APPLICATION OF VISUAL LEARNING MODELS, AUDITORY, KINESTETIC (VAK) ON THE RESULTS OF LEARNING SCIENCE CLASS V BANGUNREJO STATE ELEMENTARY SCHOOL

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Abstract

This study aims to determine the learning outcomes of the fifth grade students of Bangun Rejo State Elementary School after implementing the Visual, Auditory, Kinestetik (VAK) Learning Model in science learning can be completed significantly. This research is a quasiexperimental research without any comparison class. Sampling using Simple Random Sampling technique. Data collection was done by using test techniques. The data collected were analyzed using t-test at a significant level of α = 0.05. The results of data analysis can betcount = 4.65 > ttable = 1.71, so it can be concluded that the learning outcomes of Bangun Rejo Elementary School students after the application of the Visual, Auditory, Kinestetik (VAK) learning model are significantly complete.

Keywords– Application, Visual Learning Model, Auditory, Kinesthetic (VAK), Science.

1. Introduction

Education is something that can affect human development in all aspects including personality and life because education is one thing that cannot be separated from humans and has an important role in improving the quality of a nation. In line with the opinion of Shoimin (2014: 20) that education is important in building national civilization. Education is the only asset to build quality human resources. Through quality education, the nation and state will be respected in the eyes of the world.

Part of the goal of national education is the development of human resources who have a very important role for the success and sustainability of national development. Therefore, the main requirement is that the improvement of the quality of human resources must be properly considered and designed in such a way as to be balanced with the rapid development of the world of science and technology so that it is in line with the national development goals that are to be achieved. According to Rusman (2012: 123124) learning outcomes are abilities that students have after students receive their learning experiences. Learning outcomes have an important role in the learning process. Efforts to improve learning outcomes are largely determined by the activities and quality of students in the teaching and learning process.

The importance of student learning outcomes during the learning process is very necessary because with the learning outcomes an educator can measure the ability of students and change the behavior of students as feedback in an effort to improve the teaching and learning process. Therefore, the teacher must be able to create a pleasant learning atmosphere so that it can make students feel comfortable, active and interested in the learning process. In line with Hariyanto's (2011: 9) opinion, learning is an activity or a process of gaining knowledge, improving skills, improving behavior, attitudes and strengthening personality.

A good learning process takes place when communication is established where a teacher conveys knowledge to students so as to create a pleasant learning atmosphere. This is the starting point for the success of the learning process. The use of learning styles and learning models by educators in delivering learning

materials greatly affects the teaching and learning process and can affect learning outcomes. There are many ways of learning that can be used, as well as students' self-realization optimally.

The results of interviews with class V teachers of Bangun Rejo Elementary School on July 27, 2020, it was found that there were still many students who had not reached the Maximum Completion Criteria (KKM), namely 65. This can be seen from the average science learning outcomes of grade V students, which amounted to 26 students. 61.46). There were 7 students (26.92%) with an average score (76) who had completed while 19 people (73.08%) had not completed with an average score (56.11). This condition is due to the lack of active students in learning.

2. Method

The method used in this research is a quasi-experimental method. The quasi-experimental method is a research method that focuses on one experimental class without a comparison class. In this study, the authors provide learning treatment using the Visual, Auditory, Kinesthetic (VAK) model in the research sample. In accordance with the problems studied, this type of research is experimental research. The research design used in this study is in the form of a One-Group Pretest-Posttest experimental design. The test in this research design was carried out twice, namely once before the experiment and once after the experiment.

The implementation of this research was carried out in the odd academic year 2020/2021. The place where this research was carried out was at Bangun Rejo State Elementary School. The instrument in this study used a type of instrument in the form of a test in the form of a description of 10 questions. The research instrument is a tool used by the author or data collection so that the job is easier and the results are better, then the following trials are carried out:

a. Validity

According to Arikunto (2010: 211) validity is a measure that shows the levels of validity or validity of an instrument. To find out the validity of the items,

it was done by correlating the scores of these items with the total scores obtained, namely using the product moment correlation formula:

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

Jihad & Haris (2013:180)

Information:

N = The number of students who participated

X = Value of the test results

Y = Daily average value

rxy = correlation coefficient between variables X and Y

ΣXY = Multiplication between X and Y

b. Data Analysis Techniques

In this study, data that has been collected can be processed using statistical analysis as follows: a) Determining the Average and Standard Deviation Determining the average value and standard deviation in the initial and final tests aims to determine the learning outcomes in the expression group. The average quantitative data contained in a sample can be calculated using the formula:

$$Me = \frac{\sum x_i}{n}$$

Sugiyono (2017: 49)

Information:

Me = the average value of learning outcomes

Xi = Value of x to i to n

n = Lots of data

Standard deviation (standard deviation) is the standard unit of scale for the group of data being processed (analyzed). The formula for finding standard deviation is:

$$S = \sqrt{\frac{\sum\left(x_i - \bar{x}\right)^2}{(n-1)}}$$

Sugiyono (2017: 57)

Information:

- x = the average value of learning outcomes

ix = Value of x from i to n (overall)

S = Standard Deviation

n = Lots of data

c. Data Normality Test (χ2)

This normality test is used to determine the normality of the data, the formula used is the χ2 (chi squared) suitability test, namely:

$$\chi^2 = \sum \frac{(f_0 - f_h)^2}{f_h}$$

Sugiyono (2017:107)

Information:

χ2 = The value of chi squared to be sought

0f = The frequency observed (observations)

hf = expected frequency

Then χ2count is compared with 2table with degrees of freedom (dk) = (n-1), where is the number of data interval classes with a significant level (error rate) of 5% (α = 0.05). The test criteria is if jika2count h2table can be stated that the data is normally distributed and if 2count ≥χ2table can be stated that the data is not normally distributed.

d. Statistical Hypothesis

T-test analysis is used to test the correctness of the hypothesis that has been formulated and to get a conclusion, the data must be processed with the following formula:

$$t = \frac{\bar{x} - \mu_o}{s / \sqrt{n}}$$

Sugiyono (2017:96)

Information:

s = Standard deviation

- x = Average xi

n = Number of Sample Members

μo = Hypothesized value (≥65)

Hypothesis testing using the one-party test applies if the counted price is in the area where HO is rejected. Thus the criteria for testing the hypothesis in this study are: If tcount < ttable, then H0 is accepted and Ha is rejected, for a significant level α = 0.05 and with degrees of freedom (dk = n - 1). If tcount ≥ ttable, then H0 is rejected and Ha is accepted for the significant level α = 0.05 and with degrees of freedom (dk = n-1).

The statistical hypothesis tested is:

Ho: The average science learning outcomes of students in class V Tema 1 Bangun Rejo State Elementary School for the 2020/2021 academic year after the implementation of the Visual, Auditory, Kinesthetic (VAK) Learning Model were less than 65 (μo<65).

Ha: The average science learning outcomes of students in class V Theme 1 Bangun Rejo State Elementary School Academic Year 2020/2021 after the application of the Visual, Auditory, Kinesthetic (VAK) Learning Model is more than or equal to 65 (μo≥65).

3. Result and Discussion

Based on the formulation of the problem raised in the research, namely "Is the application of the Visual, Auditory, Kinesthetic (VAK) learning model in science subjects for fifth grade students of Bangun Rejo State Elementary School significantly complete?"

The results of this study indicate that the science learning outcomes of grade V Bangun Rejo State Elementary School after applying the Visual, Auditory, Kinesthetic (VAK) learning model are significant. After comparing the results of the pre-test and posttest, it can be seen that there is an increase in student scores after the material is taught using the Visual, Auditory, Kinesthetic (VAK) learning model. In the pre-test students scored more than 65 (complete) as many as 4

people (15.38%) and the initial test average was 57.03. So descriptively it can be said that the pre-test results before applying learning using the Visual, Auditory, Kinesthetic (VAK) learning model are in the incomplete category.

After delivering the material using the Visual, Auditory, Kinesthetic (VAK) learning model, a post-test was held. The number of students who scored more than 65 was 22 students (84.62%) and the post-test average was 71.46. So descriptively it can be said that the results of the students' post-test after applying learning using the Visual, Auditory, Kinesthetic (VAK) learning model are in the complete category. Based on the results of hypothesis testing, it can be concluded that the science learning outcomes of the fifth grade students of Bangun Rejo State Elementary School after implementing the Visual, Auditory, Kinesthetic (VAK) learning model are significantly complete.

a. The First Meeting

The first meeting of learning in class using the Visual, Auditory, Kinesthetic (VAK) learning model which was held on August 13, 2020, At the first meeting, the researcher introduced the students to the Visual, Auditory, Kinesthetic (VAK) learning model in general. Then the researchers pasted a picture of physical activity that can make the body healthier and linked it to human organs. Students are invited to discuss human movement organs. Then the teacher asks the question "which of you likes cycling?" The students discuss with their classmates what organs work when cycling, then representatives of the students come forward to present the results of their discussion and mention and model what motion organs work when they are cycling.

The findings that occurred during the application of the Visual, Auditory, Kinesthetic (VAK) learning model were that researchers experienced many difficulties and found obstacles. Due to changes in the way teachers teach students are perceived as new and require adjustment of students who were previously accustomed to conventional learning to this new learning model, this can be seen at the first meeting that only a few students were active. Some motivation is given with the aim of being able to arouse enthusiasm and all students to participate actively in the learning process.

b. Second Meeting

The second meeting which was held on August 15, 2020, students were better prepared to take part in learning and had the courage to ask questions between students and students and between students and researchers. This began to increase because at the first meeting none of the students were active and enthusiastic in participating in learning and because of this the researcher also had difficulty combining the three learning styles.

The second meeting of researchers reminded us of the previously taught material. Students observe the skeleton of human organs and then present the results of their observations in writing. Then the learning process was continued by displaying videos about human organs and their functions. Then the researcher together with the students learns to sing the song that is displayed in the video related to human organs and their functions. Students then together learn to sing songs related to human organs. And proceed with making a simple model of human organs from wire and paper pulp. At the second meeting the authors conducted an evaluation using the Visual, Auditory, Kinesthetic (VAK) model as well as discussing the results of the students' answers. Each student was given the same guidance or direction in solving the questions the teacher gave when the students were learning, so that the students were really understand and understand.

This study is relevant to Mulabbiyah's (2018) research which concluded that "Student learning outcomes increased after the application of the Visual, Auditory, Kinesthetic (VAK) learning model in science subjects for grade IV MI Thohir Yasin students". In addition, this research is also relevant to research by Ulia, N & Sari, Y (2018) which concluded that "Visual, Auditory, Kinesthetic (VAK) learning can increase the activeness and understanding of elementary school students' mathematical concepts". And it is relevant to Parbawa & Sujana's research which concluded that "There is an influence of the VAK learning model and learning motivation on the competence of social science knowledge in grade IV SD Gugus Srikandi Denpasar Timur". Based on research conducted by researchers, the Visual, Auditory, Kinesthetic (VAK) learning model can be used as an alternative in the teaching and learning process, namely to train students to

learn actively and to be able to maximize students in discovering and understanding a concept through physical activity. Based on the results of data analysis in this study, it shows that the learning outcomes of students who are taught with the Visual, Auditory, Kinesthetic (VAK) learning model are significantly complete. This can be seen from the ongoing learning process and student learning outcomes after the application of the Visual, Auditory, Kinesthetic (VAK) model.

4. Conclusion

Based on the results of the research and discussion, it can be concluded that the science learning outcomes of the fifth grade students of Bangun Rejo State Elementary School after applying the Visual, Auditory, Kinesthetic (VAK) learning model are significant. This is shown by the results of the t-test analysis, the post-test value at the significant level $\alpha = 0.05$, obtained tcount (4.65) > t table (1.71) and the average student learning outcomes after the application of the Visual, Auditory model. , Kinesthetic (VAK) of 71.46. Thus the hypothesis proposed in this study is accepted.

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