



## Reflective Maternal Method Implementation in Improving Vocabulary Knowledge of Deaf Children in Class 1 of SLB-B Summersari Bandung

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**Abstract:** The study was conducted on subjects of deaf children in class 1 of SLB-B Summersari Bandung. As a result of their deafness, deaf children are limited in language and communication and have low vocabulary knowledge. Therefore, this study aimed to discover the reflective maternal method implementation in improving deaf children's vocabulary knowledge. This method stimulates deaf children to optimize their abilities in knowing vocabularies, i.e., nouns by conducting conversations, visualizations, word deposits, and reflections. Based on the problems, it is necessary to provide special treatments to improve vocabulary knowledge, especially on object uses. The method used in this study was the Single-Subject Research (SSR) experiment by a quantitative approach by using the A-B-A design. The data collection technique used was three test types, i.e., verbal test, action test, and written test. This study was carried out on two deaf children. Study findings based on baseline 1 and baseline 2 scores show that the baseline 2 result was higher and had a score increase post-intervention. It is proven by the two subjects who managed to mention object names, showing object names, and matching object names and object uses. The reflective maternal method is a method by the active learning process that triggers children to conduct a natural conversation, as they occur between mother and child. This study can be implemented as a recommendation for associated teachers in their learning method, particularly in using the reflective maternal method to improve object or other material vocabulary knowledge on deaf children.

**Keywords:** Reflective Maternal Method, Vocabulary, Vocabulary Knowledge, Deaf.

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### INTRODUCTION

Language is a vital need for humans to deliver their thoughts and feelings to others. Children without deafness can receive language directly from repetitive imitation through their hearing sense, and therefore, vocabularies are understandable. Meanwhile, in deaf children, the word imitation process is only received through the visual sense. Children see mouth gestures, expressions, and their speakers' gestures.

The key impact of hearing ability loss is the hindrance of speaking and language development to communicate. It occurs in children who have lost their hearing abilities since birth when they have not recognized language. It seriously affects their language and speaking development because language and speaking

development is closely related to hearing acuity.

The key modality in improving communication ability in deaf children both verbally and written is language. One of the aspects of a language is vocabulary. Without ownership and knowledge of vocabularies, it is impossible to have good communication. Therefore, learning to improve knowledge and vocabulary knowledge are top priorities.

The number of vocabularies possessed by a person affects their communication abilities. Hence, deaf children are expected to have rich vocabularies to ease them in communicating with others. According to Tarigan (2011, p. 2), "one's language skill quality depends on the quantity and quality of their vocabularies. The richer the vocabularies, the higher their language skills."



Deaf children have hindrances in their hearing senses, and thus, affecting their language and communication development. This hindrance is generated from their limited vocabulary. Tarigan (2011, p. 2) argued that “vocabulary roles in Elementary School textbook are vital.” If vocabulary knowledge is provided to children, the most logical thing to happen is improving speaking ability and intelligence. Vocabulary knowledge is remembering or recognizing words from learning results to be used in speaking and communicating.

Based on the case study of two deaf children in class 1 of SLB-B Sumbersari Bandung, deaf children’s vocabulary knowledge is minuscule. One of which is noun vocabulary knowledge. Both deaf children only recognize nouns in the school without comprehension of the object’s use. The authors assumed that it is necessary to provide a proper learning method to improve deaf children’s vocabulary knowledge. This study discusses a learning method facilitating deaf children to be skillful in language, i.e., the Reflective Maternal Method. Hermawati (2007, p. 104) asserted that this method has characteristics that a conversation is related to doing something between mothers or other people and children (natural) and implementing the catch and double role method. The catch and double role method are that mothers or other people catch children’s phrases and express and answer the phrases, thus creating a conversation.

A Van Uden (in Bunawan and Yuwati, 2000, p. 89) differentiated between two types of conversations, i.e., heart-to-heart conversation and linguistic (language) conversation. A heart-to-heart conversation is a spontaneous conversation in classes, spare times, parents, or house nannies. Improper pronunciation of the children will be corrected directly through the catch technique. Meanwhile, a linguistic conversation is a conversation of grammar used by children in civilization aiming to converse one of the language symptoms in their pronunciations so that children are aware of the usage or speak it in their daily

lives, or commonly known as reflecting language.

By implementing the Reflective Maternal Method, children know the noun and the knowledge of objects’ uses. The vast number of vocabulary knowledge will expedite their knowledge in learning materials provided by teachers and bring more understanding to their interactions with families, peers, and schools to be confident in having social interactions and accepted anywhere.

Based on the explanation above, the authors chose the title of Reflective Maternal Method Implementation in Improving Vocabulary Knowledge of Deaf Children in Class 1 of SLB-B Sumbersari Bandung.

## **METHOD**

The method used in this study was an experiment. This experimental method was utilized because it matched the observed problem, which is to discover the Reflective Maternal Method implementation in improving vocabulary knowledge of deaf children in class 1 of SLB-B Sumbersari Bandung, particularly for noun vocabulary knowledge. According to Arikunto (2010, p. 3), the experimental method is a method to find a causal relationship between two factors that are deliberately emerged by the researcher by eliminating or reducing, or removing other disrupting factors. This method used an experimental method with a single subject or Single-Subject Research (SSR). According to Sunanto et al. (2006, p. 41), “on the single-subject design, dependent variable or target behavior measurement is conducted repeatedly with a specific time interval such as per week, per day, or hour.” This study used an A-B-A study design.

The study subjects were two students, called MR and GPR, which included in the mild deaf category. The subject’s characteristic was low vocabulary knowledge, particularly in the noun vocabulary knowledge. In this study, the authors constructed the instrument



independently by the authors adjusted to the special children's condition. Tests used in this study were verbal, action, and written tests. Instruments used in the tests were mentioning object names of 10 questions, showing object names of 10 questions, and matching object names with object uses of 10 questions. Here is the detail of Reflective Maternal Method implementation in improving vocabulary knowledge of deaf children:

1. Instrument test implementation to discover instrument validity
2. Baseline-1 implementation for three sessions
3. Intervention implementation for six sessions
4. Baseline-2 implementation for three sessions

## RESULTS AND DISCUSSION

This study aimed to observe the Reflective Maternal Method implementation in improving vocabulary knowledge of deaf children in class 1 of SLB-B Sumbersari Bandung, with MR and GPR subjects. The noun vocabulary knowledge was measured using verbal, action, and written tests by mentioning object names of 10 questions, showing object names of 10 questions, and matching object names with object uses of 10 questions. The score was given based on students' accuracy in mentioning each word. The formula used to calculate scores collected by students is:

$$\text{Percentage} = \frac{\Sigma \text{test correctly done}}{\Sigma \text{maximum score}} \times 100\%$$

The authors described finding results on the baseline-1 (A<sub>1</sub>), intervention (B), and baseline-2 (A<sub>2</sub>) conditions as follow:

### 1. Baseline-1 (A<sub>1</sub>) Results

The baseline-1 (A<sub>1</sub>) phase is an initial step in collecting data. Data collection in this phase was carried out before intervention (students' basic ability). This phase consisted of four data collection sessions. Here is the table and graph of noun vocabulary knowledge scores of MR and GPR before the intervention.

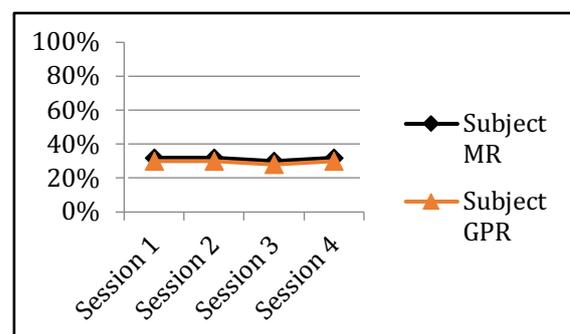
**Table 1** Baseline 1 (A-1) Data Noun Vocabulary Knowledge of Subject (MR)

Sessi on	Numb er of Questi ons	Maxim um Score	Obtai ned Score	Percen tage (%)
1	30	50	16	32
2	30	50	16	32
3	30	50	15	30
4	30	50	16	32

**Table 2** Baseline 1 (A<sub>1</sub>) Data Noun Vocabulary Knowledge of Subject (GPR)

Sessi on	Numb er of Questi ons	Maxim um Score	Obtai ned Score	Percen tage (%)
1	30	50	15	30
2	30	50	15	30
3	30	50	14	28
4	30	50	15	30

It can be presented in a graph as follows:



**Figure 1.** Baseline 1 (A<sub>1</sub>) Data Noun Vocabulary Knowledge of Subject (MR) and Subject (GPR)

Based on observation on tables and the graph, the authors discovered that MR's noun vocabulary knowledge on the first, second, and fourth session obtained the same percentage of 32%, while the third



session was 30%. Similarly, the subject GPR obtained the same percentage on the first, second, and fourth session of 30% and 28% in the third session. Baseline-1 (A1) already obtained stable data; hence, the authors continued to the intervention of pronouncing words with phoneme b using the learning media of illustrated word cards.

## 2. Intervention (B)

This intervention aimed to observe the improvement in MR and GPR subjects on their noun vocabulary knowledge by mentioning object names, showing object names, and matching object names to object uses. The intervention was by implementing the Reflective Maternal Method. The intervention was carried out for six sessions.

**Table 3** Intervention (B) Data Noun Vocabulary Knowledge on Subject (MR)

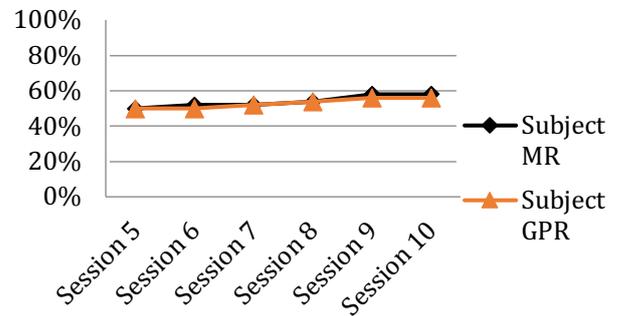
Session	Number of Questions	Maximum Score	Obtained Score	Percentage (%)
1	30	50	25	50
2	30	50	26	52
3	30	50	26	52
4	30	50	27	54
5	30	50	29	58
6	30	50	29	58

**Table 4** Intervention (B) Data Noun Vocabulary Knowledge on Subject (GPR)

Session	Number of Questions	Maximum Score	Obtained Score	Percentage (%)
1	30	50	25	50
2	30	50	25	50
3	30	50	26	52
4	30	50	27	54

5	30	50	28	56
6	30	50	28	56

It can be presented in a graph as follows:



**Figure 2.** Intervention (B) Data Noun Vocabulary Knowledge on Subject (MR) and Subject (GPR)

From the graph above, the highest percentage of subject MR during the intervention was achieved with 58%, meaning that subject MR obtained 29 from the maximum score of 50. Meanwhile, the highest percentage of subject GPR was 56%, meaning that subject GPR obtained 28 from the maximum score of 50. Both subjects obtained the same lowest percentage of 50%. This phase showed improvement compared to the previous, showing an improvement of noun vocabulary knowledge on MR and GPR subjects.

## 3. Baseline-2 (A<sub>2</sub>)

Baseline 2 was conducted after the intervention, aiming to discover the extent of the intervention's influence with the Reflective Maternal Method on noun vocabulary knowledge of MR and GPR subjects. This phase was carried out for four sessions, conducted three days after the intervention, with each session lasted for 30 minutes by providing verbal, action, and written tests.

**Table 5** Baseline 2 (A<sub>2</sub>) Data Noun Vocabulary Knowledge of Subject (MR)

Session	Number of Questions	Maximum Score	Obtained Score	Percentage (%)
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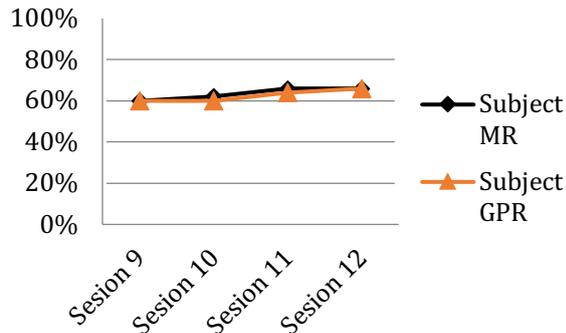


ons				
1	30	50	30	60
2	30	50	31	62
3	30	50	33	66
4	30	50	33	66

**Table 6** Baseline 2 (A<sub>2</sub>) Data Noun Vocabulary Knowledge of Subject (GPR)

Session	Number of Questions	Maximum Score	Obtained Score	Percentage (%)
1	30	50	30	60
2	30	50	30	60
3	30	50	32	64
4	30	50	33	66

It can be presented in a graph as follows:



**Figure 3.** Baseline 2 (A<sub>2</sub>) Data Noun Vocabulary Knowledge of Subject (MR) and Subject (GPR)

Based on the graph and tables, it is discovered that the percentage increased on MR and GPR subjects from 60% on the ninth session to be 66% on the twelfth session.

**Table 8** Data Percentage Recapitulation of Overall Noun Vocabulary Knowledge Condition (A-B-A) of Subject (GPR)

Session	Percentage (%)		
	Baseline	Intervention	Baseline
1	32	50	60
2	32	52	62
3	30	52	66
4	32	54	66
5		58	
6		58	

Baseline A (A<sub>2</sub>) results show an improvement of noun vocabulary knowledge on MR and GPR subjects compared to the baseline 1 (A<sub>1</sub>) and intervention (B). This improvement occurred in three aspects of mentioning object names, showing object names, and matching object names with object uses.

#### 4. Data Acquisition Recapitulation

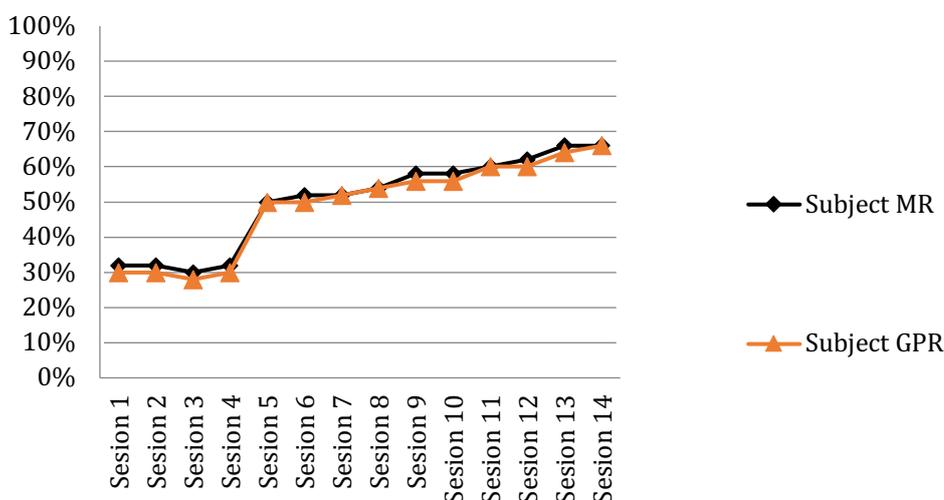
Below is data for baseline 1 (A<sub>1</sub>), intervention (B), and baseline 2 (A<sub>2</sub>) results presented in a table and graph to discover the noun vocabulary knowledge improvement on subjects before, during, and after the intervention. Here is the data acquisition recapitulation on all MR and GPR subjects' conditions.

**Table 7** Data Percentage Recapitulation of Overall Noun Vocabulary Knowledge Condition (A-B-A) of Subject (MR)

Session	Percentage (%)		
	Baseline 1	Intervention	Baseline 2
1	32	50	60
2	32	52	62
3	30	52	66
4	32	54	66
5		58	
6		58	

	1		2
1	30	50	60
2	30	50	60
3	28	52	64
4	30	54	66
5		56	
6		56	

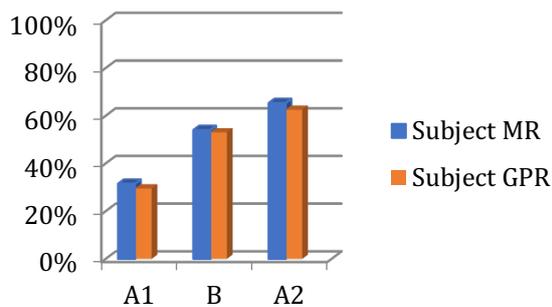
It can be presented in a graph as follows:



**Figure 4.** Data Percentage Recapitulation of Overall Noun Vocabulary Knowledge Condition (A-B-A) of (MR) and (GPR) Subjects

The mean level based on the graph of subject MR on the baseline 1 ( $A_1$ ) condition was 31.5%, while subject GPR was 29.5%. On the intervention (B) condition, the mean level obtained for subject MR was 54%, and 53% for subject GPR. The baseline 2 ( $A_2$ ) condition obtained the mean level of subject MR for 63.5%, while subject GPR obtained 62.5%. Mean levels from one condition to another show improvement in baseline 1 ( $A_1$ ) to intervention (B), and from intervention (B) to baseline 2 ( $A_2$ ). Improvement is observed by comparing the students' initial condition before the intervention and after the intervention.

Based on the data above, the Reflective Maternal Method implementation is following the objective of improving deaf children's vocabulary knowledge. Mean level improvement of noun vocabulary knowledge under the baseline 1 ( $A_1$ ), intervention (B), and baseline 2 ( $A_2$ ) conditions can be observed in a graph below:



**Figure 5.** Mean Level of Noun Vocabulary Knowledge of Subject (MR) and Subject (GPR)

The graph shows improvement in mean levels of noun vocabulary knowledge of MR and GPR subjects. The mean level of subject MR on the baseline 1 (A<sub>1</sub>) condition was 31.5%, while subject GPR was 29.5%. On the intervention (B) condition, the mean level obtained for subject MR was 54%, and 53% for subject GPR. The baseline 2 (A<sub>2</sub>) condition obtained the mean level of subject MR for 63.5%, while subject GPR obtained 62.5%. Mean levels from one condition to another show improvement in baseline 1 (A<sub>1</sub>) to intervention (B), and from intervention (B) to baseline 2 (A<sub>2</sub>). MR and GPR subjects experienced improvements in this study.

This study was conducted to improve noun vocabulary knowledge on deaf children in SLB-B Summersari Bandung. MR and GPR subjects had problems understanding noun vocabularies; hence, the authors provided an intervention for MR and GPR subjects to improve their noun vocabulary knowledge using the Reflective Maternal Method.

The Reflective Maternal Method is a way or process to provide a verbal language learning experience adopted from how mothers teach language to their children through conversations. The Reflective Maternal Method is an appropriate method to improve vocabulary understanding in deaf children by conducting conversations, visualizations, deposit and reflection arrangements, and asking children to

mention object names, showing object names, and matching object names with object uses.

From the overall result, it is discovered that MR and GPR subjects experienced improvements in noun vocabulary knowledge. Mean levels achieved by MR and GPR subjects were demonstrating improvement. Mean levels of subject MR were on the baseline 1 (A<sub>1</sub>) of 31.5%, on the intervention (B) of 54%, and the baseline 2 (A<sub>2</sub>) of 63.5%. Meanwhile, mean levels of subject GPR were on the baseline 1 (A<sub>1</sub>) of 29.5%, on the intervention (B) of 53%, and the baseline 2 (A<sub>2</sub>) of 62.5%. From this overall result, it can be concluded that the Reflective Maternal Method implementation could improve noun vocabulary knowledge of MR and GPR subjects. During the Reflective Maternal Method implementation, both subjects were actively engaged in conversations and expressed what they wanted to tell. MR and GPR subjects were enthusiastic in the learning process due to learning materials of object pictures, object name writings, object use pictures, and writings attached on the board. Both subjects also took turns to attach these materials to the board.

## CONCLUSION

This study aimed to discover the Reflective Maternal Method implementation in improving deaf children's noun vocabulary knowledge in class 1 of SLB-B Summersari Bandung. Based on the study result, it is discovered that the Reflective Maternal Method implementation improved noun vocabulary knowledge on deaf children, particularly in object uses. The improvement was demonstrated by increasing both subjects' scores in mentioning object names, showing object names, and matching object names with object uses. It can also be seen from the increasing mean levels of each condition of MR and GPR subjects. Mean levels achieved on the baseline 1 (A<sub>1</sub>) phase were 31.5% for subject MR and 29.5% for subject GPR. On the intervention (B) phase, the mean levels achieved were 54% for subject MR and 53%



for subject GPR. On the baseline 2 (A2) phase, the mean levels achieved were 63.5% for subject MR and 62.5% for subject GPR. These improvements were discovered pre-intervention and post-intervention. Therefore, these results indicate that the Reflective Maternal Method implementation could improve noun vocabulary knowledge on deaf children, especially in object uses.

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