
EFFECT OF TREASURE HUNT METHOD TO CONTROL CONCEPT OF EYE DIRECTIONS WIND STUDENTS BASIC SCHOOL

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Abstract

The purpose of this study was to describe the influence of positive and significant methods of treasure hunt on the mastery of the concept of the direction of the primary school students. The research method was experimental and the population of this research was the fourth grade students of SDN 4 Maroangin that consisted of 40 students. The instrumen to this research used to be analyzed using Normalized Gain Formula and T-test. The result of this research showed that the level of the mastery concept of experimental class was in crease of 50%, while the control class of 15%. The result of T-test of pre-test showed that $T_{count} = -1,5104$ in the reception area $T_{tabel} = 2,7378$, so there is no significant difference of initial capability between the experimental and control class students before being given treatment. The results of the post-test T-test data showed that $T_{count} = 2,9525$ are outside the reception area $T_{tabel} = 2.7378$, so there is a significant difference between the ability of the end of the experimental class and control student after given treatment. Therefore, it concluded that method have a positive and significant influence to the mastery of the concept of the direction of the primary school students.

Keywords: treasure hunt, eye directions wind.

INTRODUCTION

The right method of playing to teach the concept of wind direction is the method of playing Treasure Hunt because it is a learning activity that makes students look for a series of clues to find information and pass through several steps to find the treasure (Bell & Kahrhoff, 2006: 8). Treasure search is an outdoor activity that can be played by children or adults, in the game preparing a list of hidden things, so the winner is the first team to find all the content in the list (Kim & Jing, 2010: 1856).

Treasure Hunt learning methods can also be applied indoors and outdoors, although it is commonly used outdoors because it is more like a pirate going adventurous to find hidden treasures, so that method is one method that can combine indoor or outdoor activities (Kohen, 2012: 24).

The purpose of the game Treasure Hunt is to find answers to the questions given, where each participant will be assigned a different task, so the game has no direct effect on the students' achievement with each other (Mobius, Tuan, & Adam, 2015: 7). Treasure Hunt game can improve students' learning ability because the average score of students' ability score increases after learning by this method (Andira, Zulkifli, & Devi, 2016: 5). Collaborative games such as Treasure Hunt, according to Hutomo (2016: 109-110), are very useful in the world of education because it will upload, challenge, and foster student activeness in learning.

Treasure Hunt play method is based on constructivism theory initiated by Jean Piaget. According to Piaget, the development of the human intellect goes through the process of kaitanya with each other, namely assimilation and accommodation. Piaget views the game as a way of manipulating the outside world in order to harmonize with the schemata it already has. Based on that, the game serves as a way of manipulating the outside world in order to stimulate the realization of the assimilation and accommodation process, because by the process it means that one's intellectual will grow and develop (Rofi'udin, 1999: 40).

Students will adjust between the knowledge they have possessed with their newly acquired knowledge so as to create appropriate knowledge. Treasure Hunt learning method is very suitable to be used in studying the concept of the direction of the wind because students themselves who will be active in reconstructing pemahamannya about the concept through learning activities while playing. Based on this, Treasure Hunt method is categorized into one of active learning strategy by Shaleh (2005: 158).

According to Sophocles (Warsono, 2014: 3), active learning is needed because one must learn by doing, because knowledge of something is incomprehensible if not practiced directly. In accordance with the opinion tesebut, the method of playing Treasure Hunt will create a complete understanding of the students about the conception

of the direction of the wind, because students will directly apply the concepts that are understood in the field or in real situations through play activities.

The first characteristic of elementary school students is the pleasure of playing and the characteristics of both are happy to move. Both of these characteristics require teachers to create a learning process that enables students to move, as primary school-aged children can not sit quietly for long periods of time. Learning in a playful atmosphere such as play allows students to actively learn so that their knowledge, skills, attitudes, and fantasy power will flourish (Suarsana et al., 2013: 4).

RESEARCH METHOD

The type of research conducted is experimental. Experimental research, according to Riyanto (2001: 35), as one of the research steps are structured, logical, and have precision when controlling a phenomenon. Experimental design used is Quasi Experimental Design in the form of Non-equivalent Control Group Design (Sugiyono, 2016: 79).

The experimental group is the treatment-treated group in the form of Treasure Hunt method and the control group is the appropriate group with the actual situation or given treatment which is at least equivalent to the experimental group, so the method chosen is Snowball Throwing. The description of the study design is as follows:

Table 1. Research Design

Kel.	Pretest		Posttest
Eks	O ₁	X	O ₂
Kont	O ₃	-	O ₄

Information:

- O₁ : pretest experimen class
- O₂ : posttest experimen class
- x : treatmen
- O₃ : pretest control class
- O₄ : posttest control class
- : no treatmen.

The study was conducted on students of grade IV A and IV B SDN 4 Maroangin. The determination of experimental class and control class based on observation result showed that class IV A showed lower value than class IV B. The data collection method in this study used the test technique given in two stages, namely at the time of pretest and postets.

The concept master test sheet instrument is used to measure the mastery of concepts obtained by the students. The assessment instrument is measured

using a product assessment sheet consisting of several problems with difficulty characteristics referring to the cognitive aspects of the taxonomy of bloom categories C1, C2, and C3.

Test the validity using Pearson/ Product Moment formula and instrument reliability test using Spreaman-Brown formula because the test question used objective type. The resulting reliability coefficients will be interpreted using the criteria of Guilford by Sundayana (2014: 69), as follows:

Table 2. Classification of Reliability Coefficients

Coefficien (r)	Interpretation
0,00 ≤ r < 0,20	very low
0,20 ≤ r < 0,40	low
0,40 ≤ r < 0,60	medium
0,60 ≤ r < 0,80	Height
0,80 ≤ r < 1,00	very hight

Improved mastery of the concept before and after treatment is known using the gain (normalized gain) formula developed by Hake (Sundayana, 2014: 151).

The normality test of concept mastery test result using Chi-square test and homogeneity test using F test and hypothesis test using T test with the provision of data distribution of normal distributed research results and has homogeneous variance.

The hypothesis of the results of the T test pretest mastery of student concepts explains that the null hypothesis (Ho) if there is no difference in the ability of early mastering the concept significantly between the experimental class students and control class students before being treated; whereas alternative hypothesis (Ha) if there is difference of ability early master of concept which is signifikan between experiment class student and control class student before given treatment.

Hypothesis on the result of posttest t test of student concept mastery explains that the hypothesis of zero (Ho) if there is no difference in capability of master conception that is significant between experiment class students and control class students after being treated; while the alternative hypothesis (Ha) if there is a difference in capability of master concepts that are significant between the students of the experimental class and the control class students after being treated.

RESULT AND DISCUSSION

The result of test instrument validity test of concept master test shows that there are 6 problem has rth value > rtabel; 4 questions have a value of <rtabel, so it is concluded that there are only 6 valid

mastery questions to be used in collecting research data.

The results of the realibilats test on 6 valid test master validity test questions resulted in a reliability coefficient of 0.62401 so that when interpreted using Guilford criteria it is included in the high category ($0.60 \leq r \leq 0.80$), so it is appropriate to be used as a collecting instrument data related to conceptualizing students.

The result of t test of pretest data of concept mastery test yielded tcount = -1,5104, the value is in reception area $T_{table} = 2,7378$ or $-2,7378 < -1,5104 \leq 2,7378$, so it is concluded that there is no difference of ability the beginning of mastering the concept significantly between the experimental class students and the control class students before being given treatment, in other words the null hypothesis (H_0) is accepted and the alternative hypothesis (H_a) is rejected.

The result of the posttest test of the student's master comprehension test explains that the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted because the tcount (2,9525) is outside the acceptable T_{table} (2,7378) or tcount > T_{table} , there is a significant difference in conceptual master comprehension ability between experimental class and control class students after being treated.

CONCLUSION AND SUGGESTION

There is a positive and significant influence of Treasure Hunt method on the mastery of the concept of grade 4 students of elementary school. Positive influences based on the results of students' mastery of concepts test that experienced a change in value in a good direction. The result of t test of posttest mastery of the concept shows that tcount $2,9525 > t_{table} 2,7378$ or H_0 is rejected so that there is significant influence. The result of normalized gain test of mastery of experimental class concepts studied by treasure hunt method can be increased by 66%; while the control class only increased by 16%; thus concluded that the method of Treasure Hunt has a positive effect significantly on mastery of student concepts.

We recommend using the method of Treasure Hunt in teaching the concept of the direction of the wind because it can improve mastery of student concepts, thus misconception of students about the direction of the wind can be overcome. This research is expected to be used as reference material for further research related to the method of learning and research on different variables and materials to enrich the treasury of science.

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