The Role of Parenting Patterns in Supporting Child Development Child Cognitive

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ABSTRACT

Children's cognitive development is a fundamental aspect in the formation of thinking, understanding, and problem-solving abilities, which is greatly influenced by the family environment, particularly parental parenting styles. To date, studies of cognitive development have focused more on the context of formal education, while the role of parenting styles within the family environment has not received adequate attention. This study aims to analyze the role of parental parenting styles in supporting the cognitive development of elementary school-aged children and to identify parenting factors that contribute to optimizing children's thinking abilities. This study uses a qualitative approach with a phenomenological method to understand the experiences and practices of parenting parents in everyday life. The study was conducted at SDN 45, Bima City, involving parents of students aged 7–12 years. Data were collected through in-depth interviews, participatory observation, and documentation studies. Then, data were analyzed through data reduction, data presentation, and conclusion drawing using triangulation techniques. The results show that parenting styles characterized by effective communication, cognitive stimulation, active parental involvement in children's learning activities, and consistent emotional support play an important role in improving children's attention, memory, problem-solving skills, and logical thinking. Conversely, parenting styles that lack interaction and stimulation tend to hinder children's cognitive development. This research confirms that parenting styles are the primary foundation for supporting children's cognitive development and need to be integrated into efforts to improve the quality of family-based education.

Keywords : Parenting Styles, Cognitive Development, Elementary School Children

INTRODUCTION

Children's cognitive development is a central aspect of education and developmental psychology. Children's abilities to think, understand, and solve problems develop with age and are influenced by various factors, such as their social environment, biology, and parenting styles [1]. Jean Piaget's theory suggests that children's cognitive development progresses through sequential stages, while Lev Vygotsky emphasized the importance of social interaction, particularly the role of adults in guiding children's thinking processes. Information processing theory, on the other hand, describes how children absorb, store, and process information obtained from their environment.

To date, much research on cognitive development has focused on formal educational contexts, such as schools, with primary focus on curriculum design and learning strategies.

[1]Dian Andesta Bujuri, "Analysis of Elementary School Children's Cognitive Development and Its Implications in Teaching and Learning Activities," *Literacy: Journal of Educational Sciences* 9, no. 1 (2018): 37–50.

However, family environmental factors, particularly parenting styles, which form the foundation of children's cognitive development from an early age, have received less in-depth attention in these studies. This situation indicates a gap in previous studies, where the importance of parenting styles as a foundation for optimal cognitive development has not been fully explored [2].

Based on this analysis, this study proposes a novel approach by focusing on the contribution of parenting styles to supporting children's cognitive development. It highlights how stimulation, communication, emotional support, and parental involvement directly influence children's thinking capacity, problem-solving skills, and adaptability to environmental challenges.

The research question addressed is how parenting styles shape and accelerate the cognitive development of early childhood. To address this question, a qualitative approach using phenomenological methods was employed to gain a deeper understanding of the experiences, practices, and parenting strategies employed by parents in their daily lives.

The purpose of this study is to analyze the influence of parenting styles on children's cognitive development, identify parenting factors that support or hinder cognitive growth, and formulate applicable recommendations for parents in creating parenting styles that optimize children's thinking potential. Therefore, the results of this study are expected to serve as an important reference in efforts to improve the quality of child development through a family-based approach.

Cognitive ability is a child's capacity to think more complexly, reason, and solve problems. As these abilities develop, children will more easily grasp general knowledge broadly, enabling them to play a role and interact effectively in social life. Various theories from experts such as Jean Piaget, Lev Vygotsky, and information processing theory have provided a foundation for understanding how children develop cognitively. Piaget, for example, divided children's cognitive development into four stages that show how children's thinking patterns shift from concrete to broader. Meanwhile, Vygotsky emphasized the importance of social interaction and the role of adults in fostering children's thinking development.[3]

Children's cognitive development is also influenced by various factors, including biological factors (genetics and brain development), environmental factors (education, social interaction, and stimulation), and emotional and social factors. Therefore, understanding children's cognitive development is crucial for designing educational strategies that are appropriate to their developmental stage. Children have unique growth and development patterns, which are tailored to their developmental stage. At an early age, they are in a phase where growth and development occur according to age-appropriate milestones.[4]

RESEARCH METHODS

This study employed a qualitative approach with a phenomenological approach. This approach was chosen to deeply understand parents' subjective experiences in implementing

[2]Yesi Novitasari, "Analysis of Problems in Early Childhood Cognitive Development," *PAUD Lectura: Journal of Early Childhood Education* 2, No. 01 (2018): 82–90.

[3]Aprilia Daracantika, "Systematic Literature Review: The Negative Effect of Stunting on Children's Cognitive Development," *Journal of Biostatistics, Population, and Health Informatics* 1, no. 2 (2021): 6.

[4]Narendradewi Kusumastuti, Vindy Lestari Putri, and Arwendis Wijayanti, "Development of Frueelin Media to Improve Early Childhood Cognitive Development," *Jurnal Golden Age* 5, No. 01 (2021): 155–63.

parenting styles that support children's cognitive development. Through phenomenology, this study sought to explore the meanings, perceptions, and parenting strategies employed by parents, as well as how these practices influence the thinking, understanding, and problem-solving abilities of elementary school-aged children.

The focus of this research is directed to describe the form of parenting patterns of students' parents at State Elementary School 45, Bima City in supporting children's cognitive development, identifying factors that encourage or hinder such development, and exploring parenting strategies that are considered effective based on real experiences. The research was conducted at SDN 45, Bima City in the month of [mention the month and year of the research], involving parents of students who have children aged between 7 and 12 years, namely children who are in the concrete operational stage according to Piaget's theory.

The data sources for this study consisted of primary and secondary data. Primary data were obtained through in-depth interviews with several parents of students at SDN 45 Kota Bima who were selected based on certain criteria, while secondary data came from supporting documentation, such as records of children's academic development, school report books, and observations of parent-child interactions at home and school. Data collection techniques were carried out using semi-structured interviews to delve deeper into parenting experiences, participatory observation of parental involvement in children's educational activities, and documentation studies to strengthen and enrich the information obtained.

The collected data was analyzed through three main stages: data reduction, data presentation, and conclusion drawing, as proposed by Miles and Huberman. Data reduction was carried out by sorting relevant information from interviews, observations, and documentation. The data was then presented in descriptive narrative form and tables to facilitate analysis. Research conclusions were drawn based on identified parenting patterns and verified through triangulation of data sources.

To ensure data validity, this study employed source triangulation techniques by comparing interview results, observations, and documentation. Member checking was also conducted by asking parents to review the data interpretation results. An audit trail was conducted by systematically and in detail recording the entire research process to ensure traceability from start to finish.[5]

RESULTS AND DISCUSSION

Child Cognitive Development

Child cognitive development is a gradual process in which a child's thinking, understanding, and learning continue to develop as they grow older. This process encompasses various abilities, such as focus or attention, recognizing objects (perception), remembering (memory), speaking and understanding language, problem solving, and logical and critical thinking. In general, cognitive development reflects how children learn and adapt to their environment through experience and social interactions.[6]

Cognitive development occurs when children actively construct their understanding of the world through interactions with their surroundings. Piaget argued that children don't just

[5]Abd. Salam , *"Phenomenology of Fitua (Sufism) in the Perspective of Islamic Education in Bima Society,"* Fitrah: Journal of Educational Studies, Vol. 14, No. 1 (2023), 50 .

[6]Wulandari Retnaningrum and Nasrul Umam, "Early Childhood Cognitive Development Through Letter Search Games," *Tawadhu Journal* 5, No. 1 (2021): 25–34.

passively receive information, but also think and construct their own understanding. Meanwhile, Lev Vygotsky (1978) stated that cognitive development is strongly influenced by the social and cultural environment. He emphasized that children learn to think through interactions with others, especially adults or more experienced peers.[7]

A child's cognitive development has several main aspects. First, attention, which is a child's ability to focus on one thing for a certain period of time. Young children are often easily distracted, but as they grow older, they become more able to concentrate for longer periods of time. Second, perception, which is how children recognize and understand things through their senses, such as recognizing colors, sounds, and shapes. Third, memory, which is divided into three types: sensory memory (remembering something in a very short time), short-term memory (remembering something temporarily), and long-term memory (remembering something for a long time). Fourth, language, which helps children express their thoughts and understand what others say. Fifth, problem-solving, which is a child's ability to find ways to overcome problems they face. Finally, logical and critical thinking, which allows children to understand the relationships between information and draw conclusions based on evidence.[8]

A child's cognitive development is influenced by various factors. Biological factors, such as brain development and genetics, determine a child's thinking capacity. Environmental factors, such as family, school, and community, also play a crucial role in supporting a child's thinking development. A good education with appropriate learning methods can help children grasp concepts more easily. Social interactions with parents, teachers, and peers help children understand others' perspectives and improve their communication skills. Furthermore, nutrition and health also play a significant role, as nutritious food and good health support a child's brain development, while malnutrition can hinder their thinking ability.[9]

In education, understanding children's cognitive development is crucial. One approach is exploration-based learning, as described by Piaget, where children learn by directly trying. Furthermore, scaffolding, as described by Vygotsky, can be implemented by providing support to children in understanding the lesson, which is gradually reduced as their understanding improves. The use of media and technology, such as images, videos, and interactive tools, can also help children absorb information more easily. Finally, according to Gardner's theory of multiple intelligences, every child has different levels of intelligence, so learning methods should be tailored to their abilities.[10]

Child Cognitive Development Theory

Children's cognitive development is a gradual process by which they acquire understanding, knowledge, thinking skills, and problem-solving abilities. Experts have put forward various theories to explain how children learn and develop cognitively.[11]

[7]Sitti Aisyah Mu'min, "Jean Piaget's Theory of Cognitive Development," *Al-TA'DIB: Journal of Educational Studies* 6, No. 1 (2013): 89–99.

[8]Ni Komang Ayu and IB Surya Manuaba, "Zoolfabeth Learning Media Using Interactive Multimedia for Early Childhood Cognitive Development," *Undiksha Early Childhood Education Journal* 9, No. 2 (2021): 194–201.

[9]Komang Srianis Et Al., "Application of Geometry Puzzle Playing Method to Improve Children's Cognitive Development in Recognizing Shapes," *Undiksha Early Childhood Education Journal* 2, No. 1 (2014), Https://Ejournal.Undiksha.Ac.Id/Index.Php/JJPAUD/Article/View/3533.

[10]Darah Ifalahma And Zetia Madu Retno, "Factors of Motor Development and Cognitive Development in Children: Literature Review," *Journal of Mental Health Nursing* 11, No. 3 (2023): 707–14.

[11]Mu'min, "Jean Piaget's Theory of Cognitive Development."

One of the main theories put forward by Jean Piaget, who argued that cognitive development occurs through a series of universal and sequential stages. Piaget emphasized that children are active learners who construct their own knowledge through interactions with the environment. The stages of cognitive development according to Piaget include the sensorimotor stage (0–2 years), where children learn through sensory experiences and begin to understand object permanence; the preoperational stage (2–7 years), when children begin to use symbols but still think egocentrically; the concrete operational stage (7–11 years), where children begin to understand the concept of conservation and think logically about concrete things; and the formal operational stage (11 years and above), when children begin to be able to think abstractly and hypothetically.[12]

Meanwhile, Lev Vygotsky emphasized that a child's cognitive development is greatly influenced by the social and cultural environment. He introduced the concept of the Zone of Proximal Development (ZPD), which is the distance between what a child can do independently and what can be achieved with the guidance of others. The concept of scaffolding in this theory explains that adults or peers can provide temporary support to help children understand more complex tasks, which is later reduced as the child's independence increases. Vygotsky also emphasized that language plays a crucial role in cognitive development, as it helps children in the process of thinking and problem-solving through private speech or talking to themselves.[13]

Furthermore, Information Processing Theory compares a child's cognitive development to the way a computer works. Children are viewed as information processors who store, retrieve, and use information through various stages. Key components of this theory include attention, which refers to a child's ability to focus on important information; memory, which consists of sensory, short-term, and long-term memory; and problem-solving, where children learn new strategies to complete tasks and improve their thinking efficiency.[14]

Linking cognitive development to social interaction in his theory of psychosocial development. Some stages related to children's cognitive development are the autonomy vs. shame stage (1–3 years), when children begin to explore the world independently; the initiative vs. guilt stage (3–6 years), when children show curiosity and try new things; and the industry vs. inferiority stage (6–12 years), when children begin to develop more complex academic and social skills.[15]

Developing the Theory of Multiple Intelligences, which emphasizes that intelligence extends beyond academic ability. Gardner identified eight types of intelligence: linguistic, logical-mathematical, visual-spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal,

[12]Khadijah Khadijah And Nurul Amelia, "Assessment of Cognitive Development of Children Aged 5-6 Years," *Al-Athfaal: Scientific Journal of Early Childhood Education* 3, No. 1 (2020): 69–82.

[13]Titin Mariatul Qiptiyah, "Theory of Children's Cognitive Development (Vygotsky)," *Childhood Education: Journal of Early Childhood Education* 5, No. 1 (2024): 204–20.

[14]Ridho Agung Juwantara, "Analysis of Piaget's Cognitive Development Theory at the Concrete Operational Stage of Children 7-12 Years in Mathematics Learning," *Scientific Journal of Elementary School Teacher Education* 9, No. 1 (2019): 27–34.

[15]Leny Marinda, "Jean Piaget's Theory of Cognitive Development and Its Problems in Elementary School Children," *An-Nisa Journal of Gender Studies* 13, No. 1 (2020): 116–52.

and naturalistic. This theory suggests that each child possesses a unique combination of intelligences, so learning approaches must be tailored to their potential.[16]

Factors That Influence Children's Cognitive Development

A child's cognitive development is not a discrete process, but rather is influenced by various interacting factors. These factors include biological, environmental, social, educational, and health and nutrition aspects. Each factor plays a crucial role in shaping how a child thinks, understands the world, and develops logical thinking and problem-solving skills.

One of the main factors is biological, related to a child's physical and genetic makeup. Genetics plays a role in determining basic intellectual capacities, such as memory and thinking ability. Brain structure and development also play a significant role, as neural connections formed during infancy enable children to learn, comprehend information, and solve problems. Adequate stimulation will help strengthen neural connections, while a lack of stimulation can slow a child's cognitive development.[17]

Furthermore, environmental factors also have a significant influence on cognitive development. Children who grow up in environments rich in cognitive stimulation, such as frequent conversations, reading books, or playing educational games, tend to have better thinking skills. A stable and loving home environment also supports children's confidence in learning. Socioeconomic status also plays a role, as children from families with better economic conditions tend to have greater access to education, technology, and resources that support cognitive development.[18]

Social and cultural factors also influence children's thinking development. Interactions with parents, family, and peers provide experiences that help children understand others' perspectives and develop critical thinking skills. Furthermore, cultural values held by a society can shape how children process information. For example, in cultures that emphasize memorization, children tend to have stronger memories, while cultures that emphasize exploration and discussion encourage more creative and analytical thinking skills.[19]

Education and learning factors are key elements in a child's cognitive development. Schools with a quality curriculum and interactive teaching methods can enhance children's thinking skills. Exploration-based learning methods, such as Discovery Learning and Problem-Based Learning, enable children to think independently and develop analytical skills. Furthermore, technology in education can be an effective tool for enhancing children's understanding, although its use must be supervised to prevent it from hindering social development and concentration.[20]

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[16]Lucy Ardiati, "Comparison of Jean Piaget and Lev Vygotsky's Early Childhood Cognitive Development Theories and Their Relevance to Islamic Education" (Phd Thesis, IAIN BENGKULU, 2021), Http://Repository.Iainbengkulu.Ac.Id/5384/.

[17]Laela Nur Afifah and Eli Masnawati, "The Role of Technology in Learning and Cognitive Development of School-Age Children," *Educurio: Education Curiosity* 2, No. 3 (2024): 616–21.

[18]Marilin Kristina and Ruly Nadian Sari, "The Effect of Stimulation Education on Early Childhood Cognitive Development," *Journal of Dehasen Educational Review* 2, No. 01 (2021): 1–5.

[19]Ranianisa Rahmi and Irda Murni, "THE IMPORTANCE OF COGNITIVE DEVELOPMENT IN CHILDREN," *Didactics: Scientific Journal of PGSD STKIP Subang* 9, No. 2 (2023): 5057–65.

[20]Siti Aminah Et Al., "The Effect of Learning While Playing Method on the Cognitive Development of Elementary School Children," *Science And Education Journal (SICEDU)* 1, No. 2 (2022): 465–71.

Finally, health and nutrition play a significant role in supporting a child's cognitive development. Adequate nutritional intake, especially during the first 1,000 days of life, has a long-term impact on a child's brain function and thinking abilities. Nutrients such as omega-3s, iron, protein, and B vitamins are known to play a crucial role in improving memory and concentration. Furthermore, physical and mental health are also affected. Children who frequently experience stress or anxiety tend to have difficulty concentrating and learning. Therefore, an environment that supports a child's emotional health is essential for optimal cognitive development.[21]

Implications of Cognitive Development in Education

Children's cognitive development has important implications for education, particularly in curriculum design, teaching methods, and teacher-student interactions. Understanding how children think, learn, and process information can help educators create learning environments that are appropriate to their stage of cognitive development. Every child experiences cognitive development in stages, so educational curricula must be tailored to ensure optimal understanding. [22]For example, in the sensorimotor stage (0–2 years), children learn through sensory exploration and movement, so early childhood education needs to emphasize hands-on experience. In the preoperational stage (2–7 years), children begin to use symbols such as words and pictures but are not yet capable of logical thinking. Therefore, effective learning methods involve the use of stories, role-playing, and props. Furthermore, in the concrete operational stage (7–11 years), children begin to think logically about real events and understand the concept of conservation. Therefore, learning must be based on real-life experiences, experiments, and concrete problem-solving exercises. Meanwhile, in the formal operational stage (11 years and above), children are able to think abstractly and perform hypothetical reasoning. Therefore, suitable learning methods include critical discussions, project-based problem-solving, and a scientific approach.[23]

The learning methods used in education must be appropriate to students' level of understanding and thinking skills. Constructivism-based learning, as explained by Piaget and Vygotsky, suggests that children construct their own understanding through experience and social interaction. Therefore, teachers should act as facilitators, helping students discover concepts through exploration and discussion, rather than simply providing direct information. A [24]scaffolding approach is also an effective strategy, as children learn better with guidance from adults or more experienced peers. As children's cognitive development progresses, contextual learning also becomes important, as it's easier for them to grasp concepts when the learning material is linked to real-life experiences. For example, mathematics can be taught through case studies of simple financial calculations, while science can be taught through hands-on experiments.[25]

Optimal cognitive development enables children to think critically and creatively, and solve problems independently. Therefore, the education system must provide space for

[21]Fuad Arif Noor, "Cognitive Development of Raudlatul Athfal (Ra) Children," *SELING: Journal of PGRA* 4 Study Program, No. 2 (2018): 169–80.

[22]Muhammad Khoiruzzadi and Tiyas Prasetya, "Cognitive Development and Its Implications in the World of Education," *Madaniyah* 11, no. 1 (2021): 1–14.

[23]Norma Yunaini and Devi Yuyun Winingsih, "Implications of Cognitive Development in Elementary School Learning," *Scholars* 4, no. 2 (2022): 78–86.

[24]Akmillah Ilhami, "Implications of Piaget's Cognitive Development Theory for Elementary School-Aged Children in Indonesian Language Learning," *Pendas: Scientific Journal of Elementary Education* 7, no. 2 (2022): 605–19.

[25]Sundari Sundari and Endang Fauziati, "Implications of Bruner's Learning Theory in the 2013 Curriculum Learning Model," *Papeda Journal: Journal of Elementary Education Publication* 3, no. 2 (2021): 128–36.

students to develop these skills through various strategies, such as Problem-Based Learning (PBL), Project-Based Learning, and collaborative learning [26]. PBL engages students in solving real-world problems through investigation, data analysis, and group discussions, allowing them to practice critical thinking skills and find innovative solutions.[27] Meanwhile, project-based learning allows students to develop higher-order thinking skills by working on challenging projects that are relevant to their lives. Furthermore, interacting with peers in collaborative learning can help students understand different perspectives, develop communication skills, and enhance logical thinking.[28]

Teachers play a central role in supporting students' cognitive development through a variety of appropriate learning strategies. Teachers should provide assignments and questions that encourage students to think more deeply, for example by asking open-ended questions that challenge them to analyze and evaluate information. [29]Furthermore, implementing differentiated learning is crucial because each student has a different level of cognitive development. Teachers should adapt teaching strategies to individual students' needs, such as providing additional assignments for students who grasp the material more quickly or providing more support for students who are struggling . The use of educational media and technology can also enhance children's cognitive development through interactive simulations, educational videos, and online learning platforms that allow for deeper exploration of concepts.[30]

Evaluation in education must consider students' cognitive development levels so that the results obtained better reflect their understanding. Formative assessment is an effective evaluation method because it is conducted continuously to monitor student progress and provide constructive feedback, such as through short quizzes, class discussions, and self-reflection. Authentic assessment can also be used to assess students' ability to apply concepts in real-world situations, for example through projects, portfolios, or presentations. Process-based assessment is also important for assessing how students think and solve problems, not just the end result.[31]

CLOSING

Children's cognitive development occurs in stages, reflecting increasing abilities to think, understand, solve problems, and make decisions. This process is influenced by internal factors, such as biological readiness, as well as external factors, such as family environment,

[26] Junaidin Junaidin, "Problem Based Learning Strategy Based on Local Wisdom in PAI Learning in Bima," *FiTUA: JOURNAL OF ISLAMIC STUDIES* 6, no. 1 (2025): 115–26, http://ejournal.stitbima.ac.id/index.php/fitua/article/view/1080.

[27]Yana F. Taopan, Mintje Ratoe Oedjoe, and Andy Nabu Sogen, "The Impact of Information and Communication Technology Development on the Moral Behavior of Adolescents at SMA Negeri 3 Kupang City," *Jurnal Kependidikan: Jurnal Hasil Penelitian Dan Kajian Kependidikan dalam Lapangan Pendidikan, Pengajar dan Belajar* 5, No. 1 (2019): 61.

[28]Febey Harsela and Zahratul Qalbi, "The Impact of Gadget Games on Influencing Children's Cognitive Development at Dharma Wanita Kindergarten, Bengkulu," *Jurnal Pena Paud* 1, No. 1 (2020): 27–39.

[29]Hendra Naldi, "Cognitive, Language and Socio-emotional Development and Their Implications in Learning," *Jurnal Socius: Journal of Sociology Research and Education* 5, No. 2 (2018): 102–14.

[30]Agus Saifuddin Amin, "Technology in Education: Its Impact on Students' Cognitive and Emotional Development," *Journal of Educational and Psychological Studies* 1, no. 1 (2023): 20–25.

[31]Ujang Khiyarusoleh, "Basic Concept of Cognitive Development in Children According to Jean Piaget: Array," *DIALEKTIKA Journal of Elementary Education Thought and Research* 5, No. 1 (2016), Https://Journal.Peradaban.Ac.Id/Index.Php/Jdpgsd/Article/View/17.

education, and social interactions. The theories of Jean Piaget and Lev Vygotsky suggest that children construct understanding through active involvement and social support. Piaget emphasized the importance of stages of thinking, while Vygotsky emphasized the role of the social and cultural environment in shaping cognitive development. Providing appropriate stimulation, such as through educational games, two-way communication, and stimulating activities, plays a crucial role in supporting a child's brain development, especially during critical periods of development. An environment rich in learning experiences will help children deepen concepts, expand their vocabulary, and hone their logical and creative thinking skills.

Furthermore, cognitive development is closely linked to social and emotional development. Children need to develop the ability to understand the feelings and perspectives of others, manage their own emotions, and build healthy social relationships. Therefore, the active role of parents, educators, and the community is crucial in creating an environment that supports children's learning needs. Understanding a child's cognitive developmental journey is crucial for fostering their future academic and social success. By understanding the stages and the factors that influence them, various parties can design more effective parenting and education patterns to maximize each child's potential.

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