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The Use of Drill Method in Improving the Ability to brush Teeth Self-help for Students with Intellectual Disabilities

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ABSTRACTS

The purpose of this study was to determine the use of the drill method in improving the ability to brush teeth for students with intellectual disabilities. The method used is the method of demonstration, assignment, and question, and answer. The subjects of this study were 2 students with intellectual disabilities at the Special School in Tasikmalaya, West Java. The results of the study showed the development of student's abilities, which can be seen from the changes in students' scores increase. The score obtained by D in the initial ability is 40 with a percentage of 50% to 75 with a percentage of 93.75% there is an increase of 43.75% and the score obtained by E in the initial ability is 20 with a percentage of 25% to 61 with a percentage of 76.25% there was an increase of 51.25%. That's because using the drill method makes it easier for students to understand the procedure for brushing teeth. Students with intellectual disabilities need repeated learning to become a habit. The use of methods that suit the needs of students can help students to more easily understand learning materials, especially students with intellectual disabilities. The drilling method can be considered by teachers to be used in the self-help learning process, especially brushing teeth for students with intellectual disabilities, and can be developed for learning other materials.

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1. INTRODUCTION

Students with intellectual disabilities are students who have developmental barriers in intellectual abilities. Students with intellectual disabilities cannot achieve high independence according to the standard of independence and social responsibility of normal children who will also experience problems in academic and communication skills with their age group (Yosiani, 2011). Intellectual disability is an obstacle characterized by significant limitations both in intellectual function (including reasoning, learning, problem-solving) and in adaptive behavior which can be seen from conceptual, social, and practical adaptive skills, which occur before the age of 18.

They have various problems both in academic and non-academic fields, one of the non-academic aspects that often experience problems is in terms of self-help abilities. Self-help skills are needed by students with intellectual disabilities to be able to help themselves, help themselves to accommodate their own needs. There are 6 parts in the aspect of cleaning and tidying yourself. Washing hands and feet, brushing teeth, bathing, washing and combing hair, toilet training, and applying make-up. Brushing teeth is part of cleaning and tidying up activities that are not easily done by students with intellectual disabilities. This is because students with intellectual disabilities have weak memory so that in learning they must apply the principle of repetition, as well as in terms of self-help. They have difficulty in understanding the stages of brushing their teeth, how to brush their teeth, and the importance of brushing their teeth. This is because students with intellectual disabilities have weak memory so that in learning they must apply the principle of repetition, as well as in terms of self-development. To accommodate these needs, one of the appropriate methods to use is the drill method. The drilling method is one way of teaching where children carry out activities in the form of exercises so that children have better skills (Jaelani, 2014). Learning methods are part of learning strategies, learning methods function as a way to present, describe, give examples, and provide training to students to achieve certain goals, but not every learning method is suitable to be used to achieve certain learning goals. Students with intellectual disabilities need appropriate learning methods so that the learning process can be maximized. While the drill method referred to in this study is by demonstrating or exemplifying the steps of brushing teeth that are given repeatedly, continuously, and consistently every day.

Currently, several studies discuss self-help skills, including improving self-help skills through task analysis for class I students with intellectual disabilities at SLB Limas Padang (Ardiyanto, 2014), increasing self-help skills through shaping techniques for mild with intellectual disability students (Anggraini & Marlina, 2018), tooth brushing training to improve the self-help ability of moderately with intellectual disability children in SLB (Agustiningsih, 2016), increasing motivation to learn self-help brushing teeth through films for moderately with intellectual disability children in grade I C1 SLB YPAC West Sumatra Padang (Andria, 2017) and the effect of the self-help program on the independence of children with intellectual disabilities (Kurniawan, 2012). However, until now there has been no research that discusses the use of the drill method in improving the ability to brush teeth for students with intellectual disabilities.

This study aims to determine the use of the drill method in improving the ability to brush teeth for students with intellectual disabilities. The method of demonstration, assignment, and question and answer is used in this study. This study has a subject, namely 2 students with intellectual disabilities at the Extraordinary School, in Tasikmalaya, West Java. The results obtained in this study are the ability of students has increased. The score obtained

by D in the initial ability is 40 with a percentage of 50% to 75 with a percentage of 93.75% there is an increase of 43.75% and the score obtained by E in the initial ability is 20 with a percentage of 25% to 61 with a percentage of 76.25% there was an increase of 51.25%. This is because using the drill method makes it easier for students to understand the procedure for brushing teeth. Students with intellectual disabilities need repeated learning to become a habit. The use of methods that suit the needs of students can help students to more easily understand learning materials, especially students with mental retardation. The drilling method can be considered by teachers to be used in the self-help learning process, especially brushing teeth for students with intellectual disabilities, and can be developed for learning other materials.

2. METHODS

2.1. Subject and location research

This study involved 2 students with intellectual disabilities at the Tamansari Special School (SLB) Tasikmalaya City, West Java. This school is a special school for students with special needs.

2.2. Research procedure

This study focuses on the case of the use of the drill method in improving the ability to brush teeth for students with intellectual disabilities. The flow of research carried out are: (i) Plan, (ii) Acting and Observing, (iii) Reflecting, (iv) Planning, (v) Acting and Observing, (vi) Reflecting.

Figure 1 describes the design of classroom action research using the Kemmis & McTaggart model (Widayati, 2008) the components of action and observation are made into one unit because in its application action and observation cannot be separated, these two activities are always carried out at the same time. The four components in the Kemmis & Taggart model consisting of planning, action, observation, and reflection are seen as a cycle or a cycle. Based on the reflection, then a plan for improvement, observation, reflection, and so on is drawn up.

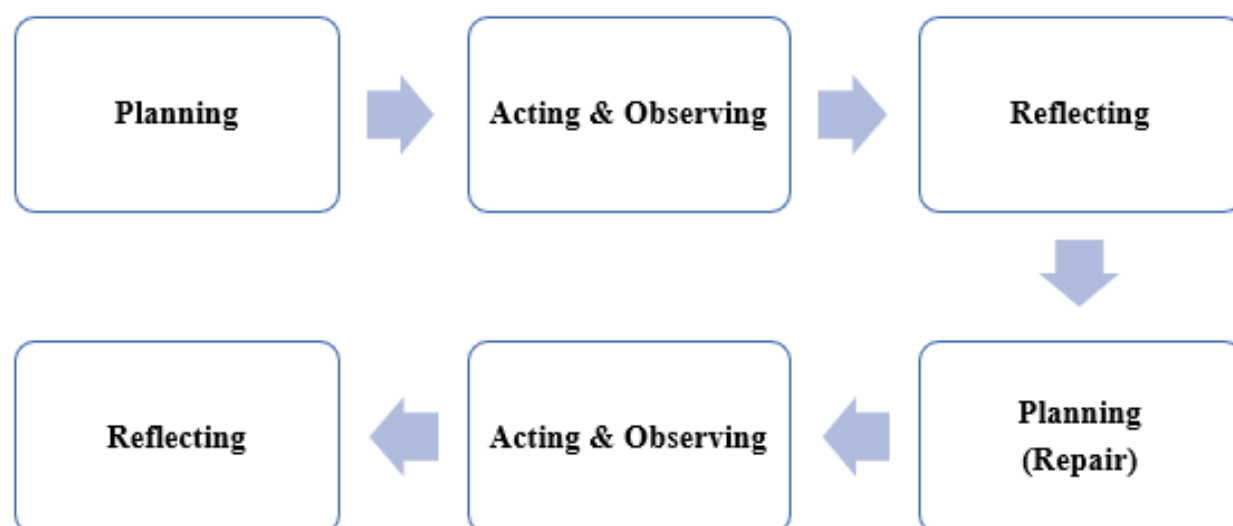


Figure 1. Model classroom action research design (Widayati, 2008).

2.3. Activity procedure

This study focuses on the case of the application of the drill method in improving the ability to brush teeth in students with intellectual disabilities. The flow of research carried out includes: (i) Planning, (ii) Make research instrument, (iii) Implementation, (iv) Observation and (v) Reflection.

Figure 2 describes the procedure for research activities consisting of the stages of planning, implementing, observing, and reflecting. The planning activity begins with identifying and assessing students' abilities. At the implementation stage, the research continued with the application or use of the drill method to improve the self-help ability to brush the teeth of students with intellectual disabilities, which was followed by collecting data from the pretest and posttest results. At the observation stage, everything that happened during the improvement process was recorded, including the teacher's treatment when implementing learning, the responses of students in participating in learning, which was followed by analyzing the data from the pretest and posttest results. At the reflection stage, an analysis is carried out on the provision of action in this case the use of the drill method, evaluating the level of success, and achieving the goals of the action.



Figure 2. Research activity procedure.

2.4. Research instrument

In this research activity, the data collection process is carried out by giving assignments or tests. The research instrument used was in the form of a tooth brushing ability test sheet. The tooth brushing ability test was given in the form of an assessment scoring made of 20 aspects of the activity to determine the level of students' ability to brush their teeth.

To assess students' abilities, it is done by giving an assessment score with a value of 1 if students are unable to carry out activities even with the help of the teacher, 2 if students can carry out activities with the help of verbal instructions and are directed, a value of 3 if students can carry out activities with the help of verbal instructions and scores 4 if students can do it independently (without the help of the teacher).

The assessment criteria given are if students can do every aspect of the activity correctly, they are given a value of 4, and the maximum score obtained by students is 80 with the Equation [1]:

$$N = \frac{S}{SM} \times 100 \quad (1)$$

N is the student's ability score (in percentage), S is the score obtained by students from the activities carried out, SM the highest score of all activities is 80, and 100 is a multiplier.

In the aspect of student ability, it is assessed by giving an assessment score with a value of 0 (not good), 1 (poor), 2 (good enough), 3 (good), 4 (very good).

3. RESULTS AND DISCUSSION

3.1. Student demographics

Table 1 describes the demographics of students consisting of academic, behavioral, motor, and self-help abilities. The subjects in this study were students with intellectual disabilities. Students with intellectual disabilities are students who have intellectual abilities

below the average, characterized by limited intelligence and incompetence in social interactions. Student D has poor academic ability, behavior, and motor skills are quite good and self-help is not good. Student E has poor academic, behavioral, and motor skills, and poor self-help.

Table 1. Condition of student's ability.

| Student | Academic | Behavior | Motor Skill | Self-help |
|---------|----------|----------|-------------|-----------|
| D | 1 | 2 | 2 | 1 |
| E | 1 | 1 | 1 | 0 |

Figure 3 describes the demographics of students consisting of academic, behavioral, motor, and self-help abilities. The subjects in this study were students with intellectual disabilities. Students with intellectual disabilities are students who have intellectual abilities below the average, characterized by limited intelligence and incompetence in social interactions. Student D has poor academic ability, behavior, and motor skills are quite good and self-help is not good. Student E has poor academic, behavioral, and motor skills, and poor self-help. Based on the data on the condition of students' abilities that have been described, then it is described in **Figure 3**.

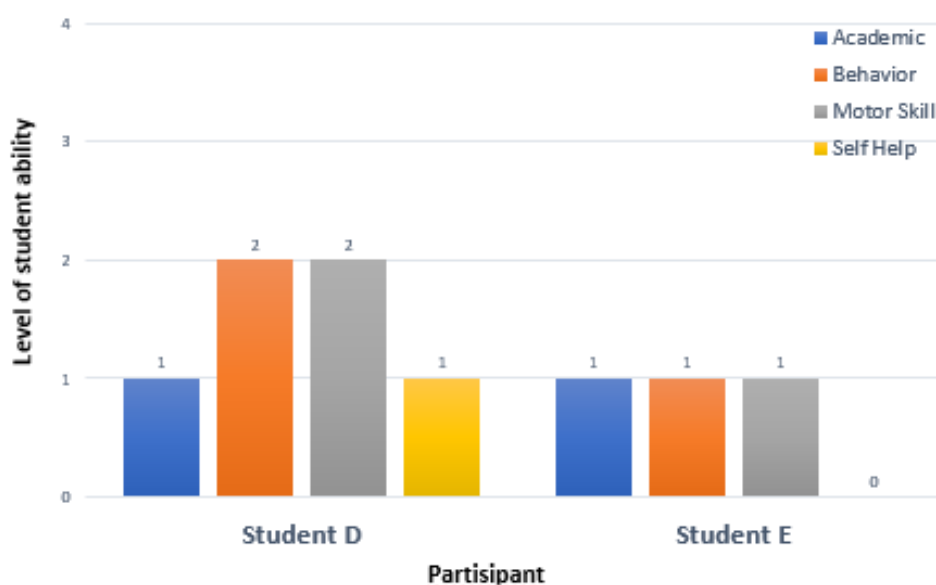


Figure 3. Student demography.

3.2. Learning process activities

Learning activities begin with initial activities, namely conditioning students in learning situations by saying greetings, praying together before studying, checking student attendance, followed by increasing students' motivation to learn by giving praise and then together singing the song "Bangun Tidur". Conducting questions and answers with students related to the material to be given, for example asking who brushed their teeth in the shower this morning. Delivering learning objectives and their benefits in daily life and explaining what activities will be carried out today.

The next activity is to introduce students to brushing equipment, explain the function of each tool in question, namely toothbrushes, toothpaste, diapers, buckets, and towels. Then

students are invited out of the classroom to the shower. The activity was continued by demonstrating the procedure or steps for brushing teeth properly, starting from preparing teeth brushing equipment, taking water from a bucket with a dipper, washing hands properly (not shaken), flushing the toothbrush before use, gargling, throwing water. from inside the mouth, opening the toothpaste cap, pouring toothpaste into a toothbrush with the right size (enough), closing the toothpaste, holding the toothbrush properly, brushing the front teeth, brushing the right side of the teeth (outside, inside, top and bottom). bottom), brushing the left side of the teeth (outside, inside, top and bottom), removing the remaining foam from the mouth (not swallowed), gargling clean the inside of the mouth, removing water from the mouth (not swallowing), flushing the toothbrush After use, wipe the mouth with a towel until dry and clean. Then students practice these steps in turn, with direction and may be assisted. After the activity was over, the students cleaned up the equipment they used to brush their teeth and then returned to class.

Before the lesson ends, by involving students together, making conclusions or summaries about the material for brushing teeth, conveying messages to students to brush their teeth at least 2x a day, before going to school, and before going to bed at night. Then pray after studying to end the learning activities. The learning process activities described above are then carried out repeatedly every day for 2 weeks or 10 days.

3.3. Pretest and posttest results

Table 2 describes the self-help ability to brush the teeth of students with intellectual disability seen from the pretest and posttest scores. Student D obtained a pretest score of 45 and a posttest of 75, and student E obtained a pretest score of 20 and a posttest score of 61.

Table 2. Self-help ability to brush the teeth of students with intellectual disabilities.

| No. | Activity | Student D | | Student E | |
|-----|---|-----------|-----------|-----------|-----------|
| | | P0 | P | P0 | P |
| 1 | Preparing a toothbrush | 2 | 3 | 1 | 2 |
| 2 | Preparing toothpaste | 2 | 3 | 1 | 2 |
| 3 | Prepare the dipper | 2 | 3 | 1 | 2 |
| 4 | Preparing towels | 2 | 3 | 1 | 2 |
| 5 | Taking water from a bucket with a dipper | 3 | 4 | 1 | 4 |
| 6 | Wash your hands properly | 1 | 3 | 1 | 3 |
| 7 | Flush/clean the toothbrush before use. | 3 | 4 | 1 | 3 |
| 8 | Gargle properly with water from the dipper. | 2 | 4 | 1 | 4 |
| 9 | Throwing gargled water from the mouth | 3 | 4 | 2 | 4 |
| 10 | Unscrew the toothpaste | 2 | 4 | 1 | 4 |
| 11 | Pour enough toothpaste into the toothbrush | 1 | 4 | 1 | 2 |
| 12 | Close the lid of the toothpaste | 2 | 4 | 1 | 3 |
| 13 | Holding the toothbrush properly | 2 | 4 | 1 | 3 |
| 14 | Brushing the front teeth | 2 | 4 | 1 | 4 |
| 15 | Brushing the right side of the teeth (top and bottom) | 2 | 4 | 1 | 3 |
| 16 | Brushing the left side of the teeth (top and bottom) | 2 | 4 | 1 | 3 |
| 17 | Gargle properly with water from the dipper. | 2 | 4 | 1 | 4 |
| 18 | Throwing gargled water from the mouth | 3 | 4 | 2 | 4 |
| 19 | Flush/clean the toothbrush after use. | 1 | 4 | 1 | 2 |
| 20 | Wipe the mouth with a towel, until dry and clean. | 1 | 4 | 1 | 3 |
| | Total | 40 | 75 | 20 | 61 |

*Note: P0 = pretest score and P = posttest score.

Based on the data on the self-help ability to brush the teeth of students with intellectual disabilities that have been described, then it is described in **Figure 4** for student D and **Figure 5** for student E.

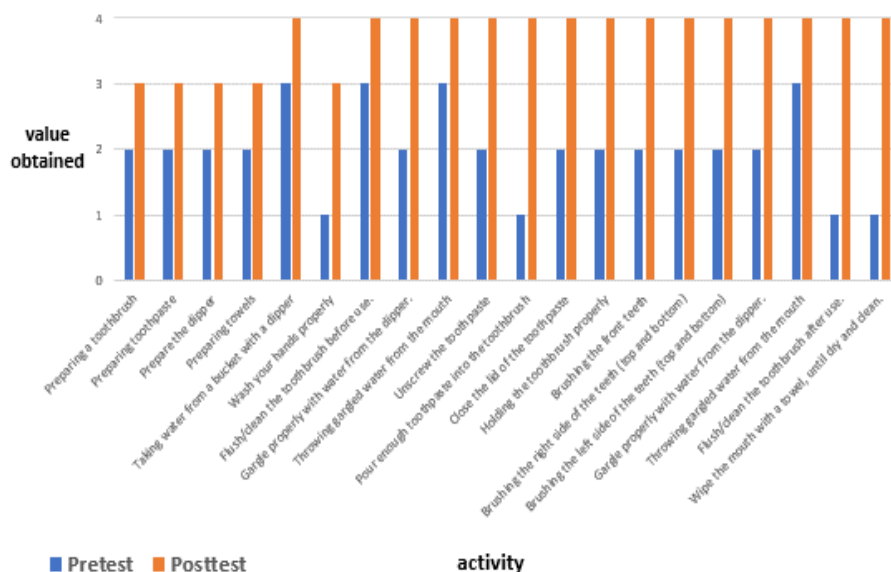


Figure 4. Self-help ability to brush the teeth of D Students.

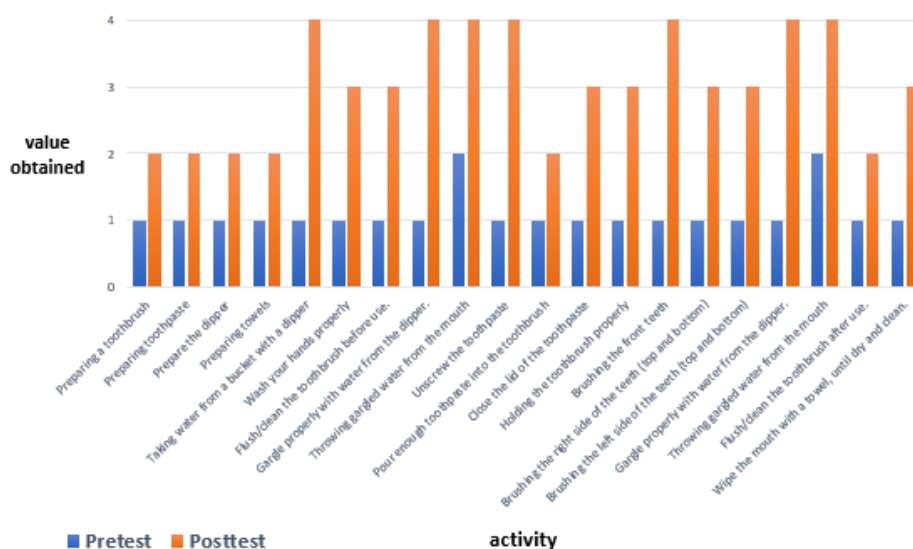


Figure 5. Self-help ability to brush the teeth of D Students.

3.4. Analysis of the results of research activities

In this study, implementing the drill method on students with intellectual disabilities to improve the ability to brush their teeth. The research activity begins with making a plan which includes the process of identifying and assessing students' abilities, followed by the preparation of instruments, researching by applying the drill method, collecting research data, analyzing the results of the ability assessment until finally making a research report.

Based on the results of the pretest and posttest of the ability to brush the teeth of with intellectual disability students, then the results were analyzed so that student D who previously had initial ability was 40 with a percentage of 50% to 75 with a percentage of 93.75% there was an increase of 43.75% and student E who previously having the initial ability is 20 with a percentage of 25% to 61 with a percentage of 76.25% there is an increase of 51.25%. This is because using the drill method makes it easier for students to understand the procedure for brushing teeth.

Table 3 describes the calculation of the percentage increase in the ability to brush the teeth of students with intellectual disabilities. Student D obtained a pretest percentage of 50%, posttest 93.75% with an increase in value of 43.75%. Student E obtained a pretest percentage of 25%, post-test 76.25% with an increase in value of 51.25%.

Figure 6 is about calculating the percentage increase in the ability to brush the teeth of students with intellectual disabilities. Student D obtained a pretest percentage of 50%, posttest 93.75% with an increase in value of 43.75%. Student E obtained a pretest percentage of 25%, post-test 76.25% with an increase in value of 51.25%.

Table 3. The results of the pretest and posttest self-help ability to brush teeth of students with intellectual disabilities.

| Student | Pretest | Posttest | Increasing value (%) |
|---------|---------|----------|----------------------|
| D | 50% | 93,75% | 43,75% |
| E | 25% | 76,25% | 51,25% |

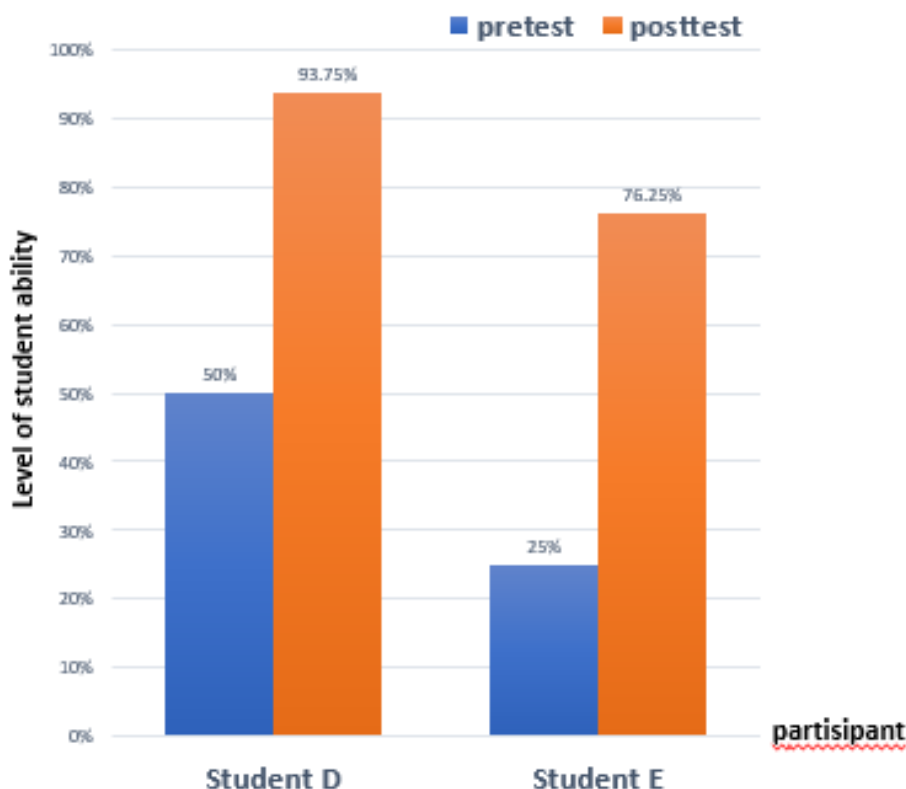


Figure 6. Percentage of self-help ability to brush teeth of students with intellectual disabilities.

4. CONCLUSION

The purpose of this study was to determine the use of the drill method to improve the self-help ability to brush the teeth of students with intellectual disabilities. The method used is the demonstration, assignment, and question and answer. 2 students with intellectual disabilities were involved in this study. The results showed that there was an increase in the ability of students with intellectual disabilities in terms of self-help and brushing their teeth. The increase was seen from the percentage of the self-help ability to brush the teeth of D students which increased by 43.75% and in E students the percentage increased by 51.25%, so that if on average there was an increase in the self-help ability of students with intellectual disability by 47.5% from pretest to posttest. The change in ability improvement was due to the application of the drill method to students with intellectual disabilities. Students with intellectual disabilities become aware of the sequence, steps, or stages of brushing teeth. The drilling method is suitable for teaching students with intellectual disabilities to a new ability.

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6. AUTHOR'S NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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