



The Effect of Visual, Auditorial and Kinesthetic Learning Styles on Learning Outcomes of Movement Skills

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Abstract

This study aims to analyse the effect of Visual, Auditorial, and Kinesthetic learning styles on the learning outcomes of movement skills of grade II students of SD Kristen 1 Dobo, Data collection was carried out using a questionnaire. The population in this study amounted to 60 students and a sample of 36 students determined by random sampling technique or randomly. This research is an experimental expo-facto research, the analysis technique used uses inferential analysis techniques. The results obtained are that there is an influence between Visual, Auditorial, and Kinesthetic learning styles on the learning outcomes of students' movement skills as evidenced by statistical analysis which is 6.926. Thus, Visual, Auditorial, and Kinesthetic learning styles have a positive effect on student movement skills learning outcomes as evidenced by statistical analysis tests.



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INTRODUCTION

The learning process is an activity that takes place due to the interaction between students, educators, and learning resources in an educational environment. (Widiansyah & Fitriansyah, 2022). In the learning process, interaction occurs through the use of language, both in the form of body language and spoken language during learning. (Solissa et al., 2023) To achieve optimal learning, various strategies are needed from educators. These strategies include the selection of learning models and methods determined by the class teacher or subject teacher. According to (Amani et al., 2013), learning style is an individual's ability to absorb, manage, and process information during learning. (Nurzaki Alhafiz, 2022) Although everyone has a different learning style, the main goal remains the same, namely achieving the desired learning outcomes and achieving the expected learning achievements by students.

Learning style is an individual's most effective way to absorb, manage and process information received. The right learning style is the key to student success in learning. By understanding this, students can more easily understand and process information using their own learning style. If the use of learning styles is limited to one type only, such as only verbally or auditorially, there can be an imbalance in the absorption of information. (Kadir et al., 2020) Therefore, in the learning process, students need to be encouraged and directed to recognize the learning style that is most suitable for them so that learning objectives can be achieved more effectively (Maryadi et al., 2023)

There are three types of modalities in learning styles, namely visual, auditorial, and kinesthetic (Sitti Rahmaniar Abubakar et al., 2021) Many other experts also classify learning styles based on cognitive preferences, intelligence profiles, and sensory preferences. In this study, sensory preferences were used, namely visual, auditorial, and kinesthetic learning styles. The reason for using sensory preferences is

because students' learning process can be observed through the senses. Based on sensory preferences, visual learners learn through things they see, auditorial learners learn by hearing, and kinesthetic learners learn through movement, activity and touch. (Hussein Ibrahim & Hussein, 2015) Every student has all three learning styles, although one is usually more dominant. Learning achievement is the end result of a process of repetition and recognition that is stored for a long time, because learning outcomes contribute to shaping the character of individuals who always want to achieve better results, change their way of thinking, and improve work behavior (Rambe & Yarni, 2019).

Physical education learning is learning that includes psychomotor aspects or aspects of movement. (Saputro, 2022) Students generally have difficulty in digesting and practicing what the teacher has explained, so the process of choosing a teaching style is very important in achieving learning goals.

And every teacher is expected to be able to understand the characteristics of students. (Ihsan Abbas, 2020) Physical Education has a unique role compared to other fields of study this is because every human movement has its own characteristics and is applied both practically. (Devtio et al., 2023) On the other hand, physical education also involves every student's movement with the learning environment.

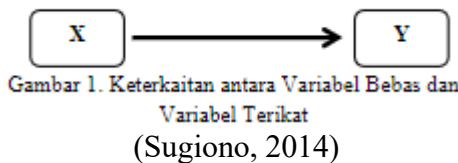
(Yuniar et al., 2023) states that physical education in children before primary education can help control emotional development, stimulate growth and development.

Observations in the field show that students in digesting what the teacher says is diverse so that the teacher must be precise in choosing the style, strategy and learning model especially for grade II elementary school students.

METHODS

This research is a type of research used in this research is Ex-Post Fakto, namely research by conducting systematic empirical investigations, where researchers do not have direct control over independent variables. (Karimuddin Abdullah et al., 2022). *Ex-post facto* is a study in which the independent variables have occurred when the researcher begins with the observation of the dependent variable in a study. (Sugiono, 2014) In this study, the attachment between independent variables and independent variables and between independent variables and dependent variables has occurred naturally (Sukardi & Rozi, 2019).

The sampling technique in this study was total *Random sampling*. With a research instrument in the form of a questionnaire. And the data analysis technique uses descriptive inferential analysis.



Description:

X : Learning Style

Y : Motion Learning Outcomes

RESULT

The description of the results of this study is intended to present quantitative data regarding the influence of Visual, Audiotorial, and Kinesthetic on the movement skills of Class II students of Christian Elementary School 1 Dobo.

This study uses two stages in the data analysis used, namely: normality test analysis and hypothesis test analysis. With the following explanation:

1. Normality Analysis

in this stage, researchers analyzed the research data by testing normality. Data on Visual, Audiotorial, and Kinesthetic learners and movement skills were calculated for data normality using the Liliefors test.

a) Visual, Audiotorial, and Kinesthetic Students

Based on the calculation of the normality test for Visual, Audiotorial, and Kinesthetic student data, $L_o = 0.741$ is obtained while $L_{tabel} 0.280$ means that the Visual, Audiotorial, and Kinesthetic student data are normally distributed.

b. Movement skills

Based on the calculation of the normality test of motion skills data, $L_o = 0.959$ is obtained while $L_{tabel} 0.280$ means that the motion skills data is normally distributed.

2. Hypothesis Test Analysis

Hypothesis analysis is an analysis carried out to prove the acceptance or rejection of the proposed hypothesis. This hypothesis test analysis uses a one predictor regression formula with the following steps:

a. Find the correlation between variable X and variable Y

Looking for the correlation of variables X and Y can be analyzed using the *product moment* correlation formula.

$$r_{xy} = \frac{\sum xy}{\sqrt{(\sum x^2)(\sum y^2)}} = \frac{2007,33}{\sqrt{6200,56 \times 3840,00}}$$

$$= 0,411$$

Conclusion r_{count} (0.411) is greater than r_{table} (0.329) means significant. Thus there is an influence between Visual, Audiotorial, and Kinesthetic with movement skills.

b. Testing the significance of the correlation between variable X and variable Y,

$$t = \frac{r \sqrt{n-2}}{\sqrt{1-r^2}} = \frac{0,411 \sqrt{36-2}}{\sqrt{1-0,411^2}} = 2,632$$

After testing the hypothesis through t_{count} as above, then consulted on t_{tabel} . known $t_{count} 2.632$ greater than $t_{tabel} 2.028$. So that the influence between variable X and variable Y is significant and the hypothesis is accepted.

- c. To determine the magnitude of the influence of variable X on variable Y, the formula is used;

$$KD = R^2 \times 100\% \\ = 16,923 = 17 \%$$

Thus the influence of variable X on variable Y is 17% and 83% is influenced by other supporting factors.

- d. Calculate the regression equation using the formula;

$$\hat{Y} = a + bX$$

Koefisien a dan b

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

$$= 0,324$$

$$a = \frac{\sum Y}{n} - b \left(\frac{\sum X}{n} \right)$$

$$= 60,807$$

So the linear regression equation is

$$\hat{Y} = a + bX \\ = 60,807 + 0,324X$$

- e. Searching for regression line variance analysis. The results of the analysis can be seen in the table below;

Table 4.7

Variance Analysis Results					
Source of Variance	Df	JK	RK	F _{reg}	Conclusion
Regression	1	649,843	649,843	6,926	
Residual	34	3190,157	93,828		
Total		3840,00			

For F_{reg} obtained from the calculation is 6.926. Then the F_{table} price is consulted at the F_{table} price with a significance level of 5% which is 4.130. Because F_{reg} is greater than F_{table}, it is significant.

DISCUSSION

factors that influence students' movement skills are influenced by Visual, Audiotorial, and Kinesthetic, and there are also other factors that influence movement skills. These factors include: 1) internal factors include difficulty understanding lessons that occur because the lessons delivered are not sufficiently supported by prior knowledge, loss of enthusiasm for learning because of low grades, difficulty in disciplining themselves in learning, inability to concentrate, perseverance in exploring lessons, negative self-concept, and emotional disturbances; 2) external factors consist of socio-economic abilities or conditions, the teacher's inability to master learning materials and strategies, non-academic tasks that can take up learning time so that the portion of learning is less, lack of support from people around, the physical environment that affects the quality of one's learning, and learning difficulties that come from the educational institution itself, for example, lack of learning facilities, and an unbalanced ratio of students and teachers.

CONCLUSION

Factors that influence students' movement skills are influenced by Visual, Audiotorial, and Kinesthetic, and there are also other factors that influence movement skills. These factors include:

- 1) internal factors include difficulty understanding lessons that occur because the lessons delivered are not sufficiently supported by prior knowledge, loss of enthusiasm for learning because of low grades, difficulty in disciplining themselves in learning, inability to concentrate, perseverance in exploring lessons, negative self-concept, and emotional disturbances;
- 2) external factors consist of socio-economic abilities or conditions, the teacher's inability to master learning materials and strategies, non-academic tasks that can take up learning time so that the portion of learning is less, lack of support from people around, the physical environment that affects the quality of

one's learning, and learning difficulties that come from the educational institution itself, for example, lack of learning facilities, and an unbalanced ratio of students and teachers.

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