

## THE EFFECT OF AUDITORY INTELLECTUALLY REPETITION (AIR) LEARNING MODEL ON LEARNING OUTCOMES OF STUDENTS CLASS X OFFICE MANAGEMENT

**Desita Ramadani<sup>1</sup>, Siti Sri Wulandari<sup>2</sup>**

<sup>1,2</sup> Faculty of Economics and Business, State University of Surabaya  
email: desita.19008@mhs.unesa.ac.id

### ABSTRACT

This research is motivated by the large number of student learning outcomes in the Basic - Basic Office Management and Business Services subjects which have not yet achieved the completeness score given by the teacher teaching these subjects. In addition, after conducting preliminary studies and observations at SMKN 1 Lamongan in class X MP 1 and 2 they tend to be passive and the teacher-centered learning model. Thus, there is a need for learning innovation to make students more active in teaching and learning activities. The purpose of this research is to determine whether there is an influence on student learning outcomes by using the Auditory, Intellectually Repetition (AIR) learning model in the Basics of Office Management and Business Services in class X MP 1 and 2 at SMKN 1 Lamongan. This type of research uses experimental research. The subjects of this study were students of class X MP 1 as the control class, and students of class X MP 2 as the experimental class. The results showed that  $H_0$  was rejected and  $H_a$  was accepted and the average learning outcomes of the experimental class are higher than the control class. So it can be concluded that there is an influence on student learning outcomes by using the Auditory, Intellectually Repetition (AIR) learning model and making students more active.

**Keywords:** *Basics of office management and business services, auditory intellectually repetition (AIR), learning outcomes*

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### INTRODUCTION

Education is an important component in human life, as well as what is recorded in the 1945 Constitution that education plays an important role in educating the life of the nation. According to Susandi & Widyawati (2017), education is an effort to prepare humans for their future roles. through mentoring, teaching, and training activities. Therefore, education is more important than self-improvement for a better future, as stated by Winarso (2014) education is a learning process through which students actively develop their potential and skills. Several factors contribute

to the success of education, one of which is teaching and learning in the classroom. Learning is an approach to changing individual conduct in acquiring information and abilities with the goal that they become better in the general climate methodically (Dwi Wahyuningtyas & Sri Wulandari, 2020). Learning is a course of cooperation among understudies and educators and learning resources in a learning climate. Learning is the help given by the educator the point that the most widely recognized approach to acquiring information and capacities, abilities to dominate and propensities, as well as creating viewpoints and convictions in understudies can happen. Generally, learning is a cycle to assist understudies with learning great (Djamaluddin & Wardana, 2019).

According to Miarso (in Nasution, 2017) learning is an attempt to deliberately deal with the environment so that individuals structure themselves strictly in certain circumstances. So the embodiment of learning is every effort made by the teacher to evoke experiences that develop in students. It is in many cases observed that the educating and educational experience is focused on the educator. Students cannot participate actively in class as a result of teacher-centered learning, and they are not given the opportunity to express opinions and construct their own knowledge (Fatmawati & Susanah, 2014). Teacher strategies that support improving learning outcomes must have an impact on teacher creativity in determining aspects that can arouse enthusiasm for learning because teachers who are not creative in the learning process will affect student learning outcomes (Rambe & Wirdati, 2022). This is an important aspect of learning outcomes because the strategies used by the teacher to achieve learning objectives are reflected in learning outcomes, which show the success or failure of students learning. Based on preliminary studies and observations at SMK Negeri 1 Lamongan Office Management class or commonly abbreviated as MP, in class X MP 1 and X MP 2 they tend to be passive because learning is teacher-centered, from interviews with several students they said that if the teacher in the subject tends to use a monotonous learning model because it uses a conventional learning model that is teacher-centered, has never done cooperative learning during the Basics of Office Management and Business Services material, makes students easily bored and does not absorb the material presented so that it affects students' understanding of the material and student learning outcomes.

In fact, the facilities and infrastructure at SMK Negeri 1 Lamongan are also very adequate if cooperative learning is implemented. Daily test scores for office management business process material and business services with the criteria of achieving a score of 80, out of 72 students there were 37 students (49%) getting an unsatisfactory score that is below 80 and 35 students (51%) getting a score  $\geq 80$ , it can be concluded that the achievement scores of students were still low because almost half of the total number of students still scored below or equal to 75. So the researchers were interested in carrying out research at SMK Negeri 1 Lamongan with preliminary studies and observations. The learning model, according to Joyce & Weil (in Khoerunnisa et al., 2020), is an arrangement or example that can be used

to create a curriculum (long-term learning plans), plan learning materials, direct classrooms, or guide others in learning techniques. Teachers can choose the best and effective learning models to help them achieve their educational goals.

Teachers function as learning resources, models and determinants of learning, and assessors of student learning progress to make learning more effective and efficient so that students can achieve their own learning goals (Puspita Husada et al., 2020). Learning model is a plan or pattern that we can use to design classrooms. face-to-face teaching patterns and selecting learning materials or devices such as books, instructional media, and curriculum (Fitria et al., 2018). From some of these opinions, it can be concluded that the learning model plays an important role in the teaching and learning process. One approach that can be taken is the Auditory, Intellectually, Repetition (AIR) learning model. Derived from the word "auditory" which means learning must begin with listening, listening, speaking, presentations, arguments, expressing opinions, and responding. Intellectually refers to the need to use one's thinking abilities. Last, but not least is Repetition, repetition in the context of learning. The three parts of the Auditory Intellectually Repetition learning model are coordinated so that students and teachers together can make the classroom atmosphere more useful or conducive. Learning is packaged to be more focused so that it is not boring and can foster enthusiasm or enthusiasm for student learning (Dewi & Kristiantari, 2020).

The AIR learning model is a cooperative learning educational model that uses a constructivist approach which emphasizes that learning must use all the sensory equipment possessed by students. In line with the opinion Zaenuri et al. (2021), one model of cooperative learning is Auditory Intellectually Repetition (AIR). The AIR learning model includes aspects of listening (Auditory), thinking (Intellectually), and Repetition (Repetition). According to Rachmawati & Rosy (2021) Cooperative learning is a learning model where students are expected to be able to work together and exchange ideas or thoughts effectively in groups to achieve the goals of the discoveries that have just been made. While the opinion of Widyaningsih & Puspasari (2021) cooperative learning is a learning method that requires students' consideration to work together in achieving common goals. Also agree with Kamil & Kashardi (2020), that the AIR learning model is a type of cooperative learning which emphasizes three aspects including Auditory (listening), Intellectually (thinking), and Repetition (repetition). The Auditory Intellectually Repetition (AIR) learning model includes 3 aspects, namely: Auditory (listening), Intellectually (thinking), and Repetition (repetition) (Sumarni et al., 2016). According to Pratiwi & Puspasari (2021) learning outcomes are obtained when students have obtained achievements, experiences from educational experiences.

The purpose of this study is to find out whether there are differences in student learning outcomes by using the Auditory Intellectually Repetition (AIR) learning model in the Basics of Office Management and Business Services subjects, digital-based document element class class X MP at SMK Negeri 1 Lamongan, to find out

whether the learning model has an effect on student learning outcomes, and also to find out how the learning model is applied.

## RESEARCH METHOD

This type of research uses experimental research. The design of this experimental research is Quasi Experimental Design, the type of quasi experimental design used is Nonequivalent Control Group Design. In accordance with this design, the following is an overview of the Nonequivalent Control Group design.

Table 1.

Research Design			
Class	Pretest	Treatment	Posttest
Experiment	O <sub>1</sub>	X	O <sub>2</sub>
Control	O <sub>3</sub>		O <sub>4</sub>

Source: Sugiyono (2017:79)

Information:

- X : Treatment
- O<sub>1</sub> : Pretest score in the experiment class
- O<sub>2</sub> : Posttest score in the experiment class
- O<sub>3</sub> : Pretest score in the control class
- O<sub>4</sub> : Posttest score in the control class

The Nonequivalent Control Group Design experimental research design is started by giving a pretest to students to determine the initial abilities of students in the experimental class and control class before being given treatment. Furthermore, to find out the ability of students in the experimental class and control class after being given treatment, they were given a posttest. The subjects of this study were 36 students in class X MP 1 as the control class, and 35 students in class X MP 2 as the experimental class. Data collection techniques used documentation, observation, tests and research instruments in the form of pretest and posttest learning outcomes test sheets. The population of this study were all students of class X MP in the Office Management and Business Services expertise program at SMK Negeri 1 Lamongan, totaling 71 students. The sample in this study used all classes, namely two classes. Class X MP 2 as a class that uses the Auditory Intellectually Repetition (AIR) learning model and class X MP 1 as a control class with a conventional learning model. The operational definitions of the variables in this study are as follows:

### 1. Auditory Intellectually Repetition (AIR) Learning Model

The Auditory Intellectually Repetition (AIR) Learning Model is a cooperative learning model that uses a problem-based and thinking approach. Auditory in the sense of listening to the material presented. Intellectually has the meaning of thinking and concluding a meaning, and Repetition which is interpreted by repeating the material that has been conveyed. This learning model begins with the formation of groups, where the group must listen and pay attention to the material presented by the teacher, then each group discusses the material that has been

studied and presents it in front of the class and gets questions from other students. While the other groups also think about the answers to these questions, if all groups have finished the presentation, the teacher gives individual assignments to repeat the material that has been studied.

## 2. Learning Outcomes

Learning outcomes are the abilities that students acquire in understanding the material when students undergo teaching and learning activities that include cognitive understanding, namely the ability to think.

## 3. Fundamentals of Office Management and Business Services

Fundamentals of Office Management and Business Services is one of the subjects taught in class X in the independent curriculum. One of the elements contained in this subject is element 5 which discusses digital-based documents, some of the material presented in element 5 contains the meaning of office documents, types of office documents, procedures for handling office documents. By studying this subject, students are expected to be able to understand digital documents, from the meaning of documents, to document handling. This is important and very useful in the world of work later, because it makes it easier to be in an office or other organization.

The instrument used in this research is the learning achievement test sheet. The instrument data in this study was validated first by expert lecturers to find out the Material, Construction, and Language Aspects used in the questions can be used and are in accordance with Cognitive Aspects C3-C6 with the subject Basic - Basic Office Management and Business Services Digital-Based Document material with 30 multiple choice questions. After that, it was tested in classes that had taken Basic Office Management and Business Services subjects, namely class XI MP 1 with a total of 35 students to measure the validity of the questions, the reliability of the questions, the level of difficulty and the differentiating power of the questions to be used as pretest and posttest questions. The validity of the instrument can be seen by comparing the value of  $r_{\text{count}} > r_{\text{table}}$  with a significance level of 0.05. To obtain  $r_{\text{count}}$ , the researcher used the SPSS for windows program by looking at the Correlations table. After being tested, it was analyzed using homogeneity test, normality test, gain score test and hypothesis test.

## RESULTS AND DISCUSSION

### Result

The researcher conducted a validation test which was carried out by an expert lecturer, Dr. Siti Sri Wulandari S.Pd., M.Pd to find out the Material, Construction, and Language Aspects used in the questions can be used and are in accordance with Cognitive Aspects C3-C6. After that, the instrument was tested on class XI MP 1 who had already taken the Basics of Office Management and Business Services lessons in the form of a test with a total of 30 multiple choice questions to determine the level of validity, reliability, level of difficulty and differentiability. It is known that the results of the Validity test show that 20 questions with valid information are used

for the pretest and posttest questions, and 10 questions with invalid information. For validity criteria, 7 questions with high criteria, 8 questions with sufficient criteria, 10 questions with low criteria and 5 questions with very low criteria. After that the reliability test, based on the results of the reliability test, shows that the Cronbach's Alpha value is 0.862 with very high reliability coefficient interpretation criteria, as follows.

Table 2.

Reliability Statistics	
Cronbach's Alpha	Cronbach's Alpha
.862	20

Source: Processed by Researchers (2023)

As for the test results for the difficulty level of the items, 8 questions were found with easy criteria, 19 questions with moderate criteria, 3 questions with difficult criteria. Based on the results of the differential power test, there were 19 questions with good criteria, 9 questions with sufficient criteria, 2 questions with bad criteria. After obtaining valid questions, the researcher gave pretest questions to both classes, namely class X MP 1 and MP 2 for the Basics of Office Management and Business Services subject to Digital-Based Documents. The purpose of giving a pretest is so that researchers know the students' initial abilities before being given treatment. After giving the pretest, each class is given treatment where class X MP 1 as the control class will use the conventional model with the powerpoint assisted lecture method and class X MP 2 as the experimental class is given the Auditory Intellectually Repetition (AIR) learning model. After data collection, the normality test, homogeneity test, gain score test and hypothesis test were carried out.

The results of the homogeneity test were carried out with the help of SPSS as follows.

Table 3.

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Student Learning Outcomes	Based on Mean	.058	1	69	.811
	Based on Median	.075	1	69	.785
	Based on Median and with adjusted df	.075	1	68.941	.785
	Based on trimmed mean	.047	1	69	.830

Source: Processed by Researchers (2023)

In the table above it is stated that the pretest in both classes, namely the experimental class and the control class, is declared homogeneous because the significance value is 0.811, which means it is greater than the significance level, which is  $0.811 > 0.05$ . So it can be concluded that both data in the experimental class and the control class are homogeneous or the same. The second assumption so that

the data can be carried out by the t-test is that the data is normally distributed, for the normality test as follows.

Table 4.  
Tests of Normality

Class		Kolmogorov-Smirnov <sup>a</sup>		
Learning Outcomes	Experiment Pretest	.147	35	.055
	Posttest Experiment	.148	35	.051
	Pretest Control	.135	36	.094
	Posttest Control	.139	36	.076

Source: Processed by Researchers (2023)

Based on the pretest and posttest normality tests in the table, on the Kolmogorov-Smirnov significance value for the experimental class and control class it is known that the significance value is more than the significance level of 0.05. After the homogeneity and normality tests are carried out, the t-test is performed. The t-test was conducted to analyze differences in learning outcomes from the experimental class and the control class. The value of the pretest and posttest is used to determine whether there is an effect of the Auditory Intellectually Repetition (AIR) learning model on student learning outcomes. So the hypothesis proposed is as follows.

1. Alternative Hypothesis ( $H_a$ )

There is an influence of the Auditory Intellectually Repetition (AIR) learning model on student learning outcomes in the subject of Basic Office Management and Business Services for class X MP SMK Negeri 1 Lamongan.

2. Null/Zero Hypothesis ( $H_0$ )

There is no effect of the Auditory Intellectually Repetition (AIR) learning model on student learning outcomes in the subject of Basic Office Management and Business Services for class X MP SMK Negeri 1 Lamongan.

Table 5.  
T-test Result

		t	df	Sig. (2-tailed)
Posttest	Equal variances assumed	2.819	69	.006

Source: Processed by Researchers (2023)

In the table above, it can be seen that the tcount is 2,819 with a significance level of 0.006. While the ttable is searched using the distribution table at the 95% level of confidence where  $\alpha = 5\%$ , because the t test is two-sided with 69 degrees of freedom, so it can be seen that the value of  $t_{table} = 1.994$ . Based on the table it is known that the t-test is 0.006 0.05 and  $t_{count}$  is  $2.819 > t_{table}$  so it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted, which means that there is an influence on student

learning outcomes after applying the auditory intellectually repetition learning model.

For the difference between the pretest and posttest scores, the average for the experimental class was 67.71 and the average posttest score was 87.42 so that the difference from the average was 19.71. Whereas in the control class, the average pretest score was 70.55 and the posttest average score was 82.5, so the average difference was 11.94. The t-test results for the difference in posttest and pretest scores (Gain Score) from the experimental and control classes can be seen in the following table.

Table 6.  
Gain Score Test Result

		<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
Gain	Equal variances assumed	6.140	69	.000

Source: Processed by Researchers (2023)

In the table above, it can be seen that the  $t_{count}$  is 6,140 with a significance level of 0.000 and a df of 69. Meanwhile, the 2-tailed significance value is 0.000, which means  $<0.05$ . So it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted because t-test  $0.000 < 0.05$ , and  $6.140 > t_{table}$  (1.994) which means that there is an influence on student learning outcomes after applying the Auditory Intellectually Repetition Learning Model.

## Discussion

### *Differences in Learning Outcomes in Experimental Class and Control Class*

Based on the t-test data above, it can be concluded that there is a significant difference between student learning outcomes in the control class and the experimental class, which in the experimental class the gain score test produces an average value of 19.71 while the control class gets an average of 11,94. From these results it can be concluded that student learning outcomes using the Auditory Intellectually Repetition (AIR) learning model are different from student learning outcomes with conventional learning models. Learning outcomes are abilities that students acquire when they gain experience in their learning activities (Sudjana, 2016). This is in line with research conducted by Rustin et al. (2021) which states that there are differences in student learning outcomes between classes using the Auditory Intellectually Repetition (AIR) learning model and classes using conventional learning models, as well as classes using the learning model AIR makes students look more active and learning outcomes increase.

Research conducted by Kamil & Kashardi (2020) also states that there are significant differences where the AIR model gives better results compared to conventional, in terms of the average posttest score. This is also in line with research conducted by Agustiana et al. (2018) which states that there are differences between



class learning outcomes that use conventional learning models and classes that use the Auditory Intellectually Repetition (AIR) learning model. This is in line with research conducted by Martini et al. (2018) which states that there are differences in student learning outcomes in groups that use the AIR learning model and those that do not.

Research conducted by Elisa et al. (2019) also stated that there was an increase in student learning outcomes when using the AIR learning model. It can be concluded from the description above that learning outcomes using the AIR learning model can make students active in learning and improve learning outcomes, so that there are differences between classes using the AIR learning model and classes using conventional learning models where learning outcomes from classes using the AIR learning model higher.

### ***Application of the Auditory Intellectually Repetition (AIR) Learning Model in the Experimental Class***

The learning model applied in the experimental class is using the Auditory Intellectually Repetition (AIR) learning model where this learning model emphasizes three aspects, namely listening, thinking, and repeating with the following syntax:

1. Group formation
2. The teacher gives the material and the students pay attention
3. The group discusses the material and formulates the results of the discussion
4. Each group makes a presentation and questions and answers
5. Each group discusses to solve the problem
6. The teacher gives individual assignments to repeat the lessons they have passed

The application of the Auditory Intellectually Repetition (AIR) learning model makes students in class more active, because the presence of group activities makes students enthusiastic about expressing their opinions and being able to work together so that the learning process becomes effective. Supported by research conducted by Manurung & Sagita (2019) which states that the AIR learning model is able to improve learning outcomes supported by the results of the analysis of the observation sheet results, and the results of questionnaires which show an increase in the teaching and learning process and make it more active in learning.

According to Dewi & Kristiantari (2020) the three parts of the Auditory Intellectually Repetition learning model are coordinated so that students and teachers together can make the classroom atmosphere more useful or conducive. Learning is packaged to be more focused so that it is not boring and can foster enthusiasm or enthusiasm for student learning. According to Luthfiana & Wahyuni (2019), the Auditory, Intellectually, Repetition learning model is an effective and efficient way to make students more active. In line with research conducted by Hobri et al. (2021) states that it appears that discussion interactions in the experimental

class are more active than the control class. From the description above, it can be concluded that using the AIR learning model can make students active and efficient.

## CONCLUSION

It can be concluded that the application of the Auditory Intellectually Repetition (AIR) learning model in the experimental class makes students more active in learning activities and can improve student learning outcomes in digital-based document material in the Basics of Office Management and Business Services subject. Referring to the significant increase in learning outcomes in the experimental class with an average of 67.71 to 87.42 after the AIR learning model was applied, which means there was an increase with an average of 19.71. The novelty of the research is in subjects namely Fundamentals of Office Management and Business Services with digital-based document element.

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