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The Effect Of The Water Learning Model (Auditory, Intellectualy, Repetition) On The Critical Thinking Ability Of Class V Students

M. Muchsin Afriyadi[1]

[1] Universitas Islam Negeri Raden Intan Lampung, Indonesia; muchsinafriyadi@radenintan.ac.id

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Abstract

This study aims to determine the influence of the AIR (Auditory, Intellectual, Repetition) learning model on the critical thinking ability of class V students in MIN 6 South Lampung. This type of research is quantitative, while this research method is a quasi-experimental method (Quasi Experimental Desaign) with a post test only group design data collection technique.The research sample was determined as 2 classes with a total of 54 students determined by cluster random sampling. Data on science learning outcomes was collected by a critical thinking ability test in the form of description questions. The data were analyzed by the calculation of the normality test and the homogeneity test. The research hypothesis test uses the t-test. Based on the results of data analysis, it was shown that (tcal=3,364≥ ttable=1,675) then Ha was accepted, by obtaining the average score of the critical thinking ability of the experimental class students using the AIR (Auditory, Intellectual, Repetition) learning model of 86 and the average value of the critical thinking ability of the control class students using the PBL learning model of 72, this shows that the AIR learning model (Auditory, Intellectualy, Repetition) has an effect on the critical thinking ability of participants in class V MIN 6 South Lampung.

INTRODUCTION

The quality of education in Indonesia is the main focus of the government in the education sector. Regarding the quality of education in Indonesia, which is still considered low, which is reflected in the level of quality of Human Resources (HR) who have not been able to compete and adapt to other developed and developing countries (Wulandari et al., 2022). Superior quality of education is very important in driving the progress of a nation. The strategy implemented to improve the quality of education in Indonesia is to train students in critical thinking skills (Sinta Devi Lestari, 2023). This ability involves a logical and systematic thought process in making decisions or solving complex problems. (Chyta et al., 2019)

Critical thinking is indispensable to solve problems to make effective decisions in daily life (Mike Tumanggor, 2021). According to Lestari, considering that critical thinking

skills are very important, critical thinking needs to be instilled from an early age at the elementary school level, so that students have a basis for critical thinking to be applied to solving tasks or problems in daily life, so that when moving to a higher level such as junior high school, high school or college, students do not have difficulty practicing their critical thinking skills (Herlin Sae et al, 2023).

Critical thinking skills are needed for students, but in reality students' critical thinking skills are still relatively low. The cause of students' critical thinking skills is from the factor of educators who have not been maximized in utilizing learning that provides learning experiences that aim to train thinking skills (Harini Fajar Ningrum, 2022). Educators are still not used to training students' critical thinking in the learning process, resulting in learning is still an activity that makes students bored, when asked about learning materials, students find it difficult to answer and tend to be passive, this is because educators have not maximized the use of learning models that can require students to think deeply (Jira Rastal et al, 2021).

Based on the results of observations and interviews conducted at MIN 6 South Lampung, there are several problems including during classroom learning how to teach educators who are still monotonous and still centered on educators, the classroom atmosphere is less conducive when educators explain material such as chatting and only a few listen to material explanations from educators, there is no curiosity of students such as asking about material that has not been understood.

To overcome these problems, a solution is needed to improve students' critical thinking skills, with the help of appropriate and innovative learning models so that they can develop students' critical thinking skills (Nurlina Ariani et al., 2022). Learning models that are adjusted to the goals to be achieved by educators have now been widely developed, one of which is a learning model that needs attention (Maulida Anggraina Saputri, 2023). The learning model that will be applied must certainly be more interesting and enable students to carry out various learning activities in the classroom. The right learning model is one of the AIR (Auditory, Intellectuly, Repetition) learning models (Nana Hendracita, 2021).

The AIR learning model consists of three stages, namely auditiory, intellectualy, and repetition. Auditory means learning to prioritize speaking and listening, Intellectualy means learning must use thinking skills, and Repetition means repetition with the goal of learning (Muhammad Saruruddin et al., 2022). The AIR learning model for students can play an active role in the learning process so that a lively learning process is created and not only centered on the teacher (Euis Aminah Qodarwati et al, 2022). The AIR learning model is a cooperative learning model because it is carried out in groups and emphasizes student learning activities that help in training students' thinking skills. (Amir Luthfi Nurmatina, 2022).

METHOD

This study uses a quantitative type approach while the pene; This is the True Experimental Desaign method. Where True Experimental Design is this design can control all external variables that affect the course of the experiment. (Asep Kurniawan, 2018) The design used in this study is the Posttest Control of the Desaign Group. The selection of this design was because the researcher only saw the difference in students' critical thinking skills after being given treatment. The sample in this study is class Va (28 students) as an experimental class that uses the AIR (Auditory, Intellectual, Repetition) learning model and Vb (26 students) as a control class that uses the PBL (Problem Basic Learning) learning model which is determined by cluster random sampling. (Amir Hamzah, 2020)

The research instruments used are in the form of tests and non-tests ((Linda & Lestari, 2019). The test instrument before being used as an instrument in the experimental class and the control class is first tested in the trial class. This type of test is in the form of a description question with a total of 15 questions. Then the questions are tested for validity, reliability test, question differentiation test, and question difficulty test. Based on the validity, reliability, level of difficulty and differentiation of the questions, the question number used as posttest are 1,2,4,5,6,7,8,9,10,13,15. (Widyanuklida, 2017) Furthermore, in the prerequisite test for data analysis, it is a normality test, a homogeneity test. The data normality test was carried out using the Kolmogorov-smirnov technique at a significant level of 0.05. Homogeneity test with a significance level of 0.05. The test statistics used to test the hypothesis used the t-test test. The calculation in this study is assisted by SPSS 24 software.

RESULTS AND DISCUSSION

One-Sample Kolmogorov- Smirnov Test

	Unstandardized Residual
	54
	.0000000
	9.22161604
	.097
	.097
	-.094
	.097

Parameters[a,b]	Std. Deviation		
Differences			.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Based on the table that has been presented, it shows that the results of the normality test of the control class have a significance of 0.200≥ 0.05. The conclusion is that the test result data using the Kolmogorov-Smirnov method is normal distribution data, using the Kolmogorov-Smirnov method because the number of samples is more than 50.

The homogeneity test is described as a test to find out that from the two classes of sample data from populations that have the same variant (homogeny) (Mai Sari Lena, 2019). This homogeneity test uses the F test, with a decision if the significance value is 0.05, the data can be said to be homogeneous. This means that H1 is accepted and H0 is rejected, on the other hand, if the significance value is less than 0.05, the data is not homogeneous.

Test of Homogeneity of Variances

		Levene Statesmenc	df1	df2	Mr.
result posttest student	Based on Mean	.952	1	52	.334
	Based on Median	1.035	1	52	.314
	Based on Median and with adjusted df	1.035	1	49.565	.314
	Based on trimmed Mean	1.038	1	52	.313

The table above shows that the significance value on the results of the post test of students' critical thinking skills is 0.334≥ 0.05, this indicates that the control and experimental classes come from the same variant (homogeneous). Hypothesis tests can be carried out after the researcher knows the results of the normality and homogeneity tests, in this study the researcher uses an independent t-test to carry out the hypothesis test (Sugiono, 2019).

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
hasil posttest	Equal variances assumed	.952	.334	3.364	52	.001	8.530	2.536	13.618	3.442
	Equal variances not assumed			3.397	50.336	.001	8.530	2.511	13.573	3.487

The table is based on the df values and the significance used. Based on the df value of 52 and the significance of 0.05, the t-table is 1.675, thus that the t-value calculated is 3.364≥ the table t of 1.675 indicates that H0 is rejected so that Ha is accepted, that is, there is an influence said that there is an influence of the AIR model on the students' critical thinking skills.

The AIR learning model is a cooperative learning model that emphasizes on 3 aspects, namely Auditory is learning by talking which means that the sense of ear is used in learning by speaking, listening, listening, percentage, and opinion. Arden Simeru, 2023) Listening is one of the learning activities, because it is impossible for information conveyed orally by educators to be well received by students if it does not involve their ear sense to hear (Yuliani Prihatin, 2019). According to Dave Meier, the auditory mind is stronger than we realize, even without us realizing that we will obtain a lot of information through direct or indirect hearing (Masitah, 2023).

Intellectualy be by problem solving which means that thinking skills need to be trained through reasoning, solving problems, and applying (Pricilia Sinta Damayanti, 2023). Learn Intellectual property is learning by using intelligence (mind) to reflect, create, solve problems and build meaning, how to train and maximize students' abilities, educators must be required to involve students in solving activities, conveying ideas and estimating the consequences of an idea, analyzing experiences and searching and filtering information (Leonard et al., 2019).

Repetition is repetition that means deepening, expanding, and consolidating in the way students are trained through assignments or quizzes. Repetition is needed in learning so that the understanding is more mandala and broader. Repetition is expected to transfer the information obtained into long-term memory (Rahmatul Hayati, 2022). The repetition that is done does not mean the same form of questions or information, but in the form of varied information so that it is not boring. Given questions or assignments, students will remember the information they receive and get used to the problem (Merza Yuwanda, 2023).

Repetition after learning so that the explanation of the material provided by the educator is easy to remember in the long run. Based on the following explanation, it can be concluded that the AIR (Auditory, Intellectually, Repetition) learning model is a learning model that has 3 main aspects, namely learning by listening and speaking (auditory), learning by using thinking skills (intellectually), and learning by repeating

material in learning so that students will not easily forget (repetition). Steps of the AIR Learning Model (Auditory, Intellectual, Repetition)

The steps of the AIR learning model in the view of the Meter in Teti in accordance with the expected objectives are (Mirdad & Pd, 2020):

1) Preparation Stage

   This stage is carried out at the beginning of learning activities. Educators arouse students' interest in learning and positive feelings to participate in the learning carried out so that students can participate in learning to the maximum.

2) Delivery Stage

   This stage is carried out by educators to provide explanations about learning concepts to students. Students are given the opportunity to listen, ask questions and respond (auditory).

3) Training Stages

   At this stage, students are asked to be involved in intellectual activities so that students absorb more knowledge by participating in small group discussions, expressing opinions and conveying the results of the discussion. Students in this case will have an experience of thinking and learning (auditory and intellectually).

4) Stage of Delivering Results

   At this stage, students apply the new knowledge gained by working on the questions given by the educator and making conclusions about the material that has been discussed so that the learning results will be attached (repetition).

According to Retnawati, thinking is a common sense to consider and decide something (Yanti Yulianti, 2022). The critical thinking process basically has three steps, namely: the formation of understanding, the formation of opinions, and the drawing of conclusions (Arfika Riestyan Rachmantika et al, 2019). Critical thinking skills are very essential skills for life, work and function effectively in all aspects of life (Herminarto Sofyan, 2017). Critical thinking ability is the ability to think that is initiated and processed from the left brain, it can be concluded that critical thinking is a mental process to analyze or evaluate information.(Risnawati et al., 2022)

Thinking ability can be defined as one of the cognitive processes used as a guide in the thinking process (Lilis Lismaya, 2019). Thinking is a process activity carried out by a person that involves a cognitive process to receive all kinds of information that he obtains so that he can decide the right course of action in finding a problem (Linda & Lestari, 2019). Think critically as cognitive skill, In it there are intersection, analysis, evaluation, inference, explanation, and self-management activities. (Amalia Insani et al, 2022). The indicators of critical thinking, namely: providing simple explanations, building basic skills, summarizing, making further explanations and tactics/strategies (Wira Suciono, 2021).

CONCLUSION

Based on the research that has been carried out, all statistical tests are carried out at a significance level of 0.05%. The results of the data analysis showed that (tcal=3,364≥ ttable=1,675) then Ha was accepted, by obtaining the average score of the critical thinking ability of the experimental class students using the AIR (Auditory, Intellectual, Repetition) learning model of 86 and the average score of the critical thinking ability of the control class students using the PBL learning model of 72, this shows that the AIR learning model (Auditory, Intellectual, Repetition) affect the critical thinking ability of students of class V MIN 6 South Lampung.

Based on the research that has been carried out, and the conclusion above, the researcher can provide the following recommendations; For Schools: holding training for teachers on how to choose a learning model that suits the character of students and can improve student outcomes, as well as how to design fun and meaningful learning, especially in science learning. For Teachers: learning using the AIR Learning Model (Auditory, Intellectualy, Repetition) can be used as an alternative to innovative learning models and can improve student learning outcomes. For Students: students should be able to take advantage of their free time and existing facilities and be able to develop their learning skills to be able to solve problems. For Other Researchers: Researchers should prepare extra time before the research begins to socialize the AIR (Auditory, Intellectual, Repetition) learning model to students so that the research is more optimal.

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