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# The Implementation of Direct Learning Model With Guided Discovery Approach To Improving Learning Effectiveness Through on Circle Theory In SMP Islam Terpadu Ar-Rahmah Makassar

## <sup>1</sup>Rahmawati, <sup>2</sup>Masli Nurcahya Zoraida

<sup>1</sup>Universitas Islam Makassar, Indonesia <sup>2</sup>Universitas Islam Makassar, Indonesia Email: rahma@uim-makassar.ac.id

#### **Abstract**

This type of research is classroom action research which was carried out for two cycles, which aims to improve mathematics learning outcomes through a guided discovery approach with a direct learning model. The subjects of this study were 26 students of class VIII SMP Islam Terpadu Ar-Rahmah Makassar with a composition of 21 male students and 5 female students. The results of this study indicate that: (1) the average score of students in cycle I is 61.38 from the ideal score of 100 with a standard deviation of 11.85 and is in the medium category. There are 10 students who finished studying individually. (2) The average score of students in the second cycle is 75.60 from the ideal score of 100 with a standard deviation of 15.37 and is in the high category. There are 21 students who have finished studying individually. (3) There was an increase in the activeness and attention of students in learning mathematics. From the results of the analysis, it can be concluded that applying the guided discovery approach can improve the mathematics learning outcomes of class VIII SMP Islam Terpadu Ar-Rahmah Makassar.

Keywords: classroom action research, guided discovery approach, direct learning model

#### Introduction

Basically, education is something that is done consciously to develop personality and the ability to think or reason. Education also functions in guiding, directing, and guiding students to a logical, scientific, and responsible thinking process, so that later on, a reliable and competent generation will be obtained in the field they are engaged in. On the other hand, the rapid development of technology lately has made all parties able to obtain information in abundance, quickly and easily from various sources and places in the world. This ability requires critical, systematic, logical, creative thinking and a willingness to work together effectively. Therefore, a filter is needed for each individual so that the existing technology does not backfire on the development of the nation's next generation.

Education is an absolute thing that must be considered for the progress of a nation because the future of a nation is very dependent on its successor generations. In Indonesia, one of the main problems faced is the low quality of formal education at every level of education, and for this reason, various continuous efforts are made to improve the quality of national education, including through curriculum changes, increasing the number of textbooks, improving the quality of human resources, and addition of facilities and infrastructure.

Mathematics as one of the basic subjects in every level of education has an important role in ushering in human thinking in the logic of scientific thinking. Today mathematics is no longer seen only as a science but more than that, mathematics is used as a means of achieving the goals of human life in various fields.

Given the importance of this role, students are required to be able to master mathematics lessons in order to support student learning success in taking education at a higher level. So as teaching staff/educators who are directly involved in the teaching and learning process, the teacher plays an important role in determining the learning outcomes that will be achieved by students. One of the abilities that are expected to be mastered by educators in this case mathematics is how to teach mathematics well so that learning objectives can be achieved as much as possible

Circle is a fairly basic material in mathematics, although this material has been studied at the elementary school level at an advanced level some important parts of the circle material will be introduced, the inability of students in this material will definitely hinder students in dealing with the next few materials, so an approach is urgently needed. appropriate learning so that teaching and learning activities can be carried out effectively and efficiently

Especially at the Ar-Rahmah Islamic Integrated Middle School Makassar, learning mathematics is still experiencing problems so that learning achievement in mathematics is still relatively low, the ability of students to solve problems is generally constrained by the difficulty of memorizing many mathematical formulas, some think that mathematics is a difficult, complicated and boring subject. While others think that mathematics is a fun subject, but the monotonous delivery of subject matter makes mathematics seem difficult to understand.

The obstacle found in the field is that the direct learning method with the lecture method used so far has been less effective, as evidenced by more than 50% of students unable to understand the lesson delivered by the teacher, this can be seen when giving questions during initial observations to students about circle formulas. and also Pythagoras which became the previous material and was an introduction to studying tangent lines to circles.

The use of the lecture method makes some students bored so that sometimes they are secretly busy with their respective activities, such as drawing or doing homework for other lessons, some feel insecure in doing questions because learning is dominated by the teacher. This is quite a reason and challenge for the author to try to apply another approach to the next material, in this case the author tries to apply a guided discovery approach.

#### Method and Data

This research was a classroom action research with two cycles of implementation include planning, action, observation, and reflection. Factors that need to be considered were: seeing how student activities, student responses, and also student learning outcomes through the application of direct learning models with guided discovery. The types of data obtained are qualitative and quantitative. Learning outcomes are taken by giving tests to students at the end of each cycle, data about the learning situation at the time the action was taken using by observation sheet.

The data collected was then analyzed quantitatively and qualitatively. For quantitative analysis used descriptive analysis consisting of the average (mean), range, median, standard deviation, maximum value, and the minimum value obtained by students in each cycle. While the data from observations, interviews, and diaries will be analyzed qualitatively.

#### Results

Based on this research, it can be concluded that the guided discovery approach can increase students' motivation and activities in participating in the learning process. Finally, with the motivation and activeness of students shown by an increase in positive activity, an increase in responses in answering questions, and an increase in test results based on the end of the cycle test, it can be said that the guided discovery approach is effective in the learning process.

#### Discussion and Conclusions

A guided discovery approach can increase students' motivation and activities in following the learning process, especially in the circle material. It is hoped that this approach can also be researched to be applied to other subject matter in mathematics because the guided discovery approach leads students to understand knowledge without going through rote memorization. It seems that not all mathematics materials can use this approach, it is hoped that further research can support the learning process in schools.

Based on this research, it is concluded that the guided discovery approach can increase students' motivation and activities in participating in the learning process and it can be said that the guided discovery approach is quite effective in the learning process.

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