

## THE EFFECT OF EXPERIMENTAL METHODS SUPPORTED AS REAL OBJECT MEDIA ON THE ABILITY OF IDENTIFYING GREEN PLANT MAKES FOOD STUDENTS OF FIFTH-GRADES SDN GUNUNG BOROK

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**Abstract:** This research is based on the observations and experiences of researchers, that science learning in elementary schools still dominates the role of the teacher who provides learning using the lecture method in each lesson and there is no learning media. These conditions make the learning atmosphere tend to be monotonous and boring, resulting in low student interest in learning. The aims of this study were (1) to find out the ability to identify how green plants make food taught by the experimental method without the help of real object media in fifth-grades students at SDN Gunung Borok (2) to find out the ability to identify green plants to make food taught by the experimental method assisted by real object media in fifth-grades students at SDN Gunung Borok (3) To determine the effect of the experimental method assisted by real object media on the ability to identify how green plants make food in fifth-grades SDN Gunung Borok. This study used a quantitative research approach with the research technique Quasi Experimental Design type Nonequivalent Control Group Design. The research subjects were 45 students of fifth-grades SDN Gunung Borok consisting of 23 students from fifth-grades-A as the experimental class who were treated using experimental methods supported by real object media and fifth-grades-B as many as 22 students as the control class only used the experimental method without the support of real object media. The conclusions from the results of this study were (1) The ability to identify how to make green plant food taught by experimental methods without the support of real object media obtained an average score of  $\geq$  KKM, namely 77, this value can be seen from the posttest value data obtained by fifth grade students of SDN Gunung Borok (2) The ability to identify how green plants make food which is taught using experimental methods supported by real object media obtains a score above the KKM, namely 82, this value can be seen from the value of the posttest data obtained by fifth-grades students at SDN Gunung Borok (3) There is an influence An experimental method supported by real object media on the ability to identify how green plants make food in fifth-grades SDN Gunung Borok with a Sig. (2-tailed)  $0.000 < 0.005$  thus  $H_0$  is rejected and  $H_a$  is accepted.

**Keywords:** Elementary School, Real Object, Science

### INTRODUCTION

Education is an important part of society. Education is used as a benchmark to achieve certain goals. This is in accordance with the opinion of that "the essence of education is actually learning". In the learning process, a teacher is expected to be able to package and deliver learning activities in an interesting way so that students feel happy and focus on learning during the learning process (Rakhmawati & Sartono, 2023; Wahyudi & Haryati, 2023).

But in general there are still many problems that arise during the learning process takes place. This research faces the problem of the learning process which is still

dominated by the role of the teacher (Rohmani, 2022; Sulmiati, 2022). Teachers tend to only use conventional learning methods such as the lecture method. Teachers are less innovative in terms of choosing the right learning method in the learning process. This causes a lack of interaction between teachers and students which tends to be monotonous and boring for students during the learning process. In addition, the teacher's creativity in terms of developing learning media that is appropriate to the learning material to be delivered is very lacking. Most teachers do not use learning media during learning takes place (Kadar Manik et al., 2022; Lubadah et al., 2022; Rohmani, 2022). Just as the teacher only uses the handbook as a liaison

between the teacher and the students in delivering the material. So that students are less enthusiastic, less interested or even less focused on following the learning process.

One effort to overcome the problems above, researchers try to apply a learning method that is appropriate to the learning material to be delivered (Warschauer, 2005). One of the learning methods that can be used to overcome the above problems is the experimental method. The experimental method is very appropriate for use in science subject matter because science learning material tends to invite teachers and students to conduct experiments or practicums. This is in accordance with the opinion of Rushton (2018) who says that "the experimental method is a way of presenting lessons when students conduct experiments by experiencing and proving something they have learned for themselves."

In addition to applying the experimental method, the selection and use of appropriate learning media is also needed to improve students' abilities in learning. Learning media are all forms of tools that are important to a learning process. This is in accordance with the opinion of Trenado et al. (2018) which explains the meaning of learning media as follows. Everything that can convey or distribute messages from a source in a planned manner, so that a conducive learning environment occurs where the recipient can carry out the learning process efficiently and effectively.

Here the researcher tries to use real object media. According to Andriani et al. (2022) real object media is interpreted as follows. Real objects can play an important role in efforts to improve the teaching and learning process. There are many kinds of real objects, ranging from living objects or creatures such as animals and plants, also including inanimate objects such as rocks, air, soil, and so on.

The use of real object media can be an effort to improve the quality of the learning process so that it is better. The real object used by researchers in this study is a magnifying glass. A magnifying glass is an object in the form of a lens that can be used to see small objects so that they appear larger. This is in accordance with Murtafiah et al. (2019) which defines a magnifying glass as "a convex lens

that is used to see objects that are small in size so that they appear large.

## METODE PENELITIAN

In this study, researchers used a type of experiment that was considered good, namely Quasi Experimental Design. There are two forms of Quasi Experimental Design, namely Time-Series Design and Nonequivalent Control Group Design (Cresswell, 2012). In this study, researchers used Nonequivalent Control Group Design. In this design the experimental group and the control group were not randomly selected.

Based on the research design above, the experimental group and the control group were given a pretest. Then the experimental group was given treatment with experimental methods supported by real object media, while the control group was given experiments without the support of real object media.

Then a posttest was carried out on the experimental group and the control group. The results of the two posttests were compared, as well as between the results of the pretest and the results of the posttest in each group. The significant (significant) difference between the two posttest results and between the pretest and posttest in the experimental group shows the effect of the treatment given.

## RESULT & DISCUSSION

Based on data analysis in this study, the following results can be seen.

1. The ability to identify how green plants make food obtains an average score of  $\geq$  KKM using the experimental method without the support of real object media in fifth grade students at SDN Gunung Borok, Central Lombok Regency. This is evident from the t-count value of 16.775, thus the t-count is greater than the t-table of 1%, namely 2.831. Based on df 21 while 5% is 2.080 and can be written t-count  $16.775 > t\text{-table } 2.831$ .
2. The ability to identify how green plants make food obtains a score reaching above the KKM using experimental methods supported by real object media in fifth grade students at SDN Gunung Borok, Central Lombok Regency. This is evident from the t-count value of 23.228, thus the

t-count is greater than the t-table of 1%, namely 2.819. Based on df 22 while 5% is 2.074 and can be written  $t\text{-count } 23.228 > t\text{-table } 2.819$ .

3. There is an effect of the experimental method supported by real object media on the ability to identify how green plants make food in fifth-grades students at SDN Gunung Borok, Central Lombok Regency. This is evident from the t-count value of 5.549, thus the t-count is greater than the t-table of 1%, namely 2.695. Based on df 43 while 5% is 2.017 and can be written  $t\text{-count } 5.549 > t\text{-table } 2.695$ .

## CONCLUSION

1. The ability to identify green plants to make food obtains an average score of  $\geq$  KKM with the experimental method without the support of real object media in fifth grade students at SDN Gunung Borok, Central Lombok Regency. Then based on predetermined decision norms, it can be seen from the results of hypothesis testing that the null hypothesis ( $H_0$ ) is rejected at a significant level of 1%, which means that the alternative hypothesis ( $H_a$ ) proposed is correct.
2. The ability to identify how green plants make food scores above the KKM using experimental methods supported by real object media in fifth grade students at SDN Gunung Borok, Central Lombok Regency. So based on predetermined decision norms it can be seen that the results of testing the null hypothesis ( $H_0$ ) are rejected at a significant level of 1%, which means that the alternative hypothesis ( $H_a$ ) proposed is correct.
3. There is an influence of the experimental method assisted by real object media on the ability to identify how green plants make food in fifth grade students at SDN Gunung Borok, Central Lombok Regency. So based on predetermined decision norms, it can be seen from the results of hypothesis testing that the null hypothesis ( $H_0$ ) is rejected at a significant level of 1%, which means that the alternative hypothesis ( $H_a$ ) proposed is correct.

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