

**THE ANALYZING OF MATHEMATICS LEARNING DIFFICULTIES IN
3RD GRADE STUDENTS OF SD NEGERI SEMAMPIR 01, BATANG
DISTRICT**

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Abstract, This study aims to reveal the difficulties of learning mathematics students in calculating multiplication operation material and the factors that influence the learning difficulties of students in 3rd grade students of SD Negeri Semampir 01, Batang district. The type of this research is a descriptive qualitative approach. The research subjects were all student of 3rd grades of SD Negeri Semampir 01, with the total of 22 students, consisting of 12 male students and 10 female students and 3rd grade teachers as the informants. The collecting data technique of from informants are use observation, interviews, questionnaires, and documentation technique. The results that obtained in this study are presented as follows: (a)The mathematics learning difficulties in the multiplication operations included difficulties in understanding concepts (84.05%), difficulties in learning skills (75.42%), and difficulties in determining the values of place (65.85%). (b)The factors that influence the difficulties of mathematics learning in the material of multiplication operations are include attitudes in learning (54.5%), body health (31.75%), sensing ability (4.5%), motivation (72.7%) , school environment (49.95%).

Keyword: Learning Difficulties, Mathematics, Multiplication

A. Introduction

Mathematics is a science that underlies the development of technology in the world, which in the sense has a very strong role to sharpen the human mind set, and a science that used to solve a problem in everyday life. Mathematics are applied in education, and it is a compulsory subject. In elementary schools, the scope of mathematics includes as the following aspects: 1) numbers, 2) geometry and measurement, 3) processing of individual data. Darjani (2015) states that mathematics is a discipline that learns about the ways of thinking and processing logic, both by quantitatively and qualitatively. Takaria and Melvie (2018) state that to understand the concepts are needed some mathematical abilities.

Anwar (2011) suggests that the mathematics learning is a branch of subjects whose the scope are very broad and not only can counting but also includes competencies that make the child know and understand the mathematical concepts. According to Hidayah (2016) states that mathematics are needs to be taught early so that the students are capable in logical, critical, systematic, economical, and efficient thinking. Rahayu and Wahyu (2018) are state that mathematics learning is a subject that is considered difficult and complicated by the average of students.

Yeni (2005) states that the learning difficulties are interpreted as a child's inability to complete the tasks that given by teacher. Widihartono (2008; Waskitoningtyas, 2015) states that the learning difficulties are the lack of students' successes in understanding concepts, principles, or logarithm of problem solving. Bell (1981; Rumasoreng and Sugiman, 2014) states that mathematical difficulties in solving mathematical problems are caused by the difficulties in reading the mathematical concepts that faced by students.

Amir (2015; Wijayanti, 2017) states that to be able to analyse the student's difficulties in understanding the material concepts that taught, we can make observations on the students grades. Nada, et al (2018) suggested that the students are required to have an active role in the learning process while the teacher only as a facilitator.

The findings that too place in SDN Semampir 01 on the 3rd grade students that the students did not yet have the skills to use mathematical concepts as described in the final goal of mathematics learning. Jarmita (2015) stated that the obstacles that faced in the mathematics learning were instilling the understanding of concepts, so students could complete the next task that given by teacher. Deswitta (2015) states that the concept of

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multiplication and division is one of the basic modal of students for the next level of concepts.

Sholihah and Afriansyah (2017) state that most students still have difficulties in applying formulas, understanding theorems, and having difficulties to understanding the mathematical problems. Ruhyana (2016) states that the students' error in doing mathematics are only the basic errors.

The teaching and learning activities in each individual will experience struggles or can be called as the learning difficulties.

Putra and friends (2015) stated that the obstacles or the learning difficulties that experienced by students are greatly influence the achievement that achieved by students, so the identification process that related too te students' learning difficulties are very important to know especially for the educators. And the problems of these students are need to be avoided so the mathematics can be a subject that loved by students. The students who lack or do not like mathematics, when they encounter mathematics learning will tend to feel anxious, causing students to not focus on the material that being taught, and the effecting the low of mathematics grades.

Widyasari, et al (2015) suggested that the students' difficulties in mathematics learning can be seen from three aspects,

which is concepts, skills, and problem solving.

The multiplication operations material are very important to be taught, students who are able to master the multiplication operations will be easier to master the division operations. Multiplication operations are taught to students when they in 2nd grade and will be continued in 3rd grade. However, the condition in SD Negeri Semampir 01, Batang District, the students in 3rd grade are still had difficulties mathematics learning in multiplication operations.

So it needs a further action from teacher to deal with the mathematics learning difficulties that experienced by students. So the analytical study of difficulties of mathematics learning in multiplication operations that experienced by 3rd grade students of SD Negeri Semampir 01 Batang District are very important to know by the teacher, this aims to assist the fluency process of teaching and learning process in the future. So the teacher can discover where are the difficulties of mathematics learning in multiplication operations problems, so it can take action to help students overcome the difficulties that experienced. Therefore, in addition of being able to discover where the students' errors, the teacher need to know the factors that caused difficulties in multiplication operations of mathematics

learning, so the teacher can make improvements in teaching.

In this part, the objectives of the research will be described. The objectives that wants to be achieved in this research are: (1) describe the difficulties of multiplication operation in mathematics

learning that experienced by 2nd grade students at SD Negeri Semampir 01 Batang District. (2) knowing the factors that influence the difficulties multiplication operations o mathematics learning in 3rd grade students of SD Negeri Semampir 1 Batang District.

B. Research Methodology

This research are use a qualitative approach which aims to describe the difficulties of multiplication operation in students' mathematics learning. The data that has been collected will be analysed using the method of data analysis from Miles and Huberman, which includes of data collection, data reduction, data display, verification, and confirmation of conclusions (Sugiyono, 2016).

The research's location is the place where the research be held. The selection of research locations are needs to be clearly formulated, especially the focus of the research, the units that chosen should be real and noticeable, where the activities can be implemented

effectively (Sukmadinata, 2013: 102). This research will be conducted at SD Negeri Semampir 01 in Batang District with the research target of all students in 3rd grade at SD Negeri Semampir 01 Batang District.

The research subject that will be studied were 3rd grade students at SD Negeri Semampir 02 in Batang District, with the total of 22 students. In this case, the researcher wants to know the difficulties of mathematics learning in multiplication operations that experienced by students along with the factor that affect the learning difficulties of 3rd grade students at SD Negeri Semampir 01 Batang District.

C. Research Results and Discussions

Based on the description of the data that collected from the research results, the next step is the discussion of the research results on the mathematics learning difficulties in Multiplication

operations and the factors that affect learning difficulties in 3rd grade students at SD Negeri Semampir 01 Batang District, can be presented as follows:

Table 1. The Forms of Mathematics Learning Difficulties on Multiplication Operations

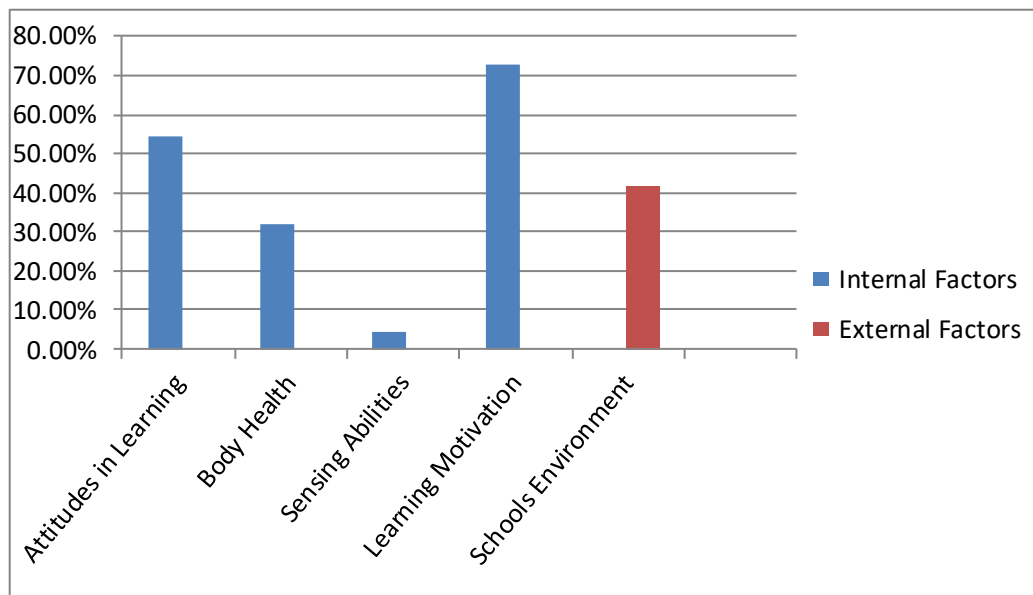
Aspects of Difficulties	Percentage (%)
Concepts	84,05%
Counting Skills	75,42%
Place Values	65,85%

Based on the table 1, can be seen that there are three forms of difficulties in multiplication operations of mathematics learning, which are difficulties of the concepts, the difficulties of counting skills, and the difficulties of location values. The students who have the conceptual difficulties are 84.05%, students who have difficulties in counting skills are 75.42%, and students who have difficulties in location values are 65.85%. This research results are in accordance with the theory of learning difficulties types which stated by Lerner (Abdurrahman, 2010) the types of students learning difficulties are understanding concepts, counting, and the values of place.

In accordance with the theory of Febrini (2017) stated that the learning difficulties are a collection of various

disorders that have varies manifestations in the form of inability to listen, speak, read, write, think, and count.

Based on the analysis, it was found that the learning difficulties of mathematics that happen in students because the students do not like mathematics and because mathematics are difficult. This is in accordance with the theories from various fields of study that taught in schools, that mathematics are a field of study that always considered difficult by students, both for those who have no learning difficulties and moreover to the students who have learning difficulties (Abdurrahman, 2010).



Graph 1. The Factor Diagram of Mathematics Learning Difficulties of 3rd Grade Students in SD Negeri Semampir 01 Batang District

Based on the graph 1 above, can be seen that there are two factors that caused the mathematics learning difficulties, which are the internal factors and external factors. These internal factors are came from the students themselves, such as student attitudes in learning, learning motivation, body health, and sensing abilities. The percentage of internal factors that affect the learning difficulties are as much as 54.50% of students do not like mathematics (attitude), 31.75% of student body health (dizziness), 4.50% of sensing abilities, and 72.70% of students motivation.

Based on the results of the interviews with teachers and the results of student works, can be explained that in 3rd grade students, there are smart students and

some of them are not smart. The smart students will quickly grasp the material when it is explained, but conversely the students with low IQ will be slow in grasping the material. And from 22 students, only 7 student who achieved the completeness criteria in mathematics learning.

The attitude of students in learning, attitudes in learning is the tendency to act in a certain way. Positive behaviour towards the lesson is he beginning of a good behaviour for the future learning process. Conversely, the negative behaviour will potentially caused difficulties that lead to learning outcomes that are less maximal. Based on the questionnaires and interviews, researchers found that the students' attitudes toward mathematics were

varied, some like it and some did not like it, this was because mathematics was difficult and when the mathematics learning be held, there were some children who felt dizzy.

Motivation to learn, motivation are used to encourage enthusiasm in learning. Beside the motivation by teacher, students are given supports from their parents. In 3rd grade, the students who like mathematics will be very enthusiastic in learning mathematics, but for those who do not like mathematics will be passive but still pay attention. But there are some students who do not pay attention and chatting with their friends.

Body health, body health are the very important factor in doing all activities. Some students who had difficulties in mathematics learning claimed to feel dizzy during the lesson, there are several students who did not come to school because of math. This condition also causes students to had difficulties learning in mathematics.

Sensing abilities, visual impairment can interfere students in receiving information that provided by the teacher. From the results of data collection, there is one student who have imperfection of sight in one of his eyes. But this students get the treatment from teacher by placed in the front, so in the learning process the student will not have difficulties.

Hearing disorders can also affect the students. There are some students who lack in hearing (listening) it can be seen from the students questionnaire, students can not hear well the explanation from the teacher when the lesson be held.

These external factors are caused from the outside factors of students, which are including the teachers' variations of teaching, the use of learning media, and school infrastructure. Based on the graph 1, can be seen that the external factors , the school environment affect the mathematics learning difficulties by 41.61%.

Based on the interviews results with teachers and observations, the use of models and methods that used by teacher are have less variety, the teacher only uses the conventional models. At the beginning of learning, the teacher uses the lecture method to open the lesson, then the teacher explains the material of multiplication operations, next the delegations of students are asked to come forward to answer the questions that given by the teacher (the conventional learning models). In learning, the teacher explains that there are some students who are bored with mathematics learning. From the observations results, the teacher does not guide students one by one while working

on the problem. The uses of the right and proper models and methods will make the students to understand the material easier and reduce the level of students' boredom in the class.

The uses of learning media, the uses of learning media will help teacher in explaining the material. The uses of learning media are the important factors that needs to be considered in mathematics learning, so the students can understand well the mathematical concepts well. Based on the interviews results and observations, the absence of

the use of learning media in mathematics lessons of multiplication operations. According to the teacher expression in counting operations, the teacher did not use the media because they do not understand the right media to teach the multiplication operations material.

Facilities and infrastructures in schools, facilities and infrastructures are strongly support the mathematics learning. But SD Negeri Semampir 01 is located next to the village road, so if there is a vehicle with noisy sound, the learning process will be a bit disturbed.

D. Conclusions

Based on the results of the research and discussion of the difficulties analysis of multiplication operations in 3rd grade students at SD Negeri Semampir 01, Batang District, the conclusion are as follows:

1. The Mathematics learning difficulties in multiplication operations. The difficulties in learning multiplication operations that happen in 3rd grade at SD Negeri Semampir 01 Batang District are include:
 - a. Difficulties in understanding concepts
 - b. Difficulties in counting skills
 - c. Difficulties in determining place value
2. The factors of mathematics learning difficulties on multiplication operations.

The factors behind the learning difficulties in mathematics operations are consist of internal factors and external factors. Internal factors are came from the students themselves, such as students attitudes in learning, students learning motivation that is still low, body health, and sensing abilities of students. While the external factors that come from the outside of students, are include: the lack of teachers' variations of teaching, the absence of the use of learning media in the math subject if multiplication operations, and school infrastructures.

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