The Implementation of Drill Methods to Improve Autistic Children’s Ability to Tie Shoelaces

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Abstract

The purpose of this study is to analyze the effectiveness of drill methods in increasing the ability to tie shoelaces to autistic children. The type of research method used in this study is single subject research (SSR), with A-B-A research design. This research was conducted at the SLB Paulus Tomohon. The subjects in this study were autistic students who sat in class X. The results showed that subjects could not follow instructions along baseline A1 in 5 times, baseline B as many as 15 times, and baseline A2 as much as 5 times. Analysis of data at baseline (A1) long conditions 5 sessions with mean level 0, 0% presentation stability. Furthermore, in the intervention stage (B) the condition is 15 sessions long with mean level 6.46 and stability percentage 33%. The baseline stage (A2) with the condition of 5 sessions and mean level 10, the percentage of stability is 100%, with the existing data, it can be concluded that the drill method can improve the ability to tie shoelaces to autistic children in class X at the SLB Paulus Tomohon.

Keywords: Autistic child, Tie, Shoelaces, Drill method

1. Introduction

Children with special needs are children who physically, psychologically, cognitively or socially experience delays in achieving goals in developing their potential. One of those children with special needs is an autistic child. Autistic children have limitations in terms of thinking, self-adjustment and experiencing problems in the academic field including the lack of ability to develop themselves.

Disorders experienced by autistic children include aspects of behavior, social interaction, communication, and language, as well as emotional disturbances and sensory perceptions even in motoric aspects. Even so, they still have the potential to be trained to help and take care of themselves and some jobs that require mechanical training. According to Rini Hildayani, et al (2007: 68), helping oneself can be called self-help or self-care.

The activities take care of themselves such as self-development learning which includes how to eat, how to bathe, how to brush teeth, how to wear clothes and others. Efforts to help autistic children in carrying out these activities, for this reason, autistic children need learning related to self-development activities. Self-development learning
is the process of delivering information or knowledge where there is an interaction between the teacher and students in observing and understanding something learned to achieve a goal. The goal is the ability to take care of themselves or do daily activities independently.

The daily activities in question are routine habits that are usually carried out by someone such as dressing, eating, resting, maintaining health. A Dressing is one part of self-development activities that are not easy for autistic children to do. This is because autistic children experience motor and emotional problems that have an impact on the difficulty of dressing. The purpose of learning self-dressing is for autistic children to be able to wear their own clothes so that they are not dependent on others. By dressing, people can be protected from dust and dirt, protected from cold air, and also people can be seen from their clothes. One of the self-dressed builders is wearing shoes where the way to use it is by tying the string.

It is important to know that autistic people generally experience symptoms of concentration and motor disorders, so they often experience difficulties in learning because their motor skills experience interference. Yuwono, J (2009) and Judarwanto (2007) argues that fine motor skills are movements that only involve certain body parts and are carried out by small muscles, such as the skill of using the fingers and the right-hand movement so that this movement does not require energy but requires eye and hand coordination.

There is a third grader at the SLB Paulus Tomohon who cannot tie her own shoe. This is because since childhood the child is not accustomed to tying his shoelaces on his own, based on information obtained from the school, this child has been given special training in the form of therapy using training board media in which there is a cloth buttoned to zipper there is also, and of course there are in the form of two strands that aim to train the child's binding skills, but have not succeeded.

Therefore, researchers want to use the Drill method, which is a teaching that aims to instill a habit through continuous practice so that children can really understand the things taught by the teacher, in this case, to improve the ability to tie shoelaces. in autistic children at SLB Paulus Tomohon.

2. Research Methodology

This study uses single subject research (single subject research) or SSR which includes experimental research that focuses more on scores or individual performance rather than group performance. SSR is a simple and repeated time series design (Campbell & Stanley, 1966) in Tombokan Runtukahu (2005). SSR is suitable for use in special education research to implement procedures or strategies for modifying behavior in children with special needs with limited ability (server handicaps) (Homer, 2005). The SSR design used is the design of the A-B-A Method and has shown the cause and effect between the independent variable and the dependent variable. Behavior
targets are recorded at baseline A1 with a certain period of time and this is done under the condition of Intervention B. After measuring behavior in condition B, measure behavior in the second baseline condition (A2).

This research was carried out in a classroom, which contained tables, chairs, learning tools, therapeutic devices. This training process is carried out with the drill method to increase the ability to tie shoelaces to autistic children carried out using an intervention program, namely the procedure with the application of the drill method. The research subject was a child who was sitting in class X of the SLB Paulus Tomohon. The data collection technique in this study uses the ability recording technique.

3. Results and Discussions

The graph illustrates the ability of children in tying shoelaces in condition A-1 direction lines tend to be flat, while condition B when given intervention there is an increase, can be seen in the sixth to twenty session the ability to tie shoelaces increased compared to the fifth session although in the eleventh session decreased but the next session has increased again. And on condition A-2 is stable. The first session score change level is 0 (zero), and the final session score is 10 (ten), thus the change score (+10) improves. The estimated trend in direction increases, the data footprint increases with a positive effect which can be interpreted as a change in the score of increasing ability to tie shoelaces.

![Graph showing the ability of children to tie shoelaces](image)

**Figure 1. Graphics for Increasing the Shoelace binding Ability**

Determining stability trends, in this case using the 15% trend stability criteria stability criteria> 75% - 100% stable and <75% variables. To obtain trend stability, namely:

a. Baseline (A1)
   - Mean level (data at baseline: amount of data): 0+0+0+0+0= 0 : 5 = 0
   - Upper limit (mean level + half of the stability range): 0 + 0 = 0
   - Lower limit (mean level-half of the range of stability): 0 – 0 = 0
   - Trend stability : 0 : 5 = 0 x 100 = 0
The percentage of stability is 75% - 100% said to be stable, while under that it is said to be unstable. Because the calculation of the results for the baseline (A1) phase is 0%, the results are not stable.

b. Intervention (B)

Mean level: \(1+3+5+6+4+6+7+7+8+9+9+10+10 = 97:15 = 6.46\)
Upper limit: \(6.46 + 0.75 = 7.21\)
Lower limit: \(6.46 - 0.75 = 5.71\)
Trend stability: \(5:15 = 0.33 \times 100 = 33\%\) (variable)

c. Baseline (A2)

Mean level: \(10+10+10+10+10 = 50:5 = 10\)
Upper limit: \(10 + 0.75 = 10.75\)
Lower limit: \(10 - 0.75 = 9.25\)
Trend stability: \(5:5 = 1 \times 100 = 100\%\)

For stability the trend in session A1 to B rises and in session A2 rises (stable). In session A1 with a data trend trace that is 0. At the Intervention session B the trend data traces are 1-10, then A2 data trend traces are 10 so as to produce changes in the condition levels A1 (-0) that is the final session data in conditions A1 (0) is reduced initial session A1 (0), and for level changes in the intervention condition B (+9), i.e., data from the last session in condition B (10) minus the first session data condition B (1), while changes in the condition level A2 (+0) are the results of the last session A2 (10) are reduced from the first session of conditions A2 (10). As in the table below, the results of the analysis are in the condition of implementing the intervention.

The components are analyzed in the analysis between conditions, namely, the number of variables, changes in trends in direction and effect, changes in trends in stability, changes in level, and data overlap.
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Table 1. The Summary of Analysis Results between Conditions

<table>
<thead>
<tr>
<th>Comparison of Conditions</th>
<th>B/A1</th>
<th>A2/A1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of variables measured</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Changes in trends in direction and effect</td>
<td>(=) (+)</td>
<td>(=) (+)</td>
</tr>
<tr>
<td>Positif</td>
<td>Positif</td>
<td></td>
</tr>
<tr>
<td>Change in stability trend</td>
<td>Variable to variable</td>
<td>Variable to stabilize</td>
</tr>
<tr>
<td>Level change</td>
<td>10 - 0 = 10 (+)</td>
<td>10 - 0 = 10 (+)</td>
</tr>
<tr>
<td>Overlap data</td>
<td>$\frac{0}{15} \times 100% = 0%$</td>
<td>$\frac{0}{5} \times 100% = 0%$</td>
</tr>
</tbody>
</table>

Based on the research data that has been presented in the line graph the percentage of increasing the ability to tie shoelaces along with the analysis of the results of the research presented, illustrates that the increase in the ability to tie shoelaces of autistic children in SLB Paulus Tomohon can be handled in the right way, namely using the method drill where by using this method the child is taught a skill or a behavior that is repeated until the child really understands the things that are taught, the process must also require patience and perseverance (Juwono, Joko, 2009; Judarwanto, 2007). Because children are sometimes not good in their moods, sometimes situations that beyond the calculation of the researcher, for example when the learning process is taking place then the child’s pickup comes so that the child’s concentration is dispersed and the child wants to go home, where the researcher must really try to find a way to re-learn by persuading the child, but thanks to the desire, seriousness, and tenacity finally children can achieve the ability that is expected, namely children are able to tie their own shoelaces. (Dapa, A, 2018)

This is evident from the results of graph data, namely in the direction of the tendency of conditions (A) baseline-1 stage to tie shoelaces until the observation of the five children has not been able to make a knot. Whereas in condition (B) after being given a learning intervention using the drill method the tendency of the ability to tie a child’s shoelace has increased compared to the baseline-1 condition. The result was seen in the intervention stage in the sixth session of the child was able to make a regular knot, then the tenth session of the child was able to make a ribbon knot, but in the eleventh session the child decreased due to the holiday, but after that the child’s ability increased. In baseline-2 conditions without intervention, observation after administration of intervention, children’s ability in the twenty-first session to the
twenty-fifth session remained stable. The trend toward direction is increased, marked by achieving A2 percentage up to 100%.

In accordance with the opinion of Juang Sunanto (2006: 73) to find out the size of a treatment, "important components that can indicate the presence or absence of an intervention on the dependent variable are aspects of stability, change in level, and a lot of overlapping data or overlapping data". The results of overlapping data analysis (data overlap) can show changes between conditions indicated by the presence of the same data between two conditions compared. The same data or overlapping data shows no change in the two conditions. The more data overlap, the less convincing the influence of the intervention is given.

The ability to tie shoelaces is a skill that everyone can get, including autistic children because by having the ability to tie their own shoelaces the child can reduce the burden on those around him and the independence of the child will also increase.

Based on the fact above, the drill or repetition method is the chosen method so that the child is able to binding the shoelace properly. and proven this technique is effective to be used in improving the ability to tie shoelaces to autistic children in the SLB Paulus Tomohon.

4. Conclusions

Based on the results of research, analysis and processing of data on the use of drill methods to improve the ability to tie shoelaces to autistic children, from the initial condition of the subject at baseline-1 phase (A-1), intervention (B), and baseline -2 (A-2), it can be concluded that: Drill methods can improve the shoelace binding ability. This is evidenced by an increase in the mean level, in the baseline phase-1 (A-1) the mean level is 0, the mean level in the intervention phase (B) is equal to 6.46. and baseline phase-2 (A-2) mean level of 10. Looking at these data, it can be concluded that the mean level from the initial / baseline-1 (A-1) phase to the final phase / baseline-2 (A-2) increases by (+) 10, indicating that the drill method can increase the ability to tie rope shoes.

References


