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The Use of Image Rotation Media in Improving Oral Expressive Communication of Autistic Children in Special Schools

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Abstract: This study aims to improve the ability of oral language expressive communication in children with autism by using image rotation media in special schools precisely at Special School 01 Serang elementary school level grade 1 totaling one person. This research uses the experimental method with a Single-Subject Research (SSR) Experimental Study approach. Based on the results of the study showed an increase in oral language expressive communication skills. The baseline phase 1 (A1) which was conducted in 4 sessions showed a similar percentage value of 33%. The intervention phase (B) which was carried out in 8 sessions resulted in a percentage value of 79%, 79%, 79%, 85%, 85%, 85%, and 85%. The baseline 2 phase (A2) which was carried out 4 sessions showed a percentage value of 69%, 82%, 82%, and 82%. Effectiveness seen from the overlap percentage, from intervention (B) to baseline 1 (A1) and baseline 2 (A2) to intervention (B) does not show overlapping data. Overall, the use of image rotation media in improving oral language expressive communication skills in autistic children at Special School 01 Serang is effective.

Keywords: image rotation media; spoken language expressive communication; autistic children.

INTRODUCTION

Communication is a very important aspect for all individuals to process information to connect with the surrounding environment either by receiving or conveying information (Ediyani, et al., 2020). Communication allows people to speak privately or to themselves, know themselves, convince themselves, prepare messages to tell others, make decisions, think for themselves, and understand themselves. Not only interpersonal communication, Individuals can also communicate interpersonally, interact with others, care for others, and strengthen bonds of friendship with family members. Communication aspects are very important to be mastered by children with special needs, one of the children with special needs who experience obstacles in communication skills is autistic children. Autism has difficulty socializing and interacting with the environment due to a lack of understanding of language, both verbal and non-verbal (Ayasrah, 2022; Irvan et al., 2023; Sukinah & Triadi, 2022; Irdamurni, et al., 2021). Due to the inhibited communication skills of autistic children, many other problems arise such as difficulty expressing something or socializing with the surrounding environment (Gates et al., 2023). The problem found in a special school for autistic children is the difficulty of expressing desires, especially the expressive language of spoken language so that it is not uncommon for individuals in the surrounding environment not to understand what he means, the impact of this, children often tantrum to seizures because they are upset (Li, 2023). William I Gorden in Mulyana (2012) suggests that one of the functions of communication is expressive communication, namely conveying one's feelings or emotions. These feelings are communicated through non-verbal or through treatment such as touch etc.

Analysis of preliminary studies conducted by Astuti (2010) related to the implementation of Improving Non-Verbal Communication Skills by Using PECS (Picture Exchance Communication System) Media for Autistic Children in Even Semester Preparatory Classes at SLB Negeri Sragen also discusses how the influence of PECS (Picture Exchance Communication System) media can improve non-verbal communication skills in autistic children and obtain an overview of the effect of PECS (Picture Exchance

Communication System) media on the communication outcomes of autistic children. This study uses a class action approach by directly observing learning activities with comparative descriptive analysis techniques. By using documents, tests, observation, and interview techniques. The analysis data is processed by critical analysis while the data in the form of tests is classified as quantitative data and the data is analyzed in a comparative descriptive manner by comparing the test scores in each cycle with the indicators of achievement. The results obtained using PECS media can improve the ability of verbal communication in autistic children.

Based on the needs of the field and the analysis of previous studies that have been carried out, it is necessary to develop efforts to improve the learning of oral expressive language communication for children with autism which can be done by making media. Researchers developed a media called image rotation or rotating image media that contains oral expressive language communication by loading images that are focused on showing expressions such as angry, sad, confused, laughing, smiling, and expressing a desire to learn, play, bathroom, eat, and drink. The way to use this media is that the child can rotate the media and show the image according to what he feels. It is expected that the use of image rotation media in learning to improve oral language expressive communication skills by understanding the communication that children have so that when communicating children can express themselves accordingly and precisely.

METHOD

This study uses quantitative research experimental methods with a Single Subject Research (SSR) approach that aims to provide different solutions to individual problems (Sunanto, 2006). The design used in this study is the A-B-A design, which A-B-A design will show the cause and effect between the dependent and independent variables. The subject in this study is an autistic child, whose oral language expressive communication skills must be improved because they have not been maximally realized. The subject has the initials S and was conducted for 16 meetings.

Data collection techniques were carried out by observation and documentation. In the assessment of research with the SSR method using A-B-A, its implementation includes activities:

1. Baseline measurement is carried out using direct observation of subjects experiencing problems (A1)
2. Performing intervention measurements, in activities (B)
3. Implementation of baseline behavior as a measure (A2)

The measuring instrument used in the study used a treatment test or with treatments, namely by providing learning to the subject. In addition, researchers use validation as a measure of the level of ability of valid instrument provisions. According to Sugiyono (2017: 102), the research instrument is a tool used to measure natural and social phenomena that are being observed." Phenomena in research instruments are called research variables. In this study, the writing procedure uses units for the dependent variable or target behavior using percentages. In Sunanto (2006: 16) argues that "The percentage shows the number of occurrences of an event multiplied by 100%.

RESULTS AND DISCUSSION

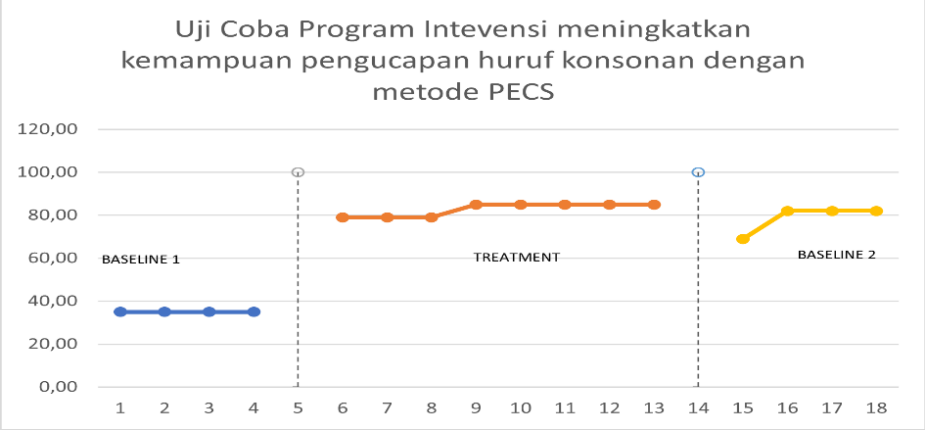
Result

The study was conducted for sixteen meetings which were divided into the initial, intervention, and baseline stages. The initial phase or baseline phase 1 (A1) was conducted 4 times per meeting, the intervention phase (B) 8 times, and the baseline phase 2 (A2) was conducted 4 times.

The results of measuring the initial ability of autistic children in oral language expressive communication skills (angry, sad, confused, laughing, smiling, wanting to learn, play, eat, drink, and bathroom) at baseline 1 (A1). The results of sessions 1-4 get 1 point as many as 10, 2 points as many as 0, and 3 points as many as 0 with a total score percentage of 33%. The results of the implementation of research at baseline 1 (A1) show the same oral language expressive communication skills in each session, namely the ability of children not to be able to express oral language expressive communication with verbal assistance or independently in the baseline 1 phase.

While the intervention results in sessions 1, 2, and 3 show the same value results, the child gets a score of 25 with a percentage of 79%. Then sessions, 4, 5, 6, 7, and 8 show the same value results and increase from sessions 1 and 2 by getting a value of 27 with a percentage of 85%.

The results of research in the intervention phase (B) produced a greater value than during the baseline 1 phase (A1). At the time of the intervention phase (B), it produced a value of 25, 25, 25, 27, 27, 27, 27 so that the intervention experienced an increase in value to several levels. Baseline phase 2 (A2) in session 1 obtained a score of 22 with a percentage of 69%. Meanwhile, sessions 2, 3, and 4 showed a value of 26 with a percentage of 82%. So the A2 baseline phase experienced a stable increase—the results of the development of oral language expressive communication after being given intervention treatment. Students can show pictures on the media appropriately and express these activities when communicating.



Graph 1. oral language expressive communication skills Baseline Phase 1 (A1), Intervention (B), and Baseline Phase 2 (A2)

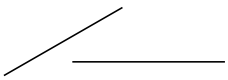
Based on the visual graphs in graphs 4.1, 4.2, and 4.3, are put together into one visual analysis graph of the target behavior of oral language expressive communication ability, which consists of the baseline 1 (A1) phase, the intervention phase (B), and the baseline 2 (A2) phase. Aims to provide clearer information about how the research was conducted during 16 meeting sessions consisting of 4 sessions for the baseline 1 (A1) phase, 8 sessions for the intervention phase (B), and 4 sessions for the baseline 2 (A2) phase.

Combining visual analysis charts is useful for analyzing changes in oral language expressive communication skills. The following is a visual analysis graph of the target behavior of oral language expressive communication skills in baseline phase 1 (A1), intervention phase (B), and baseline phase 2 (A2). The results of data analysis within and between conditions are in the table below:

Table 1. Analysis Under Conditions

Analyst Under Conditions			
Condition	**A1**	**B**	**A2**
Condition Length	4	8	4
Trend Direction			
Stability Level and Range	5,25 (35 x 0,15)	12,75 (85 x 0,15)	12,3 (82 x 0,15)
Stability Trend	100% (4: 4 x100%)	100% (8 : 8 x 100%)	75% (3 : 4 x 100%)
Level of Change	0 (35-35)	6 (85-79)	13 (69-82)
Data Trace			

Table 2. Inter-Condition Analysis

Inter-Condition Analysis		
Condition	**B/A1**	**A2/B**
Changes Trend Direction And Effect	 (+) (=)	 (+) (+)
Changes Stability and Effect	Stable to stable	Stable to stable
Level Change Data	+50 (85-35)	+3 (82-79)
Percentage Overlap	0% (0 : 8 x 100%)	0% (0: 4 x 100 %)

Discussion

Based on the results of the research that has been carried out, the provision of treatment (intervention) by using image rotation media can be said to be successful. Previously the resulting data showed stable data during the baseline 1 (A1) phase because this phase is a table of measurement of the initial ability of autistic children in oral language expressive communication skills, at baseline 1 (A1). The first session to the fourth session of the presentation showed stable results of 43%. Data at baseline 1 (A1) was obtained through direct implementation at school. The score on the expressive communication aspect of spoken language obtained by students before being given intervention shows the number of scores of 10 in consecutive sessions with a percentage of 35%. The results of the implementation of research at baseline 1 (A1) show that students are still unable to express spoken language expressive communication both with verbal assistance and independently.

Then the intervention phase (B) shows an increase in intervention data (B) greater than the number 25, 25, 25, 27, 27, 27, 27,27 which makes the increase in value in the intervention phase (B) rise to several percentage levels of 79, 79, 79, 85, 85, 85, 85, and 85. In the intervention phase, children have begun to improve independently in expressing oral language and expressive communication on the media. The increase in value is due to the attractive media display that makes children interested in learning to improve oral language expressive communication skills.

Furthermore, in the baseline 2 (A2) phase, namely the child's ability after being given the intervention treatment, the results of the oral language expressive communication ability test in session 1 show a value of 20 with a percentage of 69% while for sessions 2 to 4 show the same value of 24 with a percentage of 82%. The implementation of research on baseline 2 (A2) in session 1 to session 4 shows a stable increase compared to before the child gets the intervention or at baseline 1. The results of the development of oral language expressive communication in children after being given intervention treatment show that children can only express oral language expressive communication with verbal assistance as much as 5 out of 10 target behaviors while independently new children Based on the results of the research that has been done, providing treatment (intervention) by using image rotation media can be said to be successful. Previously the resulting data showed stable data during the baseline 1 (A1) phase because this phase is a table of measurement of the initial ability of autistic children in oral language expressive communication skills. at baseline 1 (A1).

Furthermore, in the baseline 2 (A2) phase, namely the child's ability after being given intervention treatment, the results of the oral language expressive communication ability test in session 1 show a value of 20 with a percentage of 69% while for sessions 2 to 4 show the same value of 24 with a percentage of 82%. The implementation of research on baseline 2 (A2) in session 1 to session 4 shows a stable increase compared to before the child gets the intervention or at baseline 1. The results of the development of expressive communication of spoken language in children after being given intervention treatment show that children can only express their feelings.

The difficulties experienced by children in expressing and showing appropriately the spoken language expressions of anger, confusion, laughter, smiling, learning, playing, bathroom, and drinking are caused because children find it difficult to express and show the appropriate pictures and find it difficult to distinguish them so that it affects memory in expressing and showing appropriate spoken language expressiveness.

Furthermore, the analysis of the data that the researchers have obtained, shows that there is a positive influence in increasing the ability to expressive communication of spoken language after being given treatment (intervention) which has been proven by the value of the phase at the intervention baseline (B) and at the baseline 2 phase (A2) which shows a value that is always high compared to the value in the baseline 1 phase (A1). The positive effect can be seen from baseline 1 (A1) which obtained data with an average percentage of 35%, then in the intervention phase (B) experienced an increase in data with an average percentage of 85% baseline phase 2 (A2) percentage of 82%.

The results of this study are in line with the opinion of Sudjana (2007), that the definition of image media is visual media in graphic form. Graphic media is defined as media that combine facts and ideas clearly and strongly through a combination of words and images. Meanwhile, Arsyad (1995), says that image media are various events or events, objects that are poured in the form of pictures, lines, words, symbols, or images. From the above opinion the use of image rotation media improves the teaching and learning process to improve oral language expressive communication.

In addition, to see the form of success of this research, namely in the use of image rotation media in improving oral language expressive communication skills, it was conducted by Larasari, et al (2021), with the title "Improving Expressive Language Skills in Children with Autism Through Picture Lotto Media". The method used in this research is SSR using the A-B-A design. The results of this study are to discuss how solutions to improve expressive language skills in students with autism by using pictorial lotto media. At baseline A, the score is 3 in the dimension of saying pencil and chair nouns, a score of 5 in the dimension of saying bag, book, and table nouns from a maximum score of 9. While at the baseline stage, the highest score is obtained in the dimension of said bag, book, and table nouns with a score of 9 from a maximum score of 9. So it can be concluded that the use of pictorial lotto media can have an effect on expressive language skills in children.

During the process of making and implementing this research, of course, the researcher feels that there are advantages and disadvantages in the process of making and implementing it, in research, namely the use of image rotation media in improving oral language expressive communication skills in class I autistic children in Special School 01 Serang, the advantages of this research are the use of image rotation media which is modified by an attractive appearance that contains images in the media, of course, will make students interested in participating in learning.

In addition to the advantages contained in this study, some shortcomings occur in research, namely:

1. Children can learn by looking at interesting pictures with good design and color it will raise children's interest in learning.
2. When the media is used sometimes the pedal rotates slowly or does not match the rotation when pedaling.

Based on the results that have been obtained in this study, it can be concluded that the use of image rotation media has a positive impact on improving oral language expressive communication skills. The subject of this research is autistic children in Special School 01 Serang.

CONCLUSION

Based on the research that has been carried out, the research has shown an increase in target behavior. The target behavior in this study is the ability of oral language expressive communication (angry, sad, confused, laughing, smiling) and expressing a desire (learning, playing, bathroom, eating, and drinking). This can be seen in each phase in the study, namely A1-B-A2. In the baseline phase (A1) data with an average percentage of 33%. Then in the intervention phase (B) showed an increase in data changes that increased with an average percentage of 83%. Furthermore, in the baseline phase (A2) data with an average percentage of 80%.

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