample T-Test) and Paired Sample t-Test. Both types of data analysis are used to

test the hypotheses that have been formulated. One sample T-Test analysis is used to test an average value of a single sample with a reference, Paired t-test analysis or often called Paired sample t-test is used to look for the influence of the learning model Auditory Intellectual Repetition (AIR) on student learning outcomes.

Result & Discussion

Before conducting a statistical test, the normality and homogeneity tests are first performed to find out whether the mathematical understanding data sample of students is normally distributed or not. According to the Kolmogorov Smirnov test on SPSS with a significant level $\alpha = 0.05$ shows that sig. student learning outcomes pre-test and post-test of 0.200, which means greater than 0.05 so that the sample data comes from populations that are normally distributed.

Student learning outcomes data using the Auditory Intellectual Repetition (AIR) learning model on the material of one variable linear equations is carried out over a predetermined period and through pre-test and post-test questions.

Table 2. Student Learning Outcomes Post-test and Post-Test

Criteria	Score	Category	Pre-test Result	Post-test Result
1	≥ 75	Good	0	32
2	< 75	Bad	32	0

Source: SPSS’s Data Analysis

From the table above it can be seen that there are still many pre-test results of students in grades VIII-A under the KKM. Whereas in the post-test results that many students who were in the category of less began to decrease and showed a significant increase in both male and female students. By calculating data using SPSS for windows version 21 obtained an average pre-test learning outcomes: 40.94 and post-test: 83.28.

Based on the calculation of data with a one-sample T-test (One-Sample Test) that is used to test the average value of a single sample with a reference from the post-test data on students obtained a t-test value of 7.758 with a free degree of 31 (n- 1) with Sig. (2-tailed) of 0,000. T-table value with a degree of freedom 31 with a significance level of 0.05 then H0 is accepted for the first hypothesis.

The Paired Sample t-Test is used to determine whether there is an influence of the Auditory Intellectual Repetition (AIR) learning model on student learning outcomes. Based on the results of data analysis using the Paired Sample t-Test, the average value of the pre-test results was 24.53 (less), while the average value of the post-test results reached 82.94 (good) and the difference in the average value of pre-test and post-test is 58.41. While the price of t-count is -42,541 but due to the two-party test means that the absolute price applies. So the value (-) is not used (Sugiyono, dalam Komang, Dwianjani, & Candiasa, 2018). Then from the results of the analysis of student pre-test and post-test data by using SPSS for windows version 21 obtained sig values. (2-tailed) of 0.00 which means that the value of sig. (2-tailed), then the decision of the third hypothesis test is Ho rejected and H1 accepted.

Conclusion

Based on the results of the research that has been described can be obtained the following conclusions: (1) Student learning outcomes after using the learning model Auditory Intellectual Repetition (AIR) has increased in both categories; (2) The influence of the Auditory Intellectual Repetition (AIR) learning model on student learning outcomes in the material of linear equations of one class variable in the VIII SMP PGRI 2 Pagu in 2018/2019.

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