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Application of DTT (Discrete Trail Training) Method in Improving the Eye Contact Ability of Autistic Children

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Abstract: Autistic children are children who have developmental disorders that affect several aspects which include communication, social interaction, sensory disorders, play patterns, behavior, linguistics, perception, cognitive, and emotional. Usually these autistic children are less interested in making social contact and lack of eye contact. Autistic children's problems are still low in eye contact so that it has an impact on behavior and social at school, because of the lack of teacher knowledge about autistic children and teachers who handle children currently do not have an extraordinary teacher education background. For this reason, the application of DTT (Discrete Trail Training) Method is very suitable to increase eye contact ability to attract children's attention. The purpose of this research was to determine the application of DTT (Discrete Trail Training) method in improving the eye contact ability of autistic children. This research used a quantitative approach with SSR method or known as Single Subject Research. The research design used was the A-B-A reversal design. The subjects in this research were autistic children in sixth grade at SLB Negeri Pelambuan Banjarmasin. Data collection used event recording system or direct observation and documentation, data analysis techniques include analysis in conditions and analysis between conditions using descriptive statistics. The results of the research show that the mean level in the Baseline (A₁) phase is 4.8 seconds, in the intervention phase (B) is 6.6 seconds and in the Baseline (A₂) phase is 7.6 seconds. Thus, it can be concluded that there is an increase in the ability of eye contact of autistic children in SLB Negeri Pelambuan Banjarmasin after DTT (Discrete Trail Training) Method is applied.

Keywords: DTT (discrete trail training) method; eye contact; autistic children.

INTRODUCTION

Law Number 20 Year 2003 concerning National Education System article 5 paragraph 1 which states that "Every citizen has the same right to obtain quality education" and article 5 paragraph 2 which states that "Citizens who have physical, emotional, mental, intellectual and / or social disorders have the right to receive special education". From the legal basis above, it is clearly explained that every citizen without exception has the right to obtain education. This has been guaranteed in the law which is the legal basis in our country. Therefore, children with special needs as citizens are also entitled to education. One that belongs to children with special needs is autistic child. Luciano (2016) Autism spectrum disorder (ASD) is characterized by deficits in social communication and social interaction in various contexts and restrictive and repetitive patterns of behavior, interests, or activities. Autism spectrum disorders describe a group of neurological development conditions in which individuals face challenges with social involvement and age-appropriate games and fail to develop peer relationships that are appropriate to their level of development (Memari et al, 2015).

In general, autistic children have disorders of social interaction, communication (both verbal and non verbal), and behavior patterns. With this disorder children are unable to form social relationships and communicate well or normally, even children do not have eye contact with other people. Children show failure to foster interpersonal relationships characterized by a lack of response to people around them. Symptoms of the inability of children to shape this behavior can be seen when the child prefers to be alone, engrossed in his own world, his attention is only focused on one object he is playing, and does not care about the events around him.

Unusual eye contact patterns are one of the most significant symptoms of children with the autism spectrum (Senju & Johnson, 2009). The underlying causes of eye contact avoidance in children with the autism spectrum are still unknown (Nation & Penny, 2008). Activities to avoid eye contact are identical in children with autism spectrum disorders and social disorders (Ninci et al, 2013). Eye contact is nonverbal communication, which is a process by which children are able or not to convey information and convey their thoughts and feelings through gestures / sign symbols.

In general, communication is carried out verbally or verbally that can be understood by both parties. If there is no verbal or non verbal language that can be understood by both, it will have an impact on communication that is not going well. Children with the autism spectrum face many challenges in living their daily lives. They may have difficulty in communicating and socializing with others. They will also feel frustrated when trying to overcome the ignorance and prejudice of others about autism. In addition families and teachers of children with autism spectrum also face many problems, and some problems, every day. For example, parents feel worried and exhausted in accompanying children with autism spectrum. they also face frustration when trying to find accurate information about good interventions for their children (Grindle & Remington, 2005).

Based on the results of a preliminary study at SLB Negeri Pelambuan Banjarmasin, an autistic child was found in which the child sat in sixth grade. The condition of the child is currently still low in eye contact so that it has an impact on behavior and social at school. With the condition of the child when learning takes place the child is difficult to follow orders and instructions from the teacher, when the child is asked to make eye contact the child's eyes are quickly distracted, when called by his name the child did not turn around and still seemed to not understand, when researchers try to invite even the duration of the time the child in staring is not long and very quickly distracted, and if you talk to them it will look like a daydream and empty because you don't understand what is being said.

Some of the efforts made by teachers in dealing with eye contact in autistic children are still not qualified. Due to the lack of knowledge about autistic children, teachers who handle children even now are not from an extraordinary teacher education background. So that during the learning process the teacher seemed to be indifferent to the low eye contact the child has. As for being able to enter the world of autistic children, at least they should be able to master the child's eye contact. Because with eye contact all the information you want to teach to children can be understood by children. However, what happens is that teachers find it difficult to adjust to the provision of services that are appropriate to the needs of children and have an impact on the provision of learning services that are still not optimal. So that if the child's eye contact ability is not improved, the child cannot develop properly and the child will be isolated from the environment and it is also difficult to have the skills and knowledge.

Therefore, researchers tried to recommend a method that was deemed suitable to train eye contact in autistic children by applying DTT (Discrete Trail Training) method. Discrete Trial Teaching (DTT) is one of the fundamental procedures used in implementing Applied Behavior Analysis (ABA).

Each discrete trial consists of three main components, namely: (a) discriminatory stimulus (eg, instructions from the therapist); (B) responses by students; and (c) consequences (eg, reinforcement or punishment) (Leaf et al, 2016). Discrete (DTT) trial training is an individual method by simplifying instructions to improve the quality of learning. DTT is very useful for teaching new forms of behavior (eg, speech or motor movements) and new discrimination (eg, responding correctly to different requests, and eye contact) in children with the autism spectrum, (Smith, 2001). In handling children with autism spectrum, parents and teachers need the DTT method, DTT is considered easy and practical in its application, because DTT can be implemented in classrooms, at home, or in other places, (AL-Salahat, 2016).

DTT (Discrete Trail Training) method which is part of the ABA approach has never been used by teachers, but researchers assume that DTT method can improve the eye contact ability of autistic children. As the results of a research by Downs, Downs, Fossum, and Rau (2008) show that DTT has the potential to be used practically and effectively in making a positive impact on the learning and development of children with developmental disabilities. As the results of research conducted by Resmisari (2016) that the ABA method can improve eye contact in the subject from two seconds to three seconds. Based on this, researchers are interested in conducting research on "Application of DTT (Discrete Trail Training) Method in Improving the Eye Contact Ability of Sixth Grade Autistic Children at SLB Negeri Pelambuan Banjarmasin."

METHOD

The approach used in this research is a quantitative approach. The type of research used is an experiment with SSR (Single Subject Research). The research design used the A-B-A design which means the treatment phase is baseline (A_1) without treatment, intervention phase (B) with treatment, repetition of the baseline phase (A_2) after previously being treated. The independent variable in this research is DTT (Discrete Trial Training) method. The dependent variable in this research is to improve eye contact. The subject of this research was 1 (one) sixth-grade autistic child at SLB Negeri Pelambuan Banjarmasin. This researcher used a system of recording data directly by recording the duration of time. Analysis techniques used analysis in conditions and between conditions.

DISCUSSION

The data generated is the result of direct observation of researchers for approximately 18 days, with several phases.

Figure 1. Results of duration of eye contact in autistic children during the baseline phase (A₁)

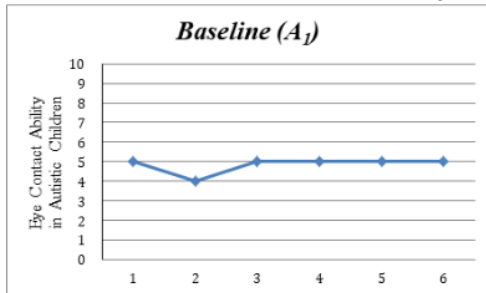


Figure 2. Results of duration of eye contact in autistic children during the intervention phase (B)

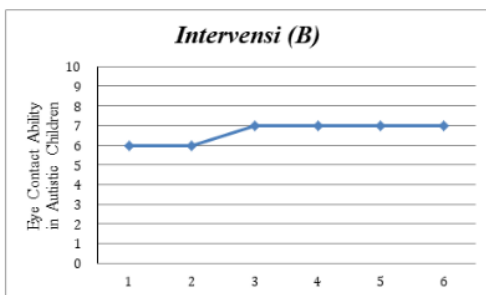
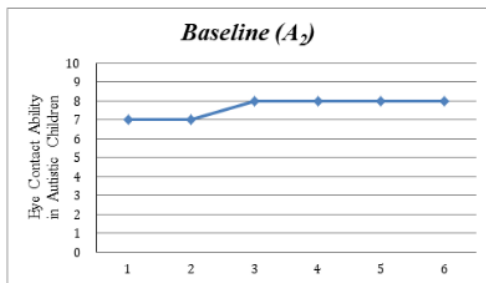


Figure 3. Results of duration of eye contact in autistic children during the baseline phase 2 (A₂)



The results of recording data on the duration of eye contact ability of autistic children in sixth grade at SLB Negeri Pelambuan Banjarmasin are as follows.

Eye contact in autistic children in the baseline phase (A₁)

The child's eye contact ability was not increased but there was a decrease in eye contact in the 2nd session, figure 1. In the 2nd session there was a decrease in eye contact. The researcher assumed that it was possible because at the time of the implementation the child had just finished tantrums so that it had little impact and a decrease in the child's eye contact. But the rest of the 3rd to 6th session of the child's eye contact is the same and stable. If a child is not qualified enough in terms of eye contact skills, the child will be isolated

from his social environment because of the difficulty of **15**ing two-way communication with his interlocutor. Verbal communication is the main means of conveying messages in a social context, nonverbal signals play an important role in paving the way for social interaction. Eyes specifically provide many social cues (Madipakkam, Rothkirch, Dziobek, & Sterzer, 2017).

Eye contact is an urgent matter and plays an important role in optimizing development in children. Carbone, O'Brien, Sweeney-Kerwin, & Albert (2013) state that eye contact occurs very early in child development, eye contact plays a role in many developmental functions such as social, cognitive, and language skills. A large number of children with autism fail to develop these skills because they have difficulty in eye contact.

Eye contact in autistic children in the intervention phase (B)

The ability of the child's eye contact at the 1st and 2nd sessions of the duration obtained for 6 seconds, then for the 3rd, 4th, 5th and 6th sessions there is an increase of 7 seconds so that it has happened enhancement, figure 2. At this stage the implementation of the intervention (B) phase has been given treatment, namely by applying the DTT (Discrete Trail Training) method. In implementing interventions, children with the autism spectrum, the instructor gives stimulus to the child by giving instructions to the child to get eye contact. When the child shows the expected behavior, the child is given a reward, the reward given is in the form of objects (dolls, chocolates), giving rewards is also given in the form of applause, touch, praise, and expression. Conversely, if the child does not show the desired behavior, the instructor removes items or things favored by the child (Fonger & Malott, 2018) in training the eye contact of children with the autism spectrum, performed using positive formation and reinforcement during the pause in instruction. On the other hand, the instructor removes the preferred item until **2** the child has eye contact.

20 DTT helps children with autism acquire a variety of skills in important fields such as communication, **2**ocial interaction, and self-care (Newsom, 1998). In addition, some researchers have reported that when applied as part of a comprehensive ABA care program, DTT produces major long-term benefits for many children. By involving eye contact with the person they are talking to, this gives the person the impression and message that they are serious about something that is communicated.

Eye contact in autistic children in the Baseline phase 2 (A₂)

This stage is the implementation of the Baseline (A₂) phase as a control of the Intervention (B) phase.

At this stage it has been seen that the child's eye contact ability has increased after being given treatment. Children have been able to see and respond in the form of eye contact that is long enough and increases from the previous time, when researchers give a little stimulation the child is sufficient to understand. Although the ability of the child's eye contact is still far-reaching if compared with a child of his age who is capable of minutes of eye contact. Thus, if with the increased ability of the child's eye contact, it will slowly facilitate the child to understand the language conveyed in the process of social interaction. Meanwhile, according to Herliyanti (2017) states that eye contact and gazing play an important role in regulating social interactions. In starting a social meeting the first thing to do is to build eye contact with the person we're talking to.

The ability to establish eye contact with the other person can be seen through the frequency and duration of the number of times and how long the child can survive looking at the other person's eyes. This is in line with the results of research conducted by Rani, (2015) that after receiving Discrete Trial Training (DTT) and Pivotal Response Training (PRT) found that ability in responding joint attention (RJA) both subjects of autism increased. Subject 1 obtained an average ability percentage of 88.09%, which means that the achievement of RJA ability in children is classified as high ($\geq 80\%$). Subject 2 obtained an average percentage of RJA of 59.51%, which means that the increase in RJA's ability that the child achieves is low. The difference in achievement of RJA's ability on both subjects of autism is influenced by the intensity of repetitive behavior and stereotypical attraction.

DTT helps children with autism acquire a variety of skills in important fields such as communication, social interaction, and self-care (Newsom, 1998). In addition, some researchers have reported that when applied as part of a comprehensive ABA program, DTT produces long-term benefits for autistic children (Smith, Buch, and Evslyn, 2000). The occurrence of long-term eye contact will be maintained by children with the autism spectrum when the therapist uses a combined schedule of giving rewards in the form of food and praise continuously (Cook et al, 2017).

CONCLUSION

Based on the results of the research it can be concluded that the application of the DTT (Discrete Trail Training) method can improve the eye contact ability of autistic children in SLB Negeri pelambuan Banjarmasin. The application of the DTT method should collaborate or cooperate with parents of children with the autism spectrum, so parents can also implement the DTT method at home. In addition, the application of the DTT method will be better if it involves other methods, such as economic tokens.

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