THE EFFECT OF TALKBACK APPLICATION ON THE ABILITY TO UNDERSTAND THE ALPHABET IN BLIND PEOPLE

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ABSTRACT

This study aims to improve the ability to understand the alphabet through the talkback application for the blind people on Jl. Ahmad Yani Number 25, Tamansari Village, Bondowoso Regency. This type of research is Single Subject Research (SSR). This study uses an A-B design. The subject of this study is a blind person with the initials M. In the research process, two phases were used, namely the baseline phase and the intervention phase. In the baseline phase which was carried out for 5 sessions and 10 sessions in the intervention phase with a time of 40 minutes each session. From the results of the baseline percentage, namely 40%, 40%, 50%, 60% and 50%, the results obtained were continued with analysis in conditions and between conditions. The percentage of overlap obtained was 0% which shows that the intervention given to the blind person has an effect on the understanding of the alphabet in the talkback application. Thus, the formulation of the problem presented is answered that the talkback application is effective in improving the ability to understand the alphabet in blind people on Jl. Ahmad Yani Number 25, Tamansari Village, Bondowoso Regency.

Keywords: Alphabet Letters, Blind, Single Subject Research (SSR), Talkback Application

INTRODUCTION

Human life is full of meaningful learning. Learning has the potential to provide benefits for the nation, state, and religion by improving human abilities. In our country, education has been regulated in the Law concerning the rights of the community to receive education, namely the 1994 Constitution of the Republic of Indonesia Article 31 paragraph (1) states that every citizen has the right to receive education, and paragraph (3) emphasizes that the government strives for and organizes a national education system that increases faith and piety as well as noble morals in order to educate the life of the nation which is regulated by law. Based on this, everyone has the right to receive education, including people with disabilities. One type of person with disabilities is the blind people.

Blindness is a condition where there is an obstruction to vision so that it cannot function properly. This is caused by damage to the eye organs such as the optic nerve and/or the part of the brain that processes visual stimuli (Sasraningrat, 1984). Meanwhile, according to Somantri (2019), blind people are those who have obstructions in the function of their sensory organs, so that they do not use that function as sighted people do in receiving information. Blind people who are unable to see will have an impact on their daily lives. Where a blind person will experiences obstacles in academic, cognitive, behavioral, social, orientation and mobility. In their cognitive development, blind people will experience obstacles in understanding.

Dedy Hamdani (2019) said that understanding is the ability to express something into a form that is easier to understand and able to apply it. Understanding can be used to solve problems that are related to something that is owned. In understanding, not only in terms of knowing, but can connect one concept with another concept. So, understanding this letter is very important in a person's development.

In the learning process, expertise is needed from an educator in mastering different types and principles of learning services, both related to service strategies, procedures, or evaluation methods. Teaching and learning activities are a communication process to deliver knowledge or knowledge transformation that is tried by educators with student participants. The communication process can be tried officially or unofficially, adjusted to the conditions and circumstances that exist. So that there is no error in the communication process, it is necessary to use facilities that help the communication process, namely media. According to Sanaky (2021), media aims to deliver educational modules from teachers to learners with easy and effective methods, protect learner concentration, and increase the effectiveness and quality of learning.

One of the most important media used is the talkback application in understanding the alphabet, because this application has features that are specifically designed for Android users who have visual impairments, such as nearsightedness or farsightedness, astigmatism or other visual impairments. The main function of this application is to pronounce everything we do on an Android phone, such as typing a name, entering a menu, settings, opening an application, and so on. This Talkback application was created to make it easier for people with visual impairments or blind people to use Android smartphones, most of which have touch screens, where blind people will have more difficulty using them when compared to cellphones that have a keyboard (Herwanto, Saviku, & Dai, 2019).

In addition, the talkback application is equipped with various menu features that can facilitate its users and can strengthen the understanding of blind people about the alphabet. The talkback application is considered suitable for the needs of blind people to make it easier for them to learn the ability to understand the alphabet. This talkback application uses an Android smartphone so it is easy to carry

anywhere. In addition to get the theory of understanding the alphabet, blind people can also immediately practice typing on their Android screen.

From observations made on September 23, 2024 at Jl. Ahmad Yani Number 25, Tamansari Village, Bondowoso Regency, on a 30-year-old blind person. It was found that there was a blind person or visual disabled who had difficulty in understanding the alphabet, so he could not understand the alphabet. However, the blind person could only use voice notes to communicate long distance.

Based on the background description of the problem above, the title of this research is "The Effect of the Talkback Application on the Ability to Understand Alphabet Letters in Blind People". Therefore, the aim of this study is to determine the effect of the talkback application on the ability to understand the alphabet in blind people.

LITERATURE REVIEW
Talkback App Media

Media comes from the Latin medius which means "middle of an intermediary or messenger". Media literally means an intermediary or messenger. According to AECT (Association for Education and Communication), media is anything that can be used for the process of distributing information. Learning media is an integral part of the learning system. According to Sulistyowati & Rafi (2020), a screen reader or talkback is a screen reader feature or software that is useful for helping blind people use computers to smartphones.

According to Putra & Wulandari (2022), Talkback is a screen reader feature system that is used to facilitate the use of Android smartphones by the blind people. This talkback system has features designed for Android users with limited vision or the visually impaired, such as nearsightedness or farsightedness, astigmatism or other visual impairments. Fathurahmat (2021), also argues that talkback, namely talk means Speaking and back means returning or in the sense of talkback, repeating. This application has features that are specifically designed for Android users who have limited vision, such as nearsightedness or farsightedness, astigmatism or other visual impairments. The general function of this application is to say everything we do on an Android phone or read all the writing or letters and numbers with audio output, for example typing a name, entering a menu, settings, opening an application and so on. Screen reader on Android.

Based on the description above, it can be concluded that the talkback application is an application feature that can be used as a screen reader or repeater to make it easier for blind people to use Android smartphones.

The Ability to Understand Alphabet Letters

Hamdani (2019) said that understanding is the ability to express something into a form that is easier to understand and able to apply it. Understanding can be used to solve problems that are related to something that is owned. In understanding, it is not only in terms of knowing, but it can connect one concept with another concept. So, understanding this letter is very important in the development of a person.

In the Great Dictionary of the Indonesian Language (KBBI), "understanding" comes from the word "understand" which means opinion, thought, school of thought, and view of something. While in Arabic, understanding comes from the word fahima-yafhamu-fahman which means to understand. Understanding describes how someone is able to maintain, explain, expand, draw conclusions, give examples, rewrite, and estimate. According to Rahman (2020), understanding can be achieved using five methods, including: 1) Uniting and connecting various facts or ideas. 2) Concluding something from theories. 3) Adjusting various new facts with established knowledge. 4) Reviewing facts according to their accuracy and importance. 5) Connecting facts with something that is known, universal, and in accordance with the rules.

Understanding can show that someone is able to connect various facts or ideas in a simple way. By understanding something, someone can maintain, estimate, give examples, expand, conclude and rewrite what has been learned.

The ability to understand the alphabet is very important and has benefits in human life. A person's ability to understand letters must be developed and given stimulus as early as possible. Understanding letters is a step of a person's development from not knowing anything to knowing everything. A person's ability to understand letters must be able to know the shape and sound of the alphabet letters. In learning, the step of understanding letters is the earliest step given to children. Because from this initial step, children will be able to understand letters by letter and then connect them into a word and even a sentence. Letters are the initial step in forming a word, syllable, sentence and paragraph (Novianti, 2019).

Blind People

Blindness is a disorder that lies in the function of vision and has different levels in each child. As Sunanto (2019:184) said, a person with blindness is someone who experiences visual impairment caused by a person's impairment in the function of their sensory organs. Thus, a blind person in the learning process or receiving information requires learning that is adjusted to their condition. According to Mais (2020:67) blind people is the non-functioning of a person's vision which causes the person to have impairments in their vision.

Meanwhile, according to Mangunsong (in Kumalasari, 2020:77) some special characteristics of blindness are: a). Seeing near or far distances looks blurry. b). Very sensitive to light. c). Limited field of vision. According to Smart (in Kholidah, 2019:10), blindness is classified into 2, namely total blindness and low vision.

Blind people have slightly different characteristics from children in general. According to Rahardja (in Amit, 2020:8) the following are some characteristics of blind people, namely: 1). academically, blind people do not experience significant differences from children in general. However, the difference lies in the ability to read and write and in the level of experience or understanding of information acquisition material which is also obtained from sight. 2). Blindness indirectly causes problems in children's daily behavior. Some students often exhibit stereotypical behavior, thus exhibiting inappropriate behavior. For example, rubbing their eyes excessively, making sounds with their fingers, liking to lean their heads forward, shaking their heads and bodies. 3). Blind people experience limitations in learning through observation and imitation, they often have difficulty

in correct social behavior. Thus, experiencing obstacles in social skills, for example, blind people cannot maintain eye contact or facial orientation, proper and good body posture, cannot express feelings with facial expressions and proper body movements.
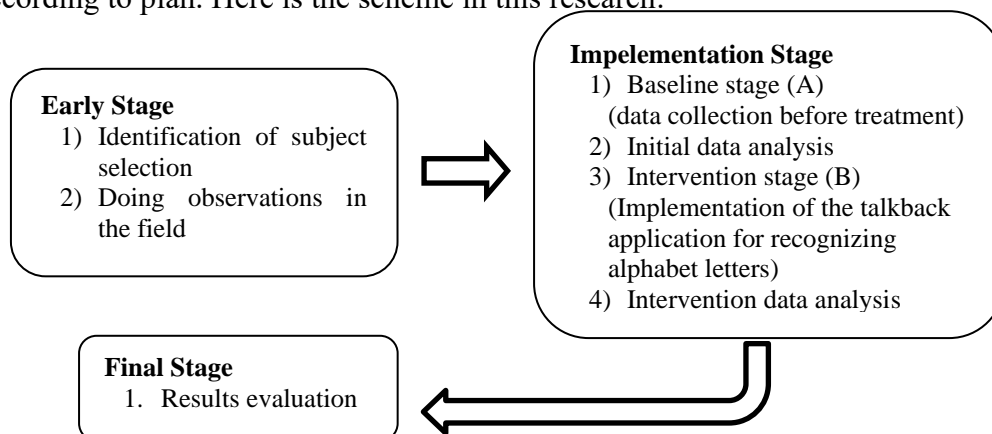
The conclusion that can be drawn from the several theories above is that blindness is a person's vision not functioning properly, which results in that person having visual impairments and has different levels for each person.

METHOD

This research design uses the Single Subject Research (SSR). The SSR method means an experimental method in focusing on individual data. This research method aims to evaluate the specific effectiveness of one subject in depth. In single subject research, measurements require a certain period of time, for example, per day, per week and per hour. So, this study was carried out with the same measurements and repeated every day.

This research was conducted at Jl. Ahmad Yani Number 25, Tamansari Village, Bondowoso Regency with 1 subject or target of blind person who was disabled, which was carried out for 15 sessions, namely 5 baseline sessions and 10 intervention sessions with a time of 40 minutes. In this research process, the A-B design was used. The A-B design is a basic design in single-subject research. The A-B design involves a baseline phase (A) and an intervention phase (B). Where the baseline phase (A) is the observation phase on the target behavior before the intervention. While the intervention phase (B) is the stage of providing treatment that will be applied to the target behavior. At the baseline stage (A), initial data on the frequency and intensity of hyperactive behavior will be collected for a certain period without any intervention. The purpose of the baseline stage (A) is to identify the basic patterns of subject behavior. After the baseline period is complete, it will move to the intervention stage (B). At this stage, the talkback application for recognizing letters of the alphabet will be applied systematically. During the intervention period, the blind person will be monitored and data will be collected to evaluate the changes that occur due to the intervention.

This research diagram is intended to show how the research is illustrated or the steps from start to finish. The purpose of the research flow diagram is to help explain the research process systematically and ensure that each stage is carried out according to plan. Here is the scheme in this research:

Early Stage
1) Identification of subject selection
2) Doing observations in the field

Impelementation Stage
1) Baseline stage (A) (data collection before treatment)
2) Initial data analysis
3) Intervention stage (B) (Implementation of the talkback application for recognizing alphabet letters)
4) Intervention data analysis

Final Stage
1. Results evaluation

FINDING
Results

1. Baseline phase (A)

Data collection at baseline was conducted in 5 sessions with a time of 40 minutes in each session. Data collection was obtained from the test results by the blind person in the form of typing activities without using the Talkback application media for the ability to understand the alphabet. The diagram below is a description of the score results obtained in observations at the baseline phase (A)

Session	M score
Session 1	42
Session 2	42
Session 3	53
Session 4	53
Session 5	53

2. Intervention phase (B)

Data collection in the Intervention was carried out in 10 sessions with a time of 40 minutes in each session. Data collection was obtained from the results of tests by blind person in the form of typing activities using the Talkback application media for the ability to understand alphabet letters. The diagram below is a description of the score results obtained in observations in the Intervention phase (B):

Session	M Score
Session 1	53
Session 2	53
Session 3	68
Session 4	68
Session 5	84
Session 6	84
Session 7	84
Session 8	89
Session 9	89
Session 10	98

3. Percentage of overall results of the study on the ability to understand the alphabet

The percentage in the baseline and intervention phases was carried out to determine the extent of the ability to understand the alphabet using the talkback application media. The results in percentages using the formula according to Sudijono (1995, p. 338) are:

P= Scores obtained by blind person x 100%
                Maximum score (104)

The following is the percentage of the ability to understand the alphabet for blind person:

The Ability to Understand Alphabet Letters
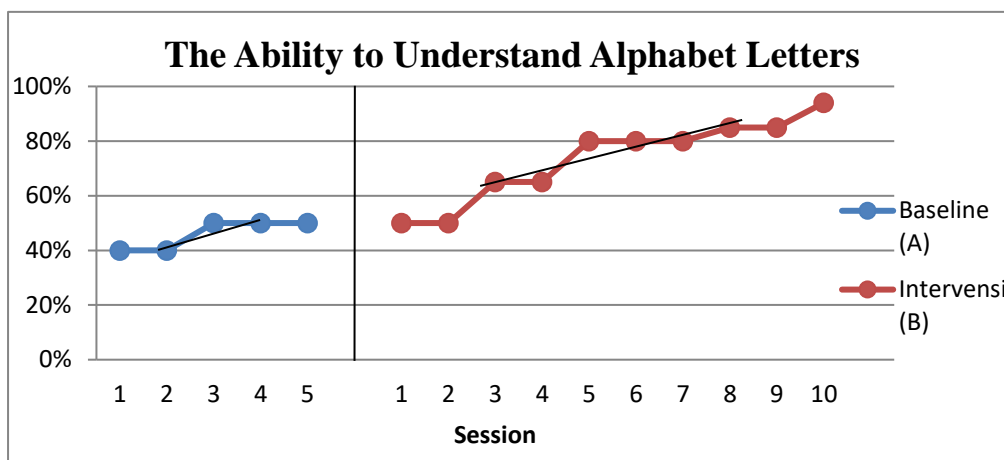
4. Analysis

Analysis under Conditions. The following is the result summary of the analysis data under conditions.

Conditions	A/1	B/2
Condition Length	5	10
Directional Tendency Estimation	(+)	(+)
Tendency to Stability	Variable (0%)	Variable (30%)
Data Trace	(+)	(+)
Stability Level and Range	*Variable* 40-50	*Variable* 50-94
Level Changes	50-40 (+10)	94-50 (+44)

Inter-Conditional Analysis. The following is the result summary of the inter-conditional analysis data.

Condition	B2/A1
Condition Comparison	2:1
Number of variables	1
Change of Direction and Its Effects	

	(+)	(+)
Stability Changes	Variable to Variable	
Level Changes	50-50	
	(+0)	
Overlap Percentage	0%	

DISCUSSION

Based on observations conducted at Jl. Ahmad Yani Number 25, Tamansari Village, Bondowoso Regency, on the ability to understand the alphabet in blind people using the talkback application has two phases, namely five times in the baseline phase (A) and ten times in the intervention phase (B). In this study, each session lasted for 40 minutes. The talkback application was used by researchers to provide intervention. From the results of the information examination, it was seen that the media using the talkback application experienced an increase in understanding the alphabet in blind people.

In the baseline phase (A) it shows the initial condition of blind person's disability in understanding the alphabet worsened with a percentage of 40%, 40%, 50%, 50% and 50%. The lowest percentage value in the baseline phase (A) was 40% and the highest percentage was 50%. In the first and second sessions, the blind person was not yet able to understand the alphabet using pictures of the alphabet, in the third, fourth and fifth sessions, the percentage value of the blind person's disability increased slightly, due to their extraordinary enthusiasm.

While in the intervention phase given in the sixth to fifteenth sessions, the blind person experienced a significant increase with the highest percentage value of 94%. So that the blind person got the following values: 50%, 50%, 65%, 656%, 80%, 80%, 80%, 85%, 85%, and 94%, with the help of the alphabet talkback application, the blind person found it easier to understand what he was going to do.

The results of the study showed that the ability to understand the alphabet using the talkback application in blind person on Jl. Ahmad Yani Number 25, Tamansari Village, Bondowoso Regency has increased. This can be seen from the increase in the percentage of understanding the alphabet using pictures of the alphabet and after receiving intervention in the form of the talkback application of the alphabet.

The percentage of overlap obtained is 0% which shows that the intervention given to the blind has an effect on the ability to understand the alphabet in the talkback application. The smaller the overlap obtained, the better the improvement of the talkback application media for the blind. The purpose of this study is to help the blind in improving their ability to understand the alphabet. Therefore, this study proves that the talkback application is very effective for understanding the alphabet in the blind.

CONCLUSION

This talkback application media can help a blind person with the initials M to improve his ability to understand the alphabet. Researchers use behavioral targets consisting of the type of percentage of correct answers multiplied by one hundred and divided by the optimal total score to determine the development of the blind person's ability to understand the alphabet. From the results of this perception, it can be concluded that there is an increase in understanding the alphabet in blind person after being studied through the talkback application of alphabet letters on Jl. Ahmad Yani Number 25, Tamansari Village, Bondowoso Regency.

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