

# The Application of Explicit Type Learning Model to Improve Student Learning Outcomes in Science Subjects the Growth and Development of Living Beings in Eighth Grade Students of SMP Dharma Bakti Siborongborong in Academic Year 2018/2019

Drs. Robert Harianja, M.Si

Dosen Koopertis Wilayah I Medan, dpk pada FKIP – UNITA, Indonesia

Email: robert.harianja67@gmail.com

**Abstract**— This study aims to determine the difficulties by students learning Growth and Development of Living Things in Eighth Grade students of SMP Dharma Bakti Siborongborong. The highest score is 98 and the lowest score is 30. The classical percentage has not reached 85%, The first cycle has not reached classical completeness. To improve the implementation the first cycle of actions followed by the implementation the second cycle of actions. Cycle II in class VIII B, test results for learning II obtained an average class of 80.5 with 41 students (87.24%) had reached the level of completeness while 6 more people (12.76%) had not reached the level of mastery learning. The highest score is 100 and the lowest is 30. By looking the classical percentage (87.24%), Stated to have achieved classical learning completeness. it can be concluded that the Explicit Type learning model can improve student learning outcomes.

**Keywords**— *Explicit Type Learning Model, Learning Outcomes, Living Beings.*

## I. INTRODUCTION

The science learning outcomes obtained by students may be due to the lack of effective learning used by the teacher is always the same, causing boredom in students and causing teachers to fail deliver the subject matter. Other causes of the low quality of education, especially science, influenced by several factors such as inadequate learning facilities and infrastructure, for example: tools in the laboratory, books in the library, and learning media used by teachers and other supporting facilities. It is also caused by various factors including factors by students such as their attitude, where they assume that science are more difficult, so students first feel bored before learning them. This is a negative trait that causes the drive to study harder will be low, so students become passive. The process of learning science today is still a very interesting issue to discuss. Because the science

learning outcomes obtained by students a product of the learning process that has not been improved as expected. Science basically is a natural science that is quite interesting which is supported by the development of science and technology (Science and Technology), which is currently growing rapidly increasingly placing science subjects into one of the most important subjects. Based on the information from teachers in the field of Natural Sciences at Dharma Bakti Siborongborong Middle School stated that many students do not like science lessons

### **The Problem of the Study**

The problem in this study is "Can the application of the Explicit Type learning model improve student learning outcomes in Growth and Development of Living Things Subject?"

## Open Access

### The Objective of the Study

The purpose of this study to answer the above issues: To know the student learning outcomes solving science problems by applying the Explicit type of learning model on the subject of Growth and Development of Living Things in class VIII of SMP Dharma Bakti Siborongborong.

## II. REVIEW OF LITERATURE

Teaching learning process implies a unity of activity that is inseparable between students who learn and teach. Learning activities can be characterized by changes in students' knowledge, skills, habits, changes in behavior and character. Learning is an active process that leads to a goal. Someone said to learn there is a change in behavior such as from the unknowing to knowing. Learning activities can take place through the process of observation, hearing, reading, and imitating. According to Slameto (2010: 2) "Learning is a process by someone to obtain a new change in behavior as a whole, as a result of own experience in interaction with the environment". According to Usman (2010: 5) the process is the interaction of all components of the elements contained in teaching and learning with each other interconnected (interdependent) in the bond to achieve goals

### Natural Science Teaching and Learning

Learning and teaching are two concepts that cannot be separated from each other. Learning leads to what one has to do that receives a lesson (learners) while teaching refers to what the teacher must do. According Hudojo (1988: 5) "Teaching is an activity where the teacher conveys knowledge / experience possessed to students". Furthermore Sujana (1991: 29) states that: "Teaching is a process of providing guidance or assistance to students in conducting teaching and learning". Muhibbin (2006: 219) argues that: Teaching in principle is the activity of developing all psychological potential through structuring the environment as well as possible to students so that the learning process occurs. Quantitatively teaching means conveying as much knowledge as possible. Institutional teaching means adapting teaching techniques according to students' talents, abilities and needs. Qualitatively teaching means helping facilitate students in forming their own meaning and understanding. Means teaching and learning itself is a process of interaction between the teacher and students in the learning process. While learning science is a psychological process in the form of active activities in one's efforts to understand / master the science material. Besides learning science also links symbols

and links structures to get an understanding and concepts in real situations.

### Explicit learning model

The Explicit model was specifically designed to promote student learning of procedural knowledge and declarative knowledge that is well structured and can be taught in a step by step fashion." Arends (2001: 265) states that: "The Explicit model is a teacher centered model that has five steps: establishing set, explanation and demonstration, guided practice, feedback, and extended practice a direct instruction lesson requires careful orchestration by the teacher and a learning environment that is businesslike and task oriented. "The same was stated by Kardi and Nur (2000a: 27), that a lesson with a direct teaching model goes through five phases: (1) an explanation of the goals and prepare students, (2 ) understanding / presentation of teaching material to be taught or demonstration about certain skills, (3) providing guided practice, (4) checking understanding and providing feedback, (5) providing independent training.

### Growth and Development of Living Things

Internal Factors 1. Genetic Properties 2. Hormones Factors affecting Growth and Development A. External Factors 1. Air 2. Sunlight 3. Water 4. Soil 5. Temperature. Types of Plant Hormones and Hormone Influence of Auxin Production Site Elongation of stems, roots, branches, fruit, growing points in embryos in seeds, meristems of stem ends. Gibberellins Seed and shoot germination, stem elongation, leaf, flower and fruit growth in stem meristems, roots, young leaves and embryos Cytokinins Cell division and growth, inhibits root aging, and is elevated to other organs Abscisic acid Inhibits growth, closes stomata during shortages water, eliminating dormancy. Synthesized in leaves, stems and green fruits. Ethylene Encourages ripening of fruit, encourages or inhibits the growth and development of roots, leaves and flowers in the tissues of ripe fruit, stem segments and old leaves.

## III. RESEARCH METHODOLOGY

The approach taken is a qualitative approach that is useful in improving student learning outcomes by applying the Explicit type of learning model in Growth and Development of Living Things in eighth grade students of SMP Dharma Bakti Siborongborong. While the type of research used is classroom action research because the researcher is directly involved and it is the duty of the researcher as a prospective educator who always try to improve the quality of education.

Classroom Action Research (CAR) is a study of social situations and views to improve the quality of actions in it. This research was conducted at SMP Dharma Bakti Siborongborong.

#### IV. RESEARCH FINDING

Based on the results and discussion of the study, the following findings were found:

1. Before giving the action, the researcher conducted an interview with the students of SMP Dharma Bakti Siborongborong so that the problems faced by students in learning and solving problems were obtained, namely:
  - a. Students do not understand the formula used in solving story problems.
  - b. Students are not careful in their calculations.
2. In giving the action in the first cycle, the level of mastery has not yet reached the classical level, at the end of the learning process students are given a learning achievement test I which is then obtained a classical mastery level of 72.34% with an average value of student learning outcomes is 67.8.
3. After being given an action in the second cycle students were again given a test of learning outcomes II which was then obtained as many as 41 students had reached completion ( $\geq 65$ ) in learning and 6 students had not been completed ( $\leq 65$ ). From the results of the study obtained an average value of student learning outcomes in the second cycle was 74.9 with a classical level of students completeness of 87.24%.

#### V. CONCLUSION

Based on the data analysis we can conclude the results of this study: By applying the Explicit Type learning model in solving the subject of Growth and Development of Living things in Eighth Grade Students of Dharma Bakti Siborongborong in academic year 2018/2019 can improve student learning outcomes. This is derived from the increase in the average student value of each given test of learning outcomes. Implementing cycle I action in class VIII B, learning outcomes I achieved average grade of 67.85 with 34 people (72.34%) having reached the expected level of learning while 13 (27.66%) did not reach the completion level study. The highest value in this class is 98 and the lowest value is 30. Classical percentage has not reached 85%

so cycle I has not reached classical completion. Improvement of cycle I action is followed by implementation of cycle II action. Cycle II in class VIII B, the learning outcomes II was obtained on average of 80.5 with 41 students (87.24%) having reached completion level while 6 others (12.76%) had not reached the level of learning completion. The highest grade in this class is 100 and the lowest is 30. By looking at the classical percentage (87.24%) it is said that this class has achieved classical learning completion. From these actions and analysis it can be concluded that the Explicit Type learning model can improve student learning especially on the subject of Growth and Living Development.

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