THE DIFFICULTIES TEACHING MATHEMATICS MATERIAL ACCORDING TO STUDENTS PERCEPTION

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Abstract. Based on preliminary study of one elementary high school teacher education program (PGSD) one of the high private college in West Java and the result of literature review showed that elementary school teacher (PGSD) students still find difficulties in math course in elementary school, because mathematics is material which requires a level of understanding and teaching experience. Then this research to find out what factors are causing students difficulties in basic mathematics, difficult math materials, what students do to overcome difficulties to understand mathematical topics and demonstrate it, and alternatively overcome these difficulties. The method used is descriptive analysis, that is analyzing the data and information in the can. Participants in this study are students of Primary School Teacher Education (PGSD) semester V one in private universities in West Java. The results showed that the factors that caused the students difficulties in basic mathematics were attitude factor, motivation, variation of teaching, media usage, infrastructure, and environment. Then the elementary school mathematics material which according to difficulty is the factor, multiples, angles, flat waking area, integer, fractional, volume, flat build properties and round count operation, the effort made by students to overcome the difficulty of understanding mathematical material and demonstrate it is looking ask questions of friends and lecturers, and the alternative to overcome these difficulties is to do lesson study.

Keyword: difficulty teaching, mathematic material; studen perception

I. INTRODUCTION

Indonesia as a developing country, continues to improve the quality of human resources through national education. The purpose of national education is to improve the quality of Indonesian human beings who are faithful and devoted to God Almighty, virtuous noble character, independent personality, advanced, tough, intelligent, creative, productive and healthy physically and spiritually. In accordance with the objectives of national education and in line with the demands of the times, the improvement of the quality of education is a very urgent need.

In the implementation of lecture process required communicant (teacher), learning method, tool to convey (media), logical sequence, and atmosphere all activity (system). In learning, the role of teachers is very important to create a pleasant environment conditions that can affect the coaching and generate creativity in learning activities. However, designing mathematics learning in elementary schools that suits the purpose is not easy. Many students have low grades in a number of subjects, including mathematics.

According to Harris (Mina, 2005) a lot of thinking is done in formal mathematics lectures only emphasizing the analytical skills teach how students understand the claims, follow or create a logical argument, illustrate the answers, eliminate the wrong path and focus on the right path. Learning is one of man's conscious efforts in educating in an effort to improve ability and then accompanied by changes and improvement of the quality and quantity of human knowledge itself. Learning is one of the student activities that takes place within the learning environment. Learning is obtained through formal and non-formal education institutions. One of the most common

formal educational institutions in Indonesia is schools where learning and teaching activities involve interaction between teachers and students. The goal of student learning alone is to achieve or obtain the knowledge listed through optimal learning outcomes in accordance with the intellectual intelligence he has.

Learning is a process that results in a change of behavior both potential and actual and is relatively permanent as a result of practice and experience. While learning activities is an interaction activity between learners with educators and learning resources in a learning environment. In the learning activities students are required keaktifannya. In learning activities, students are not only required for their activities but also their creativity, because creativity in learning can create new situation, not monotonous and interesting so that students will be more involved in learning activities.

The objective of mathematics in primary and secondary education is to emphasize the logic of reasoning and the formation of student attitudes and on skills in mathematical application, as Erman Suherman et al (2003) points out. Learning mathematics is a high mental activity because mathematics deals with abstract concepts related to ideas, logically arranged relationships that will lead to the process of learning mathematics itself. Some factors that determine the occurrence of the process of learning mathematics include: students, teachers or educators, facilities, and infrastructure, and assessment besides the subject matter.

The learning process will be successful if the factors are well managed. Classroom management is usually dominated by teachers. This is where the base of the lack of teachers in managing the class. Teachers should be able to reduce dominance and in student learning that should be given more portion. Because if students can not be directed to active, then the interaction and communication in learning will not happen. In learning mathematics students often find difficulty in learning and teaching, in addition to learning that students have not meaningful, so the understanding of students about the concept that will be taught is still lacking. As a result the ability of students as prospective teachers are still not ready.

While the teachers who served as learning managers are often not able to deliver the subject matter to the students meaningfully, and delivery is also impressed monoton without regard to the potential and creativity of students so that students feel bored because students are only considered as empty bottles that are ready filled with the subject matter. This shows that in learning mathematics teacher have to use method of learning which varied and adjusted to condition of student so that student better comprehend material presented and student more memorable with learning which have been submitted and student will more remember and not easy to forget the things she learned.

The world of education defines the diagnosis of learning and teaching difficulties as all efforts undertaken to understand and define the nature and nature of learning difficulties and the ways in which it is taught. Also study the factors that cause learning difficulties as well as how to establish and possibly address them, either curative (healing) or preventively (prevention) based on objective data and information possible. Thus, all activities undertaken by teachers to find learning difficulties include diagnostic activities. The need for a diagnosis of learning for many reasons. First, every student should have the opportunity and service to develop maximally; second; the differences of ability, intelligence, talent, interest and environmental background of each student. Third, college system in college should give opportunity to student to progress in accordance with its ability. And, fourth, to face the problems faced by students, lecturers and other academicians should be more intensive in dealing with students by adding knowledge, open attitude and sharpening skills in identifying learning difficulties and student learning.

In relation to diagnostic activities, broadly classifiable diagnosis may be of two kinds: diagnosis to understand problems and diagnoses that classify problems. Diagnosis to understand the problem is an attempt to better understand the problem thoroughly. While the diagnosis that classifies the problem is a

grouping of problems according to the variety and nature. There are issues that are classified into vocational, educational, financial, health, family and personality issues. Learning difficulties are a problem that almost all students experience. Learning difficulties can be defined as a condition in a learning process characterized by certain obstacles to achieve learning outcomes.

Mathematics is one of the subjects that make a positive contribution to the achievement of a smart and dignified society through critical attitude and logical thinking. Mathematics is taught not only to know and understand what is contained in mathematics itself, but mathematics is taught essentially aimed at helping, train the mindset of the student in order to solve the problem critically, logically, meticulously and precisely. Besides, for students to form personality and use in everyday life. Problems in learning mathematics include teacher factors. Teachers are key to success in educational and learning missions in schools in addition to being responsible for organizing, directing and creating a conducive atmosphere that encourages students to carry out activities in the classroom.

II. METHODOLOGY

A. Research Subject

This research was conducted in one of the Elementary School Teacher Education (PGSD) study programs in West Java college. The population in this study is all students of semester V one of the existing Primary School Teacher Education Program (PGSD) in West Java in the odd semester of the academic year 2016/2017. Sampling is done by purposive sampling technique, that is sample determination technique with certain consideration (Sugiyono, 2008).

B. Data collection methodology

To obtain data about the difficulty of teaching elementary school mathematics according to students' perceptions and alternative solutions, among others:

1. Observation Method

   Researchers observe students in presenting the simulation of mathematics learning materials in elementary school.

2. Method of Participation

   Here the researcher will provide knowledge on various ways of using the method on the students.

3. Comparative Method

   Compare the opinion of students of Elementary School Teacher Education (PGSD).

C. How to Obtain Data

The data were obtained from questionnaires and interview results with PGSD students FKIP Pasundan university.

Research procedure

1. Preparation

Preparation in this research are:

a. Conducted a preliminary study of the difficulty of teaching elementary school mathematics according to student perception.
b. Develop a research instrument that is accompanied by a guidance process with senior lecturers.
c. Testing nontest instruments
d. Choose a research subject
e. Providing questionnaires and interviews.

2. Implementation

   At the stage of the implementation of research, the first thing that researchers do is determine the subject of research. The implementation of the research was conducted by giving questionnaires to one student of the Primary School Teacher Education (PGSD) study program in West Java. Furthermore, the questionnaire was analyzed to find out the difficulty of teaching elementary school mathematics. Furthermore, to strengthen the data, the researcher conducted several interviews on some of the students who were considered to be fulfilling to be the source of data.

3. Data Analysis

   To analyze the questionnaire data using Likert scale used to measure the attitude, opinion, and perception of a person or group about a phenomenon of education

phenomenon (Djaali and Muljono, 2007).
Steps to analyze the questionnaire:
Give a score to each student's answer.
Alternative answers to student questionnaires

Score	Alternative Answers
1	Strongly agree (SS)
2	Agree (S)
3	Disagree (TS)
4	Strongly agree (SS)

Determine the ideal or highest score and lowest score by:

For highest score = alternative score answer agree (S) x number of students

For lowest score = alternative score answers strongly disagree (STS) x number of students

Determine the percentage of each answer by:

$$\frac{(lots\ of\ student\ answers)}{(number\ of\ students)} \text{ x } 100\%$$

Next gives a total score of each statement by:

$$\frac{(total\ score\ of\ student\ answers)}{(Ideal\ score\ /\ high)} \text{ x } 100\%$$

III. RESULTS AND DISCUSSION

Being a professional teacher can be seen from the preparation of planning the learning process well. In planning the learning process well. In planning the learning process, a teacher should be able to make a map of the learning process that will be implemented. The facts prove that one of the student difficulties is when planning the learning process.

No.	Difficulties	Cause	Amount	Percentage
1	Create a lesson unit	Less understood how to create a sample	1	5 %
2	Designing a study room	Students are too many, the room is too small	4	20 %
3	Determining learning media	Unreachable students, limited infrastructure facilities	8	40 %
4	Determine the assessment procedure	Values for weak students	2	10 %
5	Specifies the math handbook as the source	The child's absorbency is different, the curriculum changes	1	5 %

From table 2 above shows that determining learning media is the most difficulty experienced by teachers. This happens because of the limited facilities provided by the school infrastructure to support the learning process (because this becomes the answer most of the respondents), in addition to these difficulties also because the media whose price is not affordable by students. The second and third positions of the difficulties in planning the learning process in a row are designing the study room and determining the research procedure, these two difficulties are due to students in one too many classes, small classrooms, and relatively low student grades. Meanwhile, making the unit lesson, determining the handbook of mathematics as the source, and determining the teaching method, each of them only 5% of the

respondents, meaning very few students who experience it. About the cause of this last difficulty can be seen in table 3.

In addition to students who experience the above difficulties, there are also students who have no difficulty. Students who do not experience difficulties are relatively small. In table 2 it can be concluded that most students have difficulty in planning the learning process, although the difficulties vary.

IV. CONCLUSION

The result of the research shows that the factors that cause the students difficulties in teaching mathematics in elementary school among them are attitude, motivation, variation of teaching, media usage, infrastructure and environment. Then the elementary school mathematics material that is considered difficult to teach it is the factor, multiples, angles, widened flat, integer, fractional, volume, flat waking properties and integer count operation, the effort made by students to overcome the difficulty of understanding mathematical material and demonstrate are looking for themselves, asking friends, and lecturers, and the recommended alternative to overcome these difficulties is to do lesson study.

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