

CORRELATION OF *AUDITORY, INTELLECTUALLY, REPETITION (AIR)* LEARNING MODELS ON STUDENT ACHIEVEMENT

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ABSTRACT

This study evaluates the correlation between Santri's learning achievement in the Arabic Language Development Institute (LPBA) at PP. Mambaul Ulum Bata-Bata and the auditory, intellectual, and repetition (AIR) learning model. The main objective is to find out how the AIR learning model affects students' learning achievement. This quantitative study used product moment correlation analysis to evaluate the relationship between the AIR learning model and students' learning achievement. There was a strong link between the intellectual, auditory, and repetition parts of the AIR learning model and how well students learned, as shown by an r count of 0.676, which is higher than the critical number (r table) of 0.235. This shows that the AIR learning model has a great impact on students' learning achievement in LPBA at PP. Mambaul Ulum Bata-Bata. This study provides important insights for teachers and policymakers on how to improve the way Islamic schools teach and design their programs.

Keywords: Correlation, AIR learning, students



INTRODUCTION

Arabic study is steeped in tradition. Arabic studies have long held the belief that Arabic language plays a significant role in the manifestation of culture and religion, as well as in enabling the development of diverse forms of knowledge, technology, and art (Hararap & Lubis, 2022). Arabic occupies a significant position among the diverse languages employed globally, serving as an international language. Recent theoretical advancements have unveiled that language is a structured arrangement of auditory symbols employed by a specific collective to convey and engage with one another.

Wahab (2015) asserts that language functions as an essential vocal symbol system, enabling interaction and communication among diverse social groups. Language enables individuals to articulate thoughts, feelings, and wants, so promoting comprehension and establishing connections (Abd al-Majid). Furthermore, as human evolution progresses, language undergoes changes that aid in the manifestation of culture and religion, as well as in the development of diverse types of knowledge, technology, and art (Hararap & Lubis, 2022).

At PP. Mambaul Ulum Bata-Bata, Arabic plays a crucial role in the educational process, namely through the LPBA (Lembaga Pengembangan Bahasa Arab), which emphasizes the enhancement of language proficiency, particularly in speaking skills (Al-Maharotul Kalam). The primary challenge lies in the presence of multiple concerns that require attention, including insufficient student involvement resulting in a decrease in academic performance.

Academic achievement and personality development of students are the principal determinants of educational success (Suparmanto & Hudatullah, 2021). Student academic success is influenced by individual variations, such as variances in attention span and learning speed (HS, 2020). Hence, it is imperative to develop efficient tactics that enhance academic achievements of students, specifically designed to cater to diverse learning requirements and preferences. As far as we know, no research has been conducted on this topic.

In recent decades, numerous alternative strategies have been devised in an effort to resolve this issue. Researchers in this particular context have identified a deficiency in the existing body of knowledge concerning a complete strategy that effectively caters to individual variations in learning while simultaneously encouraging active participation and fostering a more profound comprehension. There is a dearth of research investigating the implementation of the AIR (Auditory, Intellectually, Repetition) Learning Model, which

prioritizes auditory learning, intellectual stimulation, and repetitive practice as means to enhance learning results (Susanti, 2021).

It is intriguing to ascertain whether challenges in Arabic language learning can be surmounted through the implementation of a suitable learning model. The AIR Learning Model presents a hopeful strategy that is in line with the actuality of varied learning requirements and promotes a cooperative learning atmosphere. This methodology facilitates the collaboration, deepening of comprehension, and reinforcement of learning concepts by incorporating auditory learning, intellectual engagement, and repetitive practice.

The aim of this study is to improve student academic performance by implementing an effective educational technique. The objective of this study is to examine the capacity of the AIR Learning Model to enhance student engagement, comprehension, and academic achievement by recognizing the importance of individual differences and the impact of the learning environment.

The objective of this study is to analyze the efficacy of the AIR Learning Model in enhancing student academic achievements, specifically in the domain of Arabic language instruction at PP. Mambaul Ulum Bata-Bata. The aims of this study are to evaluate the influence of auditory learning, intellectual stimulation, and repetitive practice on student engagement, comprehension, and academic performance.

The results of this study are anticipated to enhance understanding in the field of education, specifically in relation to the development of efficient learning frameworks designed to accommodate unique learning variations. Through a thorough examination of the strengths and limits of the AIR Learning Model, educators can get valuable insights to make well-informed decisions on its implementation. This, in turn, will enhance the learning experience and overall outcomes of students in Arabic language education at PP. Mambaul Ulum Bata-Bata.

RESEARCH METHODOLOGY

The study used a quantitative methodology, especially a correlation analysis, to examine the association between the auditory, intellectual, and repetition (AIR) learning model (Variable X) and students' academic performance (Variable Y). The experimental protocol entails the distribution of questionnaires, the implementation of observations, interviews, and the systematic recording of data to gather information on the variables being investigated.

The data collection process for this study encompasses various methodologies, such as questionnaires, observations, interviews, and documentation. Surveys are provided to students in order to collect data on their perceptions of the AIR learning paradigm. Observations are carried out to evaluate pupils' level of involvement and active involvement in educational activities. Conversations with educators and administrators offer valuable perspectives on the execution of the AIR learning paradigm. Furthermore, the process of collecting data is complemented by the documentation of students' academic records and accomplishments.

The data is evaluated using the product moment correlation statistical analysis technique. This task entails computing the correlation coefficient (r) by utilizing the prescribed formula.:

$$r_{xy} = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{\{n \sum X^2 - (\sum X)^2\} \{n \sum Y^2 - (\sum Y)^2\}}}$$

$$\text{KET: } \sqrt{\{n \sum X^2 - (\sum X)^2\} \{n \sum Y^2 - (\sum Y)^2\}}$$

product moment correlation coefficient

n = Number of Respondents

$\sum X$ = Total score of big x.

$\sum Y$ = Sum of scores from big y

$\sum XY$ = the sum of the big x scores times the number of big y scores

$\sum X^2$ = Total score of the coordinated large x

$\sum Y^2$ = The number of coordinated large y scores

Statistical analysis is employed to determine the significance of the correlation between the AIR learning model and the academic achievement of students. The hypothesis is deemed valid if the computed correlation coefficient (r count) surpasses the critical value (r table) at significance levels of 1% and 5%. On the other hand, if the value of the r count is less than the r table value, the hypothesis is rejected.

The research presupposes that the gathered data faithfully reflects the perceptions and experiences of the participants. Additionally, it presupposes that the AIR learning paradigm is regularly and effectively implemented in the educational environment. Furthermore, the study presupposes that the product moment correlation analysis effectively represents the connection between the variables being examined.

The experiment seeks to ascertain the impact of the auditory, intellectual, and repetition (AIR) learning paradigm on students' academic performance. The correlation coefficient values are used to analyze the strength of the association between variables and provide insights into the efficiency of the AIR learning model in improving student academic achievement.

AIR Learning Model (*Auditory, Intellectually, Repetition*)

The *Auditory, Intellectually, Repetition* (AIR) learning style is a learning style that is similar to the *Somatic, Auditory, Visualization, Intellectually* (SAVI) and *Visualization, Auditory, Kinesthetic* (VAK) learning models. The difference lies only in repetition, which means deepening (internalization), expansion, and consolidation by giving assignments and quizzes (Multazam et al., 2022).

This learning model is said to be similar to the *somatic, auditory, visual, intellectual* (SAVI) learning model and the *visualization, auditory, kinesthetic* (VAK) learning model because these three learning models utilize the senses, which are the central point in absorbing learning. The only difference is in the *auditory learning model. Intellectually*, repetition has a meaning of internalization (deepening), expansion, and consolidation by giving assignments and quizzes (Sumliyah et al., 2020).

There are several criteria that determine the effectiveness of applying the *somatic, auditory, visual, and intellectual* (SAVI) and *visual, auditory, and kinesthetic* (VAK) learning models. *First*, "auditory" means the sense of hearing is used in learning by listening, speaking, arguing, and presenting.

Intellectually, learning is defined as learning to think and solve problems (Problem Solving) in the context of learning as learning by listening, talking to oneself, and discussing ideas and thoughts with others (Maghfuroh, 2022). Thinking skills need to be trained through reasoning, creating, solving problems, constructing, and applying; *third*, repetition means repetition. Repetition has the aim of deepening and broadening the understanding (internalization of understanding) of students who need to be trained through working on questions, giving assignments, and taking quizzes. Repetition does not mean it is done in the form of the same question or information, but in the form of modified information (Widianti, 2020).

Learning achievement, according to some experts, is the assessment of the results of learning activities that are expressed in the form of symbols, numbers, letters, or sentences that can reflect the results that have been achieved by children in a certain period. We can determine the position of students by knowing their learning achievement, whether they are smart, moderate, or lacking. A person's learning achievement is determined by their level of success in studying subject matter, which is expressed in the form of grades or report cards (Lina, 2021).

RESULTS AND DISCUSSION

To analyze the data from the questionnaire results, researchers used the *correlation formula Product Moment*. However, before analyzing the data, considering that the data from the questionnaire results is still raw, it needs to be processed first by entering the data into the product moment correlation table with the following formula:

Table 1.1

AIR Learning Model Result Data

NO.	X	Y	XY	X ²	Y ²	NO.	X	Y	XY	X ²	Y ²
1.	30	28	840	900	784	36.	30	28	840	900	784
2.	29	27	783	841	729	37.	18	18	324	324	324
3.	30	30	900	900	900	38.	18	19	342	324	361
4.	29	27	783	841	729	39.	18	17	306	324	289
5.	29	28	812	841	784	40.	16	20	320	256	400
6.	29	30	870	841	900	41.	18	28	504	324	784
7.	30	26	780	900	676	42.	19	30	570	361	900
8.	30	29	870	900	841	43.	20	18	360	400	324
9.	29	30	870	841	900	44.	20	30	600	400	900
10.	30	28	840	900	784	45.	27	22	594	729	484
11.	30	27	810	900	729	46.	19	29	551	361	841
12.	29	28	812	841	784	47.	20	29	580	400	841
13.	29	27	783	841	729	48.	18	18	324	324	324
14.	30	28	840	900	784	49.	20	20	400	400	400
15.	30	29	870	900	841	50.	20	17	340	400	289
16.	29	30	870	841	900	51.	29	28	812	841	784
17.	29	30	870	841	900	52.	19	19	361	361	361
18.	30	30	900	900	900	53.	18	19	342	324	361
19.	30	37	1110	900	1369	54.	17	19	323	289	361
20.	29	39	1131	841	1521	55.	19	19	361	361	361
21.	29	29	841	841	841	56.	19	19	361	361	361
22.	29	30	870	841	900	57.	30	29	870	900	841
23.	29	29	841	841	841	58.	29	29	841	841	841
24.	30	28	840	900	784	59.	29	39	1131	841	1521
25.	30	26	780	900	676	60.	29	30	870	841	900
26.	29	30	870	841	900	61.	29	29	841	841	841
27.	30	26	780	900	676	62.	30	28	840	900	784
28.	30	27	810	900	729	63.	30	26	780	900	676
29.	29	30	870	841	900	64.	29	30	870	841	900
30.	30	27	810	900	729	65.	30	26	780	900	676
31.	29	30	870	841	900	66.	29	30	870	841	900
32.	30	29	870	900	841	67.	30	26	780	900	676
33.	29	30	870	841	900	68.	30	27	810	900	729
34.	30	27	810	900	729	69.	29	30	870	841	900
35.	29	27	783	841	729	70.	30	27	810	900	729
Amount							1867	1885	51337	51389	52307

From the helper table in above, we can find the data of each variable l . The details are as following:

$$\begin{aligned}\Sigma X &= 1867 & \Sigma Y &= 1885 \\ \Sigma X^2 &= 51337 & \Sigma Y^2 &= 51389 \\ \Sigma XY &= 52307\end{aligned}$$

From the helper table above, the variable data is entered into the product moment correlation formula as follows:

$$\begin{aligned}r_{xy} &= \frac{n\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{\{n\Sigma X^2 - (\Sigma X)^2\}\{n\Sigma Y^2 - (\Sigma Y)^2\}}} \\ r_{xy} &= \frac{(70 \times 51337) - (1867 \times 1885)}{\sqrt{(70 \times 51389) - (1867)^2 (70 \times 52307) - (1885)^2}} \\ r_{xy} &= \frac{3593590 - 3519295}{\sqrt{\{3597230 - 3485689\}\{3661490 - 3553225\}}} \\ r_{xy} &= \frac{74295}{\sqrt{\{111541\}\{108265\}}} \\ r_{xy} &= \frac{74295}{\sqrt{12075986365}} \\ r_{xy} &= \frac{74295}{109890} \\ r_{xy} &= 0.676\end{aligned}$$

Based on the calculation of the formula above, the correlation coefficient "r" found is 0.676. To prove the hypothesis that has been proposed, the "r" of work must be consulted with the "r" table of product moment correlation with the following conditions:

1. The working hypothesis is accepted if the "r" value is greater than or equal to the "r" table. The working hypothesis is rejected if the work "r" is smaller than the "r" table.
2. To find out the value of the "r" product moment criticism from this study, the researcher needs to cite the "r" product moment table.

Table 1.2

Price Criticism Product Moment

N	Significant Level	
	5% intervals	1% intervals
70	0.235	0.306

From the results of the analysis above, the "r" value is 0.676, and it can be proven that based on the critical price "r" product moment, N = 70 is calculated with a confidence level of 5% = 0.235 and 1% = 0.306. It turns out that "r" work = 0.676 compared to "r" product moment table in both 5% and 1% confidence intervals, so the "r" work value is greater than the product moment table "r" value, meaning the work "r" value is **significant**.

Thus, the first hypothesis proposed reads, "There is an influence of the auditory, intellectual, and repeated learning model (AIR) on the learning achievement of the participants in the Arabic Language Development Institute (LPBA) in PP. Mambaul Ulum Bata-Bata."

Then, to find out how high the relationship of the AIR Learning Model is to the learning achievement of LPBA participants, the results of work "r" are matched with the following table:

Table 4.8
Value Interpretation

The value of r	Interpretation
0.800 – 1.000	Very high
0.600 – 0.800	High
0.400 – 0.600	High enough
0.200 – 0.400	Low
0.000 – 0.200	very low (uncorrelated)

Based on the interpretation table for the "r" value above, it is known that the value "r" of 0.676 is in the range of numbers between 0.60 and 0.800 with a **high interpretation**.

CONCLUSION

Based on the results of the data analysis, the following conclusions can be drawn: *First, the Auditory, Intellectual, and Repetition (AIR) Learning Model has an impact on the learning achievement of students at the Arabic Language Development Institute (LPBA) in PP.*

Mambaul Ulum Bata-Bata. This is evident from the results of data analysis, where the "r" value of **0.676** is greater than the "r" value of the product moment table, where the 5% confidence interval obtains the "r" table product moment value of 0.235 and in the 1% confidence interval the value is 0.676. The "r" product moment table is 0.306 because the "r" work is greater than the 5% level, and 1% means the value of "r" work is **significant**.

Second, the Auditory, Intellectual, and Repetition (AIR) Learning Model has a high relationship with the learning achievement of students at the Arabic Language Development Institute (LPBA) in PP. Mambaul Ulum Bata-Bata is accepted because the "r" value is **0.676** in the range of numbers between 0.600 and 0.800 with a **high interpretation**. This is supported by observational data, interviews, and documentation.

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