

Using Sign Language to Enhance Vocabulary in Early Childhood with Autism

Marlina

Department of Special Education
Universitas Negeri Padang
Padang, Indonesia
lina_muluk@fip.unp.ac.id

Grahita Kusumastuti

Department of Special Education
Universitas Negeri Padang
Padang, Indonesia
grahita.kusuma@fip.unp.ac.id

Abstract—This study aims to describe the most used of key-word sign language by children with autism an early age and its implications for key-word sign language development. This research was conducted in three special schools which have early childhood with autism. Subject of this study were ten early childhood with autism in Padang. This research use qualitative approach through observation. Observations was conducted by special eacher and the researcher. The words are often used by children with autism was collected, reduced, summarized and interpreted. The results of this study indicated that there are 36 keywords which is consistently used by children with autism an early age.

Keywords—*autism; sign language; communication*

I. INTRODUCTION

Autism spectrum disorder (ASD) is a developmental barriers which can cause significant social; communication; and behavioral challenges [1]. Autism; and the broader category of autistic spectrum disorder (ASD); affects children and their learning in a variety of ways. Autism is a developmental disorder that is marked by profound deficits in social; language; and cognitive abilities [2]. ASD impacted different ways of interacting but depending on when the symptoms start; how severe; and other factors. The signs of ASD start from an early age; usually at the age of 2 years; although there are many early age children show symptoms in the first year.

Children with autism have limitations in communicate and interact with others. Children with autism very probably hampered in language development and understand what others are saying to him. The ability of children with autism to communicate using language depending on the intellectual and their social development [3]. Some children with autism may not be able to communicate through language and some other have the ability to speak limited. This inability to communicate in a

functional manner may be the most handicapping of any of the symptoms of the disorder [4]. Barriers in speaking and communicating become the most problematic in children with autism because they require social skills and play skill [5]. Therefore; developing the ability to communicate is very important for the child. The ability to communicate becomes one of the main factors for children with autism to have more positive results [6]. Language development has a significant impact on the children in cognitive; learning and social relationships [7]. When infancy and in early age; the ability to communicate with gestures is the basis for language and social interaction [8]. Keyword sign language is one that is often used to improve language development and social communication in children with autism [9]. Sign languages are produced by the hands; accompanied by the face and body; and are perceived by the eyes. The hands move in a three-dimensional space. The motion of hands in space is a basic building block of signs in any sign language. Because they can make use of space; sign languages show quite distinct types of morphology; which make them typologically distinct from spoken languages [1]

Based on these explanations; the researchers wanted to assess the keywords sign language that may be used for children with autism an early age as a basis for social interaction. Keywords sign language in children with autism will be grouped to described about how to present it as understandable by children with autism when interacting at school and at home.

II. METHOD

This research use qualitative approach. Research carried out by observation for fourteen days until the word is found consistently used by children with autism in school and at home. The words used at home; obtained from interviews with teachers and parents. The data collected according to sign language that used the most by children with autism were analyzed through data

reduction; summarize and interpretation of the data. The words collected but not consistently in gesture and its use is disqualified from the list of keyword sign language. Consistent word that used and consistent gesture then grouped and described how to use it. This observation was conducted on ten children with autism which has the characteristics of using the keyword sign language and verbal interactions at school and at home.

III. RESULT AND DISCUSSION

Based on the results of observation; it known a few keyword sign language that are commonly used by children with autism in school to interact with teachers and parents. Keyword sign language consisted of several semantic. Each semantic consists of some of words that used most by children with autism. Such words which can be seen in Table 1 below

TABLE I. SEMANTIC CATEGORY AND THE EXAMPLE

Semantic Category	Definition	Earliest Example
Adjective	a word or phrase naming an attribute; added to or grammatically related to a noun to modify or describe it.	Tired; sad; happy
Action	Verbs that describe activity	Drink; eat; pee; pray; sit; bath; read; write; handshake; slep; go; stop; listen; poop; see
Routine	performed as part of a regular procedure	Help; thank you
Greetings	a polite word or sign of welcome or recognition.	Assalamu'alaikum; wa'alaikumsalam; halo
Question words	Word that uses for asking something	How much; what; when; where; who
Existence	Objects or classes of objects using noun or pronouns	Name; mother; you; I; father
Answer	Negation/ allowance used to oppose an object or event	Yes; no; good

Such words; then adjusted with a gesture that is understandable for children with autism; and used and trained to the children to make it

familiarized and used in interaction. Gesture that is used can be seen in Table 2.

Table II. Sample keyword-sign with sign instruction

Semantic category	Target word	Target sign
Adjective	Tired	Place the backs of the right hands on the forehead
	Sad	Clench the right hand with the thumb on the outside. Then place it on the right cheek and move from top to bottom..
	Happy	Place two hands in a position then open at the right and left side of chin
Action	Drink	Shape dominant hand as for holding a glass - tilt to mouth as for drinking
	Eat	Close dominant fingertips onto ball of thumb. Tap formation on chin
	Pee	Place your right hand on the lower abdomen.
	Pray	Place two hands in front of chest in an open position
	Sit	Back of the right hand move down one time
	Shower	Clench the right hand; move to the left shoulder and right
	Write	Open left hand in front of chest. Stick the index finger with the thumb on the right hand; moving like the writing in the top right of the left.
	Handshake	Stick out your right hand to the fore with the position of the palm of the hand facing to the side
	Sleep	Make palms of the hands and place it into the left cheek
	Stop	Move open dominant hand forward from shoulder height
	Listen	Place slightly cupped dominant hand behind ear
	Poop	Place your right hand on the bottom hips
	See	Move dominant index finger forward from eye
	Routine	Help
Thanks		Move fingertips of open dominant hand forward from chin; once
Sapaan	Assalamu'alaikum	Place the two palms of the open hand with the thumb sticking in the jaw. Then close both the palm of the hand sticking in front of the chest
	Wa'alaikumsalam	Make palms of both hands and place it in front of the chest. Then both open hands with the thumb sticking in the jaw.
Question words	How much	Open dominant hand. All fingers spread & pointing up; palm towards body. Place under chin and wriggle fingers
	What	Extend dominant index finger; palm away from body. Move formation at wrist from side to side; twice; at mid-chest height
	When	Place open dominant hand; fingers spread; with tip of little finger on same side cheek. Alternately place all fingertips quickly on to cheek twice
	Where	Open both hands and simultaneously move each hand from side to side twice
	Who	Extend dominant index finger; palm facing body. Move hand in small forward circles
Existence	Name	Place the index finger and middle finger on your thumb; place it on the forehead and move forward away from the body
	Mommy	Position the thumb of the right hand with the four fingers of the other was close; and palce on the chin. Then move it forward
	Father	Stick the index finger of the right hand horizontally under the nose.
	You	Position the index finger of the right hand and move outward in front of chest
	I	Position the index finger of the right hand and move towards the chest
Answer	Yes	Move dominant fist up and down from the wrist twice
	No	Shake dominant fist sideways in front of body
	Good	Raise the thumb on your right hand in front of his chest and the other four fingers clenched (thumb up)

Sign language is useful for students who have little or no verbal abilities or communication skills. Keyword sign language may allow the students to communicate using signs and may stimulate verbal language skills. In applying the keywords sign language; it needed to know about:

- Pay attention to every aspect of the activities contained in the keywords sign language
- The implementation of the keywords sign language performed by one or both hands
- One hand means using the right hand

- Any keywords sign language is also equipped with the use of facial expressions
- Touching the child's hand to help him form the word or gesture may be difficult if the child has tactile sensitivities.
- Train this sign language routine; because many children with autism have trouble imitating; which may prevent them from learning sign language.

IV. CONCLUSION

Based on the results of observation and discussion; it is known that there are thirty-six keywords which is often used by children with autism to interact at school and at home. These keywords sign language have a gesture characteristic which can be understood by children with autism. The results of this research can be basic research to continue the further research on advanced keywords sign language that may be owned by an children with autis at school till adult.

REFERENCES

- [1] NIDCD; "Autism Spectrum Disorder: Communication Problems in Children In N. I. o. D. a. O. C. Disorders (Ed.);" *Natl. Inst. Heal.*; vol. 97; no. 4315; 2016.
- [2] C. Benedict; "Communication Intervention for Children with Autism: A Literature Review;" University of Wisconsin-Stout; 2007.
- [3] E. Billstedt; "Children with autism grow up: Use of the DISCO (Diagnostic Interview for Social and Communication disorders) in population cohorts.;" Göteborg University.; 2007.
- [4] L. Schreibman; "Intensive behavioral/psychoeducational treatments for autism: Research needs and future directions;" *J. ofAutism Dev. Disord.*; vol. 30; no. 5; pp. 373–378; 2000.
- [5] I. Meir; C. Padden; M. Aronoff; and W. Sandler; "Body as subject;" *J. Linguist.*; vol. 43; no. 531–563; 2007.
- [6] E. Billstedt; I. Gillberg; and C. Gillberg; "Autism after adolescence: Population-based 13-22-year follow-up study of 120 individuals with autism diagnosed in childhood;" *J. Autism Dev. Disord.*; vol. 35; no. 351–360; 2005.
- [7] S. Mody; *Brain; Behavior; and Learning in Language and Reading Disorders*. New York: Guilford Press.; 2008.
- [8] M. Mody *et al.*; "Speech and language in autism spectrum disorder: a view through the lens of behavior and brain imaging;" *Neuropsychiatry (London).*; vol. 3; no. 2; pp. 223–232; 2013.
- [9] V. Rose; D. Treambath; and K. Bloomberg; "Visual attention and the acquisition of Key Word Sign in children with Autism Spectrum Disorder;" *J. Dev. Phys. Disabil.*; 2015.