

THE APPLICATION OF THE SNOWBALL THROWING COOPERATIVE MODEL IN SCIENCE STUDIES LEARNING FOR GRADE V STUDENTS OF ELEMENTARY SCHOOL TRANS PRABUMULIH 1

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Abstract

The purpose of the research was to determine the completeness of the science learning outcomes of grade V Elementary school Trans Prabumulih 1 in the 2020/2021 academic year after the implementation of the snowball throwing type cooperative learning model. The research method used was the Pre-Experimental design method. The population was all grade V students of Elementary school Trans Prabumulih 1 in the academic year 2020/2021 and a sample of class V students who were determined to be 22 students who were determined by saturated sampling. The results showed that the average score of the students' test score was 32.14 with a percentage of the number of students who completed 4.54% and the final test of students was 70.26 with a percentage of the number of students who completed 81.81%. The data technique used was a 7-question essay test technique. The collected data were analyzed using the z-test. Based on the results of the z-test analysis at the significant level $\alpha = 0.05$, it was obtained z count (1.53) > z table (1.4), so it can be concluded that the results of students' science learning using cooperative learning type Snowball Throwing significantly complete.

Keywords– Snowball Throwing, Science Learning, Learning Outcomes

1. Introduction

Efforts to improve the quality of education must be considered and carried out continuously and continuously thoroughly covering various aspects, both aspects of knowledge, skills, attitudes, teacher quality, learning facilities and infrastructure as well as application of learning models, strategies, approaches, methods and techniques.

The learning process should involve students actively because basically students are learning. The learning process of students to acquire knowledge is called learning activities (Suyono & Hariyanto, 2011: 9). Students are required to actively seek information and subject matter and the role of the teacher is only as a facilitator when students are active in class and make correct conclusions from the delivery of material presented by students.

A good learning process is a learning process that allows students to actively involve themselves in the whole process both mentally and physically. based on the results of observations and interviews conducted by the author on the teachers of SD Negeri Trans Prabumulih 1 On July 27, 2020, there was a problem in the learning system, namely the low activity and learning outcomes of students in the learning process so that there were still students who did not meet the KKM set by the school, namely 66 with a classical completeness percentage of 40.9%. Of the total 22 grade V students who had reached the KKM, 9 were (40.9%) while 13 students had not reached the KKM (59.1%).

2. Method

Ngalimun (2014: 27) suggests that the learning model is a plan and a pattern used for guidance when designing face-to-face teaching patterns in class and is used to determine learning materials / devices which include books, media (films), types, computer media programs, and curricula. (as a course for learning).

Firman (2019: 102) argues that the Snowball Throwing model learning is a learning model that divides students into several groups, where each group member makes a question ball. According to Budiyanto (2016: 130) the advantages and disadvantages of the Snowball Throwing model are as follows:

The advantages of the Snowball Throwing model are as follows:

1. Train the readiness of students.
2. Give knowledge to each other.

Disadvantages of the Snowball Throwing model:

1. Knowledge is not extensive or underdeveloped only dwells on knowledge.
2. Requires a relatively long time.

The research method is a scientific way of obtaining data for specific purposes and uses. According to Sugiyono (2016: 6) the research method is defined as a scientific way to obtain valid data with the aim of being able to find and prove certain knowledge so that it can be used to solve problems.

Based on the above understanding, the research method used in this study is to use the Pre-Experimental design. This research was conducted without any comparison class (only one class). The design in this study was one group pretest-posttest, which only had 2 sets of outcome data, namely pretest (O1) and posttest (O2).

The data collection technique used in this research is by using tests. The test used in this study was in the form of 10 essay questions and was carried out twice, namely before (pre-test) and after (post-test) the learning treatment was given using the Snowball Throwing learning model. To find out the validity of the items, this was done by correlating the scores of these items with the total scores obtained, using the product moment correlation formula:

$$r_{xy} = \frac{N\Sigma xy - (\Sigma x)(\Sigma y)}{\sqrt{[N\Sigma x^2 - (\Sigma x)^2][N\Sigma y^2 - (\Sigma y)^2]}}$$

(Jihad & Haris, 2012:180)

Table 1. Instrument Validity Correlation Coefficient Criteria

Correlation coefficient	Correlation
$0,80 < r_{xy} \leq 1,00$	Very High
$0,60 < r_{xy} \leq 0,80$	High
$0,40 < r_{xy} \leq 0,60$	Enough
$0,20 < r_{xy} \leq 0,40$	Low
$0,00 < r_{xy} \leq 0,20$	Very Low

To calculate the reliability of the test, many descriptions are used the alpha formula, as follows:

$$r_{11} = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum \sigma_i^2}{\sigma^2} \right)$$

(Sujarweni, 2014:85)

The analysis of the distinguishing power of questions is the assessment of the items that are intended to determine the ability of students to distinguish students who are classified as capable and students who are classified as incapable of calculating Distinguishing Power (DP) for each item using the following formula:

$$DP = \frac{S_A - S_B}{I_A}$$

(Jihad & Haris, 2012:181)

Table 2. Distinguishing power interpretation criteria

Interprestasi DP	Kriteria
0,70 or more	Very Good
0,40 – 0,69	Good
0,20 – 0,39	Enough
0,19 down	Ugly

3. Result and Discussion

The research process was conducted in 3 meetings with details of one Pre-Test at the beginning of the study to determine the students' initial abilities before being given learning using the Snowball Throwing type cooperative

learning model, two times the learning process using the Snowball Throwing type cooperative learning model and one time. Post-Test at the end of the lesson which is useful for knowing learning outcomes after the application of the Snowball Throwing type cooperative learning model.

1. The first meeting

The first meeting was held on (24 August 2020), the teacher provided an answer sheet for the pre-test to see the students' initial abilities, then in the preliminary activities the teacher (the writer in this case) conveyed the learning objectives and the material to be studied.

2. The second meeting

held on (August 25, 2020), the teacher reminded the material that had been studied at the previous meeting. At the second meeting, the teacher gave an explanation related to material about human organs with concrete examples such as using the media using the student's own body, after being given an explanation accompanied by an example it was seen that the students began to actively ask questions about the organs of the body. Then the teacher forms a study group, after the group is formed, the teacher calls the chairman of each group to be given some explanation about the material of human movement organs. After receiving direction, each group leader returns to their respective groups then explains the material obtained from the teacher to their group friends. Each group is given a sheet of paper used to write down questions about the human organism material, then the questions for each group are made like a ball, the teacher directs the whole group to form a circle, after making a ball, the paper is thrown from one student to another under the guidance by the teacher, the group that gets the ball then has the opportunity to answer one of the questions in the ball.

3. Third Meeting

The post-test is carried out at the end of the lesson. giving post-test serves to determine student learning outcomes after participating in the teaching and learning process using the Snowball Throwing type cooperative learning model. Based on the results of the analysis of the average pre-test and post-test scores

for class V SD Negeri Trans Prabumulih 1, namely the pre-test average value of 32.14 can be observed through the recapitulation of the pre-test results based on calculations while the average Post-Test value of 70.45 can be observed through the recapitulation of Post-Test results based on calculations (Appendix D) ZCount =1,65 and Ztabel 1,64 to a significant degree $\alpha = 0,05$, because Zcount Ztabel that is ZCount (1,65) Ztabel (1,64).

4. Conclusion

In the pre-test, there were 22 students, only 1 student who passed a score of more than or equal to 66 with an average score of 32.14 and the percentage was 4.55%. After the material was given using the Snowball Throwing cooperative learning model and a post-test, students who scored more than or equal to 66 reached 18 students with an average score of 70.45 and the percentage of 81.81%. Based on the formulation of the problem, the results of the research and discussion, it can be concluded that the science learning outcomes of grade V SD Negeri Trans Prabumulih1 after the implementation of the Snowball Throwing type cooperative learning model are significantly complete.

References

- Budiyanto (2016). *Sintaks 45 Metode Pembelajaran Dalam Student Centered Learning (SCL)*. Malang. UMM press.
- Firman & Hisbullah (2019). *Penerapan model pembelajaran Snowball Throwing dalam meningkatkan hasil belajar ilmu pengetahuan alam di sekolah dasar*. Cokroaminoto Jurnal of Primary Education. 2(2), 100-113.
- Ngalimun (2014). *Strategi dan model pembelajaran*. Sleman Yogyakarta: Aswaja pressindo.
- Fathurrohman (2015). *Model-model pembelajaran inovatif*. Yogyakarta: Ar-Ruzz Media.
- Jihad & Haris (2012). *Evaluasi pembelajaran*. Jogjakarta: multipressindo
- Shoimin. (2016). *68 Model Pembelajaran Inovatif Dalam Kurikulum 2013*. Yogyakarta:Ar-Ruzz Media

Sujarweni. (2014). *Metodologi Penelitian Lengkap, Praktis, Dan Mudah Dipahami*. Yogyakarta: Pustaka Baru Press.

Suyono & Hariyanto. (2011). *Belajar dan pembelajaran*. Bandung: Pt Remaja Rosdakarya.



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