Functional Systemic Role Analysis (FSRA) on Early Childhood in the Development of Vocabulary: Insights from Indonesia

Natalina Purba¹, Jumaria Sirait², Isry Laila Syathroh³, Heppy Theresia Sitompul⁴, Elprinawati Purba⁵, Natalia Murni Br. Situmorang⁶, Herman Herman⁷ and Endang Fatmawati⁸

Abstract

This study analyzes the role of functional systemics in vocabulary development in early childhood. Vocabulary development in early childhood plays an important role in the formation of cognitive foundations and more complex language abilities in the future. The study adopts a functional systemic role analysis approach to investigate the relationship between linguistic, cognitive and contextual aspects in vocabulary development. It utilized observations as a research methodology. Data were collected through direct observation of a group of children aged 2-5 years old in their daily environment. Children’s interactions with objects, people and their surroundings were noted for period of August until December 2022 at Methodist Kindergarten in Pematang Siantar. Findings show that there are various functional systemic roles in vocabulary development in early childhood. Some of the roles identified include expressive functions, representative functions and interactional functions. The expressive function involves the use of vocabulary to convey feelings, wishes or opinions. The representational function involves the use of vocabulary to describe objects or events around them. The interactional function involves the use of vocabulary in social interactions with adults or peers.

Keywords: Early Childhood, Development, Functional Systemic Role, Vocabulary, Systemic Functional Linguistics

INTRODUCTION

Vocabulary development in early childhood is an important stage in the language learning process. At this age, children begin to develop the ability to understand and use words in everyday communication. As the brain grows and develops, children learn to recognize objects, understand the relationship between words, and build their vocabulary. In previous studies, various factors have been identified as important influences on early childhood vocabulary development, such as interaction with the environment, the role of the parents, the density of the vocabulary around children, and socio-economic factors. Wiyani (2014) identifies the factors that influence early childhood development as follows.

Heredity factors: this affects a person's intellectual abilities and personality.

Environmental factors: When a child lives in an environment and socializes in it, it will affect the biological makeup and psychological experience of the child before and after he was born. This factor includes the family environment, school and the community.

In fact, environment has a major influence on the development of early childhood vocabulary, because it is an important period for children in obtaining and understanding each word. Therefore, more in-depth supervision is needed from the parents. Parents' motivation and intervention in children's language development will facilitate and accelerate his/her language development through language coaching carried out by the parents in a directed, planned and sustainable manner.

However, to understand more deeply how vocabulary develops in early childhood, a systematic and detailed approach is needed. The results of Helmi’s research (in Anggraini, 2015) explain that the intensity of parents

¹ Universitas HKBP Nommensen Pematangsiantar, Pematang Siantar, Indonesia. E-mail: natalina.purba@uhnp.ac.id
² Universitas HKBP Nommensen Pematangsiantar, Pematang Siantar, Indonesia
³ IKIP Silawangi, Indonesia
⁴ Universitas HKBP Nommensen Pematangsiantar, Pematang Siantar, Indonesia
⁵ Universitas HKBP Nommensen Pematangsiantar, Pematang Siantar, Indonesia
⁶ Universitas HKBP Nommensen Pematangsiantar, Pematang Siantar, Indonesia
⁷ Universitas HKBP Nommensen Pematangsiantar, Pematang Siantar, Indonesia. E-mail: herman@uhnp.ac.id
⁸ Universitas Diponegoro, Indonesia
who invite their children to talk is an important determinant to stimulate the development of children's language skills. When parents are accustomed to inviting children to talk, then indirectly, the vocabulary that children acquire will increase.

In this research, the Functional Systemic Role Analysis (FSRA) approach is used to study vocabulary development in early childhood. FSRA is a linguistic analysis method that aims to identify the role and function of words in the context of the language used by children. This approach allows the understanding of how words interact in sentences and how children attribute meanings to them.

The main objectives of this research are:

To identify the role and function of words in sentences used during early childhood.

To analyze the relationship between the role of words and early childhood vocabulary development.

To explore the environmental and social factors that influence vocabulary development in early childhood.

This research is expected to provide a deeper understanding of vocabulary development in early childhood and its contribution to language learning. The results of this study can provide valuable information for educators, parents, and early childhood education practitioners in designing more effective and targeted learning strategies. In addition, this research can also contribute to the field of early childhood cognitive and linguistic development research and become the basis for further research in this field.

**THEORETICAL FRAMEWORK**

Language is a tool in communicating with others in order to exchange information (Resmi et al., 2023). However, language acquisition does not happen suddenly and can be understood immediately from the beginning of birth. Language acquisition undergoes a process so that humans gain the ability to understand language, produce and use words and sentences in order to establish communication (Simaremare et al., 2023). Language and vocabulary acquisition occurs according to their mother tongue. Where since one is born, one will begin to learn to hear and understand every word spoken by the parents or heard in the surrounding environment. Parents are the first people to guide and teach children vocabulary, starting from the simplest word.

Generally, children will first be able to say the words "mom", "dad" or its equivalent in their mother tongue. It is because parents are the ones whose words they hear first, and the children will record them in their memories. Then parents will also show who is "dad", and who is "mom" is repeatedly, and then the child will understand that "mom" is a person whose characteristics match what his parents show. Not only parents, teachers, family and the surrounding environment also affect the vocabulary obtained by a child which he will then use in communicating using language.

Children also experience a golden period where they experience very rapid development at this stage (Meriyatti, 2016). This rapid development means that children experience the development of all the potential they have at the age of 0-6 years. Suyadi (2013) says that children's intellectual development reaches 50%, at the age of 0-4 years, and at the age of 8 years it reaches 80%. Finally, at the age of 18 years, it reaches 100%. At this golden age, children must be guided so that they are able to understand everything in the world including understanding the words they will use to communicate. At an early age, children will receive education, which will affect their further development.

Suyadi (2013) also asserts that early childhood education (PAUD) encourages the growth and development of children holistically so that they can reach their full potential. When children are given Early Childhood Education (PAUD) by their parents, children will get to know the outside environment soon and better. There, they will experience interactions with the teachers and friends who are diverse. Then the child will start to get a new vocabulary from the outside world which their parents have never taught. The words that children hear every day will be stored in their memory.

Azizah (2014) displays the number of words acquired by children from 3-5 years old based on the results of his research into the following table.
Table 1: Number of words acquired by children aged 3-5 years old

<table>
<thead>
<tr>
<th>Description</th>
<th>Number of words acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 years old child</td>
<td>445</td>
</tr>
<tr>
<td>4 years old child</td>
<td>1128</td>
</tr>
<tr>
<td>5 years old child</td>
<td>1091</td>
</tr>
</tbody>
</table>

It is seen that at this age, the number of words acquired is quite high, based on what children hear and understand in their environment.

In increasing the vocabulary in early childhood, parents can apply the following methods:

- Talk to one’s child often.
- Inviting children to talk will stimulate them so that they will try to produce words in their minds, try to understand what they hear and remember what they say.
- Reading stories to increase vocabulary
  - To make it more interesting, choose a picture storybook, use the book as a prop. The pictures in the book will also help them remember the vocabulary used when reading the story.
- Invite children to sing
  - Children will be more interested and easily absorb lessons in a fun way. Find songs with simple lyrics so that children are easy to imitate and remember them.
- Be diligent in asking children simple questions
  - Asking children simple questions will stimulate them to think more critically and remember the vocabulary they have recorded in their memory to be channeled when answering the question and their vocabulary increases.
  - With more vocabulary, students are more receptive to information, questions and commands that are heard (understood). In fact, they will be more active in speaking, asking questions, answering questions and even responding to pressure. They will express one’s feelings, ideas and thoughts through fluent spoken language (Pramesti, 2015).
- As it is understood, language is a human communication tool. The more vocabulary one has or understands, the better one’s ability to speak both orally and in writing. Explaining a vocabulary is part of language. The more children have it, the more competent the language is. The role of parents, family and the surrounding environment is very influential on the development of early childhood vocabulary (Rahayu: 2014).
- The function of vocabulary that children have understood will also affect their language acquisition and development in the future. Today, children's language development is of great concern. The problem is to stimulate vocabulary and sentences. For example, in the lesson plan designed by the teacher. During implementation, it is written that the new vocabulary in the activity will be checked again before playing, but in practice, even if it is done when you do the activity, you don't know if this is really effective for the game.
- The role of words has a strong relationship with early childhood vocabulary development. In the early stages of development, children learn to understand and use words in everyday communication. Their ability to understand and use vocabulary effectively is crucial in developing more advanced language skills in the future.
- Language development is a very important aspect that needs to be monitored early on. Language reflects your own thoughts. The more articulate you are, the brighter and clearer your mind (Syamsiyah and Diana, 2022:2707).

Here are some ways in which role words can influence early childhood vocabulary development:
Understanding meaning: Young children learn to associate words with objects, people or actions in their world. When they hear and see words in different contexts, they associate meanings with them. This helps them expand their vocabulary understanding.

Self-expression: Children use words to convey their thoughts, feelings and desires. As they develop verbal skills, they can use words to describe their world, ask for help, or share experiences. Through this use of words, children can expand their vocabulary.

Expanding vocabulary: Children learn new words through interactions with adults and their surroundings. When children hear unfamiliar words, they often ask questions about their meaning. This triggers an increase in vocabulary as children actively seek out new information and try to apply it in their conversations.

Improves language comprehension: The ability to understand words is an important skill in a child's language development. With increased vocabulary, children can understand instructions given to them, follow stories read to them, and participate in conversations better.

Helps with reading and writing skills: Good vocabulary development at an early age has a positive impact on a child's future reading and writing skills. Children who have an extensive vocabulary knowledge tend to recognize written words more easily and understand the texts they read.

In order to support early childhood vocabulary development, it is important to provide rich communicative experiences by reading books, singing, talking to the child, and providing a language-stimulating environment. Actively supporting children's vocabulary development will help expand their language skills and provide a strong foundation for more complex language development later in life. Based on Permendikbud No. 146 of 2014 and the theory of vocabulary according to Rahmawati and Hurlock (in Ardian, 2017: 31-32), the main elements of linguistic vocabulary for children aged 3-4 years are children who can understand receptive and expressive language and are able to master basic vocabulary types, general vocabulary, special vocabulary and word tasks.

But there are several factors that need to be understood in early childhood vocabulary development. There are several environmental and social factors that play an important role:

Interaction with adults: Rich interactions with adults, such as parents, family members and caregivers, play an important role in a child's vocabulary development. When children interact with adults who talk to them regularly, they are exposed to a wider vocabulary and get natural language enrichment.

Language environment: Children who grow up in a language-rich environment are more likely to develop a wider vocabulary. This language environment includes reading books, frequent conversations, singing, and playing games that involve words. When children are surrounded by words and hear good language, they tend to acquire vocabulary better.

Word stimulation: Young children need appropriate stimulation to develop vocabulary. This can include introducing them to new objects, concepts and situations. Through hands-on experiences, such as visits to playgrounds, zoos or supermarkets, children can associate words with real experiences, which helps them expand their vocabulary.

Role models: Children tend to imitate the behavior and language of adults around them. If adults in the child's environment often use rich vocabulary and speak with good language, children will imitate and adopt this style of language. Therefore, good role models are essential for children's vocabulary development.

Opportunities to interact with peers: Interaction with peers can also have an effect on early childhood vocabulary development. When children interact with peers, they engage in conversations, role play and share ideas. This provides opportunities for children to use and expand their vocabulary in a social context.

Responsive approach to communication: Adults' responsiveness to children's language and communication can provide a positive boost in vocabulary development. Responding attentively to the child's communication, repeating the words the child uses, and asking questions helps the child expand their vocabulary in a purposeful way.
It is important to create an environment that stimulates language, provides diverse opportunities to interact with adults and peers, and gives responsive attention to children’s communication. With the right environmental and social factors, young children can develop vocabulary well and gain a solid foundation in their language skills. Responding appropriately to stimulus is the key to acquiring native language (Fatmawati, 2015). This means that the environment such as parents, family, and teachers is a stimulus that affects children's response to language. The better the child supports himself in his environment, the better the quality of his speech will be.

RESEARCH METHODOLOGY

In this study, both quantitative and qualitative approaches are used. Data is collected through observations of young children interacting with the environment and using language. Data analysis is conducted using FSRA to identify the role of words in sentences and analyze the relationship with early childhood vocabulary development.

The study used a descriptive research design with a qualitative approach to examine the relationship between functional systematic roles and early childhood vocabulary development. Data was collected in the natural settings or environments (Ngongo et al., 2022; Sutrisno et al., 2023).

Qualitative research is a research process that aims to understand human or social phenomena by constructing a complete and complex picture that can be expressed in words, presenting informants' views in detail, and carried out in appropriate conditions (Walidin, Saifullah & Tabrani, 2015; Andayani et al., 2023). Sugiyono (2012: 13) states that descriptive research is conducted to determine the value of an independent variable, one or more variables (free), without making comparisons or relationships with other variables (Hulu et al., 2023; Herman et al., 2023).

The source of data were students at the TK Methodist Pematang Siantar (Methodist Kindergarten) for the 2022/2023 academic year aged 3 - 5 years, totaling 65 students. The sampling technique was used in this research with a total of 23 students. The minimum sample was determined because parents were constrained by their willingness to involve their children as data in this research. The period of this research was in the odd semester during August until December 2022.

The data collection techniques were through questionnaires and documentation. The research instrument included a questionnaire regarding the development of language vocabulary in children aged 3 - 5 years, including indicators of child development achievements in accordance with Minister of Education and Culture Regulation No. 146 of 2014 (understanding receptive and expressive language) as well as children's vocabulary theory (Rahmawati and Hurlock in Syamsiyah and Diana, 2022), namely basic vocabulary (kinship terms, names of body parts, condition words and pronouns), general vocabulary (nouns, verbs, and adjectives) and special (color vocabulary, number vocabulary, and time vocabulary).

FINDINGS

Table 2: The calculation of early childhood's vocabulary acquisition

<table>
<thead>
<tr>
<th>No</th>
<th>Vocabularies</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>People</td>
<td>160</td>
<td>86,9</td>
</tr>
<tr>
<td>2</td>
<td>Words</td>
<td>220</td>
<td>68,3</td>
</tr>
<tr>
<td>3</td>
<td>Noun</td>
<td>161</td>
<td>77,7</td>
</tr>
<tr>
<td>4</td>
<td>Verb</td>
<td>575</td>
<td>71,4</td>
</tr>
<tr>
<td>5</td>
<td>Adjective</td>
<td>230</td>
<td>90,9</td>
</tr>
<tr>
<td>6</td>
<td>Activities</td>
<td>184</td>
<td>80</td>
</tr>
<tr>
<td>7</td>
<td>Body Parts</td>
<td>345</td>
<td>83,3</td>
</tr>
<tr>
<td>8</td>
<td>Pronoun</td>
<td>230</td>
<td>83,3</td>
</tr>
<tr>
<td>9</td>
<td>Animals</td>
<td>207</td>
<td>90</td>
</tr>
<tr>
<td>10</td>
<td>Nature</td>
<td>207</td>
<td>60</td>
</tr>
<tr>
<td>11</td>
<td>Households</td>
<td>230</td>
<td>71,4</td>
</tr>
<tr>
<td>12</td>
<td>Clothing</td>
<td>230</td>
<td>71,4</td>
</tr>
<tr>
<td>13</td>
<td>Food and Drink</td>
<td>184</td>
<td>80</td>
</tr>
<tr>
<td>14</td>
<td>Emotions</td>
<td>230</td>
<td>90,9</td>
</tr>
</tbody>
</table>
The research conducted at one kindergarten school in Pematang Siantar revealed a significant issue of low mastery of Indonesian vocabulary among children in their early aged. Based on the table and figure above, it was clear that the vocabulary acquired reached percentage of 90.9% for adjectives and emotions followed by animals 90%. While the lowest vocabulary acquired by the children was nature for 60%. This deficiency is attributed to infrequent usage of the English language in daily life and a lack of support from family and social environments. To address this, a shift in the learning approach is recommended, advocating for more interactive and enjoyable methods such as singing. Involving children in daily Indonesian-English mixing language activities within their family and social surroundings is also suggested.

Similarly, a study on the acquisition of vocabulary in 3–5-year-old children at TK Aisyiyah Demangan Sambi Boyolali and Anak Ceria Universitas Airlangga found variations in vocabulary development among different age groups. Factors influencing vocabulary acquisition include family, school, and play environments, as well as exposure to television, digital games, and storybooks. The use of Javanese dialects within Indonesian language emerged as a factor influenced by home environments. The variation in vocabulary acquisition among age groups is attributed to individual differences, with some children demonstrating the ability to mimic and use English, possibly influenced by media exposure or interactions in their surroundings.

Connecting these findings to the role of functional systemics in early childhood vocabulary development, it is evident that interpersonal meta-function plays a crucial role. This function revolves around language's use in social interaction, conveying messages, building relationships, and expressing attitudes. Understanding interpersonal meta-function helps analyze social interactions and comprehend language's role in constructing effective interpersonal relationships.

In the context of early childhood vocabulary development, vocabulary serves as a key element in sentence formation and language as a tool for interpersonal interactions. The analysis aims to explore the role of vocabulary in language, emphasizing its importance in early childhood. Introducing vocabulary early allows children to build a robust language knowledge base, enhancing language development and preparing them for success in various life aspects.
Factors influencing vocabulary development in early childhood include creating a language-rich environment, fostering responsive interactions, promoting literacy, and providing opportunities for communication with adults and peers. The significance of words in early childhood vocabulary development cannot be overstated. Proper word usage and a solid vocabulary foundation contribute to improved communication skills, better understanding of instructions, enhanced reading and writing abilities, expanded knowledge of language and the world, and improved cognitive skills.

**DISCUSSION**

The results discussed in the analysis of the role of functional systemic in early childhood vocabulary development are related to Interpersonal Meta-function, where Interpersonal meta-function is the function of language to interact with each other (Pangesti: 2005). Interpersonal meta-function is concerned with the use of language in social interaction, to convey messages, build relationships, and express the speaker's attitudes, feelings, or goals. Its main focus is on how messages and social meanings are constructed through language. Interpersonal meta-function helps us understand how language is used in social contexts and how messages and social meanings are constructed through language. By understanding this concept, one can study and analyze social interactions in language and understand the role of language in building effective interpersonal relationships.

Vocabulary is an element in the formation of sentences for language, and language as a tool for one's interactions with each other. The purpose of this analysis is to find out what role vocabulary plays in language so that it must be taught and applied from an early age. What are the factors of vocabulary development in early childhood and the relationship between the role of words and early childhood vocabulary development.

By introducing vocabulary from an early age, children have a longer time to build a rich knowledge and understanding of language. This gives them an edge in more advanced language development and prepares them for success in various aspects of life. It is important to create a language-rich environment, provide responsive interactions, encourage literacy, and provide opportunities to talk and interact with adults and peers as contributing factors to optimal vocabulary development in early childhood.

The role of words is very important in early childhood vocabulary development. Through the proper use of words and a good understanding of vocabulary, children can improve their communication skills, understand instructions, read and write better, expand their language and world knowledge, and improve their thinking skills. Markus, et al. (2017) have shown in their research that the most important thing for everyone is their linguistic vocabulary. Vocabulary mastery can affect language skills and the way a person interacts with others.

**CONCLUSION**

The role of functional systemics in early childhood vocabulary development is seen in several aspects. First, interpersonal meta-function helps children in social interaction and building relationships with others through language. Rich social interactions provide opportunities for children to be exposed to a wider vocabulary through conversations and interactions with adults and their peers.

Secondly, the use of words in interpersonal contexts allows children to convey their attitudes, feelings and goals. By using appropriate vocabulary in social interactions, children can express their wishes, requests, greetings and express their feelings more effectively. Third, understanding the role of language in interpersonal relationships helps children understand the importance of appropriate vocabulary in social contexts. Children learn that words can be used to build good relationships with others, express empathy and show mutual respect. Fourth, through social interaction, children can naturally expand their vocabulary. In conversations with adults and peers, children are exposed to new words, learn how they are used, and expand their understanding of the world around them.

In order to support early childhood vocabulary development by utilizing functional systemic roles, it is important to create an environment rich in social interaction and responsive language use. Providing opportunities for children to engage in diverse conversations, using appropriate words in interpersonal
contexts, and encouraging understanding of the role of language in social relationships can help increase their vocabulary.

Thus, this study shows that the role of functional systemics, especially interpersonal metafunction, has a significant contribution in early childhood vocabulary development through social interaction, the use of words in interpersonal contexts, understanding the role of language in interpersonal relationships, and expanding vocabulary through interactions with adults and peers.

REFERENCES


Functional Systemic Role Analysis (FSRA) on Early Childhood in the Development of Vocabulary: Insights from Indonesia
