

EXPLORING VOCABULARY DEVELOPMENT IN A TWO-YEAR-OLD: A CASE STUDY OF SALMA THROUGH THE LENS OF PIAGET'S COGNITIVE DEVELOPMENT THEORY

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Abstrak

Jurnal ini mengeksplorasi perkembangan kosakata anak berusia dua tahun bernama Salma, menggunakan teori perkembangan kognitif Jean Piaget sebagai kerangka analitis. Penelitian ini mengadopsi desain studi kasus kualitatif untuk mengeksplorasi perkembangan kosakata. Dengan mengamati interaksi Salma dalam lingkungan alaminya dan melalui wawancara orang tua, penelitian ini mengidentifikasi tonggak penting dalam perolehan bahasanya. Temuan utama meliputi penguasaan Salma terhadap objek permanen, keterlibatan dalam permainan simbolik, dan pembentukan frasa dua kata, yang semuanya selaras dengan tahap sensorimotor Piaget. Peran pengasuhan yang responsif dan kualitas bicara ibu disorot sebagai faktor penting dalam pertumbuhan kosakata Salma yang cepat. Studi kasus ini menggarisbawahi pentingnya menyediakan lingkungan yang kaya bahasa dan mendorong integrasi wawasan teoritis Piaget ke dalam praktik pendidikan anak usia dini untuk mendorong perkembangan kognitif dan linguistik.

Kata Kunci: Kosakata, Kognitif

Abstract

This journal explores the vocabulary development of a two-year-old child named Salma, using Jean Piaget's cognitive development theory as the analytical framework. This research adopts a qualitative case study design to explore vocabulary development. By observing Salma's interactions within her natural environment and through parental interviews, this research identifies significant milestones in her language acquisition. Key findings include Salma's mastery of object permanence, engagement in symbolic play, and the formation of two-word phrases, all of which align with Piaget's sensorimotor stage. The role of responsive parenting and the quality of maternal speech are highlighted as crucial factors in Salma's rapid vocabulary growth. This case study underscores the importance of providing language-rich environments and encourages the integration of Piaget's theoretical insights into early childhood education practices to foster cognitive and linguistic development.

Keywords: Vocabulary, Cognitive

INTRODUCTION

Vocabulary development in early childhood is a critical aspect of cognitive growth, influencing various domains such as social interaction, cognitive processing, and academic achievement. Jean Piaget's theory of cognitive development provides a foundational framework for understanding how children acquire language and develop vocabulary. According to (Piaget, 1971), children at the age of two are in the sensorimotor stage, which typically spans from birth to approximately 2 years old. During this stage, children learn about

the world through their senses and actions, gradually moving from reflex-based interactions to more complex, goal-directed behaviors.

Piaget's sensorimotor stage is characterized by the development of object permanence, the understanding that objects continue to exist even when they are not visible. This cognitive milestone is crucial for language development, as it allows children to form mental representations of words and objects, facilitating the process of naming and vocabulary acquisition. Piaget asserted that "intelligence is not what we know but what we do when we don't know." This highlights the active role children play in exploring their environment and constructing knowledge, including vocabulary.

Research supports the idea that the early years are a pivotal period for language acquisition. (Hart & Risley, 1995) conducted a seminal study demonstrating that the amount and quality of language exposure significantly impact vocabulary development. They found that by the age of three, children from more talkative and responsive households had significantly larger vocabularies compared to their peers from less linguistically rich environments. This underscores the importance of providing children with abundant and varied language interactions to foster vocabulary growth.

Further research by (Hoff, 2006) emphasizes the role of social interactions in language development. Hoff found that children's vocabulary growth is strongly associated with the quantity and quality of maternal speech. According to Hoff, "the diversity and complexity of the language children hear in their everyday interactions with caregivers are robust predictors of their vocabulary development." This aligns with Piaget's notion that cognitive development is an active process, influenced by the child's interactions with their environment and the people within it.

Understanding vocabulary development in 2-year-old children requires an appreciation of both Piaget's cognitive development theory and empirical research highlighting the significance of language-rich interactions. By examining the specific case of Salma, a 2-year-old child, this journal aims to explore how these theoretical and empirical insights manifest in real-world contexts, shedding light on the dynamic process of early language acquisition.

RESEARCH METHODOLOGY

Research Design

This research adopts a qualitative case study design to explore the vocabulary development of a two-year-old child, Salma, using Jean Piaget's cognitive development theory as the theoretical framework. The case study approach allows for an in-depth, contextual analysis of Salma's language acquisition and cognitive growth.

Participant

1. Subject: Salma
2. Age: two-year-old child.
3. Language used: Indonesian
4. Selection Criteria: Salma is selected based on her age and developmental stage, which aligns with Piaget's preoperational stage (ages 2-7). She exhibits typical developmental milestones for her age group.

Data Collection Methods

1. Naturalistic Observation: Observations will be conducted in Salma's natural environments, such as at home and during playtime, to capture spontaneous language use.
2. Duration: 2 weeks, with observations made for 1 hour each day.
3. Parental Interviews: Semi-structured interviews with Salma's parents to gather background information on her language development history and daily language exposure.

Data Analysis

1. Thematic Analysis: The transcribed interview data and observational notes will be analyzed thematically to identify recurring patterns and themes related to Salma's vocabulary development.
2. Developmental Analysis: Salma's vocabulary will be analyzed using Piaget's stages of cognitive development, focusing particularly on the sensorimotor stage. Specific attention will be given to how her vocabulary aligns with key cognitive developmental milestones.
3. Interaction Analysis: Detailed analysis of recorded interactions will be conducted to examine the context and frequency of Salma's vocabulary use, as well as the influence of her environment and interactions with caregivers on her language development.

FINDING AND DISCUSSION

Finding of Vocabulary Development in Salma

Observation Overview

During the two-week observation period, Salma's language use and cognitive development were closely monitored in various natural settings, including her home and play environments. Each session lasted approximately one hour daily, providing a comprehensive understanding of her vocabulary usage and cognitive milestones as described by Piaget's theory.

Initial Vocabulary Assessment

At the beginning of the study, Salma demonstrated a vocabulary consisting primarily of basic nouns and verbs. Her initial vocabulary list included common objects and actions encountered in her daily life, such as:

- **Nouns:** "bola" (ball), "boneka" (doll), "kucing" (cat), "rumah" (house)
- **Verbs:** "makan" (eat), "minum" (drink), "tidur" (sleep), "main" (play)

Vocabulary Expansion and Cognitive Milestones

As the observation progressed, Salma's vocabulary expanded significantly. This growth was characterized by the inclusion of more complex words and phrases, indicating her cognitive development in line with Piaget's sensorimotor stage. Key observations included:

a. Object Permanence and Naming:

Salma showed a clear understanding of object permanence, as evidenced by her ability to name objects that were not in her immediate sight. For example, she correctly referred to her "boneka" (doll) even when it was in another room, demonstrating her cognitive ability to form mental representations of objects.

b. Symbolic Play:

Engaging in symbolic play, Salma often used objects to represent other items, such as using a stick to represent a spoon. This behavior aligns with Piaget's theory that children at this stage begin to use symbols to represent objects, reflecting an advancement in cognitive processing.

c. Two-Word Phrases:

Salma began to construct simple two-word phrases, such as "makan nasi" (eat rice) and "main bola" (play ball). This development indicates her growing ability to combine words meaningfully, a critical step in language development and cognitive complexity.

Interaction with Caregivers

The role of Salma's interactions with her caregivers was crucial in her vocabulary development. The following themes emerged from the analysis of these interactions:

a. Responsive Parenting:

Salma's parents frequently engaged in responsive interactions, providing her with immediate feedback and reinforcement when she used new words or phrases. This responsiveness likely contributed to her rapid vocabulary growth and confidence in language use.

b. Quality of Maternal Speech:

The diversity and richness of Salma's mother's speech were evident during the observations. She often used varied and complex sentences, exposing Salma to a broad range of vocabulary. This aligns with Hoff's research, highlighting the importance of maternal speech quality in vocabulary development.

c. Encouraging Exploration:

Salma's caregivers encouraged her to explore her environment, ask questions, and express herself. This support fostered an environment conducive to active learning and cognitive development, resonating with Piaget's emphasis on the active role of children in their learning process.

Parental Interviews

Interviews with Salma's parents provided additional insights into her language exposure and development. Key points from the interviews included:

a. Language Environment:

Salma was regularly exposed to conversations in Indonesian, with occasional exposure to English through media and interactions with extended family members. This bilingual environment may have contributed to her cognitive flexibility and vocabulary acquisition.

b. Parental Strategies:

Her parents reported using various strategies to support her language development, such as reading books, singing songs, and engaging in daily conversations about routine activities. These strategies align with best practices for fostering early vocabulary growth.

Discussion of Vocabulary Development in Salma

1. Cognitive Development and Vocabulary Acquisition

Piaget's Sensorimotor Stage

Jean Piaget's theory of cognitive development provides a valuable framework for understanding Salma's vocabulary acquisition. During the sensorimotor stage (birth to approximately 2 years old), children learn about the world through their senses and actions. Salma's ability to name objects not immediately visible, such as her "boneka" (doll), indicates her mastery of object permanence, a crucial cognitive milestone for language development. This aligns with Piaget's view that cognitive milestones like object permanence are essential for language development.

Symbolic Play and Language Use

Salma's engagement in symbolic play, such as using a stick to represent a spoon, demonstrates her growing ability to use symbols, a fundamental aspect of language. This behavior reflects her cognitive development and aligns with Piaget's theory that symbolic thought emerges towards the end of the sensorimotor stage, laying the groundwork for language. Salma's progression from single words to two-word phrases, such as "makan nasi" (eat rice), indicates her ability to combine symbols to create more complex meanings, a critical step in language acquisition.

2. Environmental Influences on Vocabulary Development

Quality of Caregiver Interaction

Research underscores the importance of caregiver interaction in early language development. Salma's parents played a crucial role in her vocabulary acquisition through their responsive and engaging interactions. Studies by (Hart & Risley, 1995) and (Hoff, 2006) emphasize that the quantity and quality of language exposure significantly impact vocabulary development. Salma's parents provided a rich linguistic environment by frequently engaging in conversations with her, using varied and complex sentences, and offering immediate feedback. This approach aligns with

Hoff's findings that the diversity and complexity of maternal speech are strong predictors of vocabulary growth.

Encouragement of Exploration

Encouraging exploration and curiosity is another key factor in Salma's language development. Piaget's theory posits that children are active learners who construct knowledge through interactions with their environment. Salma's caregivers supported this by encouraging her to explore, ask questions, and engage in various activities, fostering an environment conducive to cognitive and linguistic growth.

3. Implications for Early Childhood Education

Integrating Piaget's Theory into Practice

Salma's case study highlights the practical applications of Piaget's theory in early childhood education. Understanding cognitive milestones can help educators create developmentally appropriate learning experiences. Activities promoting object permanence and symbolic play can support language development.

Importance of Language-Rich Environments

The findings emphasize the importance of providing children with language-rich environments. Caregivers and educators should engage children in meaningful conversations, read books, sing songs, and encourage play that stimulates cognitive and linguistic development. These practices are supported by empirical research and Piaget's theoretical framework, highlighting the role of social interactions in language acquisition.

CONCLUSION

The case study of Salma, a two-year-old, provides valuable insights into vocabulary development through Jean Piaget's theory of cognitive development. Observations and parental interviews revealed significant vocabulary growth, highlighting the importance of cognitive milestones and environmental factors.

Salma exhibited key milestones of Piaget's sensorimotor stage, such as object permanence and symbolic play, indicating advanced cognitive processing and language use. Her shift from single words to two-word phrases marks a crucial step in language development.

The quality of caregiver interaction played a pivotal role in Salma's vocabulary growth. Her parents' responsive and engaging interactions created a rich linguistic environment,

aligning with research emphasizing the impact of language exposure on vocabulary development. Encouraging exploration and curiosity further supported her cognitive and linguistic growth.

Salma's case highlights the practical applications of Piaget's theory in early childhood education. Educators and caregivers should create language-rich environments and engage children in meaningful conversations, reading, singing, and play to stimulate cognitive and linguistic development. Understanding and supporting cognitive milestones can facilitate effective vocabulary acquisition and overall cognitive growth.

Salma's vocabulary development exemplifies the dynamic interplay between cognitive milestones and environmental influences. Providing a supportive and stimulating environment is essential for fostering early language acquisition and ensuring future academic and social success.

REFERENCES

- Hart, B., & Risley, T. R. (1995). Meaningful differences in the everyday experience of young American children. In *Meaningful differences in the everyday experience of young American children*. Paul H Brookes Publishing.
- Hoff, E. (2006). How social contexts support and shape language development. *Developmental Review*, 26(1), 55–88. <https://doi.org/https://doi.org/10.1016/j.dr.2005.11.002>
- Piaget, J. (1971). The theory of stages in cognitive development. In *Measurement and Piaget*. (pp. 283, ix, 283–ix). McGraw-Hill.