

# Early Childhood Cognitive Development in The Book “*Benda ajaib Di Dapur Nenek*” By Hasta Indriyana

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## Abstract

This paper contains an analysis of early childhood cognitive development illustrated through activities and interactions in a storybook entitled *Benda Ajaib di Dapur Nenek* by Hasta Indriyana. The main problem discussed is that it can contribute to early childhood cognitive development. Where currently the approach to learning through storybooks is rare and less popular. Several theories from Piaget, Vygotsky, Gardner, Bandura, and Bruner are referenced in the discussion. The results of this study conclude that local culture-based literacy reading contributes significantly to early childhood cognitive development. In addition to cognitive aspects, the story also supports children's social-emotional development through interactions with adult characters and overall the book can be a learning medium that is not only informative but also shapes children's character by introducing cultural, environmental and social values.

**Keywords:** cognitive, storybooks, magical things in grandma's kitchen, cognitive development theory, early childhood education.

## 1. Introduction

Every child is always involved in the learning process, both at school and in the family environment, so cognitive skills are important in education. Cognitive development is a fundamental aspect of a child's growth and development, and it plays a major role in the success of their learning process. Parents, as the primary educators at home, must have a deep understanding of children's cognitive development to support this process.

In the law on the national education system Number 20 of 2003 Chapter I Article 1 Paragraph 14 states that early childhood education is a coaching effort aimed at children from birth to six years of age which is carried out through providing educational stimuli to help physical and spiritual growth and development so that children have readiness to enter further education (Ardiana, 2022). Early childhood education (PAUD) is the first step towards success at the next level of education. PAUD includes education before children enter primary school, where the goal is to provide comprehensive stimulation to support children's development and growth. Preschool is an important period in a child's life, and the most rapid development occurs during the “golden age.” One important aspect that needs to be developed during this period is the child's cognitive abilities (Ardiana, 2022).

The golden age is also the foundation for developing cognitive, motor, language, socio-emotional, religious, and moral and ethical skills (Setiawan et al., 2022). Cognitive is a process of thinking by using a person's ability to relate something, consider and evaluate a matter that occurs (Nuraini, 2023).

Cognitive development shows the development of the way children think. The child's ability to coordinate various ways of thinking to solve various problems can be used as a measure of intelligence growth. Behaviorism argues that intelligence grows through the accumulation of increasing information. While the 'interactionist' or 'developmentalist' school, argues that knowledge comes from the child's interaction with the child's environment (Khadijah, 2016).

Children's cognitive development is divided into two main stages: sensorimotor and preoperational. In the sensorimotor stage, children learn through their senses, such as touching, seeing, hearing and feeling. While in the preoperational stage, children begin to recognize symbols. This cognitive development allows children to think logically, gather information to solve problems, and think critically. Activities that support cognitive development include learning language, counting, and experimenting (Apriyani & Sunan Kalijaga Yogyakarta, 2023).

Cognitive development in early childhood also reflects how children think and coordinate different ways to solve problems, which is an indicator of their intelligence. According to the behaviorist view, intelligence grows with the addition of information received by the child. The ability to design solutions, remember, and figure out solutions to problems are all part of this cognitive development.

Early childhood cognitive development is essential to help them explore their surroundings, understand the world, and become individuals who benefit themselves and others. These cognitive abilities include understanding things and solving problems. The cognitive stages according to Piaget are as follows:

a. Sensori-motor stage.

In the sensori-motor stage (0-2 years), babies move on reflex actions, babies build an understanding with the world through coordinating sensor experiences with physical actions.

b. Pre-operational stage.

In the pre-operational stage (2-7 years), the child has begun to present the world through words and pictures that show an increase in symbolic thinking.

c. Concrete operational stage.

In the concrete operational stage (7-11 years), at this time the child has begun to think logically about various real events and can already clarify various objects into the forms of objects.

d. Formal operational stage.

In the formal operational stage (11 years-adult), adolescent children think in a more abstract and logical way (Konstantinus Dua Dhiu, et al., 2021).

According to Piaget, early childhood is at the preoperational stage (ages 2-7 years) where they learn through symbols, language, and observation. The story in the book "Benda Ajaib di Dapur Nenek" provides cognitive stimulation through the introduction of new objects such as ginger, kencur, and other traditional plants.

According to Vygotsky, children learn best through social interaction and help from adults or more capable peers. In this context, the role of the grandmother in the book "Benda Ajaib di Dapur Nenek" becomes important as a figure who helps children develop cognitive skills through interaction and explanation of traditional kitchen ingredients.

A concept by Howard Gardner introduces multiple intelligences, including linguistic, logical, interpersonal and naturalist intelligences. Through the story in "Benda Ajaib di Dapur Nenek", children can develop linguistic intelligence through the language used in the narrative, as well as naturalistic intelligence by recognizing the types of plants and their benefits. Interpersonal intelligence can also develop as children interact with parents or teachers who read the story with them.

Albert Bandura's social learning theory emphasizes that children learn through observation, imitation and modeling. In the story "Benda Ajaib di Dapur Nenek", children observe the behavior of characters like grandma who uses natural ingredients. With this, they are inspired to imitate the use of natural materials in their lives, which can strengthen cognitive understanding and knowledge.

Jerome Bruner proposed the concept of scaffolding, which explains that early childhood learning can be optimized with the help of adults in guiding children towards higher understanding. In the book "Benda Ajaib di Dapur Nenek", the presence of grandma as a guiding figure can help children understand the function of natural ingredients in cooking and health. This gradual learning can strengthen children's cognitive knowledge gradually and more deeply.

Early childhood learning can also be done through contextual learning, which emphasizes the importance of connecting learning materials with children's real lives. This book teaches children about natural materials that they may encounter at home or around their neighborhood, thus enhancing the connection between what is learned and real-life experiences.

One way to improve early childhood cognitive development is through storybooks, such as "Benda Ajaib di Dapur Nenek" published by the Ministry of Education and Culture (Indriyana, 2014). This book, which is culturally based and relevant to daily life, can stimulate children's curiosity and introduce useful new concepts,

such as the introduction of natural ingredients and traditional customs. The use of this story can support children's cognitive development by introducing concepts such as natural herbs and natural resource management.

Through cognitive development, children can remember, imagine solutions, create new ideas, and string sentences into meaningful conversations. The issue raised in this paper is how the book "Benda Ajaib di Dapur Nenek" affects early childhood cognitive development. This article aims to discuss how the book "Benda Ajaib di Dapur Nenek" can contribute to early childhood cognitive development, so that parents can provide education in accordance with the cognitive abilities of each child.

## **2. Research Methods**

This research is classified as descriptive qualitative research because it uses qualitative data. Part of the effort made was to collect data on the phenomenon of children's cognitive activities at the research site. Field data is given specifically and thoroughly. Descriptive qualitative research methods not only focus on solving problems, but also provide information that helps the research process. Part of this qualitative literature study is reading, recording, and processing research materials. In addition, approaches that use library data sources such as books, articles, and references are also used. This method was used to show that these theories were relevant to the type of research being conducted. To show that this research was successful, primary data was taken from data collected directly by the researcher.

Qualitative research is research that intends to understand phenomena about what is experienced by research subjects such as behavior, perceptions, motivations, actions and others holistically and by means of descriptions in the form of words and language, in a special natural context by utilizing various natural methods. Meanwhile, qualitative research is a naturalistic inquiry process that seeks a deep understanding of social phenomena in a natural way (Thalha Alhamid and Budur Anufia, 2019). Qualitative research emphasizes quality not quantity and the data collected does not come from questionnaires but comes from interviews, direct observation and other related official documents. In addition, qualitative research emphasizes the process rather than the results because the relationship between elements will be easier to see during the process. The data collection process is used to research, record, and manage research materials, which results in favorable systematic research. The success in data collection is largely determined by the researcher's ability to appreciate the social situation that is the focus of the research (Thalha Alhamid and Budur Anufia, 2019). Data collection in the study was carried out by reviewing and or exploring several books, journals, and documents and other data sources or news relevant to the research topic. The analysis technique used is a data reduction technique that focuses attention and selects the data needed in the research, presents data and draws conclusions (Martini & Masganti Sitorus, 2023).

Since the Book of Magic Things in Grandma's Kitchen was used as the data source for this study, the researcher collected, studied, classified, and analyzed the data by listening and recording the findings of the analysis, which were then explained in accordance with the findings of the analysis. The researcher collected the data, studied it, classified it, and then analyzed it by listening and recording the results. After that, the results are discussed in accordance with the findings of the analysis. This research procedure according to (Santika et al., 2023) is to produce descriptive data in the form of written data after conducting a content analysis of a text. The analysis technique used is a data reduction technique that focuses attention and selects the data needed in the research, data presentation and conclusion drawing. (Apriyani & Sunan Kalijaga Yogyakarta, 2023). Reducing data means summarizing, selecting things that focus on important things (Listyarini & Budiman, 2022). Summarizing will make it easier for researchers to review the important parts of the research object. The author makes conclusions after collecting materials and data sources that are relevant to the research topic. The data collected for this research by examining or studying various books, journals, documents, and related data sources or news.

In qualitative research, the instrument is a person or human instrument, namely the researcher himself. Researchers must have provisions, theories and broad insights, so that they are able to ask, analyze, photograph and construct the social situation under study to be clearer and more meaningful (Dianingrum, 2020). Qualitative research in this activity uses the researcher as the key instrument, to examine and observe the *Benda Ajaib di Dapur Nenek*.

### 3. Results and Discussion

Based on the title of this research, the main focus is how literacy reading in early childhood can contribute to cognitive development, especially in the introduction of natural materials and local traditions. "Benda Ajaib di Dapur Nenek" presents a simple yet rich story for early childhood children. The book shows that cognitive concepts, such as object recognition and meaning association, can be acquired through the introduction of natural kitchen ingredients used by the grandmother in the story. Some of the activities or interactions in this book that are relevant to the discussion of cognitive development include:

**Table 1.** Cognitive Development Activities or Interactions in the Storybook "Benda Ajaib di Dapur Nenek"

No.	Page	Activity / Interaction	Cognitive Aspect
1	7-8	Candi found something she was curious about	Thinking and discovery process
2	9	Grandma explains something that Candi found	Capturing the information provided
3	10	Nino compares the seasoning used by Mom and that used by Grandma.	Process of comparing and analyzing an event
4	12-13	Nino and Candi find Grandma's cooking more delicious	Validating the comparison and analysis that has been done
5	18-19	Nino and Candi realize the benefits of the magic object they found	Process of summarizing events and information

The activities or interactions told in the book "Benda Ajaib di Dapur Nenek" illustrate how communication patterns are built between Nino, Candi and their grandmother so that it has an impact on their cognitive development. Curiosity, filtering information, analyzing events, comparing events, and drawing conclusions on the observation of an event and the information received are important parts outlined in this book for early childhood cognitive development.

The application of literacy like this is closely related to Piaget's theory of cognitive development which explains that children aged 2-7 years are in the preoperational stage. In this stage, children begin to develop their symbolic abilities, understanding various objects through visual and verbal representations. In this story, kitchen spices such as ginger and galangal are used as symbols to introduce simple science concepts, helping children recognize the functions and benefits of these ingredients.

As a story that uses simple language and interesting illustrations, this story also plays a role in stimulating children's cognition through Gardner's concept of multiple intelligences. Children are not only invited to develop linguistic intelligence, but also naturalist intelligence through the introduction of plant species. This development is in line with literacy goals to introduce and enrich children's cognitive skills at an early age.

Furthermore, the application of this story reflects Bandura's Social Learning theory. Through observing the grandmother character in the story, children are introduced to the practices of using natural materials, which in turn can inspire them to replicate healthy and natural habits in their daily lives. In other words, the grandmother character acts as a positive model for children in terms of healthier and more natural use of natural resources.

In the story, children who read or listen to the story also gain contextual experiences that enrich their understanding of local materials. This is closely related to contextual learning theory, which emphasizes the importance of the connection between children's daily experiences and the material being taught. This book makes it easier for children to recognize objects that are familiar to them, such as kitchen spices, by providing more in-depth information about their functions and benefits.

The scaffolding aspect of Bruner's theory is also visible in the application of this reading, especially through the role of the grandmother who becomes a guide for the main character in the story. In this case, the role of an adult or a more knowledgeable figure can assist children in understanding new information. The grandmother's portrayal in the book helps children relate their personal experiences with new information about spices and health benefits, which strengthens children's cognitive understanding gradually.

In addition to cognitive aspects, the story also plays an important role in the development of children's social-emotional skills. This is in line with Vygotsky's view, which emphasizes that cognitive development is closely related to social interaction. In the story, the interaction between Nino, Candi and their grandmother shows how

the social environment can be an effective learning medium, where children learn through dialog and shared experiences.

In terms of information processing, the book is also useful in building children's memory capacity and comprehension through object recognition, meaning association, and sequencing of events in the story. Information processing theory explains that children's cognitive abilities develop as their ability to store, remember and process information increases. This kind of literacy reading provides opportunities for children to develop their understanding through the repetition and associations that stories offer.

Gardner's theory of linguistic intelligence is also relevant here, as the use of language in stories can develop children's verbal skills. Through simple narratives, children can learn the names of kitchen ingredients, their functions and benefits, gradually enriching their vocabulary and verbal understanding. With this increased vocabulary, children will be better able to identify and categorize objects around them.

The results also show that culture-based literacy can introduce children to naturalist intelligence which explains the connection between humans and nature. Here, children's cognitive understanding of the surrounding environment is strengthened by the introduction of natural ingredients that have nutritional value and medicinal functions. Gardner's theory supports this concept by stating that an understanding of the natural environment can increase curiosity and awareness of natural resources.

The application of stories in this book is also in line with the story-based learning approach which is an important part of early childhood education. Simple narratives accompanied by interesting illustrations can attract children's interest, which indirectly helps them develop the ability to compose stories and understand cause-and-effect relationships. This is in line with Vygotsky's view that children learn effectively through symbols and visual depictions.

The results also show that the book "Benda Ajaib di Dapur Nenek" plays an important role in introducing children to basic science and health concepts in a simple way. By introducing natural ingredients such as ginger, kencur, and tamarind, children can understand the use of these ingredients in everyday cooking and medicine. This is in line with the principles of Piaget's cognitive theory of early childhood's ability to learn through observation and concrete sensory experiences. The use of natural ingredients in the story helps children connect their knowledge with real experiences around them.

The use of natural materials featured in the story also demonstrates the importance of environment-based learning. Children are introduced to the concept of preserving and using natural resources wisely, thus increasing their awareness of environmental sustainability from an early age. Readings that integrate this environmental concept provide a strong cognitive understanding, which at the same time triggers children to appreciate the biological diversity around them. This is also in line with naturalist intelligence in Gardner's theory of multiple intelligences, which emphasizes the importance of recognizing and appreciating nature in children's learning process.

This analysis also shows that local culture-based literacy can instill important cultural and social values. The story introduces children to family traditions, such as cooking with grandma using natural spices. In this way, literacy reading not only supports cognitive development but also enriches children's emotional aspects through loving interactions and togetherness. This is in line with Bandura's social learning theory view that children learn through observation of adult behavior, which in this story is played by grandma as a positive model.

Besides the cognitive and social aspects, this literacy also promotes critical thinking skills in children. By understanding the function of natural ingredients in the story, children can develop critical thinking skills through the questions that arise, such as the reason for using natural ingredients instead of instant seasoning. This reflects information processing theory, which emphasizes the importance of learning that allows children to recognize patterns and structure new information based on existing knowledge. Through stories presented in simple language, children are encouraged to think and reason, which overall supports their cognitive development.

#### **4. Conclusion**

The conclusion of this study shows that local culture-based literacy reading, such as "Benda Ajaib di Dapur Nenek", contributes significantly to early childhood cognitive development. Through the introduction of natural ingredients and local traditions, these readings help children recognize objects and concepts concretely, in accordance with Piaget's theory of cognitive development. In addition to improving cognitive understanding, it also fosters naturalist intelligence, facilitates critical thinking skills, and triggers children's curiosity about the functions and benefits of natural materials in everyday life. In addition to cognitive aspects, the story also supports children's social-emotional development through interactions with adult characters such as grandmothers, in accordance with Bandura's social learning theory. The use of natural materials as symbols in the story teaches children to appreciate culture and the environment more, in line with Gardner's multiple intelligences. Overall,

"Benda Ajaib di Dapur Nenek" serves as a learning medium that is not only informative but also shapes children's character by introducing cultural, environmental and social values.

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