

The Effectiveness of The Drill Method to Improve Counting Skills in Slow Learners at The Primary School Level

¹Nabila Hasna Qutratuain, ²Mustaqim Setyo Ariyanto

Corresponding Author: Mustaqim Setyo Ariyanto

¹nabilahasna662@gmail.com

²mustaqim.sa@unisayogya.ac.id

ABSTRACT

This study aims to determine the drill method's effectiveness in improving counting skills in slow-learning students at the primary school level. The hypothesis proposed in this study is that the drill method effectively improves counting skills in slow-learning students at the elementary school level. This research is experimental with the form of research design, namely Pre Experimental Design with One Group Pre-test - Post-test. The subjects in this study were five slow learners in grade 3 who had low counting skills at SD Negeri 3 Sedayu. The data analysis technique in this study used the Wilcoxon sign rank test analysis technique. Based on the results of data analysis, the value of Asymp. Sig. (2-tailed) value of 0.043 and the required value (<0.05) or $0.043 < 0.05$. These results indicate that the drill method is effective for improving counting skills in slow learners at the elementary school level.

Keywords: Students with learning disabilities, numeracy skills, drill method.

Introduction

Education is an important and planned thing helpful in developing the potential of intelligence, skills, emotions, etc., contained in students. In the National Education System Law Number 20 of 2003 Chapter 1 Article 1 (paragraph 1), Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious, spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation, and state. Therefore, education is a right that must be obtained by every child, including children with special needs.

Children with special needs have a uniqueness that distinguishes them from normal children (Mumpuniarti, 2007). An example of a child with special needs is a slow learner. A slow learner has nothing to do with intelligence and mental retardation, so a slow learner is simply a condition where a person has low learning achievement (below the average of children in general) in one academic area. IQ scores in slow learners are 70-89, so students with slow learning experience cognitive barriers or limited intelligence potential (Garnida, 2015). Based on the results of research conducted by the Individuals with Disabilities Education Act or IDEA (2018) on the problems of children aged 6 to 21 years at school, 51%

of children with learning difficulties, 28% of children with emotional disorders, 13% autism and 8% other disorders. The most common problem faced is children with learning difficulties, where slow learners are included. Slow learners can almost be found in every inclusive school. According to Lisdiana (2012), approximately 14.1% of children are slow learners.

The results of researcher observations at SD Negeri 3 Sedayu on January 20, 2023, show that slow-learning students during the learning process in class is less able to complete their school assignments. If the student is having difficulty, then this student will talk and play with friends who are next to him or behind him. There are also slow learners who, if they have difficulty doing the task, will be silent and wait to be asked by the teacher or student assisting in the class. However, sometimes, if the student is given a problem and cannot solve it, he will look for his friend's answer.

Based on the results of the researcher's interview with one of the teachers at SD Negeri 3 Sedayu, students with slow learning barriers often experience lagging material because these slow-learning students understand the material requires a long time. These slow learners are also less able to solve arithmetic operation problems, especially in multiplication and division material. These slow learners are often confused when given story or math problems that feel the numbers are too many.

According to Rafael Lisinus & Pastiria Sembiring (2020) who say that children with special needs (ABK) are conditions where children have different conditions from children in general. This condition differs from physical, cognitive, and psychological factors, so the child requires appropriate treatment according to his needs. The impact of students' low cognitive abilities on slow learning students results in low academic achievement, students have difficulty practicing reading, writing, counting, and memorizing.

The low cognitive abilities of students can make students have difficulty concentrating and become easily bored, so children tend to have many undirected activities (Marheni, 2017). The low cognitive abilities of students can be overcome by applying learning methods that are to the characteristics of students. Many experts create learning methods for slow learners that can be applied in the field. The learning method is a way that is planned and used in the teaching and learning process so that goals can be achieved and also used to realize the strategies that have been set (Kusumawati & Maruti, 2019). One of these learning methods is the drill method.

The drill method is an excellent way to teach certain habits to acquire dexterity, accuracy, opportunity, and skill (Sagala, 2013). The drilling method can be interpreted as teaching in which students carry out training activities for higher dexterity and skills than what is learned (Roestiyah, 2008). The drill method is used to improve students' problem-

solving skills (Gani et al., 2020). In a study conducted by Hanik Musyarofah (2019), it was found that applying the drill method with mystery candy media had a significant effect on the math counting ability of grade II elementary school students.

Research Methods

This research is a quantitative study using an experimental method that aims to determine the effectiveness of the drill method in improving counting skills in slow-learning students at the elementary school level. According to Sugiyono (2015), the experimental method is a research method used to find the effect of treatment on others in controlled conditions. This opinion is in accordance with Arikunto's (2013) opinion that experimental research is research intended to determine whether or not treatment affects the subject being investigated.

According to Sugiyono (2015), several forms of experimental design can be used in research, one form of design used in this study is Pre Experimental Design with One Group Pre-test - Post-test. This form of design uses only one research group, namely the experimental group, and no control group. This research design is done by comparing the situation before and after the existence of a treatment. This type of Pre Experimental Design takes measurements through a pretest before treatment and retakes measurements through a posttest after treatment.

The subjects in this study used five slow-learning grade 3 students with low numeracy skills at SD Negeri 3 Sedayu. The selection of subjects in this study was based on considering the homogeneity of student characteristics (slow learners) and students' low numeracy skills. The experimental procedures used in this study are:

1. The preparation stage, which consists of:
 - a. Preparing measurement tools
 - b. Developing a module on the use of the drill method
 - c. Professional judgment
 - d. Module trial
 - e. Preparing for intervention implementation
 - f. Preparing the subject
2. Implementation of the intervention
3. Conducting the posttest
4. Followup stage

Results

The subjects used in this study were five in grade 3 elementary school and consisted

of 3 male students and two female students. These five subjects have IQ results based on the S-FRIT test in the slow learner category. The results of the empirical data calculation of students' numeracy scores before and after treatment can be seen in the following table:

Table 1. Descriptive Analysis Test Results

| | N | Minimum | Maximum | Mean | Std. Deviation |
|--------------------|---|---------|---------|-------|----------------|
| Pretest | 5 | 30 | 70 | 57,00 | 16,047 |
| Posttest | 5 | 80 | 100 | 91,00 | 8,216 |
| Valid N (listwise) | 5 | | | | |

Based on the empirical data in the table above, it can be seen that in students' numeracy skills before receiving treatment, the lowest score is 30, and the highest score is 70, with an average score of 57.00. During the students' numeracy skills score after receiving treatment, the lowest score is 80, and the highest score is 100, with an average of 91.00. This shows an increase in the average student counting ability of 34.00. Based on the results of the comparison of empirical data on the scores of aspects of counting ability before being given treatment and after being given treatment in each subject, it shows that there are differences in the results or scores between before being given treatment and after being given treatment through the use of the drill method.

Hypothesis testing used in this study is with non-parametric statistics, the formula or formula used is the Wilcoxon sign rank test. The calculation process uses SPSS 26.0 for Windows. Wilcoxon's analysis of the pretest and posttest results aims to determine whether there is a significant difference between the pretest and posttest results. The research conclusion is that there is a significant difference in the value of Asymp. Sig. (2-tailed) <0.05, and the research declared that there is no significant difference if the Asymp. Sig. (2-tailed) > 0.05. The results of the hypothesis analysis can be seen in the following table:

Table 2. Hypothesis Test Results

| | Posttest - Pretest |
|------------------------|---------------------|
| Z | -2,023 ^b |
| Asymp. Sig. (2-tailed) | ,043 |

Based on the Wilcoxon sign rank test calculation results, the Asymp. Sig. (2-tailed) of 0.043. The research hypothesis is accepted if the Asymp. Sig. (2-tailed) is smaller than the required value (<0.05) or 0.043 <0.05. Based on these criteria, it can be concluded that there is a significant difference between the results of the pretest and posttest data. So from these results, it can also be concluded that this drilling method effectively improves counting skills in slow-learning students at the elementary school level. The difference can be seen in the following diagram:

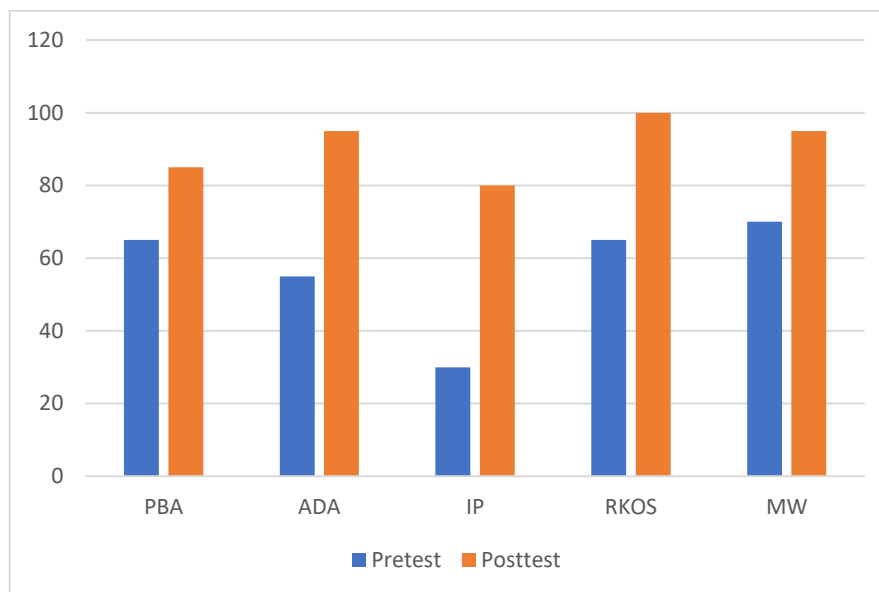


Diagram 1. Difference in Counting Ability Before and After Treatment

This research was conducted for 14 meetings, including pretest and posttest, with four learning topics. The first stage in the research is that the researcher conducts an initial test in the form of a pretest which serves to get the results of students' counting ability before being given treatment the results of the pretest show that the average score of the subject at the time of the pretest is 57.00. From the average student pretest results, the researchers researched to improve students' counting skills using the drill method. The next stage is providing treatment or intervention with the drill method. The stage of giving this treatment was carried out for 12 meetings. Researchers divided four learning topics into 12 meetings, and each topic had the opportunity to meet thrice.

During the intervention process, the researcher provided an opportunity for the facilitator to lead the implementation of the intervention and provided an opportunity for the observer to make observations during the intervention process. The last stage is to conduct a posttest to determine the increase in value after being given intervention or treatment using the drill method and prove whether there is a significant increase from the previous pretest results. The process results showed that the average Subject score on the post-test was 91.00. This shows that applying this drilling method can improve the numeracy skills of students with learning disabilities and is effective if applied in learning mathematics for students with learning disabilities in the classroom.

According to Komarudin (2017), if slow learners perceive learning as difficult, it is likely that when these slow learners are faced with the same learning conditions, they will

feel dissatisfied with their learning. This dissatisfaction can cause the student to think that learning is not pleasant, which can lead to incompleteness in learning. So, through this drilling method, students are encouraged to understand and work on math problems or arithmetic operations precisely and easily so that students can master and understand the material provided by the teacher easily, which can affect the improvement of students' numeracy skills. Based on the explanation above, it can be concluded that this drill method effectively improves the numeracy skills of slow-learning students at the elementary school level.

Conclusion

Based on the analysis results through the Wilcoxon sign rank test formula on the pretest-posttest results, the Asymp. Sig. (2-tailed) of 0.043 with a significant level of <0.05 , it can be concluded that there is a significant difference between the results of the pretest and posttest data. The pretest score obtained by slow-learning students before the intervention is between 30-70, and the posttest score obtained by slow students after the intervention is between 80-100. This means that the higher the score students obtain when working on arithmetic operation problems, the higher the level of students' numeracy skills. So from these results, it can also be concluded that this drilling method effectively improves counting skills in slow-learning students at the elementary school level.

Suggestion

1. For students, the advice that can be given is that they can improve their numeracy skills by doing exercises on arithmetic operations independently and with the help of ice cream sticks so that students can train themselves on solving arithmetic operations problems properly and correctly.
2. For teachers, the advice that can be given is that they can use the drill method with the help of ice cream sticks to improve counting skills in slow-learning students at the elementary school level because the drill method with the help of ice cream sticks is a learning method that is concrete, simple, can be used repeatedly, and makes it easier for slow learning students to solve various arithmetic operation problems.
3. For schools, the advice that can be given is that they can provide special assistant teachers to be able to assist slow-learning students in understanding lessons when in class, and the school can also provide more and varied learning media facilities to make it easier for teachers to deliver material to slow learning students and slow learning students can better understand the material presented.
4. For further researchers, the advice that can be given is that it can provide a variety of

media in improving counting skills and color variations in the media presented to the subject so that the subject is not easily bored, such as sticks, straws, etc.

References

- Arikunto, S. (2013). *Research Procedures A Practical Approach*. Rineka Cipta.
- Gani, A. M. A., Nurimani, N., & Rukyay, A. (2020). Efforts to Improve Students' Mathematics Learning Outcomes through the Drill Method. In *Proceedings of the National Seminar on Education STKIP Kusuma Negara III* (42-51).
- Garnida, D. (2015). *Introduction to inclusive education*. PT Refika Aditama.
- IDEA. (2018). *IDEA Individuals with Disabilities Education Act Manual 2018*. Texas.
- Komarudin, K. (2017). The Relationship Between Intelligence and Learning Motivation on Children With Special Needs in Inclusive Elementary School. *Guidena: Journal of Education, Psychology, Guidance and Counseling*, 7(1), 100-105.
- Kusumawati, N., & Maruti, E. S. (2019). *Teaching and learning strategies in elementary school*. Cv. Ae Media Grafika.
- Lisdiana, A. (2012). *Principles of Attention Development in Children with Learning Disabilities: Module of Subject Matter of Competency Training Program on Development of Cognitive Functions in Children with Learning Disabilities for Teachers in Advanced Level Inclusive Schools*. Ministry of Education and Culture of the Republic of Indonesia.
- Lisinus, R., & Sembiring, P. (2020). *Coaching children with special needs (a guidance and counseling perspective)*. Yayasan Kita Tulis.
- Marheni, K. I. (2017). Art therapy for slow learner children. *Proceedings of the Scientific Meeting of the Indonesian Developmental Psychology Association*, 154-162.
- Ministry of Education. (2003). Indonesian Law No.20 of 2003 concerning the National Education System.
- Mumpuniarti. (2007). *Education of Slow Learner Children*. Yogyakarta: Department of Special Education, Faculty of Education, State University of Yogyakarta.
- Musyarofah, H. (2019). *The effect of the drill learning method with mystery candy media is to improve math counting skills*.
- Roestiyah. (2008). *Teaching and learning strategies*. Rineka Cipta.
- Sagala. (2013). *The concept and meaning of learning*. Alfabeta.
- Sugiyono. (2015). *Quantitative Qualitative and R&D Research Methods*. CV Alfabeta.