The Drill Method Filming in Improving Mental Retardation Students Self-Care Skills

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Abstract: Intellectual limitations are among the reasons children have difficulty building one of them on tooth-scrubbing. It has been marked by an oddity problem in the lightweight t children, including the children with mild intellectual disability that will be researched. If not treated, the problem can lead to other oral infections. Management requires a proper method of help with the enjoyable media - the drill method of visiting videos. The study USES the design of the A-B-A single-subject research (SSR) method. Research shows a rise in mean levels of 66.6% on baseline, 1, to 83% on intervention conditions, but two goes down to 79.5% on the baseline. However, the tendency of stability to baseline's condition is 100%, which means the data it finds is stable despite declining. Capitalization between baseline's condition, 1 to intervention state is 0%. So the conclusion from the research is that an intervention of a drilling method with a video successfully affects the ability to brush a child's teeth.

Keywords: drill method with video; brushing teeth ability, children with mild intellectual disability

INTRODUCTION

The need for education is the right of everyone, including children with special needs (ABK), including mental retardation children. Article 31, paragraph 1 of the 1945 Constitution states that every Indonesian citizen has the right to education. In the context of personal development and intelligence level, according to their interests and talents. In fact, this statement is confirmed by Law No.20 of 2003 Chapter IV, paragraph 2 concerning the National Education System, which states that citizens with physical, emotional, mental, intellectual, and/or social disabilities are entitled to special education. Therefore, education is necessary for every society, including those with special needs. Mental retardation is one of the children with special needs who need education.

According to Raharja (2006), mental retardation is a child who experiences obstacles and mental development below average. They experience difficulties in academic, communication, and social tasks. Therefore they need special education services. In society, mental retardation is often referred to as weak mind, mental retardation, or stupid. Impairment also includes various levels, from mild, moderate, and severe. Moreover, they are different from one another, so the handling needs are different.

One of the common problems experienced by mental retardation children is problems in academic assignments, problems taking care of themselves, problems taking care of themselves, problems with selfhelp, communication problems, and social problems, and problems with life skills in the community so that it requires special educational services that are following their abilities. In this study, observations were made for one month to find these problems, which are likely to occur in mild mentally retarded children in grade IX Special Junior High School Idayu 2 Pakis. In the class, a 21-year-old male with the initials AL was found with mild mental retardation who still had problems taking care of themselves, especially in brushing their teeth, marked by bad breath in these students.

Seeing the problems that exist in children with mild mental retardation, educational services play an important role and must be adjusted to the characteristics and needs of the child. Although educational services provided to mental retardation children are academic services and non-academic services, non-academic services in question are special self-development programs commonly known as self-development. Astati (2003), Self-Development is an effort to develop the individual as an individual and as a social being through education in the family, school, and community. Thus, independence and involvement in daily life are adequate.

Self-development through education in school refers to an individual activity but impacts human relationships (Zembylas, 2003). The problem is that is happening now is that the need for self-care training is not aligned with school conditions, so that the self-care activity program in self-development lessons has not been appropriately implemented. Sometimes self-cultivation lessons are considered not very important at school, because when at school the teacher always sees the child in a tidy condition, so the teacher thinks the child has been able to take care of himself.

Table 1. Measurement Results of Baseline-1 (A1) Conditions for the Ability to Brush Teeth in Children with mental retardation

Baseline A1	Maximum Score	Score Obtained	%
1st Session	45	27	60
2 nd Session	45	30	66,6
3 rd Session	45	30	66,6
4th Session	45	32	71,1
5 th Session	45	31	68,8

Seeing the reality in the field makes researchers interested in making self-development a problem that must be handled. Therefore, researchers chose the drill method as a teaching method deemed appropriate and suitable for this study. The teaching method is needed in this study because it will make it easier for children to understand the objectives of teaching and learning activities. According to Sudjana (2011), the drill method is an activity of doing the same thing repeatedly in earnest to strengthen an association or perfect a skill so that it becomes permanent.

METHOD

This study uses an experimental research method with a pre-experimental type of quantitative research approach. The design used is Single Subject Research, namely research conducted to determine how much influence a treatment given to one subject (Horner et al., 2005).

This study uses data collection techniques because the object under study is cause and effect (causal), so that in this study, there are independent variables and dependent variables. The independent variable in this study is intervention using the video drill method. The dependent variable in single-subject research is known as target behavior. In this study, the target behavior was to brush teeth independently in the correct manner for children with mild mental retardation.

The design used in this study is the A-B-A design. Design A-B-A consists of three stages of conditions, namely the baseline condition-1 (A1), the intervention condition (B), and the baseline condition-2 (A2). This A-B-A design shows a causal relationship between the independent variables and the dependent variable.

In this study, the researcher chose class IX students of Special Junior High School Idayu 2 Pakis to be studied. In this class, the researchers chose a 21-year-old male with the initials AL. The student has problems taking care of himself in brushing his teeth, which is indicated by bad breath in the student.

The instruments used in this study were observation sheets, assessment sheets, and documentation. This observation sheet contains what aspects the researcher will observe. Filling in the observation sheet can be done by filling in a description of the behavior that appears in the observation result column. Observation sheets are used to record all behaviors that appear in the intervention phase. Thus, it helps see changes in behavior that occur when given the intervention.

The assessment sheet used in this study aims to collect data to know the initial abilities and abilities after being given intervention. The data obtained from recording abilities on the assessment sheet are then collected in percentage sizes. The type of percentage measure is a unit of measurement on the dependent variable used by researchers to measure behavior in the academic and social fields.

Documentation in this study is used to obtain data about the subject, such as self-identity, birth history, and children's self-development abilities.

The way of an analysis carried out in this research is analysis in conditions and analysis between conditions. Analysis in a condition has several components, including the length of the condition, the estimation of the directional trend, the trend of stability, the data trail, the level of stability, and the range and level of change. At the same time, the components of the analysis between conditions were the number of variables that were changed, changes in trend direction and their effects, changes instability, changes in levels, and overlap data.

FINDINGS & DISCUSSION

Findings

Baseline-1 (A1) Condition Data

Measurements in baseline-1 (A1) conditions were carried out for five meeting sessions from 15 June 2020 to 19 June 2020. Measurements were carried out at the subject's house, starting from 08.30 am to completion. In this condition, measurements are made employing observation and recording task analysis. The ability measured in this condition is the initial ability to brush the child's teeth before being given intervention in the form of a video drill method. Following are the results of data collection carried out in baseline-1 (A1) conditions, show in table 1.

Based on the measurement table in the baseline-1 (A1) condition, the ability to brush children's teeth can be seen from the acquisition of scores. In the first session, the child got a score of 60%, while at the second and third sessions, the child got a score of 66.6%, at the first session.

Table 2. Measurement Results of the Intervention (B) Conditions for the Ability to Brush Teeth in Children with Mental Retardation

Intervention (B)	Maximum Score	Score Ob- tained	%
1st Session	45	37	82,2
2 nd Session	45	35	77,7
3 rd Session	45	38	84,4
4th Session	45	39	86,6
5 th Session	45	39	86,6

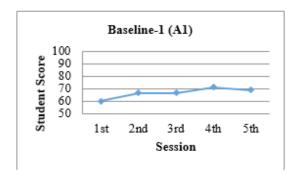


Figure 1. Results of the Implementation of Baseline-1 (A1) Conditions for the Ability to Brush Teeth in Children with Mental Retardation

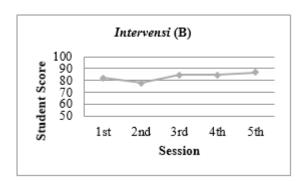


Figure 2. Results of Implementation of Intervention Conditions (B) Ability to Brush Teeth of Children with Mental Retardation

The four children still experienced progress in the value to 71.1%. In the fifth session or the last session at baseline-1 conditions, the children experienced a setback from the previous session, namely by obtaining a value of 68.8%. The acquisition value at baseline-1 (A1) can be illustrated in the following Figure 1.

Thefigure 1 shows the results of implementing the baseline-1 (A1) conditions, depicted with a blue line. The child's highest score was found in the 4th session, namely 71.1%, and the lowest score obtained was 60% in the 1st session. There was a decrease in the score from session four to session five in this phase, from 71.1% to 68.8%. This decrease was because the child

did not close the toothpaste cap when it was finished. Then it can be seen that in the 2nd and third sessions, the children's values did not change, namely 66.6%.

Intervention Condition Data (B)

Interventions are given for approximately 40 to 50 minutes/session with the following activities: children are given intervention in a video drill method that teaches how to brush teeth gradually to do it independently with the correct implementation procedures. Each stage that the child successfully carries out will be rewarded with praise, favorite food, and stationery / other valuable items. Meanwhile, the less-than-perfect stages in implementing the video drill method will be repeated until the child can achieve the predetermined target behavior. Following are the results of data collection carried out in the condition of Intervention (B):, show in table 2.

Based on the measurement table in the intervention condition (B), the ability to brush children's teeth can be seen from the acquisition of values. For example, in the first session, the child got a value of 82.2%, while in the second session, the child experienced a decline in value to 77.7%. Then, three children again progressed the score to 84.4%, at the 4th and fifth session, the children still progressed to 86.6%. Therefore, the value of the intervention condition (B) can be illustrated in the graph as figure

The figure 2 shows the intervention conditions (B) implementation, depicted with a green line. The highest score obtained by children was in the last session / fifth session, namely 86.6%, and the lowest score obtained was 77.7% in the second session. There was a decrease in the score from session one to session two in this phase, from 82.2% to 77.7%. This decrease was due to the child applying toothpaste with excessive size, messy/untidy, and brushing their teeth. In addition, chew the child doing it with excessive pressure, causing the gums to bleed. Then it can be seen that in the third and fourth sessions, the values obtained by the children did not change at all, namely 84.4%.

Baseline-2 Condition Data (A2)

This baseline-2 (A2) condition is a repeat of the baseline-1 (A1) condition because this measurement was carried out without any intervention. The intervention in the form of a video drill method in this condition has been stopped. This was done to determine whether children with mild mental retardation could still remember the steps to brush their teeth that had been taught (at the time of the intervention) or not to see whether there was a functional relationship between the independent variables dependent variable. Following are the results of data collection carried out in baseline-2 conditions (A2) show in table 3.

Table 3. Measurement Results of Baseline-2
(A2) Conditions for the Ability to Brush Teeth in
Children with Mental Retardation

Baseline (A2)	Maximum Score	Score Ob- tained	%
Sesi 1	45	38	84,4%
Sesi 2	45	36	80%
Sesi 3	45	35	77,7%
Sesi 4	45	35	77,7%
Sesi 5	45	35	77,7%

Table 4. Visual Analysis in Conditions

Condition	Baseline1 (A1)	Interven- tion (B)	B a s e - l i n e 2 (A2)
Condition Length	5	5	5
Estimation of Directional	Improve (+)	Improve (+)	Decrease (-)
Tendency			
Stability Trends	Stable (80%)	Stable (100%)	Stable (100%)
Trace Data	Improve (+)	Improve (+)	Decrease (-)
	/	/	
Stabil- ity Level and Range	Stable (60% - 71,1%)	Stable (77,7% - 86,6%)	S t a b l e (77,7% - 84,4%)
Change Level	60% - 68,8% (+8,8)	82,2% - 86,6% (+4,4)	84,4% - 77,7% (-6,7)

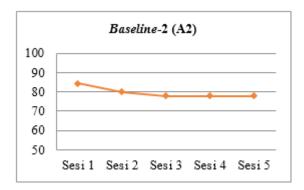


Figure 3. Results of the Implementation of Baseline-2 (A2) Conditions for the Ability to Brush Teeth in Children with Mental Retardation

Table 5. Visual Analysis Between Conditions

Condition Comparison	B/A1	A2/B
Number of Variables Changed	1	1
Changes in Trend Direction and their effects	(+)	(+)
Stability Change	Stable to stable	Stable to stable
Level Change	82,2% - 68,8% (+13,4)	84,4% - 86,6% (-2,2)
Overlap Percentage	0%	

Based on the measurement table 3 in the baseline-2 (A2) condition, the ability to brush children's teeth can be seen from the acquisition of values. In the first session, the child obtained a reasonably high value, namely 84.4%, in the second session, the child experienced a setback, so the value obtained to 80%, at the third, fourth, and fifth sessions, the children still experienced a setback in the value obtained, namely being 77.7%. Therefore, the acquisition value at baseline-2 (A2) can be illustrated in the graph as Figure 3.

The figure 3 shows the results of implementing the baseline-2 (A2) conditions, depicted with a red line. The highest score obtained by the children was in the 1st session of 84.4%, and the lowest score obtained was 77.7%, namely the third, fourth, and fifth sessions. The score decreased from session one to session three in this phase, from 84.4% to 77.7%. Then it can be seen from the scores obtained in the third, fourth and fifth sessions that have experienced a setback in value from previous sessions. However, despite experiencing a setback, the value obtained did not change at all. Therefore, to determine whether the data obtained is stable or unstable, this will be proven at data analysis. The stability trend will show the stability of the data/validity of the data that has been obtained. The following is the data analysis carried out in this study, namely.

Analysis of Conditions

The components of the analysis in conditions include: (a) the length of the condition, (b) the estimation of the directional trend, (c) the trend of stability, (d) the data trail, (e) the level of stability and range, (f) the level change. The following is a table of the results of visual analysis in the conditions that have been carried out in this study, show in table 4.

The table 4 shows the results of the visual analysis in this condition. The following is a summary obtained from the results of the visual analysis in the following conditions:

The length of the conditions carried out at baseline-1 (A1) is five sessions, in the intervention condition (B) is five sessions as well, and carried out at baseline-2 conditions (A2) is five sessions.

They estimated the direction of the trend carried out in baseline-1 (A1) conditions because the child's abilities increase without him knowing it. As a result, the scores obtained by the children also increase. Then the stimulation of the directional tendency in the intervention condition (B) also increased, this shows that the provision of intervention in the form of a video drill method that is carried out continuously can improve the ability to brush the teeth of children with mild mental retardation independently with the correct implementation procedures. Finally, while estimating the directional trend in the baseline-2 (A2) condition, the results decrease. However, the decline is still considered stable because of the stability trend or the stability tendency of 100%.

The calculation of the stability trend shows that at baseline-1 (A1), conditions obtained a result of 80%, which means that the data is stable. However, in the intervention condition (B), it increases to 100%. Likewise, baseline-2 (A2) also obtained results of 100%, which means that the data is also stable.

The trend of the data trail at baseline-1 (A1) conditions is increasing because the scores obtained by the subjects also increase. Then the trend of the data trail in the intervention condition (B) is increasing from the previous condition. Therefore, it shows that the provision of intervention in the form of a video drill method is proven to improve the ability to independently brush children's teeth with mild mental retardation with the correct implementation procedures. Meanwhile, the trend of the data trail in the baseline-2 (A2) condition is decreasing. However, even though it is decreasing, it is still categorized as a stable condition due to the stability trend or the stability tendency of 100%. Therefore, it shows the effect of giving intervention.

Data at baseline-1 (A1) conditions increased steadily with a range of 60% - 71.1%. Data on the intervention condition (B) also increased steadily in the range of 77.7% - 86.6%, and data on baseline-1 (A1) conditions increased steadily with a range of 77.7% - 84.4%.

At baseline-1 (A1), conditions show a (+) sign, which means there has been an increase. Likewise, the intervention condition (B) shows a (+) sign, which means there has also been an increase. However, the baseline-1 (A1) condition shows a (-) sign, which means that there has been a decline, but the decline is still considered stable because of the stability trend or the stability trend of 100%.

Inter-Condition Analysis

The components of the data analysis between conditions include: (a) the number of variables that are changed, (b) changes in the trend of direction and their effects, (c) changes in the trend of stability, (d) changes in levels, (e) the percentage of overlap. The following is a table of the results of visual analysis in the conditions that have been carried out in this study, show in table 5.

The table 5 the results of the visual analysis between conditions. The following is a summary obtained from the results of the visual analysis between conditions, namely:

The number of variables changed in this study is the baseline condition-1 (A1) to the intervention condition (B). The change in the direction between baseline-1 (A1) conditions to intervention (B) is increasing. It means that the increase occurred before and after treatment or intervention (B) in the form of a video drill method. Meanwhile, the trend between intervention conditions (B) and baseline-2 (A2) increases to decreasing. However, even though the decline is still included in a stable state. It means that the provision of intervention in the form of the video drill method has succeeded in affecting the ability to brush the teeth of children with mild mental retardation.

The change in stability between baseline-1 (A1) conditions to intervention conditions (B) is stable to stable. Furthermore, changes in the stability trend between intervention conditions (B) to baseline-2 (A2) also got the same results, namely stable to stable.

The ability to brush children's teeth with mild mental retardation from baseline-1 (A1) to the intervention condition (B) increased by 13.4%. Meanwhile, the ability to brush teeth of children with mild mental retardation in the intervention condition (B) to baseline-2 (A2) decreased by 2.2%.

The overlap percentage in data analysis shows 0%, which means that there is no overlapping data in this study. It shows that the provision of intervention (B) in the form of a video drill method can influence the target behavior to be achieved, namely the ability to brush teeth independently with the correct implementation procedures.

DISCUSSION

The ability to brush the teeth of children with mild mental retardation before being given intervention

The calculation of the score on the initial ability before giving the intervention can be seen in baseline-1 (A1) conditions. The ability to brush their teeth is still relatively low, seen from the calculation of the score at baseline-1 (A1) with the details of the mean level of 66.6%. Then the estimation of the directional trend in this study tends to increase, the trend of the data trail has also increased, and the level of change has changed by 8.8%.



Figure 4. Students with mild mental retardation see video media brushing their teeth



Figure 5. Students with mild mental retardation practice brushing their teeth

The increase that occurred at baseline-1 (A1) was utterly unaffected by any intervention. In baseline-1 (A1) conditions, children were only given orders to brush their teeth independently. At the beginning of the activity, the children experienced many small mistakes because they were not focused and complained a lot. Then in the next session, the child was calmer, so there was an increase of 8.8%, which is a manifestation of the child's enthusiasm to brush their teeth independently with the correct implementation procedures.

Ability to brush teeth of children with mild mental retardation after being given intervention

During self-development learning using the video-media drill method, the ability to brush the teeth of mildly mental retardation children got increased results. It is evidenced by the results of the value in the

intervention condition (B). At each intervention session carried out, the child succeeded in increasing their abilities. In the first session, the child managed to get 82.2%, but there was a slight decrease in inability in the second session, namely the score that was successfully obtained was only 77.7%. The decrease in the value obtained by the children in this second session was due to the child applying an excessive and messy/untidy size of toothpaste. During brushing the chewing teeth, the child did it with excessive pressure, which caused the gums to bleed. The above activities can occur because the child is not focused on his bad mood to decrease. However, when the child's mood improved, the children experienced an increase in value again in the third session, 84.4%. In the fourth session, the children experienced stability. The value obtained was the same as the previous session, namely 84.4%. Then in the fifth/last session, the child again increased value to 86.6%. So that the mean level in the intervention condition is 83%, the estimation of the direction in the intervention condition tends to increase, the traces of the data obtained also increase, and the level of change that also occurs changes by +4.4%.

The Effect of the Drilling Method with Video Media to Form the Ability to Brush Teeth in Children with Mild Disabilities

This research was conducted to determine the effect of the video-media drill method on brushing children's teeth with mild mental disabilities independently with the correct implementation procedures. Whether or not the effect of the drill method using video media can be seen from assessing the ability to brush teeth that have been carried out in baseline-1 (A1) and intervention conditions (B). The level of stability and range in baseline-1 (A1) conditions ranged from 60% to 71.1%. Meanwhile, the intervention condition (B) level of stability and range (B) experienced a significant increase, ranging from 77.7% to 86.6%.

Then the mean level, the estimated direction, and level of change from baseline-1 (A1) to the intervention condition (B) also increased. For example, the mean level at baseline-1 (A1) is 66.6%. However, after the intervention (B), the mean level increased to 83%. Thus, the estimation of the trend in the direction of baseline-1 (A1) and the condition of intervention (B) both increased equally. However, the intervention condition (B) increase was more significant than the baseline-1 condition (A1).

Furthermore, the level change in this study was calculated based on the difference between the first session data in the intervention condition (B) and the last session data at baseline-1 conditions (A1). The result was + 13.4%. Therefore, it shows a significant increase in ability, from before the intervention and

during the intervention condition. Then the calculation of the percentage overlap or overlapping data in this study is 0%.

CONCLUSION

Based on results and discussion, using methods in conjunction with appropriate learning media, one of which is the video-media drill method, applied through a fun individual approach, affects because it can help develop the ability to brush teeth. Mental retardation children. The result of the calculation of the overlap percentage is 0%, which means that the data shows that there is no data from the Intervention condition (B), which overlaps with the data in the Baseline-1 (A1) condition. Based on these calculations, it can be concluded that the intervention has given (video drill method) has succeeded in influencing the target behavior to be achieved.

The next researcher is expected to carry out basic research on self-development to identify the needs of children with mild mental retardation.Parents are expected to cooperate with related parties to familiarize their children with caring for themselves independently without assisting, especially in brushing their teeth. Teachers are expected to be able to develop children's self-development skills with various creative media.

REFERENCES

- Astati. (2003) Program Khusus Bina Diri: Bisakah Aku Mandiri. Malang: Depdiknas.
- Horner, R. H., Carr, E. G., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single-subject research to identify evidence-based practice in special education. Exceptional children, 71(2), 165-179.
- Rahardja, D. (2006). Pengantar Pendidikan Luar Biasa. Universitas Tsukuba: Criced.
- Sudjana, N. (2011). Dasar-dasar Proses Belajar Mengajar. Bandung: Sinar Baru Algensindo.
- Zembylas, M. (2003). Caring for teacher emotion: Reflections on teacher self-development. Studies in philosophy and education, 22(2), 103-125.