



## Improving Language Abilities of Children with Autism Using Visual Therapy Approach

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**Abstract:** Complex difficulties in communication, social interaction, and language of children with autism are a challenge for parents and teachers to teach them. For example, language difficulties will have an impact on all aspects such as cognitive, physical motor, perception, and several other aspects because language is a parameter in children's development. The purpose of this study was to determine the effect of visual therapy using a picture-word card approach on the language development of children with autism. The subjects in this study are three children with autism. The research method used in this study is a pre-experimental design with pre and posttest without control where children's language was measured before and after being treated, namely by visual therapy. The results of the study using tests before and after treatment experienced a significant increase, so, it can be concluded that visual therapy with picture word cards affects improving children's language with an average difference after 85 > 55.

**Keywords:** Language skills, children with autism, visual therapy, picture-word cards

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### INTRODUCTION

The education of children with special needs adheres to sound pedagogical principles that benefit all children. Various conditions of children with all their differences are normal, therefore learning must be adapted to the needs of the child, not children who have to adjust to the speed and nature of the learning process. Child-centered learning will be more effective and beneficial for all parties, especially for the child as a whole. Because the characteristics and obstacles possessed by ABK require a form of special education services that are tailored to their abilities and potential.

Especially children with special needs, need their stimulation according to the needs of each child. ABK has various types, one of which is a child with ASD (autistic syndrome disorder) in which there are still more calcifications. According to the ICD (International Classification of Diseases) and DSM-IV APA (American Psychiatric Association), namely Childhood Disintegrative Disorder, PDD NOS (Pervasive Developmental Disorder, Not Otherwise Specified), Rett's Syndrome (Rett's Syndrome), and Asperger's Syndrome. They have unique and distinct characteristics.

Disorders in children with autism are pervasively characterized by abnormal functions in social interaction, communication, and behavior. In general, people do not understand the appearance of autism symptoms. The hallmark of autism is a developmental disorder that is characterized by serious social interaction and language development disorders (Hurlock, 2009).

Also, Hanifah (2015) states that children with autism experience difficulties in fostering social relationships (qualitatively interacting socially), have difficulty communicating normally, have difficulty understanding the emotions and feelings of others, show repetitive behavior, experience aggressive behavior disorders and hyperactivity at the same time sensory, as well as experiencing delayed, abnormal or imbalanced development. Autistic children find it easier to process information visually than auditory stimuli. Many children with autism disorder have difficulty processing and retaining nonvisual information.

Children with autism have difficulty in the environment to only capture and store



information verbally. The difficulties that children with autism face do not close children with autism to getting an education, and good learning for them. The advantages of children with autism in receiving visual information make it easier for them to learn.

According to The Diagnostic and Statistical Manual of Mental Disorder, the fifth edition (APA, 2013) characteristics of children who experience AUTIS are: A. Permanent deficits in social communication and social interaction in several contexts, which are seen currently or seen from history:

1. Deficits in emotional social interactions, initiating interactions, for example strange (abnormal) social approaches and inability to start and end conversations, reduced interest in sharing pleasures, emotions, or inability to initiate and end social interactions.
2. Deficits in nonverbal communication used for social interactions, initiating nonverbal interactions, for example: non-integrated verbal and nonverbal communication, oddities in eye contact and body language, or difficulty understanding and using body language, unable to show facial expressions and nonverbal communication.
3. Deficits in building, maintaining, and understanding relationships, inability to initiate relationships, for example, difficulty adjusting behavior according to various social contexts, difficulty sharing in imaginative play, lack of interest in playing in groups.

Learning in children with autism must be based on structured, patterned, programmed, and consistent learning principles (Azwardi, 2005) so that the right approach is needed for them. If answered, the principles are as follows:

Teaching principles need to be applied by a teacher when teaching children with autism. A teacher guiding children with autism must have dedication, diligence, persistence, and creativity in teaching their students. According to Azwardi (2005, 153) the principles of education and teaching of children with autism in general include:

### **Structured**

Learning materials given to children with autism are sorted from the easiest material. The order of learning material provided is adjusted to the abilities of each child with autism. After the child can understand easy material, the material can be continued which is one level above it but is a series that is not separate from the previous material

### **Patterned**

Patterned The activities of children with autism are formed from habitual and well-planned routines, both at school and at home. It is hoped that with a regular pattern, autistic children are more receptive to change, easy to adapt to an adaptive environment, and can behave naturally per the goals of behavior therapy. Also, patterned activities will indirectly form a consistent attitude in children with autism.

### **Programmed**

Programmed Educational material programs must be carried out in stages and based on children's abilities because the first program target will be the basis for the second program target. The learning program consists of long-term programs and short-term programs. The long-term program is a learning program that is structured for 1 year. Meanwhile, short-term learning programs are arranged for three months and six months along with the learning objectives to be achieved.

### **Consistent**

Consistent has a fixed meaning, when interpreted freely and consistently includes fixed in various things, space, and time. Be consistent for teachers to behave, respond to, and treat children according to the character and abilities of each child. Consistent for children is to maintain and master the appropriate abilities with stimulants that appear in different times and spaces. Whereas consistent for parents is to behave and provide treatment to children per the educational program that has been compiled together between the supervisor



and parents as a form of generalization of learning at school and home.

### Continuous

Continuous The principle of continuous education is necessary for children with autism. Continuity is the continuity of the basic principles of teaching, educational programs, and their implementation. Continuity in the implementation of education is not only at school, but also must be followed up for activities at home and the environment around the child.

Based on the results of observations made by the author at DC-PG-TK BPI Bandung, there are several children with autism. Currently, distance learning is carried out due to a pandemic so that visits to children with special needs cannot be done optimally GPK is only given a one-time home-visit every week, learning follows the typical child. The use of teaching materials is not per the child's abilities. From the results of the assessment, children get good grades, but the work they do is 100% not the result of their work. So that learning like this is not optimal in child development, especially with autistic children. The approach in this school is the same as for typical children, while the overall abilities of children with autism are different, especially in children's language.

Language is one of the parameters in child development. Speech and language skills involve the development of cognitive, sensorimotor, psychological, emotional, and environmental around the child. Language skills can generally be divided into receptive abilities (listening and understanding) and expressive abilities (speaking). Speech ability can be assessed more than other abilities so that discussion of language skills is more often associated with speaking ability (Haryana, 2012).

Language is very important to be trained as early as possible so that the child's ability to speak is better, visual therapy is an approach that utilizes visualization that children have with the help of picture cards, researchers

implement visual therapy to help children improve their language.

Language skills in the form of receptive (language understanding) and expressive (language use) abilities are one of the life skills that children need. Adults who are around children should always provide stimulation that supports children's language skills. Because before children enter school age, adults in the family environment become the main source of learning for children. It is different when children enter school age, where children begin to meet new people in their life and this will provide wider opportunities for children to develop their language skills. This will be felt very differently when we talk about the development of language skills for children with special needs such as autistic children because autistic children experience communication problems. The stages that autistic children have in language acquisition are slower in development than normal children in general.

Autistic children have difficulty expressing feelings, desires, desires in language. Usually, slow language development involves a significant impairment of receptive and expressive language in children. Receptive language involves understanding and accepting language whereas expressive language involves the ability to communicate with others and express ideas and thoughts. Usually, slow language development involves a significant impairment of receptive and expressive language in children. Receptive language involves understanding and accepting language, whereas expressive language involves the ability to communicate with others and express ideas and thoughts. Usually, slow language development involves a significant impairment of receptive and expressive language in children. Receptive language involves understanding and accepting language whereas expressive language involves the ability to communicate with others and express ideas and thoughts.

From the findings in the field in the form of children's objective abilities and the objective state of learning, the authors



conducted a study aimed at improving the language of children with autism using a visual therapy approach. The problem in this study is the high number of children with autism who do not understand language which is necessary for daily activities so that researchers want to provide interventions that can improve the ability of autistic children to introduce language through visual media which is expected to be helpful for children and families so that they can show how "Increasing Language Skills for Autistic Children using a visual therapy approach"

### METHOD

In this study, the authors used experimental research in this case the experiment used was pre-experimental in the form of One Group Pretest-Posttest Design. In this design, only one group is used without a control group. Sugiyono (2011, 75) in his book states that the treatment in this design was carried out twice, namely before and after the experiment.

This research was conducted on 3 children with autism. In this study, researchers used the independent variable in the form of visual therapy and the dependent variable or the form of language skills of children with autism. The population in this study were 3 children with autism. The entire population was sampled. In taking the sample, researchers used a non-probability sampling technique with saturated sampling.

The research instrument used was in the form of an oral test and a written test in the language used by everyday children or functional language, with the previous validation of the instruments used through the material validator.

The data collection stage was carried out with the preparation stage, namely a) field observations, b) harmonizing theory and objective results of field findings, c) validating the material and items, d) making PPI. After the preparation stage is carried out the next stage is the implementation stage of this research the researcher uses the test method. In this study, the test method was used to obtain data on the ability of children with autism before and after the intervention was given. The pre-test and post-test forms are the same. The form of the test given was oral and written with a score of 5 each and there were 20 items. The data analysis used was a descriptive analysis of the data obtained from the mean.

### RESULTS AND DISCUSSION

The research was carried out by the home of each AUTIS child with the initials NA, GR, and AN. The results of the pretest in terms of the linguistic aspect have a score below the average. This instrument was developed from the language aspects of the Santrock theory and was developed by researchers. The results obtained by the three children at the pretest was:

**Table 1.** Pre-test results of children's language skills

No.	Name	Score	Average
1.	Gr	55	55
	An	45	
	Na	65	
Amount		165	

It is difficult to recognize pictures and answer questions, while in expressive language the child can answer the questions given by researchers well. Subject Gr got a score of 55 with a total of 11 questions answered with 5 questions about expressive

language and 6 questions for receptive language, this subject tends to be active so that it is not too concentrated when the researcher gives the questions the child also still has difficulty following directions. Subject AR got a score of 45, from the



observation that AR is still the youngest of the three, the language is still not well developed and does not have a large vocabulary. This subject tends to be active so that it is not too concentrated when the researcher gives questions, the child also still has difficulty following directions. Subject AR got a score of 45, from the observation that AR is still the youngest among the three, the language is still not well developed and does not have a large vocabulary. This subject tends to be active so that it is not too concentrated when the researcher gives questions, the child also still has difficulty following directions. Subject AR got a score of 45, from the observation that AR is still the youngest among the three, the language is still not well developed and does not have a large vocabulary.

The questions given in the post-test stage are the same as those given during the pre-test stage, this is because if the questions given are different, the resulting value cannot be used as a comparison between the pre-test and post-test. After all, they have different weight questions. The post-test is given after

the child has received four treatments using a visual approach using picture cards. At the time of doing the post-test, the children were much more focused on doing the questions than when they were doing the pre-test questions. The three children were also very conducive and in a better mood. They only rely on their memories about answering questions with the treatment that was previously given by the researcher. The use of a visual approach and picture cards makes it easier for children to recognize new vocabulary by optimizing their visualization, this makes the child able to optimally work on posttest questions. The results of the post-test carried out on children with autism are known to get the following values for language skills: and picture cards makes it easier for children to recognize new vocabulary by optimizing their visualization, this makes the child able to optimally work on posttest questions. The results of the post-test carried out on children with autism are known to get the following values for language skills:

**Table 2.** Results of posttest language skills of children with autism

No.	Name	Score	Average
	Gr	85	85
	An	80	
	Na	90	
Amount		255	

Based on the table above, it can be seen that the post-test results of autistic children in language skills have the lowest score of 80 and the highest is 95 and the average score is 85. four times. In this study, after knowing the results of the pre-test and

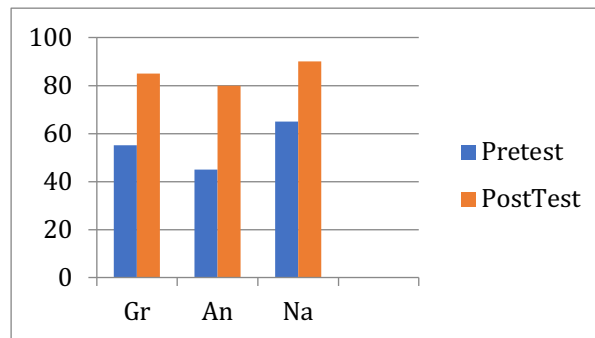
post-test scores, a useful recapitulation was carried out to determine whether or not there was an increase in learning outcomes after treatment. The following is the recapitulation of the pre-test and post-test values.

**Table 3.** Results of the recapitulation of language skills of children with autism

No.	Name	Pre-test value	Post-test scores
	Gr	55	85
	An	45	80
	Na	65	90
Amount		165	255
Average		55	85

Based on the data presented above, it can be concluded that the pre-test average score is lower than the post-test average score. The difference in the average value indicates a difference in the ability to count the sums in the pre-test and post-test results.

The difference in values obtained during the pre-test and post-test is as shown in the table, then presented in the form of a bar chart, while the bar chart is presented as follows



**Figure 1.** Bar diagram of the difference in language skills of children with autism

The results of this study indicate that there are significant differences in the language development of children with autism before and after being given Visual Therapy using picture word cards. Visual therapy with the picture card approach is one of the integrated therapies that combines deep knowledge and speech therapy with understanding communication, where the subject cannot interpret words and lacks understanding in communication and difficulty in receiving commands.

Therapy with the help of word cards which aims for autistic children to be able to recognize their daily needs so that it is hoped that the child can be independent, and the environment in which the child lives can also understand the child's needs needed. Because children show limitations in conversation sometimes makes the environment insensitive to children's needs which makes children more isolated and like their own world, so their communication skills are not optimal.

This study is per the results of research put forward by Pelicano et al (2014) which states that no autistic child can speak spontaneously like other children, and from the results of a study conducted on 72 autistic children in the UK by holding a focus group with accompanying by parents and child service personnel with autism. In the focus group, visual therapy with the PECS technique was given after the mentoring treatment to train the pronunciation of words showed that there were significant differences before and after the treatment, besides Handayani (2014) showed that there were effects and differences in expressive language skills before and after. performed visual therapy for PECS in children with autism ( $p = 0.000$ ).

The results of the research by Lianeza et al (2010) show that to find out that children with autism, the typical characteristics that we can see our children characterized by weak social interactions, language difficulties, and very weak receptive behavior. However, many programs can improve children's social and language skills, one of which for language is to apply school-based receptive language to schools for children with autism.

The researcher chose to treat receptive and expressive language skills with Visual

When viewed from the school where the three learning subjects for learning autistic children so far, namely learning is still the same as children in general, with the same materials, methods, and learning styles but what distinguishes it is the presence of GPK services for children with special needs at the school.



This research is also related to the results of research by Tordjaman (2013) which shows that in children with autism it is found that melatonin production is very low so that it causes the severity of social relationships that have been shown by autistic children in the world. The social severity, namely; social communication disorders, especially for verbal and imitative social communication, namely the level of play in children with autism. There are no efforts that can increase melatonin, an effort that can be taken, namely with intense social support for autistic children. The integrity of the language center in the brain of autistic children requires other supportive therapies so that visual therapy with various approaches is needed for children with autism.

The results of research by Hartley et al (2008) show that children who have been diagnosed with autism, growth, and development can get worse if they do not get special intervention. Thus, the role of parents is very important to provide early intervention for children with autism. Parents and teachers should work together to create programs that can improve the abilities of children with autism in various aspects, from the results of observations during the study that the parents of the three subjects were very cooperative and fully supported this activity, there were even one of the subject's parents who made lots of picture cards with various series so that they can be used to further improve their children's language skills.

Visual therapy with the picture card approach is often used to improve the language of children with special needs, not only autistic children, but autistic children show significant results in improving their language as well as the results of Noviani (2014) study showing that through the implementation of picture card games the vocabulary of autistic children Kindergarten classes can be upgraded. Thus, it can be concluded that the implementation of the picture card game affects increasing vocabulary with the mean level of MMH subjects increasing from 7.18 at baseline-1

(A-1) to 11.1 at the time of intervention (B) and 12.23 at baseline-2 (A -2).

Visual therapy carried out by researchers with this pictorial word card approach to three children with autistic subjects is not a program to teach autistic children to speak directly, but it is expected that in the end, it encourages them to pronounce vocabulary so that they can speak, as is the case with the results of Ramayana's research (2014). which states that visual therapy for language development in children with autism is given at least 2 months.

## CONCLUSION

There is an effect of visual therapy on language development in children with autism. Of the three subjects studied, there are differences in the average results before and after the treatment is done. There is a significant effect on changes in children's language with the visual therapy approach assisted by word cards when viewed from the comparison of post-test and pre-test scores with a difference of  $85 > 55$ . Visual therapy assisted by pictorial word cards helps children remember a lot of new vocabulary. The researcher did not do a program designed so that autistic children can speak, but they get to know more vocabulary that will optimize children's language. Support from parents and school programs is needed to help children develop in all aspects of development.

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