Family-based Early Intervention for Expressive Language Skills of Children with Hearing Impairments

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Abstract: The purpose of this study is early to formulate a hypothetical program of family-based early intervention that's considered feasible and expected to be effective improving expressive language skills in children with hearing impairments. The study used a qualitative approach with family research subjects of deaf children aged 6 years who still have residual hearing and domiciled in Bandung. Data collection techniques are carried out through observation, interviews, and documentation studies. Based on the results of empirical analysis of abilities, obstacles, needs of children, and efforts that have been made by the family and its results, and based on the results of theoretical analysis based on ecological theory of family roles and responsibilities, the program focuses on the application of intensive verbal communication in daily pragmatic life by all family members. In order for the program to be implemented properly by families, the principles of consistency, imitation, and attachment, as well as the application of transfer of knowledge and transfer of skills procedures are an important part of the implementation of this program.

Keywords: Early intervention programs, Family, Expressive language, Hearing impairment.

INTRODUCTION

Child development at an early age or what is referred to as the golden age "Golden Age" which means that development at this age is very influential on development in the next period until the child becomes an adult (Sulistiani, 2009). Age 0-6 years is a very decisive age in the formation of character both attitude, behavior, and personality of a child in the future (Dorlina, 2011). Generally, at this stage early childhood learns about various things including developing their motor, cognitive, language, and socialemotional skills. Children's social development starts from infancy, in line with their body growth (Mayar, 2013). Deaf children are children who have hearing issues and hence struggle with language (Ridwan, Novianti, Koestieni, 2023; Apriliani & Aprilia, 2022; Ningsih et al., 2022; Carol & Aprilia, 2023). Hearing impairments cause deaf children to require parental assistance in providing language experience at a young age (Sani, Wardani, & Herlina, 2022).

Child growth and development are influenced by many factors including maternal education, mother's work, father's education, developmental stimulation and environmental factors of the child (Ardita, Kadir, & Askar, 2012). Children develop in diverse environments. Meadow stated that the environment will affect children in various ways, including affecting how a child develops and learns from the environment (Martani, 2012). Therefore, the family plays an important role to help optimize children's development from an early age because the family is an informal educational environment that must be functional for a child. The role of the family largely determines the success of the child's development. The success of the child's development will be obtained if the family understands his duties and obligations. Therefore, there is a need for early intervention with family resources.

Family-based early intervention is the provision of family-based support shown to families who have children with special needs in the age range of 0-6 years (early age) which directly or indirectly affects children. Family-based interventions aim to build parent, family,

and child strengths, strengthen current conditions and develop new competencies in children. This activity is carried out because it stimulates the basic abilities of early childhood so that children grow and develop optimally. Lack of stimulation can cause deviations in child growth and development and even persistent disorders. Early family-based intervention in early childhood is very important because of the most rapid growth and development in the human brain. And still often spend time at home with his parents or family. Family-based Early Intervention is an effort to change a condition that is already known to have problems that occur at developmental age. These aspects of change can occur in aspects of cognitive, motor, language, social emotional development and other aspects of development. Early intervention is implemented through several stages. Before starting to make an early intervention program, of course, you must first carry out the preparation stage, such as observation, identification and assessment. Therefore, this report is made to present the draft Work Procedures, Timeline, Identification and Assessment of Parents and Children who will be made early intervention programs.

METHOD

The method used is a descriptive qualitative method, which aims to obtain data through observation, interviews conducted by interventionists through four stages which include the process of preparation, data collection, program planning, program implementation. According to Mukhtar (2015) qualitative descriptive research method is a method used by researchers to find knowledge or theory of research at a certain time. The information extracted by qualitative methods is how the process of implementing family-based interventions on aspects of language development (expressive) in children with hearing impairments aged 5 years. Based on these needs, interventionists provide treatment to train children's articulation using alphabetic letters such as introducing vowels and consonants. Then continued after treatment by the interventionist was transferred to the parents to perform the intervention program to the subject.

RESULT AND DISCUSSION

In the early stages, researchers made observations in one of the schools in Cimahi City. After finding the case, the researcher made permission to the school and the parents of the child concerned. The process of identifying this problem involves interviewing class teachers and parents who have children with disabilities who will be given early intervention programs, as well as conducting observations and interviews to find out more about the condition of parents and children. Once identification is done, refer one of the children with hearing impairment age 5 years who is assessed to have an urgency barrier in expressive language. Based on the results of the assessment of children with hearing impairments, it can be identified, potentials, barriers, and needs, this is known as the child profile.

Researchers observed the initial conditions of the case at one of the special schools in Cimahi. The first stage is to carry out identification and assessment (Irvan, 2020). The process of implementing this problem identification involves interviews with class teachers and parents who have children with disabilities who will be given an early intervention program, as well as conducting observations and interviews to find out more about the condition of the parents and children. After identification is carried out, refer one child with hearing impairment aged 5 years who is assessed as having urgent difficulties in expressive language. Language assessment used according to Moh's theory, Amin (1995, 84-118), Scharf et al (2016) Ages 1-6 years as follows:

Table 1. Assesment Identification

No Item	Indicator	Result Skilled	Unskilled	Information
Receptive Language				
A1	Reacts to toys or sounds			
A2	Gives toys when asked			
A3	Looking up when he saw the Assessor pointing upwards			
A4	Look down when you see the Assessor pointing downwards			
A5	Turned his head when he saw the Assessor pointing towards the front			
A6	Turned his head when he saw the Assessor pointing behind him			
A7	Pay attention when the Assessor tells the story			
A8	Refers to himself when his name is mentioned			
A9	Pointing eyes			
A10	Pointing nose			
A11	Pointing ear			
A12	Take the pencil on the table then give it to the assessor			
A13	Take the book and put it on the table			
A14	Take the book and give it to the Assessor			
A15	Take the book, give it to the Assessor and sit back down			
A17	Take the ball, take a pen that is far from the ball and give it to the Assessor			
A18	Take the book, take the eraser which is far from the ball and give it to the Assessor			
A19	Take the book, take the pen, give the pen to the friend/mother, and give the book to the Assessor			
A20	Close the door, sit down, take the book in the bag, and give it to the Assessor			
Expressive Language				
B1	Mention the 3 parts of the body designated by the Assessor			
B2	Mention 3 names of animals			
B3	Name 3 names of objects around you			
B4	Mention your mother's name			
B5	Mention your father's name			
B6	Mention your sibling's name			
B7	Mention your friend's name			
B8	Asking for something by name, such as wanting a drink			
B9	Repeats 1 verb spoken by the Assessor			
B10	Repeat the 2 characteristics mentioned by the Assessor			
B11	Repeats 3 nouns spoken by the Assessor			
B12	Repeat simple sentences consisting of 3 words			
B13	Repeat simple sentences consisting of 4 words			
B14	Name 3 pictures of objects (chair, table, book)			
B15	Name 3 pictures of animals (cat, chicken, bird)			
B16	Name 3 pictures of activities (eating, drinking, bathing)			
B17	Tells the events that happened in the morning simply			
B18	Explain the function of an object, namely glass			
B19	Explain the function of an object, namely a pencil			
B20	Answer questions from the Assessor (What is your friend's name?)			
B21	Answering questions from Assessors (Where is your house?)			
B22	Answering questions from Assessors (What do you like?)			

Based on the results of the assessment of children with hearing impairments, potential, obstacles and needs can be identified, this is what is known as the following child profile:

Table 2. Child Profile

Aspects of Receptive Language Development		
Ability	**Problems**	**Needs**
➢ Gives toys when asked	➢ Reacts to toys or sounds	Based on aspects of children's abilities and disabilities at this time, it can be concluded that children need training in terms of recognizing small and large sounds, need visual (interesting) learning, & recognize parts of the human face.
➢ Looking up when she saw the Assessor pointing upwards	➢ Pay attention when the Assessor tells the story	
➢ Look down when you see the Assessor pointing downwards	➢ Pointing nose	
➢ Turned his head when he saw the Assessor pointing towards the front	➢ Pointing ear	
➢ Turned his head when he saw the Assessor pointing behind h**er**	➢ Execute more than 2 commands	
➢ Refers to himself when his name is mentioned		
➢ Pointing eyes		
➢ Take the pencil on the table then give it to the assessor		
➢ Take the book and give it to the Assessor		
➢ Take the book, give it to the Assessor and sit back down		
Aspects of Expressive Language Development		
Ability	**Problems**	**Needs**
➢ Mention 3 names of animals	➢ Mention the names of Mother, Father, Brother/Sister	Based on aspects of the child's current abilities and disabilities, it can be concluded that children need training in verbal language and articulation training.
➢ Name 3 names of objects around you	➢ Mention the names of playmates	
➢ Asking for something by name, such as wanting a drink	➢ Repeating more than 3 words	
➢ Repeats 1 verb spoken by the Assessor	➢ Tells the events that happened in the morning simply	
➢ Repeats the 2 adjectives said by the Assessor	➢ Explain the function of an object, namely glass	
➢ Name 3 pictures of objects (chair, table, book)	➢ Explain the function of an object, namely a pencil	
➢ Name 3 pictures of animals (cat, chicken, bird)	➢ Answer questions from the Assessor (What is your friend's name?)	
➢ Name 3 pictures of activities (eating, drinking, bathing)	➢ Answering questions from the Assessor (Where is your house?)	
	➢ Answering questions from Assessors (What do you like?)	

Table 3. Intervention Focus

No.	Aspect	Ability	Problems	Needs	Intervention Activity
1.	Expressive language	Verbal language, in training vocabulary mastery in children.	The child has not fully mastered the vocabulary of letters in the alphabet.	Able to recognize the minimum vocabulary of letters found in the alphabet.	Interventionists introduce the letters contained in the alphabet. Divided into vowels and consonants. Then instruct the child to follow what is said by the interventionist spoken back

		verbally by the child.

1) Early stage intervention

At this stage the Interventionist introduces the program and the concept of program implementation concept to the child and parents or family members in separate sessions. In the session with the child, the interventionist introduces the concept of letters to the alphabet divided into vowels and consonants.This stage is a basic stage that lasts quite a long time, because children need to get used to new patterns in order to know articulation before recognizing and saying a word. Like when he successfully passes the articulation test contained in the alfabeth given by the interventionist then he will get the item he wants. But when he mispronounces the articulation, the child does not get the item he wants and is given repeated stimulus. In family sessions, interventionists show videos of intervention activities by explaining the purpose or function of each interventionist action when intervening. Such as consistency and repetition in a letter even a word that the child has not mastered. At this stage the family shows their enthusiasm by recording important points into books and asking explanatory questions.

2) Family intervention

In the next stage, the interventionist invites one of the selected families to accompany the intervention activities. For example, mama. On some occasions you will try to give instructions or practice intervention activities to the child. The child at first has not been able to position the mother as an interventionist so often sulking, but after several turns, in the end the child is willing to follow the instructions in a series of interventions from his mother. Interventionist provides consultation facilities if there is still an application of programs that are not understood or difficult.

3) Referral program to parent

At this stage family members begin to take over 80% of the intervention activities. The child begins to understand that the intervention program is applicable to everyone.

4) Family Mastering

At this stage, family members take over the intervention program 100%. Where interventionists no longer participate at the time of the intervention. Interventionists observe activities remotely or via video and facilitate parental consultation on unexpected events or difficulties experienced by family members.

Table 2. Implementation of Interventions

No.	Date	Programs	Media	Achievement Targets	Program Activities	Description and evaluation
1.	7 April 2022	• Program Discussion • Practice expressive language	✓ Papers provided by the interventionist	✓ Children are able to speak verbally	✓ Program discussion with parents ✓ The initial program implementation begins with assessing every aspect of development ✓ In the aspect of expressive	Parents approve of the program proposed by the interventionist especially in the expressive language aspect of the child. ✓ The child follows

No.	Date	Programs	Media	Achievement Targets	Program Activities	Description and evaluation
					language development, children are stimulated through words exemplified by interventionists, then children rewrite words written by interventionists, then children say the words they write.	the program well, parents pay attention to the interventionist and repeat the program activities.
2.	10 April 2022	• Practice expressive language	✓ Papers provided by the interventionist	✓ Children are able to speak verbally	✓ The implementation of the expressive language training program by stimulating children through "writing down alphabet letters" to obtain vocabulary memory, then children are asked to name words that begin with the letters of the given alphabet.	✓ The child follows the program well, parents pay attention to the interventionist and repeat the program activities.
3.	21 May 2022	• Practice expressive language	✓ Papers provided by the interventionist	✓ Children are able to speak verbally	✓ The implementation of the expressive language training program by stimulating children through picture paper given by the interventionist to children, then children are asked to name the words contained on the drawing paper given.	✓ The child follows the program well, parents pay attention to the interventionist and repeat the program activities.
4.	28 May 2022	• Practice expressive language	✓ Papers provided by the interventionist	✓ Children are able to speak verbally	✓ The implementation of the expressive language	✓ Parents practice the steps of the program to stimulate the

No.	Date	Programs	Media	Achievement Targets	Program Activities	Description and evaluation
					training program by stimulating children through "writing down alphabet letters" to obtain vocabulary memory, then children are asked to name words that begin with the letters of the given alphabet.	child's speech that have been agreed upon with the interventionist
5.	4 June 2022	• Practice expressive language	✓ Papers provided by the interventionist	✓ Children are able to speak verbally	✓ The implementation of the expressive language training program by stimulating children through "writing down alphabet letters" to obtain vocabulary memory, then children are asked to name words that begin with the letters of the given alphabet. ✓ Children are asked to name the pictures that have been given by interventionist and parents.	✓ Parents practice the steps of the program to stimulate the child's speech that have been agreed upon with the interventionist

Based on the results of assessments that have been carried out on children and the results of interviews with parents (mothers), it was found that the developmental aspects that are the target of family-based early intervention are aspects of expressive language and which are then used as programs. One of the strong reasons why taking expressive language development aspects is the desire on the part of parents who want to develop expressive language skills, especially in children's articulation because children are not clear in their articulation. The program was held 5 times. And after that, the mother did it independently at home but still with the supervision of the interventionist.

CONCLUSION

Early intervention programs are designed to provide services, resources, and support to meet the unique needs of children with special needs. The aim is to encourage the development of children and ultimately reduce costs to society, by minimizing the need for special education. Based on this, through family-sourced early intervention activities, parents are expected to have a competence to intervene early for children so that children are optimal in their developmental stages. Before making early intervention, it is necessary to identify and assess the child and parents first. Furthermore, the results of the assessment that have been carried out are expected to be a reference in making intervention programs for children. The stages of implementing the Child Intervention Program are carried out after parents are given guidance or tutorials on how to provide services to children.

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