

Language Development in Children From The Perspective of The Philosophy of Science

Puji Rahayu^{1,*}, Ifada Novikasari²

Corresponding author. Email: 244120300011@mhs.uinsaizu.ac.id

^{1–2} Postgraduate State Islamic University Professor Kiai Haji Saifuddin Zuhri Purwokerto, Indonesia

Abstract

Today's children often use digital technology, which allows them to access information quickly. However, there are concerns that excessive use of technology can reduce the social interactions that are essential for language development. This research examines language development in children from the perspective of the philosophy of science, with a focus on understanding how this process occurs in the context of scientific thinking. The surprising phenomenon that was raised was the fact that children's language development is often considered natural, even though it involves complex cognitive processes and is based on certain epistemological principles. This research was conducted in the educational environment of elementary school children. The aim is to analyze the relationship between the process of language development and philosophical approaches in the theory of knowledge. The method used is qualitative with a phenomenological approach, involving observation and in-depth interviews with educators and parents. The research results show that children's language development is not just a matter of stimulus-response, but is also influenced by their understanding of the world through social interaction and direct experience, which is in line with Lev Vygotsky's thinking.

Keywords: Language, Children, Philosophy of Science

1. Introduction

Language development in children is one of the fundamental aspects in the process of education and character formation, because language not only functions as a means of communication, but also as a medium for thought and self-expression (Aminah et al., 2020, p. 3). According to Dhieni, language is a tool used to establish contact or communication between members of society, including conveying thoughts, feelings and personal desires (Suhartono, 2005). In the context of early childhood education, language development has an important role in shaping children's cognitive, social and emotional abilities (Roopnarine & Johnson, 2015). However, language development cannot only be seen from a purely linguistic perspective, but can also be viewed from the perspective of philosophy of science.

Philosophy of science, as a discipline that explores the nature of knowledge, provides a foundation for a deeper understanding of how language knowledge is formed and developed in children. Siswomihardjo stated that the philosophy of science developed from the philosophy of knowledge which emphasized science. His view shows that the philosophy of science focuses more on the basics of science such as ontology, epistemology and axiology (Andayani & Ganis Sukoharsono, 2023, p. 107). Philosophy of science includes ontological (the nature of language), epistemological (how children acquire language knowledge) and axiological (values contained in

language use) aspects. Through this approach, we can better understand how the process of language development is not only mechanical, but also involves critical reflection and a deeper understanding of the function and role of language in a child's life.

Studies on language development from the perspective of the philosophy of science highlight that language is a phenomenon rich with knowledge, moral and cultural values that are transmitted through social interactions and learning processes. Language knowledge is not just the ability to speak or write, but also includes the ability to think critically, understand the world, and assess the information obtained (Bu'ulolo, 2021). Apart from that, language can be understood functionally, namely as a means to discuss social problems until these problems can be resolved and life becomes more orderly. Language acts as a tool and result of social interaction, used to facilitate communication. The more often someone interacts socially, the more honed their language skills become. This shows that language is closely related to human thought processes, where language ability is a basic ability that can develop into skills with the support of cognitive abilities (Saputro & Pakpahan, 2021).

According to Vygotsky, language is a psychological tool that humans use to regulate behavior, plan, remember and solve problems. This means that language, whether directly or indirectly, influences thinking even though it is not spoken or practiced. In constructivism theory, Vygotsky laid the foundation for social constructivism which emphasizes the relationship between individuals and their social backgrounds and roles. Vygotsky's thinking is different from Piaget's cognitive constructivism, which focuses more on individuals in the learning process. Vygotsky's social constructivism believes that learning involves a process of enculturation, where an individual's understanding is influenced by the environment and culture around him. In Vygotsky's view, language is an inseparable tool in this process, because language is the most important psychological tool and is an integral part of all forms of social interaction (Saputro & Pakpahan, 2021).

Apart from that, language has an important role in developing children's character (Devianty, 2017). The use of language reflects an individual's thought patterns, attitudes and morality. Children learn to use language as a tool

to communicate politely, respect the opinions of others, and express their ideas and feelings responsibly. In this context, language development is closely related to character formation, where good language skills also reflect the ethical values internalized by children.

Previous research related to this study was research carried out by Sampiril Taurus Tamaji with the title Arabic Language Learning in the Philosophy of Science Perspective explaining that language is a tool for human communication, expression of emotions, manifestation of human thoughts in everyday life, especially in searching for the essence of truth in life (Tamaji, 2020).

This research aims to examine language development in children from the perspective of the philosophy of science, with a focus on three main aspects: (1) ontology of language in children, (2) epistemology of language in the learning process, and (3) axiology in the application of language as part of development character. Through this approach, it is hoped that a more comprehensive understanding can be found regarding the process of language development in children and its implications for character education and children's critical thinking.

This research is important because it contributes to an understanding of language development that is not only based on technical aspects of linguistics, but also touches on deeper philosophical dimensions. Apart from that, this research also provides new insights for educators in designing curricula and learning methods that support children's language development, which are based on philosophical thinking of science.

2. Research Methods

This research uses qualitative methods with a phenomenological approach to explore an in-depth understanding of language development in children from the perspective of the philosophy of science (Rukin, 2019). The phenomenological approach focuses on the subjective experiences of individuals, in this case children, teachers and parents, in the language learning process. With this approach, researchers seek to understand how their experiences interact with language and how the philosophy of science, especially ontological, epistemological and axiological aspects, influences this process.

SDN 3 Karangcengis was chosen because this school represents the social and cultural context that supports research. The school environment, interactions between students, and the way language is taught in the school are relevant to analyze in relation to children's language development. Grade 5 of elementary school is an important period for children's language development. At this age, children begin to develop more complex language skills, including abstract and logical thinking. Researchers want to see how language develops occurs in this phase, which is considered critical in a child's cognitive development and communication skills.

The research subjects consisted of early childhood children who were involved in language learning activities in elementary schools, teachers who taught language, and parents who supported children's language development at home. The aim of selecting these subjects was to obtain a comprehensive perspective regarding their

experiences and views regarding language development. Through in-depth interviews, researchers can explore each subject's views on how language plays a role in forming children's knowledge and character.

Data will be collected through several techniques, including in-depth interviews, direct observation and documentation (Sugiyono, 2021). In-depth interviews will be conducted with children, teachers and parents to reveal their experiences firsthand. Direct observation will provide an overview of the child's interactions with language in the learning context, while documentation will include notes on the child's learning and work which can provide further insight into their language development.

Data analysis will be carried out by means of data reduction, thematic grouping, and extracting essences (Sugiyono, 2021). Data obtained from interviews and observations will be filtered to find themes that are relevant to language development, then grouped based on ontological, epistemological and axiological aspects. In this way, researchers can draw the essence of the research subjects' experiences and understand more deeply the influence of the philosophy of science in children's language development.

The results of the research are expected to provide new insights into how the process of children's language development can be understood from the perspective of the philosophy of science, as well as its implications for character education and critical thinking skills. It is also hoped that this research can contribute to educators in designing more effective teaching methods in supporting children's language development, so that language education does not only focus on technical skills, but also on the formation of moral and ethical values. Methods that describe the type or nature of research, data sources, data, data collection techniques, data collection instruments, data collection procedures, and data analysis methods.

3. Results and Discussion

This research succeeded in identifying three main dimensions of children's language development, namely ontology, epistemology and axiology.

3.1. *Ontology of Language in Children*

Ontology is a branch of essence theory that discusses the nature of existing things (Rusdiana, 2018). Chomsky's theory, known as theory innateness, states that language ability is an innate potential that every human being has from birth. According to Chomsky, humans do not need to learn language completely from scratch, but rather already have the mental structure or innate tools to understand and produce language. This ability allows humans to quickly and easily learn languages, simply by being exposed to the language environment around them. In other words, language is not entirely the result of external learning, but part of natural human capacities (Chamidiyah, 2015).

From an ontological perspective, it was found that language is a phenomenon inherent in children's lives. Children understand and use language as a tool to express themselves and interact with their environment. Observational data shows that children naturally adapt to the language around them through social interaction, playing, and listening to stories. Language is not just a means of communication, but also a part of their identity.

From an ontological point of view, language is an essential and inherent part of children's lives. Ontology here refers to the study of the existence or essence of something, which in this case is language. Language is seen as something natural for children, which not only serves as a tool to communicate but also to express themselves and interact with their social environment. Children instinctively adapt to the language around them through various activities such as social interaction, playing, and listening to stories. Observations show that children learn language in a very natural way, without coercion, because language becomes part of their daily life. Apart from that, language also plays an important role in forming their identity. Language not only reflects communication skills, but also influences how children see themselves and understand their position in society. So, language is not only a means of speaking, but also an important part of developing a child's identity.

From an ontological perspective, language not only functions as a tool, but also as an integral part of children's life experiences. When children use language, they not only convey information, but also express feelings, ideas, and views that reflect how they understand their position in a social context.

Educators must be aware that children's interactions with language can influence the way they understand themselves and their environment. For example, through the use of language in various situations, children learn to express emotions, develop empathy, and understand norms social norms. In other words, the language experiences they experience will shape the way they think and behave. Hence, approach

education that pays attention to this ontological dimension is important for helping children develop a more comprehensive understanding of themselves and their relationships with others.

3.2. Epistemology of Language Development

D.W. Hamlyn in Paul Edwards says that epistemology or theory of knowledge is a branch of philosophy that is concerned with the nature and scope of knowledge, and its foundations and accountability for statements of knowledge held (Yulika, 2017, p. 70). Epistemology is concerned with the way humans acquire knowledge, and in the context of children's language development, the focus is on how children learn and build linguistic knowledge.

In the epistemological dimension, research shows that children acquire language knowledge through an active and interactive process. They learn language through exploring the environment around them, which allows them to encounter words and language structures directly. Interviews with teachers and parents revealed that children learn language through exploration, question and answer, and experimentation. This process emphasizes the importance of direct experience and reflection in language learning. Reflection on these experiences also plays an important role, because children can reflect on what they have learned and relate it to their life experiences. Children not only memorize vocabulary, but also understand the meaning and function of language in a social context. This confirms that language acquisition is closely related to the way children construct their knowledge about the world. This process of knowledge construction reflects how children integrate language into their understanding of the social and cultural environment. Thus, language becomes an important tool in the learning process that helps children interact with the world and understand their position in it.

In an epistemological context, this research underlines the importance of learning methods that encourage children's active involvement. Effective language education must create opportunities for children to explore and learn from their own experiences. Effective language education should not only present information passively, but also create opportunities for children to be directly involved in the learning process. By providing space for children to explore and learn from their own experiences, educators help them develop a deeper understanding of language.

An experience-oriented approach will help children build a deeper understanding of language and its meaning. Through exploration and interaction, children can feel how words and language structures function in everyday communication, so they can relate language learning to their life experiences. This supports the formation of stronger and more relevant knowledge, so that children can develop deeper and more significant meaning from the language they learn.

3.3. Axiology and Language Development

Axiology is a branch of philosophy that studies the values or norms of a science (Rusdiana, 2018). The axiological aspect highlights the values contained in the use of language. The research results show that language use reflects the norms and ethics taught in the family and school environment. In this context, the family environment and formal education play an important role in shaping children's understanding of how to use language appropriately. Children learn to respect differences, empathize, and communicate politely. Observations in learning situations reveal that positive interactions between children and teachers support character development through ethical and responsive use of language. When teachers model ethical and responsive language use, children are more likely to imitate that behavior. This creates an environment where ethical values can develop, and children feel valued and heard. Thus, good use of language not only serves as a means of communication, but also as a means of building children's character and morality, which contributes to the formation of a more inclusive and empathetic society.

The axiological aspect emphasizes that language education must include teaching ethical and moral values. Language is the medium through which these values are taught and internalized by children. Therefore, it is important for educators to instill positive values through the use of language that supports constructive and empathetic communication. Language education focuses not only on linguistic aspects, but also on developing children's character, which is very important for forming responsible and caring individuals in society.

The results of this research indicate that language development in children must be seen from a holistic perspective, integrating ontology, epistemology and axiology. Overall, this research recommends that educators and policy makers consider the integration of these three dimensions in curriculum development and language teaching methods. Thus, language education will not only produce linguistic skills, but also form individuals who think critically, are ethical, and are able to interact well in society. It is

hoped that this comprehensive approach can maximize the potential for language development in children and support more holistic character education.

4. Conclusion

This research concludes that language development in children can be understood comprehensively through three dimensions of philosophy of science: ontology, epistemology, and axiology. Ontology: Language is an integral part of a child's life experience. Children not only use language as a means of communication, but also as a means of understanding themselves and their environment. Daily experiences, social interactions, and play activities are important contexts in the language learning process. Epistemology: Children learn language actively through exploration and interaction. The language learning process must provide opportunities for children to ask questions, try and reflect on their experiences. With an interactive approach, children are able to develop a deeper understanding of the function and meaning of language in a social context. Axiology: The use of language reflects the moral and ethical values taught in the family and educational environment. Therefore, language education must include teaching positive values, such as empathy and respect for differences. This is important to shape children's character and equip them with ethical communication skills. Overall, this research emphasizes the need for a holistic approach in language education, which integrates ontological, epistemological and axiological aspects. Thus, language education does not only focus on mastering linguistic skills, but also on forming individuals who are critical, ethical, and able to interact positively in society. This research provides recommendations for educators and policy makers to design curricula and learning methods that support children's overall language development.

References

- Aminah, S., Zuraida, & Emilda. (2020). *Bahasa Indonesia Untuk Perguruan Tinggi*. Lembaga KITA.
- Andayani, W., & Ganis Sukoharsono, E. (2023). *Filsafat Ilmu Akuntansi*. UB Press.
- Bu'ulolo, Y. (2021). Membangun Budaya Literasi Di Sekolah. *BIP: Jurna Bahasa Indonesia Prima*, 3(1), 16–23.
- Chamidiyah. (2015). Pembelajaran Melalui Brain Based Learning Dalam Pendidikan Anak Usia Dini A . Pendahuluan Belajar adalah suatu proses yang kompleks yang terjadi pada semua orang dan berlangsung seumur hidup , sejak dia bayi sampai ke liang lahat (Sardiman , 2001 : 1). *Jurnal Penelitian Pendidikan Islam*, 10(2), 279.
- Devianty, R. (2017). Peran Bahasa Indonesia Dan Bahasa Daerah Dalam Pendidikan Karakter. *Jurnal Pendidikan IPS*, 1(2), 79–101.
- Roopnarine, J. L., & Johnson, J. E. (2015). *Pendidikan Anak Usia Dini: Dalam Berbagai Pendekatan*. Prenada Media.
- Rukin. (2019). *Metodologi Penelitian Kualitatif*. Yayasan Ahmar Cendekia Indonesia.
- Rusdiana. (2018). *Filsafat Ilmu*. Tresna Bhakti Press.
- Saputro, M. N. A., & Pakpahan, P. L. (2021). Mengukur Keefektifan Teori Konstruktivisme Dalam Pembelajaran. *JOEAI (Journal of Education and Instruction)*, 4(1), 24–39.
- Sugiyono. (2021). *Metode Penelitian Kualitatif, Kuantitatif dan R&D*. Alfabeta.
- Suhartono. (2005). *Pengembangan Keterampilan Bicara Anak Usia Dini*. Departemen Pendidikan Nasional.
- Tamaji, S. T. (2020). Pembelajaran Bahasa Arab dalam Perspektif Filsafat Ilmu. *Al-Fakkaar: Jurnal Ilmiah Pendidikan Bahasa Ar*, 1(2), 80–104.
- Yulika, F. (2017). *Epistemologi Minangkabau: Makna Pengetahuan dalam Filsafat Adat Minangkabau*. Institut Seni Indonesia Padangpanjang.