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EFFECTIVENESS OF THE DRILL METHOD ON THE LIFE SKILLS OF WASHING DISHES OF CHILDREN WITH MILD INTELLECTUAL DISABILITIES

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ABSTRACT

A preliminary study conducted in class V at SLB N 1 Bagansiapiapi, Rokan Hilir Regency, found an 11-year-old child with intellectual disabilities with the initials KH who experienced problems in the ability to wash dishes independently. Providing appropriate learning methods is needed so that the child can carry out learning optimally. Therefore, the drill method was chosen as a way to improve the ability to wash dishes for children with intellectual disabilities. The research methodology used in this study is Single Subject Research (SSR) by implementing an ABA research design and analyzed using visual graphic analysis techniques. Data collection techniques used direct observation and action tests equipped with action test instruments. The results of the study were then analyzed including analysis within conditions and analysis between conditions. Based on the data obtained, in the first baseline condition (A1) during four meetings the percentage of results was in the low range, namely 20.59%; 20.59%; 17.65%; and 23.53%, which indicates that the subject's ability was still low and relatively stable without significant improvement. After being given intervention (B) for eight meetings, there was a significant and gradual increase, starting from 50% to 97.06%, so that there was a consistent upward trend as a positive impact of the drill method given. Furthermore, in the second baseline condition (A2) for four meetings, the percentage remained at a high level, namely 94.12%; 97.06 %; 97.06 %; and 97.06 %, which indicated that the child's abilities could be maintained after the intervention was stopped. Overall, the data illustrates that the intervention given was effective in improving the life skills of washing dishes for children with mild intellectual disabilities in grade V at SLB Negeri 1 Bagansiapiapi.

Keywords: Drill method, Intellectual disabilities, Washing Dishes

1. INTRODUCTION

Intellectual disability is a term used to refer to children who have below average intellectual abilities, in addition to that, intellectual disability is also known as impairment (decreased ability) or reduced ability in terms of strength, value, quality, and quantity (Widyorini et al., 2014) . *The American Association on Mental Deficiency* (AAMD) also states

that intellectual disability is a disorder of intellectual function that is below average, namely an IQ of 84 or below (Sipahelut, 2021) . Children with intellectual disabilities are characterized by limited intelligence and incompetence in social interactions, difficulties in adaptive behavior or behavioral adjustments, and children even experience obstacles in efforts to meet their needs depending on the severity of the disorder or the level of retardation. This is what will make it impossible for children to achieve independence, social responsibility like other normal children and children will also experience obstacles in academic skills and communication with children of the same age (Luthfiyah et al., 2025) .

Apart from having deficiencies, children with intellectual disabilities still have competencies. Which can developed through education although the results are not as optimal as children in general, especially in the aspect *of life skills* . According to Basuni (2012) *life* skills are efforts made by individuals to be able to take care of and care for themselves which can be used to adapt to the community environment including self-care skills, self-care, self-help, communication, socialization, work skills, and using free time.

Problems in the self-development aspect that are often encountered in children with intellectual disabilities are delays in work skills, including dishwashing skills. According to Luthvia et al., (2025) this is due to limitations in children's attention and memory, impacting their low ability to maintain concentration continuously so that when in unpleasant circumstances or situations, according to them, children will quickly get bored and not understand tasks well. However, this does not mean that children with intellectual disabilities are unable to be independent, they can still achieve independence, with the provision of guidance and structured training.

Difficulties in dishwashing skills were also experienced by one of the students with mild intellectual disabilities with the initials KH, a class VC student at SLB N 1 Bagansiapiapi located on Jalan Sumber Sari Lingkaran Batu Empat, Rokan Hilir Regency. Observations on dishwashing skills showed that student KH had difficulty washing dishes independently. This was known from student activities in the school cafeteria, especially in terms of washing dishes. The results of interviews with teachers and canteen workers at SLBN 1 Bagansiapiapi showed that the student with the initials KH was not yet able to wash dishes independently. This statement was confirmed by the child's parents who said that KH still needed help washing dishes. This condition attracted the author's attention to conduct an analysis related to the child's ability to carry out dishwashing tasks, in order to determine the extent of his independence.

To reinforce the above statement, the researcher conducted a dishwashing ability assessment on KH students. The assessment results provided 17 steps in dishwashing, which the author adapted and modified based on relevant research journals. Based on the 17 steps, the children could perform three without assistance, four with assistance. Meanwhile, the children could not perform 10 of the steps at all.

Based on the assessment results, 29.4% of children were found to be less proficient in dishwashing. Based on the assessment results, it can be concluded that these children have not yet mastered the proper way to wash dishes, requiring further intervention.

Based on the above issues, one alternative that can address students' lack of dishwashing skills is to provide interventions through learning methods. The method designed by researchers for KH students is the *drill method* . The *drill method* is a learning approach that provides systematic, repetitive practice to students with the aim of improving their skills and conducting evaluations as a reference for competency development (Salma & Fatmawati, 2019) .

Researchers chose to use the drill method because of its advantages, namely that this method emphasizes continuous and systematic repetition of movements, which is very appropriate to the characteristics and learning principles for students with intellectual disabilities (Mustika & Budi, 2024) . They generally require more time to understand and master a skill, so repeated practice is key to strengthening motor memory and improving their motor coordination. The application of learning with the drill method is by providing exercises to students, then students practice them. This is done repeatedly until most or even all students understand the material that has been discussed. Several relevant studies also show the success of the application of the *drill method* in aspects of religious learning, dance skills and self-development (Dewi et al., 2025; Luthvia et al., 2025; Setyaningsih et al., 2024) .

In addition to its advantages, interviews with teachers revealed that the *drill method* has not been fully implemented by teachers in schools. This is because the implementation of the *drill method* must be based on work steps, namely making associations, conveying the objectives to be achieved, motivating students, conducting exercises with gradual repetition, application, evaluation, and follow-up (Putri, 2023) . When the author asked about the learning methods used by the teacher, the teacher explained that he used demonstration and lecture methods during learning. The teacher explained that learning with the drill method was not consistently implemented so that it did not achieve the expected learning objectives. Referring to the explanation above, the researcher is interested in raising a problem entitled "The Effectiveness of *the Drill Method* on *Life Skills* of Washing Dishes in Children with Mild Intellectual Distractions".

2. RESEARCH METHODOLOGY

This study uses a quantitative approach with a single-subject experiment type (*Single Subject Research*). Experiments are experimental activities to examine symptoms or behavior under certain conditions, while the quantitative approach is used because the data is analyzed in the form of numbers and statistics (Sugiyono, 2013) . The design used is ABA which consists of the first baseline (A1), intervention (B), and second baseline (A2) to see changes in behavior before, during, and after treatment is given (Sunanto, J., Takeuchi, K., & Nakata, 2005) .

The subject of the study was a child with intellectual disabilities with the initials KH, a fifth-grade student at SLBN 1 Bagansiapiapi, Rokan Hilir Regency, female and 11 years old. KH's ability to wash dishes is still far from the learning achievement as seen from the results of the initial dishwashing ability assessment conducted by the researcher obtained a score of 29.4%. The independent variable in this study is the *drill method* , while the dependent variable is the *life skill* of washing dishes.

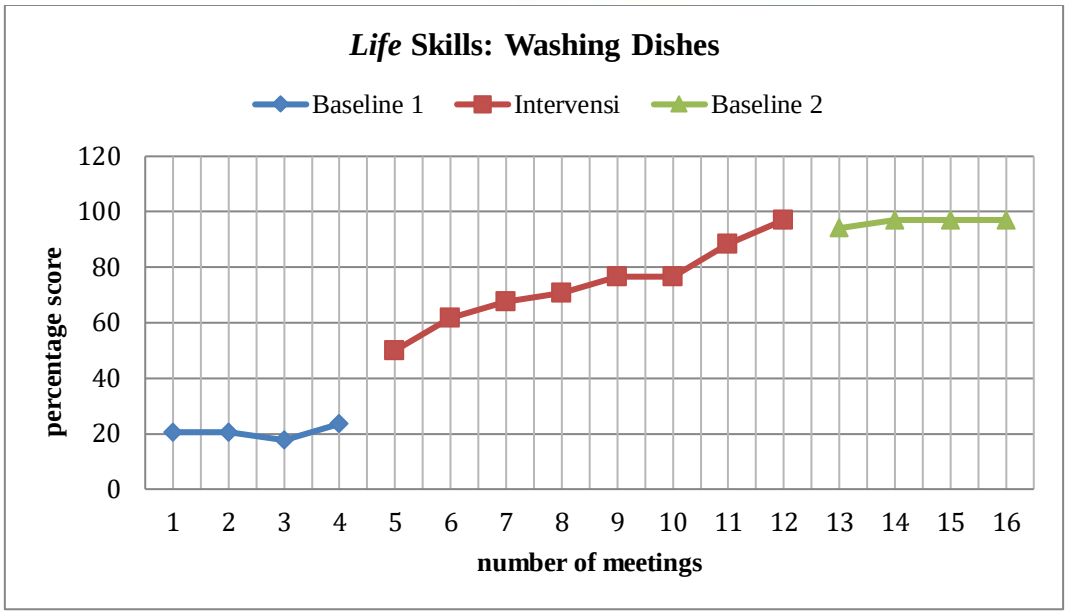
The research instrument was a performance test *in* the form of an observation sheet compiled using *task analysis techniques* , which breaks down complex skills into systematic small steps (Cooper et al., 2007) . This instrument was compiled based on the steps of washing dishes which are broken down into 17 steps. Each step is assessed using a scale of 0–2 according to the subject's level of independence. For scoring, the researcher used scoring according to general standards in Applied Behavior Analysis (ABA) and functional skills research, namely 2 = can, 1 = can with assistance and 0 = cannot (Cooper et al., 2007) . The score obtained was calculated as a percentage by comparing the score obtained with the maximum score and multiplied by 100% (Sunanto, J., Takeuchi, K., & Nakata, 2005) . Documentation in the form of photos and videos was used as supporting data to strengthen the observation results.

The research procedure was carried out in three stages according to the A1–B–A2 design. The first baseline stage (A1) was conducted to measure the subjects' initial abilities without intervention. The intervention stage (B) was conducted by providing learning using the *drill method* , in which the subjects were trained to complete the entire series of steps for washing a complete dish with assistance as needed. Measurements were taken at each session to observe the development of abilities. The second baseline stage (A2) was conducted after the intervention was discontinued to determine the sustainability of the treatment effect.

The research data were analyzed using visual graphic analysis techniques in *a Single Subject Research design* (A1–B–A2). Visual analysis is the main procedure in SSR research to assess behavioral changes based on graphic patterns in each phase (Sunanto, J., Takeuchi, K., & Nakata, 2005) . Measurement data from each session were entered into a graph, then analyzed to see behavioral changes in the baseline (A1), intervention (B), and second baseline (A2) phases. Behavioral changes that increased in the intervention phase and decreased when the intervention was stopped indicated the effectiveness of the treatment (Marlina, 2023) .

3. RESEARCH RESULTS

The results of this study present data on *the life skills* of dishwashing in the research subjects, obtained through repeated measurements in the baseline (A1), intervention (B), and second baseline (A2) phases. The following graphs of the research data show changes in the subjects' abilities at each session.



Graph 1. Recapitulation of *Life Skills Ability* to Wash Dishes in Baseline (A1), Intervention (B) and Baseline (A2) Conditions

Based on graph 1, it can be seen that *baseline* conditions (A1) were implemented at the first meeting to the fourth meeting for 4 days. session , the intervention phase (B) was carried out at the fifth to the twelfth meeting for 8 sessions, and the *baseline phase* (A2) was carried out at the thirteenth to the sixteenth meeting for 4 sessions. Based on the data, it can be seen that the percentage scores vary at each meeting . To find out whether the intervention...influential to target *behavior* , can seen based on results analysis the following data.

Table 1. Summary of Analysis Results in Conditions

No.	Condition	A1	B	A2
1.	Condition Length	4	8	4
2.	Directional Tendency Estimation	(+)	(+)	(+)
3.	Stability Tendency	50% (unstable)	50% (unstable)	100% (stable)
4.	Data Trace Trends	(+)	(+)	(+)
5.	Stability Level and Range	Variables 20.59% - 23.53%	Variables 50% - 97.06%	Variables 94.12% - 97.06%

6.	Level of Change	2.94% (+)	47.06% (+)	2.94% (+)

From results analysis data in condition, obtained long condition ABA that is 4-8-4. For trend The direction of condition A1 increases (+), condition B increases (+), and in condition A2 it increases (+). Seen from the tendency stability at condition A1 is obtained percentage stability 50% (unstable). On condition B stability percentage 50% (unstable). At condition A2 stability percentage 100% (stable). Seen from trend data traces show that under conditionsA1 increases (+), condition B increases (+), and in condition A2 increases (+). Next on level stability And range obtained results A1 unstable (variable)in range (20.59% - 23.53%), B unstable (variable)in the range (50% - 97.06%) and A2 does not stable (variable) in range (94.12% - 97.06%). Then on level change in condition A1 occurs change of 2.94%; on condition A2 changes occur 47.06%, and 2.94% in the condition A2.

Table 2. Summary of Visual Analysis Results Between Conditions

No.	Condition	A1/ B/ A2		
1.	Number of variables changed	1		
2.	Changes in directional tendencies and their effects	(+)	(+)	(+)
3.	Changes in stability tendencies	Unstable - unstable - stable		
4.	Level of change a. Level of change in condition B/A1 b. Level of change in condition B/A2	50% - 23.53% = 26.47% 97.06% - 50% = 47.06%		
5.	Overlap percentage a. In baseline conditions (A1) with intervention conditions (B) b. In baseline conditions (A2) with intervention conditions (B)	0% 12.5%		

From the results of data analysis between conditions, the number of variables changed is 1, namely *life skill* ability to wash dishes. Change trend direction show on condition A1 the direction is increasing, on condition B happen increase, And on conditions are improving. Furthermore,change trend The data stability pattern shows an unstable - unstable - stable pattern. In the baseline condition (A1), the data is unstable because the percentage score of the subject's ability varies but is consistently low due to the absence of intervention. In the intervention phase (B), the data is unstable because there is a gradual increase as a result of the intervention in the form of a *drill method* . Furthermore, in the final baseline (A2), the data is stable at a high level, indicating that the subject's ability remains stable after the intervention is stopped. Then seen from the level of change, at A1 and B experiencing a rate of change with a value 26.47% this means that in this condition there is change, furthermore between condition intervention (B) And *baseline* (A2) experiencing a rate of change with a value 47.06% this means that in this condition there is change with improvement. From results calculation *overlap* obtained a percentage that could be said to be small, namely *overlap* in conditions A1 and B is 0% And on condition B And A2 as big as 12.5%.

4. DISCUSSION

Based on the results of data analysis, it is proven that the abilities of children with mild intellectual disabilities (KH) show an increase as a result of providing intervention in the form of a drill method in learning to wash dishes. This can be seen in the recapitulation graph *of life skill abilities* in washing dishes in baseline conditions (A1), intervention (B) and baseline (A2 **)** which shows a significant increase in abilities between the baseline phase before being given intervention (A1), the intervention phase (B), and the baseline phase after being given intervention (A2).

The number of meetings during the baseline phase (A1) to the baseline phase (A2) was 16 meetings with details, namely baseline conditions (A1) or initial conditions before being given treatment for 4 meetings, intervention (B) or conditions when treatment was given in the form of video tutorials for 8 meetings, and baseline (A2) or conditions when no longer given treatment for 4 meetings.

In the baseline phase (A1), during 4 consecutive meetings, the child showed low abilities. This was indicated by the achievement of scores below the Minimum Completion Criteria (KKM). The achievement of KH scores during the A1 baseline phase showed results of 20.59%, 20.59%, 17.65%, 23.53%. Based on the implementation of the A1 baseline phase, it was found that there were no items that the child could do independently. In the implementation of the A1 baseline phase, the researcher provided assistance with activities that the child could almost do, including rolling up sleeves or ensuring that clothes did not interfere when washing; squeezing a sponge in a special soap container so that the soap spreads and foams; throwing food scraps from the plate into the trash; scrubbing the top of the plate (the surface used for eating) in a circular motion; turning on the water tap; rinsing

the top surface until there was no soap left; rinsing the bottom surface until there was no soap left; turning off the water tap; placing clean plates on the drying rack. The items that the child could not do were rinsing the plate with a little water to remove coarse food residue; Pour enough dishwashing soap into a special soap container; add enough water to a special soap container; rub the bottom of the plate in a circular motion; place the plate under running water from the tap; rinse the bottom surface until no soap remains; wipe the wet plate dry with a cloth/tissue; wipe the sink area if there are water splashes; put the equipment used back in its original place.

In the intervention phase (B), during 8 meetings the researcher provided a drill method. Based on 8 meetings of the intervention phase (B) there was an increase in the child's ability scores. Of the 8 meetings, there were 4 meetings that showed the child's score below the KKM (Minimum Completion Criteria), then in the 5th to 8th meetings the child's score reached above the KKM. The KH score obtained during the intervention phase (B) showed results of 50%, 61.76%, 67.65%, 70.58%, 76.47%, 76.47%, 88.24%, 97.06%. The assessment results during the intervention phase (B) varied, but based on the implementation of the intervention phase (B), it was known that several activity step items were difficult or took a long time for the child to master, namely rolling up sleeves or ensuring clothes did not interfere when washing; rinsing plates with a little water to remove rough food residue; rubbing the top of the plate (the surface used for eating) in a circular motion; rubbing the bottom of the plate in a circular motion; Wipe the sink area if there are water splashes.

During the intervention, KH did not apply enough pressure to his hands when scrubbing dishes, resulting in some utensils not being completely clean. This is related to KH's intellectual disability, as he is a child with mild intellectual disability. This is reinforced by a journal study that found that children with intellectual disabilities exhibit more motor skills problems than children with typical development, particularly in manual dexterity, ball skills, and balance (Vuijk et al., 2010) .

In the baseline phase (A2) which was conducted for 4 meetings, it was shown that the child's score was consistently above the Minimum Completion Criteria (KKM). In this phase, the child was no longer given assistance or intervention using the drill method. The KH score obtained during the baseline phase (A2) showed results of 94.12%, 97.06%, 97.06%, and 97.06%. Based on the data obtained above, the researcher stopped observing the baseline phase (A2), because the data obtained had shown stability. This is in line with the opinion of (Sunanto, J., Takeuchi, K., & Nakata, 2005) which states that phase shifts and phase termination in SSR research are carried out after the data shows a stable tendency.

The reason the researchers stopped the study even though the baseline (A2) had not yet reached 100% was because they referred to (Bulkeley et al., 2013) who stated that the minimum number of baseline data points commonly used ranges from 3 to 10 sessions, depending on stability needs and the research context. This indicates that 100% achievement scores are not necessary before the baseline can be stopped if the data already shows stability.

This statement is also supported by (Sunanto, J., Takeuchi, K., & Nakata, 2005) who stated that Baseline (A2) was stopped after the data showed stability for three consecutive sessions with a relatively flat trend, even though the achievement level had not reached 100%. This is in line with the principle of single-subject research which emphasizes that the stability of baseline data is prioritized over the level of achievement of scores. Baseline termination is carried out when the data has stabilized, because baseline stability is necessary to ensure that changes in the intervention phase are the effects of treatment, not natural variations in the data.

The results showed that the children's abilities were still relatively low before the intervention. However, during the intervention, they consistently improved with each session. Furthermore, after the intervention using the drill method was discontinued, the children's abilities significantly improved in understanding how to wash dishes correctly.

The results of this study are in line with the research of Ratih Ratna Dewi, et al. (Dewi et al., 2025) who also used the drill method to improve the skills of assembling Acrylic Bloom Boxes in students with physical disabilities which showed results of improvement through the drill method. In addition, the results of research conducted by Setyaningsih, et al. (Setyaningsih et al., 2024) also stated that the drill method is effective in improving Islamic Religious Education learning in students with intellectual disabilities at SLB Negeri Mandiraja Banjarnegara. Then, research conducted by Fitrah Luthvia, et al. (Luthvia et al., 2025) also proved that the use of the drill method is effective in improving traditional Minangkabau dance skills in students with mild intellectual disabilities. Coupled with Husti's research (Husti, 2022) also stated that the application of task analysis techniques can improve dishwashing skills in children with moderate intellectual disabilities in grade III at SLB-C YPPLB Cendrawasih Makassar City. The results of this study are said to be relevant to this study because they both use the drill method as a learning method to improve life skills for children with mild intellectual disabilities.

The drill method used by researchers is an effort to improve the life skills of washing dishes for children with low intellectual disabilities. By using the drill method, children are taught repeated practice activities to improve their dexterity and skills. Through systematic practice, this method not only aims to instill certain habits but also provides direct practical experience so that students acquire practical skills from the material being studied (Dewi et al., 2025) . During the intervention process, the researcher as a teacher also provided positive reinforcement, either words of praise such as "clever, clever, good" to increase motivation and reinforce behaviors that the children have mastered. This is in line with the researcher's reference that reinforcement can strengthen children's motivation so they don't give up easily when practicing (Murpratiwi et al., 2018) .

The advantage of the drill method is the emphasis on continuous and systematic repetition of practice, which is very appropriate to the characteristics and principles of learning for students with intellectual disabilities (Mustika & Budi, 2024) . They generally require more time to understand and master a skill, so repeated practice is key to strengthening motor memory and improving their motor coordination. The application of

learning with the drill method is by providing exercises to students, then students practice them. This is done repeatedly until most or even all students understand the material that has been discussed. Several relevant studies also show the success of the application of the drill method in aspects of religious learning, dance skills and self-development (Dewi et al., 2025; Luthvia et al., 2025; Setyaningsih et al., 2024) . Based on the discussion above, the use of the drill method is declared effective in learning life skills for children with mild intellectual disabilities, one of which is in learning the life skill of washing dishes.

5. CONCLUSION

Based on the research results above, it can be concluded that the *drill method* has proven effective in improving dishwashing *life skills* in children with mild intellectual disabilities. This improvement in ability is evident from the change in skill percentage in the intervention phase compared to the baseline phase, as well as the stability of ability in the second baseline phase after the intervention was discontinued. These findings indicate a functional relationship between the provision of intervention and the improvement of the subjects' self-development skills. Therefore, the *drill method* can be recommended as an effective learning strategy for developing functional skills in children with intellectual disabilities.

REFERENCES

Basuni, M. (2012). Self-Development Learning in Children with Mild Mental Retardation. In *Special Education Journal: Vol. IX* (Issue 1, p. 11).

Bulkeley, K., Bundy, A., Roberts, J., & Einfeld, S. (2013). *ASD intervention research in real world contexts: Refining single case designs* . Research in Autism Spectrum Disorders, **7** (10), 1257–1264. https://doi.org/10.1016/j.rasd.2013.07.014

Cooper, JO, Heron, TE, Heward, WL, & others. (2007). *Applied behavior analysis* (Vol. 2). Pearson/Merrill-Prentice Hall Upper Saddle River, NJ.

Dewi, RR, Budi, S., Ardisal, A., & Safaruddin, S. (2025). The effectiveness of the Drill method to improve the skills of assembling Acrylic Bloom Boxes in students with physical disabilities. *Borobudur Educational Review* , *5* (2), 60–68.

Husti, DA (2022). *Application of Task Analysis Techniques to Improve Dishwashing Skills in Class III Children with Moderate Mental Retardation at SLB-C YPPLB Cendrawasih, Makassar City* .

Luthfiyah, U., Santika, PP, Suri, E., & Sahputri, T. (2025). Literature Review: Occupational Therapy for Children with Mental Retardation. *Multidisciplinary Scientific Journal* , *2* (3), 90–96.

Luthvia, F., Budi, S., Kusumastuti, G., & Handayani, ES (2025). The Effectiveness of the Drill Method in Improving Traditional Minangkabau Dance Skills in Students with Mild Intellectual Disabilities at SLB Negeri 1 Ampek Angkek. *Journal of Research and Learning Innovation* , *5* (2), 464–478.

Marlina. (2023). *Single Subject Research - Rajawali Press* . PT. RajaGrafindo Persada.

https://books.google.co.id/books?id=e5yCEQAAQBAJ

Murpratiwi, IA, Tjakrawiralaksana, MA, & others. (2018). Prompting and positive reinforcement to improve dressing skills in children with intellectual disabilities. *Journal of Theoretical and Applied Psychology* , *8* (2), 112–123.

Mustika, SR, & Budi, S. (2024). Improving Simple Makeup Vocational Skills Using Modeling Techniques in Children with Mild Intellectual Disabilities. *Jurnal Tunas Bangsa* , *11* (2), 97–110.

Putri, Y. (2023). *Application of Drill Method in Extracurricular Arts Activities to Improve Alusu Dance Skills at SMAN 2 Bone* . Faculty of Arts and Design.

Salma, Y., & Fatmawati, F. (2019). Drill method in improving macrame bag making skills for deaf children at SLB Bina Bangsa. *Golden Age: Scientific Journal of Early Childhood Growth and Development* , *4* (3), 27–34.

Setyaningsih, S., Kamal, F., & Fatkhurrohman, F. (2024). Application of the Drill Method in Islamic Education Learning for Mentally Disabled Students at the Mandiraja State Special School in Banjarnegara. *Alphateach (Journal of Education and Teaching Professions)* , *4* (2), 20–25.

Sipahelut, J. (2021). Mental Retardation: A Case Study at SLB Yogyakarta. *Tangkoleh Putai* , *18* (2), 179–207.

Sugiyono, D. (2013). *Educational research methods using quantitative, qualitative and R&D approaches* .

Sunanto, J., Takeuchi, K., & Nakata, H. (2005). *Introduction to Single-Subject Research* . CRICED University of Tsukuba.

Vuijk, P.J., Hartman, E., Scherder, E., & Visscher, C. (2010). Motor performance of children with mild intellectual disability and borderline intellectual functioning. *Journal of Intellectual Disability Research* , *54* (11), 955–965.

Widyorini, E., Roswita, MY, Sumijati, SRI, Eriany, P., Primastuti, E., Judiati, EA, & others. (2014). *Psychology of Children with Special Needs* .