

# Alternative Augmentative Communication "Wofal" for Children with Down Syndrome

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## Abstract

This research is motivated by the existence of communication problems in children with Down syndrome. Communication problems on the subject are related to the use of language in their environment. The data obtained from the subject's parents, teachers and tutors experienced problems in expressing their own desires. The purpose of this study is to help subjects communicate with their environment. Communication uses tools that are made based on the needs and abilities of the current subject. The tool created is called "Wofal". This tool is in the form of modified images with an attractive shape and easy to use subjects. The first stage of using the tool introduces the images that the subject will use in communicating. Second, the subject was asked to stick to his wishes and choose an image. The picture consists of the subjects' daily activities at home and at school. After intervention to the subject, the results were obtained. According to teachers, parents and tutors, this tool makes it easier for subjects to communicate. Usually teachers, tutors and parents do not understand what the subject wants. After this tool the crying behavior of the subject became less. So, this tool makes it easier for subjects to communicate in their environment.

*Keywords: Alternative and augmentative communication, down syndrome*

## 1. Research Background

Speaking is a symbol of language used to express expressions in communication. Communication is a process for exchanging information, exchanging opinions between individuals with one another. In essence, every parent wants their child to grow like children in general, both from cognitive, language, motor, social and other development. However, this will turn into a disappointment when the child has obstacles in communicating. Therefore, to help children with communication barriers, a solution has emerged, namely the existence of an alternative and augmentative communication system.

This alternative and augmentative communication system serves as a substitute for children in expressing their wishes so that they can channel their wishes. Augmentative Communication strategies are designed to support a person's speech abilities. Alternative Communication strategies are designed to replace speech when, for

varying reasons, such as physical disability, speech development is not possible by (David, 2014). Therefore, for this system to be successful, parents, teachers, tutors, children's communication partners and the system itself must be able to support children's needs in communicating. There is one child who is the subject in this study. The results of the observation show that the receptive language is very good but the expressive language is lacking. Teachers or their parents often feel confused about what they want. So that a solution is given by conducting research aimed at finding the needs in communication so that the interaction process and the people around it can run smoothly. Therefore, this research will explain how the system is given to the subject and the people around him, based on their needs.

## **2. Research Methodology**

The procedures performed in the search for the subject first team to find cases that require media to communicate to other people. The team finally found the subject at an Inclusion Kindergarten School. Furthermore, the subject asked for permission and conveyed the goal to the school. The team initially asked the principal to mediate between the group meeting with the parents. After a few days the headmaster informs us that his mother was willing and provide telephone numbers. Finally, the team met with her mother and caregiver subject. Then the team carried out a series of stages starting from interviews, observation and assessment.

## **3. Results and Discussion**

### **3.1 Result of the assessment**

Judging from the receptiveness of the subject, he turns to the source of the sound, for example when called his name. Subjects can perform simple instructions such as: "tidy up", "Get it!", "Save!". Subjects can show certain objects / images when answering a question between two choices, such as: "Where is yellow?". As for the expressive language, the subject can perform various expressions, such as: hot, cold, dizzy, annoyed. In addition, the subject often screams for his aunt (tutor) when he feels annoyed / his desire is not fulfilled / understood by the other person or is bored with the activities he is doing. When wanting something, the subject points towards the object / origin of the sound, such as: while waiting for a pick-up, he grabs his aunt's hand and points to the black car which was pulling over because he thought it was his father's car. Because at that time the subject was so excited to go home.

In the interaction aspect, the subject can make eye contact for a few seconds when interacting. Subjects are easily distracted when being given instructions but a voice / someone comes close. The subject tries to make friends with friends in his class. By poking his friend and turning his face towards the friend he was poking. Motor skills in the subject can open sheets of paper, can hold stationery and draw on paper. Subjects can operate a certain cursor on the gadget screen when using the YouTube application.

For fine and gross motor, the subject does not have serious problems. So that for making media can maximize the motoric subject.

### 3.2 Children's Needs

The assessment results obtained by the subject require a two-way communication pattern with a longer and more direct intensity. Subjects require habituation to communication patterns that are in accordance with the subject's daily activities, for example: playing, eating, etc. Seeing from his ability the subject requires alternative communication to express his wishes. The alternatives used are adjusted to the preferences of the subject. Namely media that uses images. So that the tool used is in the form of a modified image. The use of gadgets as an alternative to communication is also possible. This can be seen with a very high subject dependence on gadgets. However, considering the age of the subject who is still relatively early, the media using gadgets is not provided. Then the subject has the potential to interact longer with other people, so the use of gadgets should be minimized.

### 3.3 The results of applying Wofal

Wofal (word folder for all) is an augmentative and alternative communication tool designed to suit the conditions and needs of the subject. WoFAL is an augmentative and alternative communication tool that uses laminated image cards as a means of communication between the subject and the people around him.



Picture 1. Wofal (Word Folder for All)

Before communicating using several frames, the subject is first introduced to the pictures and how to stick them on the media. The image used is adjusted to the original form in accordance with what the subject has seen in his daily life. Furthermore, after the picture is introduced to the child, the child is also asked to paste the image onto the

media that has been provided. After pasting the subject, the tutor immediately gives it if it is an object / food. But if it is in the form of activities such as playing or daily activities, the tutor immediately invites the subject to do it.

The results after the subject was taught to use family wofal were helped. So far, the family has been confused about the meaning and desires of the subject. For example, asking to play the trampoline or something else. With this tool, when the subject chooses the picture the family invites to play the trampoline, as well as when playing ball, and also dolls. So that in the child's mind it is embedded if he sticks to a ball picture then he will be invited to play ball. Likewise, if he attaches a picture of a doll, he will be given a doll to play with.

In terms of terminology, communication is a term that indicates a process of relationship between one individual and another which contains activities to convey and receive messages. (Suprpto and Fahrianoor 2004) state that communication can be defined as the process of delivering messages in the form of symbols or symbols involving dwipers or more consisting of a sender (communicator) and receiver (communicant), with the intention of achieving common goals regarding the problem or problem of each. each party. In line with that (Yuwono 2009) communication is a process where individuals exchange information and convey thoughts, feelings and thoughts. Thus, communication is the process of delivering information carried out by two or more people as the conveyer and receiver of messages carried out with a specific purpose. Communication generally has a source of information that will be conveyed to the communicator through the media which will be accepted by the communicant. In other words, communication can occur when there is a communicator (messenger), message (message), media and communicant (message recipient).

One way to facilitate communication for children with special needs is through alternative augmentative communication. Alternative augmentative communication is a communication system that compensates for the distraction and disability of clients with severe expressive communication disorders. There are a variety of alternative augmentative communication systems available, ranging from inexpensive low-tech options such as sign language or communication boards, to expensive high-tech communication devices using synthesized voice output (Kenneth, 2016). Alternative augmentative communication is needed in communication both in the short term until it is used forever. Through this alternative augmentative communication, children with special needs can communicate with their surroundings without any obstacles. According to (Kenneth G. Shipley, 2016) who are users of alternative augmentative communication are children with special needs. One of them is Down syndrome children or twins worldwide. Down syndrome has special characteristics that are different from other children, such as narrow eyes, straight hair and a thick tongue. According to (Zulifatul Ghoniyah 2015) states that "Down syndrome includes mentally disabled children who experience physical disorders with similar facial appearance to one another.

Based on the results of the study the subject experienced problems and disorders in communicating with the surrounding environment. This is because Down Syndrome is included in the classification of mental disability. Mental disability shows a clearly below average intellectual function accompanied by an inability to adapt to behavior that occurs during development (Somantri, 2007). So that their communication skills are disrupted. The services or programs provided to the subject are tailored to the needs and abilities of the subject. So it was decided to use modified images for subject communication. This application also involves parents, teachers and people around the subject. Easy to use and can be applied at home. How to use the subject media is introduced to the images to be used. Then the subject is asked to paste the desired image. Then do the activities according to the image attached by the subject. The application of the alternative use of augmentative communication is based on the principle. One of the principles of alternative augmentative communication established by (The Scottish Government, 2012) is that every child, adolescent, and adult who experiences communication difficulties is a user of alternative augmentative communication. This is in accordance with the case of the subject based on the results of his assessment who experienced problems in communication.

#### **4. Conclusions**

Communication is an activity that cannot be separated from everyday life. There are some people living with barriers to communication. Barriers are like communicating desires to others and difficulties for others to grasp the meaning of the information conveyed. One of them is Down syndrome children. The subject is a Down syndrome child who experiences obstacles in communicating, both in capturing instructions and communicating their needs. Owned barriers can be reduced through a means of communication. Through this tool, he hopes to communicate his wishes to other people. The tool is called "wofal". Wofal is a tool used in communicating, and its form is easy to carry anywhere. On the inside of the tool there are various kinds of images the subject wants. Such as pictures of food, drinks, games, and daily activities. In using these tools, of course, go through the stages from introduction to the use of the tools independently carried out by the subject. Based on the results obtained from using this tool, tutors and parents said that this tool was very helpful. This tool is very easy to use by the subject and the images used are very familiar to the subject. So that when the subject wants something he immediately uses the tool and shows the tutor or teacher what he wants.

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