

IMPROVING STUDENTS 'SOCIAL INTERACTION SKILLS THROUGH LEARNING MATHEMATICS IN BASIC SCHOOLS

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Abstract: *This study aims to describe the increase in students' social interaction in learning, which is motivated by poor social contact, and how to communicate or cooperate with 6 students who have no special need for their friends who may have difficulty learning mathematics in class III SD Negri Babakan. 1. The method used is an experimental method in the form of a single subject research. This study used a multi-fold baseline cross subject design. Subjects in this study consisted of 6 students who had no special needs in class III SD Negri Babakan 1. This study showed a change in social interaction. The results of this study can increase in grade III SD Negri Babakan 1. Individual MATHEMATICS learning methods that use experimental methods.*

Keywords: *Social interaction, social norms, sociomatematic norms, realistic mathematics education*

JEL Classification:

INTRODUCTION

Mathematics learning that occurs in every school in its classrooms currently does not provide opportunities for students to think and develop their own ideas, so that mathematics lessons are less attached to them, and easily forgotten as stated by Van de Henvel (in IGP Suharto), if children learn mathematics separately from their daily experiences, they cannot apply mathematics and forget quickly. So that as a result students do not have the motivation to learn mathematics.

In fact, mathematics can be interpreted as arithmetic which is always related to numbers. In fact, mathematics is very good for students to develop the left side of the brain, namely the power of rational analysis and the ability to think logically. So that students who master mathematics have the potential to develop themselves.

Mathematics also requires the ability to think creatively and explore rather than just counting mechanically and procedurally.

Learning mathematics in the classroom can be emphasized on the relationship between mathematical concepts and children's daily experiences. De Lange in Suharta describes a mathematical concept that is closely related to the real world, where learning begins with contextual problems experienced by students in their lives, thus enabling students to use previous learning directly.

It is no different from what happened in SD Negri Babakan 1, which can be categorized as a school that is still in a lower position, both in terms of school conditions and from the work of the students' parents. Most of the teachers still find it difficult to implement fun math lessons for students. Many students do not like mathematics. Most students consider mathematics to be a very difficult subject. Learning in the classroom

should be made into fun learning, which can make students think logically and be able to express their ideas in solving the problems given. Not just textual but contextual with the environment.

LITERATURE REVIEW

One way that can be used is by applying the sociocultural learning theory, whose learning theory emphasizes a person's cultural and social background. In mathematics lessons, the use of sociocultural learning theory is expected to be able to train students to be able to contextualize what is learned at school with what is experienced in their daily life. Sociocultural learning theory can also train students to work together and help each other in understanding the material given, when it is implemented students can be motivated to learn mathematics as a subject that is fun, not boring, difficult and meaningful, because it can be applied in it. everyday life.

Sociocultural learning theory is raised from the awareness of the importance of education that sees the inseparable processes of culture and education. This sociocultural learning theory was pioneered by Lev Vygotsky, or what is often known as constructivist learning theory, which is a learning theory whose main emphasis is on how a person learns with the help of others in a zone of self-limitation, namely the Zone of Proximal Development and mediation. Where children in their development need other people to understand something and solve the problems they face.

The zone of proximal development is a central, most fundamental concept of Vygotsky's theory of sociocultural learning. In Luis C. Moll (1993: 156-157), Vygotsky argues that every child in a dominant has an "actual level of development" which can be

assessed by individually examining and the closest potential for the development of the domain in that. Vygotsky termed this difference between the two levels of the zone of proximal development, Vygotsky defined the zone of proximal development as the distance between the level of actual development as determined for individual problem solving and the level of potential development as determined by problem solving under adult guidance or in collaboration with friends, peers who are more capable.

Based on Vygotsky's theory in Yuliani (2005: 46) concludes a number of things that need to be considered in the learning process, namely:

1. In learning activities, children should have ample opportunities to develop their zone of proximal or potential development through learning and development.
2. Learning needs to be linked to its potential level of development rather than to its actual development.
3. Learning is more directed at the use of strategies to develop internal abilities rather than intramental abilities.
4. Children are given ample opportunities to integrate knowledge
5. The learning and learning process is not only transferal in nature but rather a construction.

In sociocultural learning theory, the knowledge that a person has comes from social sources that are outside himself. To construct knowledge, it takes an active role from that person. Because knowledge and abilities do not come naturally, but must be cultivated and influenced by others. The main principles of sociocultural learning

theory that are widely used in education according to Guru are:

1. Knowledge is actively built by students
2. The pressure of the teaching and learning process lies with the students
3. Teaching is helping students learn
4. The emphasis in the learning process is more on the process and not on learning outcomes
5. Curriculum emphasizes student participation
6. The teacher is a facilitator

METHODOLOGY

Research Strategy

The method used was an experimental method with a single subject research form. This study used a multi-fold baseline cross subject design. The subjects in this study consisted of 6 students who had no special needs at SD Negri Babakan 1. This study showed a change in social interaction. sociocultural learning theory, which theory of learning emphasizes a person's cultural and social background. In mathematics lessons, the use of sociocultural learning theory is expected to be able to train students to be able to contextualize what is learned at school with what is experienced in their daily life

DISCUSSION

Analysis

Mathematics is a tool to provide a way of thinking, formulate clear, precise, and thorough thinking. So that Hudojo (2005: 149) states that mathematics is an abstract object, which is very difficult for elementary school children to digest. Elementary school students are not yet able to think formally, so in learning mathematics it is hoped that

educators will relate the teaching and learning process in SD with concrete objects. Heruman (2008: 4) states that in elementary school mathematics learning, reinvention is expected. Rediscovery is to find a way of solving informally in classroom learning. Furthermore, Heruman added that in learning mathematics there must be a link between the previous student's learning experience and the concepts to be taught. So that it is expected that learning that occurs is learning to be more meaningful, students not only learn to know something (learning to know about), but also learn to do (learning to do), learn to animate (learning to be), and learn how it should be. learning (learning to learn), as well as how to socialize with fellow friends (learning to live together).

The characteristics of elementary school mathematics learning are:

1. Learning mathematics using the spiral method

The spiral approach in learning mathematics is an approach in which learning concepts or a mathematical topic always links or connects with previous topics, previous topics are prerequisites for new topics, new topics are the deepening and expansion of previous topics. A given concept begins with concrete objects then the concept is taught again with a more abstract form of understanding using notation which is more commonly used in mathematics.

2. Gradual mathematics learning

Mathematics subject matter is taught in stages, namely starting from simple concepts, towards more difficult concepts, in addition to learning mathematics starting from the concrete, to semiconcrete, and finally to abstract concepts.

3. Learning mathematics using the inductive method

Mathematics is a deductive science. However, because it is in accordance with the stage of student development, the inductive approach is used in mathematics learning in SD.

4. Mathematics learning adheres to the truth of consistency

Mathematical truth is a consistent truth which means that there is a conflict between one truth and another. A statement is considered true if it is based on previous statements that have been accepted as true.

Although in elementary school mathematics learning is carried out in an inductive way, at the next level, generalizing a concept must be deductive.

5. Learning mathematics should be meaningful

Learning mathematics in a meaningful way is a way of teaching subject matter that prioritizes understanding rather than memorization. In learning the meaning of rules, arguments are not given in a finished form, but instead rules, arguments are found by students through examples inductively in elementary school, then proven deductively at the next level.

Some things that must be considered in teaching mathematics at the elementary school level are as follows:

1. Students Teaching mathematics to a large group of medium-ability students will be different from teaching mathematics to a small group of intelligent children, such a large group of students needs to be introduced to mathematics as a human activity, close to daily use which is governed creatively (by the teacher.) so that the activity is adjusted to the mathematical topic. For smart students, they will easily assimilate and accommodate

mathematical theories and problems that are presented in textbooks.

2. Teachers There are two teacher orientations in teaching mathematics in SD as follows:
 - a. The teacher desires to lead to the class as a whole and little attention to individual students both reactions and personalities. Usually they limit themselves to mathematical material structured around mathematical logic. Teaching mathematics means translating so closely to a mathematical theory that completely ignores the difficulties students face.
 - b. Teachers are not strictly bound by textbook patterns in teaching mathematics. He teaches mathematics by looking at the environment together with the students to explore the environment. Mathematical activities are arranged as closely as possible to the student environment so that students are familiar with mathematical concepts.
3. Teaching aids mathematics in an elementary school environment, must be preceded by concrete objects. Gradually by working and observing, students consciously interpret the mathematical patterns contained in these concrete objects. Concept models should be formed by the students themselves. Students become small "inventors". Students will feel happy when they "find".
4. Learning Process Teachers should arrange mathematics material in such a way that students can become more active according to the stage of mental development, so that students have the maximum opportunity to learn.
5. Mathematics presented should be presented in various forms. The way

to present it should be based on a realistic background from the students. Thus mathematical activities become appropriate to the students' environment.

6. Organizing Class

Mathematics should be presented in an organized manner, both learning and didactic activities. This form of organizing includes mathematics laboratories, heterogeneous groups of students, direct instruction, class discussions and individual teaching. All of that can be chosen depending on the situation of the student, which is basically so that students learn mathematics. So the conclusion is that learning mathematics in the classroom can be emphasized on the relationship between mathematical concepts and children's daily experiences. De Lange in Suharta describes a mathematical concept that is closely related to the real world, where learning begins with contextual problems experienced by students in their lives, thus enabling students to use previous learning directly. In fact, mathematics is very good for students to develop the left side of the brain, namely the power of rational analysis and the ability to think logically.

Result

The suggestion is that if children learn mathematics separately from their daily experiences, they will not be able to apply mathematics and forget quickly. So that as a result students do not have the motivation to learn mathematics and one way that can be used is by applying the sociocultural learning theory, whose learning theory emphasizes a person's cultural and social background.

CONCLUSION

The conclusion is that mathematics can be interpreted as arithmetic which is always related to numbers. In fact, mathematics is very good for students to develop the left side of the brain, namely the power of rational analysis and the ability to think logically. So that students who master mathematics have the potential to develop themselves. Mathematics also demands the ability to think creatively and explore rather than just counting mechanically and procedurally. The suggestion is that if children learn mathematics separately from their daily experiences, they will not be able to apply mathematics and forget quickly. So that as a result students do not have the motivation to learn mathematics and one way that can be used is by applying the sociocultural learning theory, whose learning theory emphasizes a person's cultural and social background.

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