



Analysis of Mathematical Calculation Skill on Slow Learning Students in Inclusive School

Nadia Devina Arya Putri^{*}; Muhammad Akhyar; Siti S Fadhillah

Department of Special Education, Universitas Sebelas Maret, Indonesia
Email: nadiadevina17@gmail.com

<http://dx.doi.org/10.18415/ijmmu.v6i1.499>

Abstract

This study aimed to describe slow learner learning math interest, calculation skill, and mathematics performance of slow learning students in inclusive school. This study used qualitative case study method. It was conducted in SDN Bromantakan, SDN 1 Pajang, and SDN Kartodipuran. The result of the study showed that slow learning students had low interest in learning math. They also faced difficulty in learning mathematics using direct learning. Slow learning students faced difficulty without using instructional media in learning mathematics. Their math performance in division and multiplication were also under school's standard.

Keywords: Math Calculation Skill; Slow Learning Students; Inclusive School

Introduction

Improving calculation skill is the main goal of most countries in the world (Quinn in Mumpuniarti., 2017). The ability to count is very important for teachers to improve the teaching given to their students. Calculating is included in the realm of cognitive ability. Cognitive ability is an ability where the child's mind can develop and work properly so that the child can think. Cognitive itself is a process that occurs internally within the center of the human nervous system when they are thinking (Gagne in Jamaris., 2006). Cognitive includes some mental behaviors related to understanding, attention, information processing, problem solving, and ways of thinking.

Slow learning students compete with children with low cognitive abilities in understanding basic knowledge taught by teachers (Ahmad & Mutalib., 2015). Ability to count is part of the cognitive abilities possessed by children. Meanwhile the slow learning children have low cognitive abilities so that they have difficulty in calculating. They have low attention, low level of understanding, low level of estimation, and low information processing, and they also have difficulty in solving problems.

Slow learning students usually follow the learning process in school using learning material that is appropriate to their abilities provided by the teacher. Slow learning students usually experience weaknesses in calculation lessons. Counting is part of math. Counting is a process of summing, subtracting, multiplying, and dividing the numbers used in accordance with the prescribed procedures

(Marlina & Purwadi., 2014). Counting ability in children is the child's initial ability to gain knowledge about addition, subtraction, multiplication, and distribution of real numbers in accordance with predetermined rules. Ability to count is needed in all human lives (Aisyah., 2007). The ability to count is useful for developing basic knowledge of mathematics in children so that they are better prepared to follow further mathematics learning.

Based on the observation's result at SDN Bromantakan, SDN Pajang1, and SDN Kartodipuran, found that slow learning children from those schools still experienced delays in learning the lessons taught by the teacher, especially when studying mathematics. And the learning outcomes was not as expected by the teacher. Slow learning children's outcomes in inclusive schools are still low. This study focused on mathematical calculation skills of multiplication and division material in fourth grade elementary school students who experience slow learning problems in several inclusive elementary schools in Surakarta.

Methodology

The study was conducted in three inclusive schools in Surakarta, they were SDN Bromantakan 56, SDN Pajang1, and SDN Kartodipuran. The study used qualitative research design. According to Moleong (2014: 6) qualitative research is research that intends to understand the phenomena experienced by research subjects, such as behavior, perception, motivation, action holistically in a descriptive way in the form of words and language, in a special natural context and by utilizing various scientific methods. Research was conducted using a case study approach because the researchers want to know more about a case in a real-life context. Case study research aims to explain the object to be examined as a case.

The data were collected by observation, interview, and questionnaires that contain a list of questions answered by giving a checklist to the existing or nonexistent column. This questionnaire was compiled to find out the progress of learning outcomes of mathematics in slow learning students by observing its suitability on fourth grade slow learner students in inclusive elementary schools.

Result and Analysis

Based on the results of observations, interviews, and the checklist conducted by researchers on guidance teachers in SDN Bromantakan, SDN Pajang1, and SDN Kartodipuran found that there were slow learning students who faced difficulties in calculating multiplication and division from those school. The results of research on slow learning students in inclusive schools were explained as the following:

1. Interest In Learning Mathematics

Students in inclusive schools consist of regular students and students with special needs. Each student also had different learning characters. Even in learning mathematics they had different learning interests, there were students who like and there were also students who don't like math. So, did the slow learning students while studying mathematics. They often feel bored and not interested in learning mathematics because they had already assumed that mathematics is a difficult lesson to learn.

SD N Bromantakan, SD N Pajang 1, and SDN Kartodipuran Elementary School had several students with slow learner characteristics. Although they were classified as slow learning students, they had various ability levels. But generally, slow learning students in those schools had low mathematical learning interest and their learning outcomes were below the standard. They often face difficulty, feel

bored, and not interested in learning mathematics. The low interest in learning mathematics also had an impact on low mathematics learning outcomes.

2. Calculation Skill

Based on the results of observations that was conducted by researchers during the learning progress in class, slow learning students experienced difficulties in math class. They had difficulty when calculating. Slow learning students couldn't do the operation of counting multiplication and division numbers as children in general did. They usually do calculations using their fingers and still can't count correctly. The main teachers didn't use learning media for teaching so the slow learning students experienced difficulty in calculating multiplication and division. Consequently, the slow learning students had low interested in learning mathematics because they assumed that mathematics is a difficult lesson to learn.

The learning curriculum in inclusive schools was customized with children's abilities and needs. The slow learning students were accompanied by special guidance teachers in learning mathematics where the difficulty level was being reduced so it was different with the other children. In this case, the priority was the learning objectives can be achieved by the slow learning students, so the teacher had to reduce the difficulty level of the material taught by being accompanied by special guidance teacher.

3. The Results of Learning Mathematics Material Multiplication and Division

The report of learning outcomes is a report in the form of development of students after being given educational services at the school. Student reports of learning outcomes in inclusive schools are usually held every 3 months and every 6 months, the same as other regular children. Report of learning outcomes is given to parents so that they know the development of their children's education in school.

Based on observation's result, slow learning students in inclusive school still had low learning performance, especially in mathematics which is a lesson that was being disliked by them. This was because slow learning students were bored and assumed that mathis difficult. The learning performance of mathematics in slow learning students, both daily learning outcomes and semester learning outcomes at school, were still low. Therefore, both main teachers and special guidance teachers need to work together to improve children's mathematics learning outcomes.

Conclusion

Based on the results of the study and discussion described above, it can be concluded that in SDNBromantakan, SDN Pajang 1, and SD NKartodipuran there were slow learning students in grade IV who still had difficulties in calculating mathematical material multiplication and division. Their learning outcomes were also low and below the standard. This was caused by the interest of slow learning student in math was low. They also assume that mathematics is difficult and boring. Therefore, the main teacher and special guidance teacher should cooperate in creating a pleasant atmosphere in learning mathematics, using interesting learning media can be on of it.

Suggestion

Based on the results of the study explained before, researcher recommends that main teacher and special guidance teacher create good collaboration to improve math learning outcomes on slow learning

students especially in multiplication and division material. It's better for the teacher to use learning media to ease slow learning students in understanding & counting mathematics. Teacher can use learning media that can attract children's learning interest, e.g. using interactive multimedia based game as learning media.

References

- Direktorat PPK-LK. (2011). *Pedoman Umum Penyelenggaraan Pendidikan Inklusif (Sesuai Permendiknas No 70 Tahun 2009)*. Jakarta: Author.
- Aisyah, N. (2007). *Pengembangan Pembelajaran Matematika SD*. Jakarta: Direktorat Jenderal Pendidikan Tinggi Departemen Pendidikan Nasional.
- Jamaris, M. (2006). *Perkembangan dan Pengembangan Anak Usia Taman Kanak-Kanak*. Jakarta: Grasindo.
- Marlina, R., & Purwadi. (2014). *Upaya Meningkatkan Kemampuan Berhitung melalui Model Pembelajaran Kooperatif Struktural Permainan Ular Tangga TK Marta'ush Shibyan Singocandi Kudus*. *Jurnal penelitian PAUDIA*, 3(1) 2014.
- Moleong, L. J. (2014). *Metodologi Penelitian Kualitatif*. Bandung: Remaja Rosdakarya.
- Mumpuniarti. (2017). *Challenges Faced by Teachers in Teaching Literacy and Numeracy for Slow Learners*. *Journal of Sustainable Development*, 10(3) 2017.
- Permendiknas No. 70 Tahun 2009 *Tentang Pendidikan Inklusif bagi Peserta Didik yang Memiliki Kelainan dan Memiliki Potensi Kecerdasan dan/atau Bakat Istimewa*. Jakarta: Author.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).