



JURNAL ASESMEN DAN INTERVENSI ANAK BERKEBUTUHAN KHUSUS

Jurnal homepage: <https://ejournal.upi.edu/index.php/jassi/index>



Phonic Methods on Increasing Reading Ability in Children with Visual Impairments

Aulia Nursina*

Sekolah Luar Biasa Satria Galdin, Indonesia

*Correspondence: E-mail: aulianursina7@gmail.com

ABSTRACTS

Reading is an ability that must be possessed by every child, including children with special needs. This is the background of this study which aims to determine the extent of the influence of the phonic method on improving early reading skills in children with visual impairments. The research method used is an experimental method with a Single Subject Research (SSR) approach using an Applied Behavior Analysis (A-B-A) design. The presentation of the data is processed and analyzed using descriptive statistics with percentages and is displayed in graphical form. The results showed that the mean acquisition for each condition, namely the baseline phase 1 (Applied-1) was 52.50%, the intervention phase (Behavior) was 65.35%, and the baseline phase 2 (Analysis-2) increased to 87.50%. Based on the results of the study, it was shown that the phonic method affected increasing the ability to read early in children with visual impairments. Therefore, this study can provide an alternative learning strategy for teachers in improving early reading skills in children with visual impairments using the phonic method.

ARTICLE INFO

Article History:

Received 03 Oct 2020

Revised 30 Oct 2020

Accepted 18 Nov 2020

Available online 03 Dec 2020

Keyword:

Children with visual impairments,
Phonic method,
The ability to read,

1. INTRODUCTION

The ability to read must be possessed by every child because through reading children can learn about various fields of study and as a means to obtain information. The ability to read not only allows a person to improve work skills and mastery of various academic fields but also allows participating in socio-cultural life, politics, and fulfilling emotional needs. Thus, the ability of children to read becomes very important to note because it is considered the main means of obtaining information so that it can solve problems in the surrounding environment.

Children with visual impairments are children who experience visual conditions that do not function properly. The point of view of education said "blind person is someone who learns by using the senses of touch and hearing are classified as totally blind (blind). As for someone who is still able to use his sight to read even though the writing is enlarged (adapted) they are classified as low vision (lack of vision).

The limitations of children with visual impairments have an impact on children's limitations in obtaining information. To get information directly, children with visual impairments, apart from using their functioning senses, such as the sense of hearing, reading Braille is one of the means to obtain information. Therefore, the ability to read beginning in Braille is a basic skill that must be possessed by children with visual impairments.

Someone who will learn to read has entered the initial reading stage. This stage is the initial stage in learning to read. Beginning reading is an activity in acquiring the skills to recognize letters and sounds that are strung together to be meaningful as a basic activity in learning through the stages without books and with books. Reading ability is also related to the ability in sensory processing. One of the sensory processes that play a role in the formation of reading skills is the ability to discriminate auditory, this is related to the ability to distinguish sounds from letters used in reading.

Based on the results of research at the Bandung City Special Needs School, this study was focused on finding one of the children with visual impairment in grade II who had difficulties in reading. The mistake of children in reading is not being able to distinguish the sound of letters that are almost the same as "m" and "n" so that children are often confused when reading or writing words that contain the letters "m" or "n", such as spelling "mandi" to "mamdi", "makan" becomes "makam". These problems certainly need to be given a solution to optimize children's ability to read at the beginning. The initial reading method that emphasizes the sound of letters and then assembled them into syllables and words is the phonic method.

The phonic method is a method that focuses on the ability to synthesize a series of letters into meaningful words. Learning to read activities starts from introducing the letters to children separately and invites children to mention the sounds of the letters. Furthermore, the letters introduced one by one are assembled into meaningful words". The phonic method emphasizes words through the process of introducing the sounds of letters, then assembled into syllables and words, then linking these letters with the first letters of various names of objects that are around the child or that the child is familiar with, such as the letter "m" with "meja", the letter "n" with "nanas", the letter "s" with "sandal" and so on.

Currently, many studies discuss the application of the phonic method as an effort to improve early reading skills in children with special needs, including the use of the phonic method which can have a positive influence on increasing early reading skills in children with intellectual disabilities (Novianti, 2021), then the application of the method Phonics with the letter (s) readiness puzzle has a positive effect on increasing the ability to recognize letters as the initial reading stage for children with intellectual disability, and the effect of the phonic

method on early reading skills in children (Widiasari, *et al.*, 2018). As for other references, namely the effect of the phonic method on the effectiveness of reducing the level of speech delay in children (Putri, *et al.*, 2021), and the influence on early reading abilities in group B children in kindergarten. But until now no one has discussed the effect of the phonic method on improving early reading skills in children with visual impairments.

This study aims to determine the use of the phonic method in improving early reading skills in children with visual impairments. We have a subject that is a child with visual impairment at the Special Needs School, in Bandung, Indonesia. The results obtained in the study showed an increase in the initial reading ability in children with the mean acquisition in each condition, namely the baseline phase 1 (Applied-1) or the initial ability of 52.50%, the intervention phase (Behavior) of 65.35%, and baseline phase 2 (Analysis-2) increased to 87.50%. Based on the results of the study, the use of the phonic method can be used as an alternative as a learning strategy for teachers in improving early reading skills in children with visual impairments. The novelties in this study are (i) the use of the phonic method, and (ii) the research subjects are children with visual impairments.

2. METHODS

2.1. Subject and Place of Research

The research subject is 1 person who has difficulty in reading. The subject in this study were children with visual impairments. Subject named WE, a second-grade elementary school with totally blind vision. The mistake of the subject in reading is not being able to distinguish the sound of letters that are almost the same as "m" and "n" so that children are often confused when reading or writing words that contain the letters "m" or "n", such as spelling "mandi" to "mamdi", "makan" becomes "makam". Another mistake is when reading the word "susu" becomes "tutu", "sapu" becomes "capu" children sometimes sound the letter "s" into the letter "t" or "c".

Respondents were taken as research subjects to improve early reading skills in children with visual impairments after being given early reading learning interventions using the phonic method.

This research took place at Jalan Pajajaran No. 50-52, Pasir Kaliki Village, Cicendo District, Bandung City. This school is one of the special needs schools that provides special education services for children with visual impairments. The education level at Special Needs School in Bandung City starts from elementary school, junior high school, and senior high school.

2.2 Research Procedure

This study focuses on the case of the effect of the phonic method on improving early reading skills in children with visual impairments. **Figure 1** describes the research flow starting from the planning stage to the final stage, namely reflection.



Figure 1. Schematic of Research flow.

At the planning stage, this study determines the research subjects, namely children with visual impairments, and arranges research instruments. At the implementation stage, this study carried out a learning procedure based on the stages on the instrument using the demonstration and question and answer method in accordance with the Learning

Implementation Plan (RPP) that had been prepared. At the observation stage, this study monitors the implementation of actions that are in accordance with the research objectives, namely improving early reading skills. Reflection is done to understand the process, problems, and constraints experienced during the research.

2.3 Activity Procedure

The following are the stages of implementing the research that we carried out from the initial stage (the initial condition of the subject) to the final stage of the study.

- (i) Performing the initial ability test (Applied-1) three times with the aim that the data obtained is stable. Internal data collection was done by giving tests to read consonants, read syllables, read patterned words, and simple sentences
- (ii) Implementation of the intervention (Behavior) which consisted of seven meetings, the intervention was carried out for 35 minutes where the subject received early reading teaching with the phonic method in each session. In the intervention process, subjects were taught by listening and sounding the letters "m, n, and s". Then the subject is invited to read the syllables using the phonic method (sounding the letters) such as the syllable "ma" read /m//a/" and so on. In the next step, the subject is asked to read words that start with the letter "m" such as the word "mata", words that start from the letter "n" such as the word "nasi", words that start with the letter "s" such as "sapu". After that, the subject was asked to look for the sound of the letter "m", "n", or "s" on the braille word card, the subject was asked to name the object that starts with the letter "m", "n", or "s". The last step is the subject is asked to read simple sentences such as "mama makan nanas".
- (iii) Conduct a final ability test (Analysis-2) for three sessions so that it is known that the baseline 2 stage is carried out by making observations again using the same instrument at baseline 1 (Applied-1). This is done to find out how much influence the phonic method has on improving early reading skills on research subjects.
- (iv) Data processing and research analysis result so that the data obtained can be accounted for through research conclusions.

2.4. Research instrument

The research instrument is a tool to collect the data needed in a study. We measure early reading ability in this study used a test form. We make an instrument in the form of a grid, this research is the basis for developing the instrument and in accordance with the child's initial abilities which have been previously assessed for the child. **Table 1** describes the lattice of research instruments for early reading skills using the phonic method.

The preliminary reading instrument above was developed into instrument items as a test tool that will be used in research to determine children's ability to read early. The assessment criteria given to children if they can answer the test questions correctly are given a value of 1, the maximum score obtained by the child is 40 with the following calculations: Percentage = (Number of scores obtained) / (Maximum score) x 100%. **Table 2** describes the items of the instrument used as a test tool for early reading skills using the phonic method.

In the aspect of development, we make instruments to determine the abilities, barriers, and needs of children in cognitive, social, emotional, motor, communication, and language aspects, as well as mobility orientation. In terms of development, we provide an assessment score for children's abilities with a value of 0 (not good), 1 (poor), 2 (good enough), 3 (good), and 4 (very good). **Table 3** describes the instrument on aspects of cognitive development.

Table 1. Grid of Early Reading Ability Research Instruments.

Aspect	Component	Indicator	Number of Tests	Score Maximum	Type of Test	Purpose		
Early Reading	1. Read letters	1.1. Read the consonants m, n, and s (written in braille)	3	3	Action test	Children can distinguish the letters "m" and "n", and sound the letter "s" correctly so that children can read meaningful words correctly.		
		2. Reading syllables	2.1. Read syllables starting with the letter "m" in braille	5			5	
		2.2. Read syllables starting with the letter "n" in braille	5	5				
		2.3. Read syllables that start with the letter "s" in braille	5	5				
	3. Reading word	3.1. Read words with Consonant Vocal (CV) – Consonant Vocal (CV) patterns in braille	3.1. Read words with Consonant Vocal (CV) – Consonant Vocal (CV) patterns in braille	6			6	
			3.2. Read words with Consonant Vocal (CV) – Consonant Vocal Consonant (CVC) patterns in braille	6			6	
			3.3. Read words with Consonant Vocal Consonant (CVC) – Consonant Vocal Consonant (CVC) patterns in braille	6			6	
	4. Read sentences	4.1. Read simple sentences in braille	4	4				

Table 4 describes the instruments for the social and emotional development of children. Then, **Table 5** describes the instrument for the sensory-motor development aspect of children. **Table 6** describes the instruments for developing aspects of communication and language. **Table 7** describes the instruments for the development of orientation and mobility aspects.

In terms of academic development, we make reading, writing, and arithmetic instruments to determine children's abilities. In the aspect of academic development, we provide an assessment score for children's abilities with scores of 0 (not good), 1 (poor), 2 (good enough), 3 (good), and 4 (very good). **Table 8** describes the academic instruments, namely reading, writing, and arithmetic.

Table 2. Beginner Reading Ability Instrument.

Component	Indicator	Instrument Item	Evaluation		Description												
			Correct	Incorrect													
1. Reading Letters	1.1. Reads the consonants “m”, “n”, and “s” (written in braille)	1.1.1 Read the consonants below! (printed in braille)															
		<table border="1"> <thead> <tr> <th>Letters</th> <th>Read</th> </tr> </thead> <tbody> <tr> <td>m</td> <td></td> </tr> <tr> <td>n</td> <td></td> </tr> <tr> <td>s</td> <td></td> </tr> </tbody> </table>	Letters	Read	m		n		s								
		Letters	Read														
m																	
n																	
s																	
2. Reading syllables	2.1. Read syllables starting with the letter “m” in braille	2.1.1 Read the syllables below! (printed in braille)															
		<table border="1"> <thead> <tr> <th>Syllables</th> <th>Read</th> </tr> </thead> <tbody> <tr> <td>ma</td> <td></td> </tr> <tr> <td>mi</td> <td></td> </tr> <tr> <td>mu</td> <td></td> </tr> <tr> <td>me</td> <td></td> </tr> <tr> <td>mo</td> <td></td> </tr> </tbody> </table>	Syllables	Read	ma		mi		mu		me		mo				
		Syllables	Read														
	ma																
	mi																
	mu																
	me																
	mo																
2.2. Read syllables starting with the letter "n" in braille	2.2.1 read the words below! (printed in braille)																
	<table border="1"> <thead> <tr> <th>Syllables</th> <th>Read</th> </tr> </thead> <tbody> <tr> <td>na</td> <td></td> </tr> <tr> <td>ni</td> <td></td> </tr> <tr> <td>nu</td> <td></td> </tr> <tr> <td>ne</td> <td></td> </tr> <tr> <td>no</td> <td></td> </tr> </tbody> </table>	Syllables	Read	na		ni		nu		ne		no					
	Syllables	Read															
na																	
ni																	
nu																	
ne																	
no																	
2.3. Read syllables that start with the letter “s” in braille	2.3.1 Read the syllables below! (printed in braille)																
		<table border="1"> <thead> <tr> <th>Syllables</th> <th>Read</th> </tr> </thead> <tbody> <tr> <td>sa</td> <td></td> </tr> <tr> <td>si</td> <td></td> </tr> <tr> <td>su</td> <td></td> </tr> <tr> <td>se</td> <td></td> </tr> <tr> <td>so</td> <td></td> </tr> </tbody> </table>	Syllables	Read	sa		si		su		se		so				
		Syllables	Read														
sa																	
si																	
su																	
se																	
so																	

Table 2 (continue). Beginner Reading Ability Instrument.

Component	Indicator	Instrument Item	Evaluation		Description														
			Correct	Incorrect															
3. Read the word	3.1 Read words with Consonant Vocal (CV) – Consonant Vocal (CV)	3.1.1 Read the syllables below! (printed in braille) <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Words</th> <th>Read</th> </tr> </thead> <tbody> <tr><td>mata</td><td></td></tr> <tr><td>mama</td><td></td></tr> <tr><td>nasi</td><td></td></tr> <tr><td>nana</td><td></td></tr> <tr><td>sani</td><td></td></tr> <tr><td>susu</td><td></td></tr> </tbody> </table>	Words	Read	mata		mama		nasi		nana		sani		susu				
	Words	Read																	
	mata																		
mama																			
nasi																			
nana																			
sani																			
susu																			
3.2 Read words with Consonant Vocal (CV) – Consonant Vocal Consonant (CVC)	3.2.1 Read the syllables below! (printed in braille) <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Words</th> <th>Read</th> </tr> </thead> <tbody> <tr><td><i>makan</i></td><td></td></tr> <tr><td><i>makam</i></td><td></td></tr> <tr><td><i>nanas</i></td><td></td></tr> <tr><td>nanah</td><td></td></tr> <tr><td>sulap</td><td></td></tr> <tr><td>sakit</td><td></td></tr> </tbody> </table>	Words	Read	<i>makan</i>		<i>makam</i>		<i>nanas</i>		nanah		sulap		sakit					
Words	Read																		
<i>makan</i>																			
<i>makam</i>																			
<i>nanas</i>																			
nanah																			
sulap																			
sakit																			
3.3 Read words with Consonant Vocal Consonant (CVC) – Consonant Vocal Consonant (CVC)	3.3.1 Read the words below! (printed in braille) <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Words</th> <th>Read</th> </tr> </thead> <tbody> <tr><td>mandor</td><td></td></tr> <tr><td>mimbar</td><td></td></tr> <tr><td>nastar</td><td></td></tr> <tr><td>nampan</td><td></td></tr> <tr><td><i>sandal</i></td><td></td></tr> <tr><td>sampah</td><td></td></tr> </tbody> </table>	Words	Read	mandor		mimbar		nastar		nampan		<i>sandal</i>		sampah					
Words	Read																		
mandor																			
mimbar																			
nastar																			
nampan																			
<i>sandal</i>																			
sampah																			
4. Read sentences	4.1 Read simple sentences	Read the following sentences! (printed in braille) 4.1.1 “mama <i>makan nanas</i> ” 4.1.2 “nanda minum susu” 4.1.3 “sambas pakai sarung” 4.1.4 “mina main <i>mandi bola</i> ”																	

Table 3. Cognitive Development Instruments.

No	Statement	Evaluation			
		1	2	3	4
Perception					
1	Distinguishing big and small things				
2	Distinguishing long and short objects				
3	Grouping objects according to large and small sizes				
4	Distinguish between heavy and light objects				
5	Knowing geometric shapes				
Memory					
1	Say the letters a-z				
2	Mention a series of numbers 1-20				
3	Counting down numbers 5-1				
4	Mention the name of his friend (minimum 5 friends)				
5	Give an example of a means of transportation				

Table 4. Cognitive Development Instruments.

No	Statements	Evaluation			
		1	2	3	4
1	easy to get along with their friends				
2	love to be alone				
3	love to play				
4	able to participate in group games				
5	often withdraw				
6	often adapt easily				
7	able to control themselves				
8	tend to be independent				
9	easily recognize the environment				
10	Irritable child				

Table 5. Sensory Motor Development Instruments.

No	Statement	Evaluation			
		1	2	3	4
Hear Sensor					
1	respond to sound				
2	imitate the sound ordered				
3	follow the sound source				
4	distinguish types of sounds				
Rough motoric					
1	able to stand				

Table 5 (continue). Sensory Motor Development Instruments.

No	Statement	Evaluation			
		1	2	3	4
2	can throw a ball				
3	able to lift a water bottle				
4	can climb stairs				
5	can run				
6	able to squat				
7	able to walk				
Fine Motor					
1	can open their fingers				
2	can close their fingers				
3	able to stick shapes				
4	able to button clothes				
5	able to hold the reglet				
6	able to hold a pen				
7	can write braille				
8	can squeeze paper				
9	can hold books				
10	able to pick up objects				

Table 6. Communication and Language Development Instruments.

No	Statement	Evaluation			
		1	2	3	4
1	Mention the letters of the alphabet a-z				
2	Write the letters a-z				
3	React to what other people say				
4	Understands the simple "Come sit down" command				
5	Write your name				
6	Distinguishing the voices of those around him				
7	Sing				
8	Repeating the sentence "I enjoy studying at school"				
9	Telling a pleasant experience				
10	Tells about his sad experience				

3. RESULTS AND DISCUSSION

3.1. Student Demographics

Children with visual impairments are children with special needs who have limited experience, limitations in movement or mobility, and limitations in interacting with the environment. The point of view of education said "blind person is someone who learns by using the senses of touch and hearing are classified as totally blind (blind). As for someone who is still able to use his sight to read even though the writing is enlarged (adapted) they are classified as low vision (lack of vision). The limitations of children with visual impairments have an impact on children's limitations in obtaining information.

Subjects have the ability in cognitive aspects that are quite good. The subjects have been able to distinguish between long and short, heavy and light, and have been able to recognize the alphabet and numbers. In the social aspect of emotions, children can play with classmates and can adapt to the surrounding environment. In the sensory-motor aspect, children can respond to stimuli such as being sensitive to touch and sound, able to distinguish rough and

smooth surfaces, and children can hold reglets, hold pens, squeeze paper, and so on. The child's ability in communication and language, the child can say the sentences we command, and the child understands simple commands such as "Come sit". Then, in terms of orientation and mobility, the child's ability is quite good. This can be seen from the child's ability to understand the concept of direction, the concept of space/distance, the concept of the body, and the ability to move in the direction we are instructed.

Table 7. Orientation and Mobility Development Instruments.

No	Statement	Evaluation			
		1	2	3	4
Direction Concept					
1	Front				
2	Behind				
3	Right side				
4	Left side				
5	Over				
6	Lower				
7	Straight				
8	Turn				
Concept of Space and Distance					
1	Narrow				
2	Large				
3	Long				
4	Short				
5	Close				
6	Far				
7	Heavy				
8	Light				
Body Concept					
1	Head				
2	Advance				
3	Eye				
4	Mouth				
5	Ear				
6	Hair				
7	Nose				
8	Hand				
9	Finger				
10	Stomach				
11	Foot				
Ability to Move Towards					
1	Front				
2	Behind				
3	To the right side				
4	Left side				
5	Straight				
6	Turn				

Table 8. Reading, Writing, and Counting Instruments

Aspect	Indicator	Evaluation			
		1	2	3	4
Read	<ol style="list-style-type: none"> 1. Able to do the correct sitting position when reading 2. Able to do the correct hand position when reading 3. Able to position the correct paper/book at the time of reading 4. Able to trace Braille dots from left to right 5. Can read Braille every word in the reading provided. 				
Write	<ol style="list-style-type: none"> 1. Able to put the paper on the reglet with the correct reglet position 2. Able to move the position of the reglet to the next line 3. Able to hold the pen reglet correctly 4. Able to write Braille. 				
Count	<ol style="list-style-type: none"> 1. Know the meaning of addition and subtraction. 2. Able to apply addition and subtraction. 				

The results of the subject assessment on the academic aspect, namely reading ability, children can know braille letters a-z and children also gradually know some words but still need to be guided. Then, children are sometimes confused about mentioning braille when reading so that sometimes children press the letters on the braille point. Children also have difficulty distinguishing the sound of letters that are almost the same as "m" and "n", and children sometimes sound the letter "s" into the letter "t" or "c". Children's barriers are children who have not been able to spell words contained in simple sentences. However, the preparation of children to learn the basics of reading can be said to be good. In the aspect of writing, children can write letters a-z. However, children have not been able to spell words well in simple sentences so that children still need guidance in the writing aspect.

This is related to the child's obstacles in reading the beginning. In the aspect of counting, children can answer addition and subtraction questions well. The way children do addition and subtraction is by remembering the first-mentioned number, then the second-mentioned number using their fingers. In the process of applying addition and subtraction, children can answer the questions tested correctly. However, sometimes children are still wrong when answering subtraction problems, so we assist by telling the steps in solving the tested subtraction problems. **Table 9** is the result of the assessment on academic and non-academic aspects. **Figure 2** is a graph of the results of the assessment on academic and non-academic aspects.

Table 9. The ability of Academic and Non-Academic Aspects.

Non-Academic Aspects					Academic Aspect		
Cognitive	Social-Emotional	Motor	Communication and Language	Orientation Mobility	Read	Write	Count
3	3	3	2	2	1	1	2

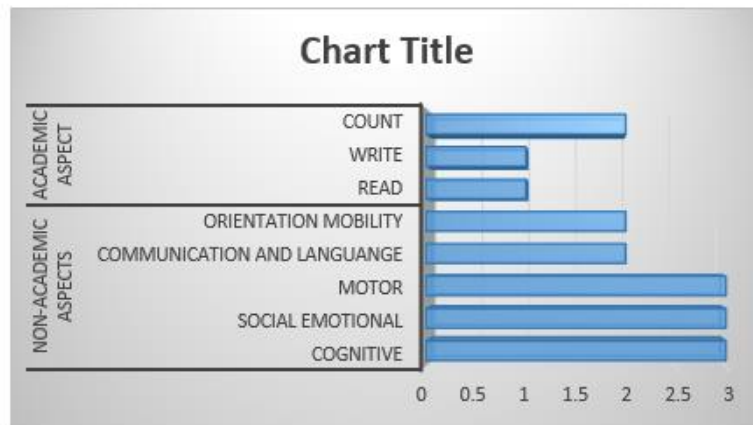


Figure 2. The ability of Academic and Non-Academic Aspects.

The results of the initial reading assessment using the phonic method in the baseline phase 1 (Applied-1) data collection was carried out by giving tests to the subject in three sessions. The results of the study are in the form of scores, then the data is processed into percentages. The following are the results of recording scores and the percentage results of the ability to read consonants "m, i, and s", read syllables, read word patterns, and read simple sentences from baseline phase 1 (Applied -1). **Table 10** is the percentage result data at baseline 1 (Applied-1). Based on **Table 10**, the data obtained in the first session the subject obtained a total score of 20 with a percentage of 50%, in the second session the subject obtained a score of 21 with a percentage of 52.5%, in the third session the subject obtained a score of 22 with a percentage of 55%. In baseline phase 1 (Applied-1), it can be seen that the highest score is 55% with a score of 22 and the lowest score is 50% with a score of 20. Thus there is a difference in this phase of 2 points. **Figure 3** is the result of the percentage of reading ability at the beginning of WE in baseline phase 1 (Applied-1).

Table 10. Baseline 1 Percentage Data (A-1)

Sesi	Skor Maksimal	Skor Perolehan	Percentase (%)
1	40	20	50%
2	40	21	52,5%
3	40	22	55%

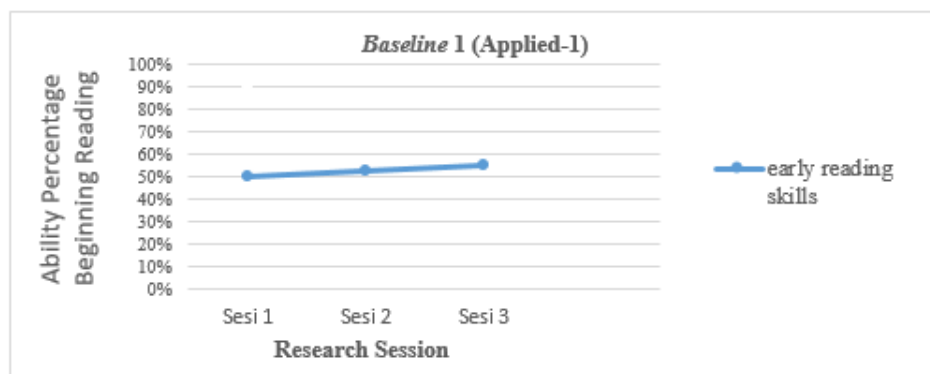


Figure 3. Analysis of Reading Ability in Baseline Phase 1 (Applied-1).

3.2 Learning Process Activities

This study carried out preliminary reading learning activities using the phonic method starting on Wednesday, July 17, 2019. The learning activities began with conditioning children to be ready to learn, praying before learning, and conveying learning objectives. The core learning activities are as follows:

- (i) Children are introduced to sound the letters "m", "n", and "s".
- (ii) Children are asked to read syllables using the phonic method.

Figure 4 is an example of how to read tribes using the phonics method.

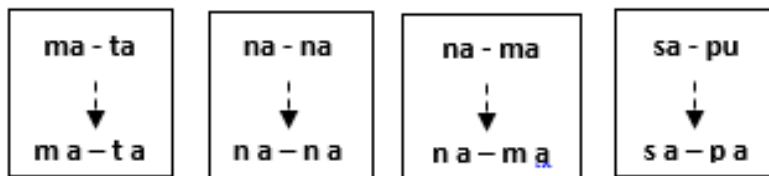


Figure 4. Reading syllables using the phonics method.

- (iii) Introduce meaningful words to children using word cards (written in braille). The words used are words that start with the letter "m" such as the word "mata", "meja", "mangga", and words that start with the letter "n" such as the words "nasi", "nanas". Then, words that start with the letter "s" such as "sapu", "susu".
- (iv) Look for the sound of letters starting with the letter "m" on a braille word card. The child is asked to read the word on the braille word card provided. **Figure 5** Figure 4 is a braille word card made to train children to recognize letter sounds.



Figure 5. Braille word card.

- (v) Look for the sound of letters starting with the letter "n" on a braille word card. Children are asked to read the words on the braille word cards provided. **Figure 6** is a braille word card to train children to look for the sound of letters starting with the letter "n".

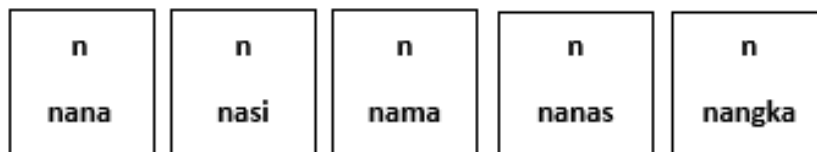


Figure 6. Braille word card.

- (vi) Look for the sound of letters starting with the letter "s" on a braille word card. Children are asked to read the words on the braille word cards provided. **Figure 7** is a braille word card to train children to look for the sound of letters starting with the letter "s".

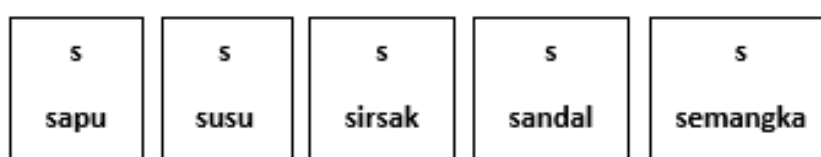


Figure 7. Braille word card.

- (vii) Look for the sound of certain letters on objects. Children are asked to name objects that start with the letters “m”, “n”, or “s”. Then, children are asked to read simple sentences such as “mama makan nanas”.

Before learning ends, students and teachers conclude the material that has been studied and carry out an evaluation of learning. This study closed the learning activity by praying together.

3.3 The Results of The Process or Learning Outcomes

Table 11 describes the recapitulation data of the initial reading test results in each phase where the learning process is carried out for 13 sessions using the phonic method.

Table 12 is data on changes in level from the intervention phase (Behavior) to the baseline phase (Applied-1) and changes in the level of the baseline phase 2 (Analysis-2) to the intervention phase (Behavior) have increased.

Figure 8 illustrates the increase in the subject's initial reading ability after being given intervention with the phonic method which can be seen from the change in the mean level in each phase.

Table 11. Overall Data Percentage Recapitulation Beginning Reading Ability

Phase	Session	Maximum Score	Acquisition score	Percentage (%)	Mean Level (%)
Baseline 1 (Applied-1)	1	40	20	50	
	2	40	21	52,50	52.50
	3	40	22	55	
Intervensi (Behavior)	4	40	24	60	
	5	40	25	62,50	
	6	40	25	62,50	
	7	40	26	60	65.35
	8	40	27	65	
	9	40	28	70	
	10	40	31	77,50	
Baseline 2 (Analysis-2)	11	40	32	80	
	12	40	33	82,50	83.33
	13	40	35	87,50	

Table 12. Level Change Data

Phase COmparison	$\frac{B}{A - 1}$	$\frac{A - 2}{B}$
Level Change	60%-55% (5%) (+)	(87,5%-77,5%) (10%) (+)

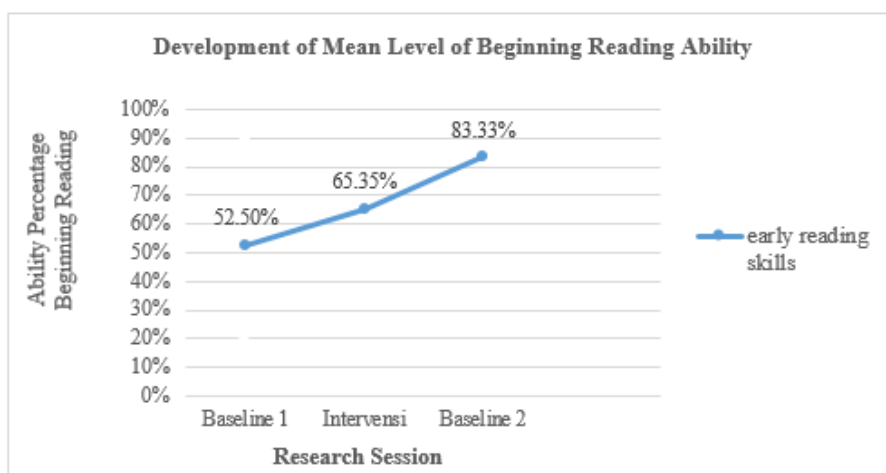


Figure 8. Development of Mean Level of Beginning Reading Ability.

3.5 Analysis of Research Activity Results

Reading braille is a basic skill that must be possessed by children with visual impairments because it is one of the important media in obtaining information in addition to using the senses that are still functioning, such as the sense of hearing. Reading is a process carried out which is carried out and used by readers to get the message to be conveyed by the author through the medium of words or written language. The problems that arise in reading the beginning are very interesting to talk about and at the same time interesting to find solutions to the problem (Tarigan, 2008) explains

The subjects in this study had difficulty in distinguishing the sounds of the letters "m" and "n" so they were often confused when reading or writing words that contained the letters "m" or "n", such as the word "mandi" became "mamdi", "makan" became "makam". Another mistake is that when reading the word "susu" into "tutu", children sometimes sound the letter "s" into the letter "t" or "c". There are a variety of interventions aimed at helping improve early reading skills. However, this study used a method that trained to recognize letter sounds and made connections between letters and letter sounds. The phonic method emphasizes the relationship between words and letter sounds. The recognition of letter sounds is then organized into syllables and words. The phonic method emphasizes words through the process of listening to the sounds of letters. At first, the child is invited to recognize the sound of the letters then the letters become syllables and words. To introduce the sounds of various letters, usually, it associates these letters with the first letters of various names of objects that are known by children. According to Sessiani (2007), the phonic method emphasizes word recognition through the process of listening to letter sounds. At first, children are invited to recognize the sounds of letters and then synthesize them into syllables and words. Letter sounds are introduced by associating them with nouns, for example, the letter "a" with the picture "ayam".

This study was conducted to determine the effect of the phonic method in improving the early reading ability of children with visual impairments. In the intervention process, subjects were taught by listening and sounding the letters "m, n, and s". Then the subject is invited to read the syllables using the phonic method (sounding the letters) such as the syllable "ma" read /m//a/ and so on. In the next step, the subject is asked to read words that start with the letter "m" such as the word "mata", words that start from the letter "n" such as the word "nasi", words that start with the letter "s" such as "sapu". After that, the subject

was asked to look for the sound of the letter "m", "n", or "s" on the braille word card, the subject was asked to name the object that starts with the letter "m", "n", or "s". The last step is the subject is asked to read simple sentences such as "mama *makan nanas*". During the learning process, it can be seen the development of the subject in distinguishing the sounds of the letters "m" and "n" and sounding the letter "s" when reading.

This research was conducted in 13 sessions. In baseline phase 1 (Applied-1), the study was conducted to determine the subject's ability to read the beginning before being given the intervention. The baseline phase 1 (Applied-1) was carried out in 3 sessions. The percentage of mean level in baseline phase 1 (A-1) is 52.50% where in this phase the subject can read two syllables and words but there are still errors in sounding the letters "m" and "n" and sounding the letter "s". In the intervention phase (Behavior) the subject was given an initial reading intervention using the phonic method. This phase is carried out as many as 7 sessions which are carried out in 1 hour of learning or about 35 minutes. In the first session, the subject got a score of 24 with a percentage of 60%, then increased in the second session, which was to get a score of 25 with a percentage of 62.5%. In the third session, the subject obtained the same score as the second session. The subject's initial reading ability decreased in the fourth session, which obtained a score of 24 with a percentage of 60%, this was because the intervention was carried out in the last hour of learning so that the subject lacked concentration when conducting learning activities in this study. From the fifth session until the seventh session, the subject's initial reading ability increased gradually with the respective percentages of 65%, 70%, and 77.5%. In this phase, the estimation of the directional trend shows an increase in the subject's initial reading ability with a change in the level of 17.5% compared to the baseline phase 1 (Applied-1) of 5%. In this phase, the subject's initial reading ability increases gradually. This increase can be seen from the results of the initial reading ability test, where there is a significant change in reading syllables. In this indicator of reading syllables, the subject gradually begins to be able to distinguish the sound of almost the same letters, namely "m" and "n". Subject errors when reading syllables starting with the letter "m" or "n" began to decrease. This can be seen from the results of the syllable reading ability test, the average error of the subject in reading is only 1-2 items out of 5 questions. Likewise, in reading syllables starting with "s", the subject can correct his mistakes in reading, so that the subject's errors in reading are only 1-2 items out of 5 questions. Then, on the patterned word reading indicator, there was a slight increase and decrease in the subject's error in reading from the previous phase, namely the baseline phase 1 (Applied-1). The improvement of subjects in the aspect of reading patterned words can be seen from the test results which show that children can improve their reading skills in distinguishing the sounds of the letters "m" and "n" in meaningful words. However, in this phase, the subject still needs to be given learning using this phonic method so that it becomes subject habituation that can assist the subject in improving initial reading skills. The graph data shows the trend of stability which shows that in this phase the data produced is stable at 85%, whereafter the data in the intervention phase (Behavior) is stable, the study continues in the baseline phase 2 (Analysis-2).

The study in the baseline phase 2 (Analysis-2) was carried out in 3 sessions. In this phase, the graph estimates the upward trend (+) with a mean level of 83.33%. This phase shows the subject's ability to read syllables that begin with the sound of the letters "m", "n" or "s", words with patterns where in the patterned words, there is the sound of the letter "m", "n" and or "s". Then, the subject can read 2-3 words in simple sentences correctly. Then, the subject can read 2-3 words in simple sentences correctly.

Based on the data that has been analyzed previously, it shows that the increase in ability can be seen from the mean level at baseline 1 (Applied-1) of 52.50%. Then, in the intervention phase (Behavior), it is 65.35%, and in the baseline phase 2 (Analysis-2), it increased to 83.33%. This increase is because learning is carried out supported by concrete learning related to approaches that use phonic methods such as associating the sounds of letters with the first letters of various names of objects around the child. Therefore, this study is trying to develop a phonics method as a teaching method to improve early reading skills in children with visual impairments. During conducting research, many factors became obstacles to the success of this research, both arising from the subject, the environment, and from the author. Therefore, increasing the ability to read at the beginning of the subject requires good cooperation from various parties so that it is possible that these inhibiting factors can be minimized and the subject's reading ability is better.

The concept of the phonic method explains that the phonic method is a method of mentioning the sounds of letters. In its context, it can be called the spelling method. This method is a conventional method that has been applied for years, starting from when learning to read was carried out. In essence, this method focuses on the ability to synthesize a series of letters into meaningful words.

The results of the study showed that the development of the phonic method was in accordance with the theoretical concept above, then this study developed the phonic method, namely teaching reading at the beginning by introducing the sounds of the letters then the letters were assembled into meaningful syllables and words. Selection of syllables, words, and simple sentences containing the sound of the letters "m", "n", or "s" and associating these letters with the first letters of various names of objects that are already known to children, such as the letter "m" with the object "meja", the letter "n" with the object "nampan", then the letter "s" with the object "sapu".

Based on the explanation above, it can be concluded that the use of the phonic method in children with visual impairments has a positive effect on improving early reading skills. The results of the analysis between conditions also showed a change in the level of +5% from the baseline phase 1 (Applied-1) to the intervention phase (Behavior), and a change in level from the intervention phase (Behavior) to the baseline phase 2 (Analysis-2) of +10%. In addition, an increase in the subject's initial reading ability can be seen from the mean level at baseline 1 (Applied-1) by 52.50%, then in the intervention phase (Behavior) by 65.35%, and the baseline phase 2 (Analysis-2) increasing to 83.33%. Thus, the phonics method can improve early reading skills in children with visual impairments at the Bandung City Special Needs School.

4. CONCLUSION

Based on the results of research conducted on improving early reading skills using this phonic method, it can be concluded as follows.

The initial condition of the subject who had difficulty in reading was that the subject had difficulty distinguishing the sounds of the letters "m" and "n" so that when reading there were errors in sounding the letters "m" and "n". Subjects are often confused when reading words that contain the letters "m" or "n", such as reading "mandi" to "mamdi", "makan" to "makam". Another mistake is when reading the word "susu" it becomes "tutu", "sapu" becomes "capu". Specific goals and general objectives in this study can be achieved after the development of the phonic method is applied. At the intervention stage (Behavior) the subject's initial reading ability increased gradually. This increase can be seen from the results

of the initial reading ability test, where there is a significant change in reading syllables, words, and simple sentences. In each indicator, the mistake of the subject began to decrease, it can be seen from the results of the reading ability test, the average reading error on the subject is only 1-2 items. The results of the application of the development of the phonic method on the subject have a positive influence, namely an increase in initial reading ability in reading syllables, words, and simple sentences.

The increase in initial reading ability in the subject can be seen from the mean level at baseline 1 (Applied-1) of 52.5%, then in the intervention phase (Behavior) by 65.35%, and in the baseline phase 2 (Analysis-2) it increases to 83.33%. This increase is because learning is carried out using a method that suits the needs of subjects who have difficulty reading, especially in distinguishing the sounds of the letters "m" and "n", and sounding the letter "s" so that the development of the phonic method can significantly improve the early reading ability of children with visual impairments.

5. ACKNOWLEDGMENTS

We acknowledged SLBN A Kota Bandung, and SLB Satria Galdin. This Study was supported by Kantor Jurnal dan Publikasi (KJP) – Universitas Pendidikan Indonesia (UPI), Departemen Pendidikan Khusus – UPI, dan Dinas Pendidikan Khusus dan Layanan Khusus (PKLK). We also thank to paerties involved. We also acknowledged Deden Syaiful Hidayat, M.Pd. (Kepala Bidang PKLK), Dr. Eng. Asep Bayu Dani Nandiyanto (Kepala Kantor, KJP UPI), Dr. Yuyus Suherman (Ketua Departemen, Departemen Pendidikan Khusus, UPI), Rina Maryanti, M.Pd. (Assistant Professor, Departemen Pendidikan Khusus, UPI), Muktiarni, M.Pd (Assistant Professor, Departemen Pendidikan Tata Boga, UPI), Ahmad Bukhori Muslim (Director, Directorate of International Affairs, UPI), Nissa Nur Azizah, Dwi Fitria Al Husaeni, and Dwi Novia Al Husaeni. This program is also supported by Program Pengabdian Masyarakat and Bangdos UPI.

6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

7. REFERENCES

- Novianti, R. (2021). Penerapan Metode Fonik Dalam Meningkatkan Kemampuan Membaca Permulaan Pada Anak Tunagrahita Ringan Kelas 5 Sd Di Slb Bc Nike Ardilla Ypwn. *Inclusive: Journal of Special Education*, 7(1), 55-64.
- Putri, S., Laily, N., and Amelasasih, P. (2021). Efektivitas Metode Fonik terhadap Penurunan Tingkat Keterlambatan Bicara Anak Usia 4-5 Tahun. *AL-MURABBI: Jurnal Studi Kependidikan dan Keislaman*, 7(2), 171-184.
- Widiasari, R. A., Suarni, N. K., and Antara, P. A. (2018). Pengaruh Pendekatan Fonik Terhadap Kemampuan Membaca Awal Pada Anak Kelompok B Di Tk Gugus Iii Kecamatan Buleleng Tahun Pelajaran 2017/2018. *Jurnal Pendidikan Anak Usia Dini Undiksha*, 6(2), 158-168.