

## THE INFLUENCE OF CHILDREN'S S LEARNING IN SCIENCE (CLIS) MODEL ON STUDENT LEARNING OUTCOMES INTEGRATED THEMATICS IN CLASS IV SD

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### ABSTRACT

This study aims to determine the existence of a significant effect on student learning outcomes using the Children Learning In Science (CLIS) model on Class IV integrated thematic learning at SD Negeri 52 Parupuk Tabing. This type of research is an experimental study with Quasi Exsperimental design, with a non equivalent control group design. The sample technique used was purposive sampling technique with a sample consisting of two classes, namely the IVA class experimental class using the CLIS model which amounted to 24 students and class IVB control class using a scientific approach totaling 24 students. The results of the study with the t-test show that the average value of the class using the CLIS model is 76.25 and the class using the scientific approach is 71.5. Obtained results of tcount 1.8524 > 1.67356 ttable at the 0.05 significance level. Thus it can be concluded that there is a significant influence on the use of the Children Learning In Science (CLIS) model on student learning outcomes in integrated thematic learning in grade IV SD.

**Keywords: CLIS, Scientific, Learning Outcomes**

### INTRODUCTION

The curriculum is a tool that is used as a guide in developing the learning process that is related to the activities of students to achieve the goals of education and learning. Changes to the curriculum into the 2013 curriculum are currently an effort to improve the achievement of the education process. In the context of an increase and balance between competency attitude, skills and knowledge. This is in accordance with

the opinion of Desyandri and Vernanda (2017) stating that exhaustion in the 2013 curriculum includes attitudes, knowledge, and skills according to agreed national standards and agreements. 2013 curriculum planning uses an integrated thematic approach and its implementation uses a scientific approach.

This integrated thematic learning uses a theme that brings together some material into one subject, connecting one subject to another. Hermon (2015); Anastaha *et al.*, (2018) explained that integrated thematic learning processes make students more active, critical, and must be involved in the learning process. In line with the opinion of Amini and Helsa (2018) that thematic learning also focuses so that students can be involved in the learning process and be able to make students become more active and able to gain hands-on experience. Because the purpose of the 2013 curriculum is to create meaningful learning.

In the implementation of the 2013 curriculum precisely on integrated thematic learning, the use of learning models is very important to be carried out in the learning process. By using the right learning model, the learning objectives will be achieved as expected. One of the appropriate models used in integrated thematic learning is the Children's Learning In Science (CLIS) model. The CLIS learning model has a learning process by shaping knowledge (concepts) into students' memory so that the concept can last long, because the CLIS learning model contains a series of stages - stages of student activities in learning the concepts taught. This was explained by Hermon and Dalim (2005); Hermon and Dalim (2006); Agwudu (2018), Arisantiani *et al.*, (2017) and Susanti *et al.*, (2014) that the CLIS learning model provides opportunities for students to express various ideas about topics discussed in learning, express ideas and compare ideas with other students' ideas and discuss them to equate perceptions.

Yuanita and Ibrahim (2015) put forward some advantages of the CLIS model, namely the existence of good interaction between students because of the formation of cooperation in constructing ideas, students directly involved in learning, learning atmosphere becomes more active, creative, and fun, teachers teach effectively so learning becomes more meaningful. By using the CLIS learning model, the learning process can improve students' understanding of learning material so that activities and learning outcomes run optimally.

Purwanto (2013) states that learning outcomes are a benchmark for achieving educational goals in students who follow the learning process. This is not only obtained easily, because to obtain maximum learning outcomes can not be separated from several factors. One of the factors that influence student learning outcomes is learning activities.

The reality in the field during observation in class IV SDN Group 1 Region 1 of Padang City was found that learning had implemented the 2013 curriculum. The results of this observation showed that the teacher had used a scientific approach, but the learning model that could be integrated in integrated thematic learning process had not been implemented well. When the learning process takes place, the learning activities of the students are less active seen from students who have not dared to issue or express their ideas, when the teacher asks the students just keep quiet, because they are used to listening to what the teacher says in front of the class and then recording the material learning in the textbook. Integrated thematic learning should make students become more active in the learning process. But the facts found in the field, namely thematic learning is still the same as previous learning, where the teacher is not accustomed to students to learn independently in solving an existing problem and lack of interaction between teacher and students, so students become passive and not directly involved in conducting learning activities . So that student learning activities have not achieved optimal results.

Therefore, researchers feel the need to conduct research to prove how the CLIS model influences students' learning outcomes in grade IV elementary school in integrated thematic learning. Thus, the researchers chose the title "The Influence of the Children's Learning In Science (CLIS) Model on Student Learning Outcomes in Integrated Thematic Learning in Class IV Elementary School" as the title of this study. As for the purpose of this study was to determine the effect of the Children's Learning Model student learning outcomes in integrated thematic learning in grade IV elementary school.

## METHOD

This study uses a type of quantitative research. And the research method used is experimental research. Sugiyono (2010) states that experimental research can be interpreted as a research method used to find the effect of certain treatments on others in

controlled conditions. The design used in this study is quasi experimental design. Quasi experimental design has a control group, but it cannot function fully in controlling external variables that influence the conduct of experiments. The researcher used a non equivalent control group design where this design was almost the same as the pretest-posttest control group design, only in this design the experimental group and the control group were not randomly selected. The population in this study were all class IV SDN Gugus 1 region 1 Kota Padang. The sampling technique is purposive sampling. So from the 5 schools that made up the population namely SDN 20 Dadok Tunggul Hitam, SDN 29 Dadok Tunggul Hitam, SDN 43 Dadok Tunggul Hitam, SDN 24 Parupuk Tabing, and SDN 52 Parupuk Tabing. The researcher only chooses samples based on the criteria chosen by the researcher. The sample was taken for several reasons, namely 1) the curriculum uses the 2013 curriculum, 2) the classes used are parallel classes, 3) the two classes have the same number of students. Based on the criteria chosen by the researcher 3 elementary schools were selected using K.13. But those who use parallel classes, and the number of students in the two classes are the same in 2 schools, namely SDN 52 Parupuk Tabing and SDN 29 Dadok Tunggul Hitam. Then between the two schools simple random sampling was carried out by lottery method, which was chosen by all students in grade IV of SDN 52 Parupuk Tabing as many as 48 students, 24 students in IVA class and 24 students in IVB class. After that, a prerequisite test was carried out and the results were obtained that the two classes in the elementary school had a standard and homogeneous class.

## RESULTS AND DISCUSSION

The study was conducted on two classes, namely class IVA as many as 24 people as the experimental class who were given treatment using CLIS and class IVB models as many as 24 people as the control class using the scientific approach. Before being given treatment, students are given a pretest. After treatment in the experimental class and the control class, then the posttest was given. The pretest and posttest questions have been tested, then the data obtained is analyzed by validity, reliability, level of difficulty and power of difference questions. The data that has been analyzed is given to the experimental class and the control class.

The pretest results of the two research classes showed differences. The maximum value of the pretest obtained by the CLIS model class is higher than the maximum value of the scientific approach class which is 80 for the CLIS model class and 75 for the scientific approach class. In addition, the average value of the two classes also shows a difference of 56.21 for the CLIS model class average value and 43.36 for the scientific approach class average value and the average difference between the two classes is 12.85. These results indicate that the acquisition of the pretest grade of the CLIS model is higher than the scientific approach class. The results of the posttest of the two research classes also showed differences. The maximum posttest value obtained by the CLIS model class is higher than the maximum class value with a scientific approach, namely 100 for the CLIS model class and 90 for the scientific approach class. In addition, the average value of the two classes also shows a difference of 76.25 for the CLIS model class average value and 71.5 for the class average value with the scientific approach and the average difference between the two classes is 4.75.

The two samples both show  $F$  (max) count is smaller than  $F$  (max) table, then the sample results from the class posttest CLIS model and the scientific approach class are declared homogeneous. After testing the data analysis prerequisites, it was found that the data from the experimental and control class pretest and posttest were normal and homogeneous. Followed by testing the hypothesis. Hypothesis testing is done using the t-test with the t-test formula, at the significance level of 5% and " $df / db = n1 + n2 - 2$ " with criteria namely ( $t_{count} > t_{table} = H_a$  accepted) and ( $t_{count} < t_{table} = H_a$  rejected).

The  $t_{count}$  at posttest = 1.8524 and  $t_{table} = 1.67356$  with a significance level of 0.05 and degrees of freedom ( $df / db = 24 + 24 - 2 = 46$ ) which shows that  $t_{count} > t_{table}$  or  $1.87525 > 1.67356$  with thus  $H_a$  is accepted and it is stated that there is the influence of using the CLIS model on the integrated thematic learning outcomes of fourth grade elementary school students. This is because students have received different treatments so that there is a difference between the average posttest value of the CLIS model class and the scientific approach class.

Based on the results of the hypothesis test and the implementation of the CLIS model and scientific approach, it shows that there is a significant influence between the

learning outcomes treated with the CLIS model. As indicated by the value of the final grade of the class that uses the CLIS model is greater than the value of the average final test class using the scientific approach. Before doing research, researchers have made careful planning. Among them are making Learning Implementation Plans in accordance with the 2013 curriculum and describing learning activities using the CLIS model. Prepare student worksheets as well as tools and materials used in theme 8. And do the pretest to see students' initial abilities. The researcher uses the CLIS model step described by Samatowa (2016) regarding the stages of the CLIS model consisting of five stages, namely (1) orientation (2), elicitation of ideas, (3) restructuring of ideas) which consists of exchanging ideas, conflict situations, and constructing new ideas (4) applying ideas (application of ideas), and (5) stabilizing ideas (review change in ideas).

When the meeting took place, the researcher opened the learning activities by saying hello, praying together, giving news, apperception, arousing enthusiasm and conditioning the class. After students are ready to take part in learning, researchers begin activities by attracting students to everyday problems. Then the core learning activities, then students are given assignments to find solutions to problems that have been presented by discussing and questioning and presenting results. Then as a form of appreciation for researchers towards students, the researchers gave applause to students who dared to express their opinions and gifts to appreciate children's efforts. In learning in the control class, researchers examine teachers who carry out learning using a scientific approach that is an approach to gain knowledge based on a logical structure with stages of observing, asking, trying, processing, presenting, concluding, and creating. The researcher only looked at the way learning was carried out by the teacher using a scientific approach.

After carrying out the learning in the experimental class and the control was completed, then it was continued by giving the final test to students in the form of multiple choice questions which amounted to 30 questions. From the final test, the learning outcomes of the knowledge aspects of the experimental class were obtained using the CLIS model higher than the control class that used the scientific approach.

## CONCLUSION

Conclusions based on the results of data analysis are there are effects of using the CLIS model on student learning outcomes in integrated thematic learning in grade IV elementary school. This is indicated by the results of the calculation of the posttest hypothesis test through the t-test at a significance level of 0.05, where  $t_{count} > t_{table}$  is  $(1.8524 > 1.67356)$ . The CLIS model is one model that has been proven to have a positive influence on student learning outcomes when compared to the scientific approach in the classroom. Based on the results of the research conducted, the researcher put forward some suggestions as follows: 1) For class teachers in Elementary Schools it is recommended that they apply the CLIS model as one of the variations in teaching models that are able to have a positive effect on learning outcomes, 2) For CLIS models it has been proven to be able to give a positive influence on student learning outcomes, but this also must be balanced with the teacher's understanding of the steps of this learning model, 3) For readers, the results of this study can be used as a reference for conducting similar research in different learning

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