The Influence of Inquiry Learning on The Environment Care Character of Elementary School Students

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Abstract: The results of observations that have been in grade 5 on science subjects are the lack of use of models and media in science learning activities by teachers, lack of student participation or activeness in the science learning process, lack of inculcation of character values in science learning. This study aims to determine the process of learning inquiry on the environment care character of grade 5 students in the science concept and to determine whether there is an effect of inquiry learning on student environmental care character. The subjects of this study were students in grades 5A and 5B. This research uses experimental research methods. Based on the results of research in the learning process regarding the use of inquiry learning in science subjects, it is known that inquiry learning can affect the emergence of student the environment care character which can be seen from the post-test results of the experimental class with an average value of 75,38 which is superior to the control class average value is 45,38. From the observations of the experimental class after the application of the inquiry learning obtained an average of 84,46 which is superior to the control class with an average of 72,46. The results of these studies are based on the application of inquiry learning. With inquiry learning, students can more easily understand the material provided, are more active in the learning process, and can develop a caring character for the environment.

Keywords: Inquiry Learning, The Environment Care Character, The Influence, Student Elementary School

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INTRODUCTION

The inquiry learning model is the right approach for teaching science material for grade 5 because inquiry has a problem-solving approach to learning. Inquiry learning is learning that will provide opportunities for students to be active and test and interpret problems scientifically which provides conclusions based on evidence, the result is that it can foster and develop a caring character for the environment in students through thinking reactions. Based on this, inquiry learning can be used as learning in developing environmental caring characters in students through the concept of food digestion in grade 5. Through the concept digestion of food, students are expected to be able to develop a caring character for the environment by learning inquiry. Thus, the authors are interested in conducting scientific research that is useful for developing the character of environmental care for students in school/madrasahs, with the title "Influence of Inquiry Learning on The Environment Care Character of Elementary School Students".

METHOD

This type of research is experimental. Experimental research is a research method used to find the effect of certain treatments on others under controlled conditions (Sugiyono, 2015, p. 107).

The data collection technique used in this study used two instruments, namely the learning instrument and the data collection instrument. Learning instruments consist of learning devices that are used as support in the implementation of learning. While the data collection instrument is a tool used to obtain data, information on the learning process, and learning outcomes that have been implemented.

The data analyzed was the character development data for environmental care in the concept of food digestion in humans in inquiry learning. The data were analyzed according to the experimental class and the

control class. Then tested for normality and homogeneity, then using SPSS 24 software, using the Paired Sample T-Test analysis or paired-sample t-test is used to test the comparison of two paired-sample averages. The processed data is data obtained from the pretest and post-test results; the formula is as follows:

$$\frac{\text{The score obtained}}{\text{Maximum score}} \times 100$$

RESULTS AND DISCUSSION

The results of this study are the influence of inquiry learning on the environment care character of elementary school students. Inquiry learning is learning that is widely recommended because it has several advantages, including (Kurniasih & Sani, 2016, p. 114-115):

1. Inquiry learning is learning that emphasizes the development of cognitive, affective, and psychomotor aspects in a balanced manner, so that learning through this learning is considered much more meaningful.
2. This learning can provide space for students to study according to their learning style.
3. This learning is a strategy that is considered by the development of modern learning psychology which considers learning to be a process of changing behavior thanks to experience.
4. Another advantage is that it can serve the needs of students who have above average abilities. This means that students who have good learning abilities will not be late by students who are weak in learning.

The steps in the science learning process on the concept of food digestion using inquiry learning are as follows:

1. Formulate a question or problem
   At this stage the teacher guides students to identify problems and problems are written on the blackboard, the problem posed is about food digestion. The teacher asks students:
   a. Where is the food put in? (In the oral cavity)
   b. Has the state of the cake changed? (Yes, change)
   c. Why did it change? (Because it is digested)
   d. Where is the food once it is digested? (Into the esophagus)
   e. If we eat cake will it come out during defecation? (Not)
   f. Why is that? (Possible answers that will be given by students: crushed by the mouth, teeth, intestines, etc.)
2. Make a hypothesis
   At this stage, the teacher provides the opportunity for students to express opinions in the form of a hypothesis. The teacher guides students in determining the hypothesis that is relevant to the problem and prioritizing which hypotheses are the priority of the investigation. The teacher assigns students to observe pictures of the human digestive organs and is asked to answer the following questions:
   a. Through what is food entered?
   b. What channels does food pass through to the anus?
   c. What do the digestive organs consist of?
   d. Are the functions of the digestive organs?
3. Collecting data
   At this stage, the teacher provides the opportunity for students to determine the steps by which the hypothesis to be carried out. And provide the opportunity for each group to work on the worksheets given by the teacher. Looking for information, data, and facts needed to answer a hypothesis or problem.
   The worksheets made are practical activities to make a model of digestion of food in humans. The teacher divides students into groups, each group consisting of 5-6 students. Then, the teacher distributes worksheets to each group. Each group discussed to make observations in practice and experiment. The following is how the food digestion apparatus works in humans:
   a. Observe all the tools and materials provided by the teacher.

b. Do the following activities according to the pictures provided?
c. First, prepare two medium bottles of aqua and cut off the top.
d. Second, take a small balloon and cut the end of the balloon blower.
e. Next, observe the straw and tie it with a balloon at the end of the straw with a tight tie.
f. Then, take 2 bottle caps that have been perforated. And given the name bottle cap A and bottle cap B.
g. Insert the straw that has been tied with a balloon through the perforated cap of bottle A.
h. Next, insert the IV tube at the other end of the balloon that is tied with a straw. Tie the IV tube that has been inserted into the balloon using tape.
i. Then, connect the small water hose by inserting the other end of the IV tube.
j. Then, a small water hose is inserted into the cap of bottle B.
k. Combine between bottle A and bottle B.
l. Attach plasticine to the top of the bottle cap B (try to close it tightly)

4. Analyze data
At this stage, the teacher provides the opportunity for each group to convey the results of processing the collected data. The teacher directs each group to explain the results of their practice in front of the class. The teacher together with the students discusses the results of the LKS discussion, then concludes.

5. Make conclusions
At this stage, the teacher guides students in making conclusions during the learning process. The teacher provides positive feedback and reinforcement on student learning outcomes. The teacher reflects student learning outcomes by applying the conclusions to the children in front of the class.

Based on this value, it can be concluded that $-t_{count} > -t_{tablel}$ *(-11, 241 > -0,381)* for the experimental class H_a is accepted. This means that in this experimental class the test score after using inquiry learning is higher than the test before using inquiry learning and can improve student learning outcomes in science subjects. Likewise, with learning that does not use inquiry learning or control class learning, then it can be concluded that $-t_{count} > -t_{table}$ (-3,851 > -0,381) which indicates H_a accepted. This means that there is a significant difference in learning outcomes for inquiry learning and not using inquiry learning between pretest and posttest even though the learning outcomes using inquiry learning are higher.

Table 1. Paired Samples Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Before Experiment	28.08	26	12.967	2.543
	After Experiment	75.38	26	14.486	2.841
Pair 2	Before Control	28.85	26	13.365	2.621
	Before Control	45.38	26	23.871	4.682

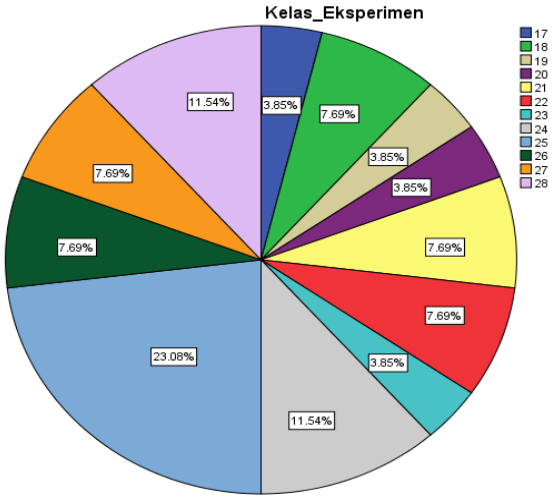

Figure 1. The percentage of students answers in the experimental class

Based on the data obtained on the pretest learning outcomes with an averages value of 28,08 and after that using inquiry learning there was a significant increase in post-test learning outcomes with an averages value of 75,38. The value of the observation results on the character of environmental care before and after learning has increased significantly in the experimental class. The average value before inquiry learning is 70,92 and has increased after using inquiry learning with a value of 84,46. In the questionnaire for the character of caring for the environment, students are given answer choices never, always, and sometimes. The data showed that 52,69% of students always answered, 29,62% of students sometimes answered, and 17,69% of students answered never. The conclusion that can be drawn is that inquiry learning on the character development of environmental care can be used. Some things need to be improved. Inquiry learning is very influential in science learning. This is involved in the post-test results of the experimental class with an average value of 75,38 which is superior to the control class with an average value of 45,38. From the observation results of the experimental class after the application of inquiry learning obtained an average of 84,46 which is superior to the control class with an average of 72,46. The results of these studies are based on the application of inquiry learning. With inquiry learning, students can more easily understand the material provided, are more active in the learning process, and can develop a caring character for the environment.

CONCLUSION

There is an effect of the application of inquiry learning in the experimental class on the concept of food digestion in developing a caring character for the environment in elementary schools. This can be seen from the post-test results of the experimental class with an average value of 75,38 which is superior to the control class with an average value of 45,38. From the observation, the experimental class after the application of inquiry learning obtained an average of 84,46 which is superior to the control class with an average of 72,46.

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