

Development of the “Bisik Lalongklek” Game to Improve Receptive Language Skills in Children Aged 4–5 Years

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ARTICLE INFO	ABSTRACT
Article history: Received: August 27, 2025 Accepted: October 16, 2025 Available online on: October 30, 2025 Keywords: <i>Educational Game; Receptive Language; Early Childhood</i> Copyright ©2025 by Authors. Published by Universitas Muhammadiyah Tangerang	This study aims to develop a learning medium in the form of the “Bisik Lalongklek” game to enhance the receptive language skills of children aged 4–5 years. Receptive language ability is crucial for young children to understand instructions, recognize vocabulary, and provide appropriate responses. This study employed a Research and Development (R&D) method, involving stages of problem identification, product design, expert validation, product revision, and both limited and extensive trials. The research subjects were group A children aged 4–5 years, with data collected through observation and documentation. Validation results from material and media experts indicated that the “Bisik Lalongklek” game falls within the “highly feasible” category, with an average feasibility percentage above 85%. The findings revealed that the children showed improvement in understanding instructions, recognizing vocabulary, and

responding appropriately. This study demonstrates that integrating physical movement and traditional games can create enjoyable and meaningful learning experiences. The motor involvement and verbal interaction embedded in the game encourage children to be more active in processing information. Therefore, the “Bisik Lalongklek” game can serve as an innovative, educational learning medium aligned with the developmental characteristics of early childhood and can be effectively implemented by teachers in classroom learning activities.

Introduction

Educational institutions serve as facilities designed to educate and nurture learners across various levels. According to Rosalianisa et al. (2022), early childhood is a stage of rapid and fundamental development. One important educational level that deserves particular attention is Early Childhood Education (ECE). Early childhood education provides the foundational framework for children’s skills, knowledge, and behavior (Simatupang et al., 2023). The main purpose of kindergarten institutions is to prepare children by introducing them to a variety of knowledge, behaviors, intellectual and practical skills, and to develop multiple aspects of their growth so they can adapt to formal learning activities in primary school. During early childhood, brain development is particularly critical, accounting for approximately 80% of total brain growth (Zusanty & Hasibuan, 2021).

Early Childhood Education (ECE), known in Indonesia as *Pendidikan Anak Usia Dini (PAUD)*, is defined under Law No. 20 of 2003 concerning the National Education System as educational efforts aimed at children from birth to six years old (Dzunnurain & Rakhmawati, 2022). Based on the Regulation of the Minister of Education and Culture No. 137 of 2014 on the National Standards for Early Childhood Education, the goal of ECE is to support children's holistic growth and development through joyful and play-based learning approaches that stimulate six developmental domains: cognitive, moral and religious values, language, art, social-emotional, and physical-motor skills. According to Widayanti et al. (2023) and Solicha & Hasibuan (2022), all aspects of children's development must be optimized to prepare them as part of a golden generation.

Early childhood is often referred to as *the golden age* — a period when all aspects of development can be easily stimulated (Husnah et al., 2023). Therefore, as Anggraini et al. (2024) assert, early childhood education is essential as the foundation for building character and personality during this formative stage, which significantly influences life in the future. ECE programs aim to develop behavioral habits and basic competencies through appropriate stimulation across all areas of development. One effective form of learning for young children is through play. Limited interactivity in teaching and a lack of diverse games can reduce children's learning interest and even cause stress. Moreover, parental involvement in play-based learning remains

suboptimal, even though family support is crucial for creating an enjoyable and effective learning environment (Prawamti & Reza, 2019).

Play activities are highly enjoyable for children, allowing them to express their feelings freely. Conny R. Semiawan (as cited in Hardiyanti, 2019) stated that play-based learning media are intentionally designed to help children improve specific abilities through meaningful learning experiences. Media play an important role in facilitating the delivery of messages and learning concepts (Komalasari et al., 2024).

The essence of early childhood learning lies in “learning through play.” According to Bredecamp and Copple (as cited in Masitoh in Sofia et al., 2023), the nature of early childhood learning prioritizes learning through play and playing while learning — approaches that are developmentally appropriate and encourage children to be active, independent, and creative in exploring various learning experiences. This process enables the holistic development of all aspects of growth. As noted by Sholikah et al. and Hasibuan (2024), early childhood education aims to optimize children’s overall development, including language — one of the most essential developmental domains. Language is a means of communication and interaction that allows children to obtain information.

Language in early childhood serves as a vital developmental domain that must be stimulated from an early age. Simamora et al. (2019) emphasized that language enables children to think, listen, tell stories, and develop literacy-related skills such as reading and writing. The

Ministry of Education and Culture Regulation No. 137 of 2014 on Early Childhood Education Standards outlines three main components of language development: (a) **Receptive language**, which includes the ability to understand stories, instructions, and rules, as well as to appreciate and enjoy reading materials; (b) **Expressive language**, which involves asking and answering questions, speaking fluently, retelling known stories, learning pragmatic language, and expressing emotions, ideas, and desires through drawings or scribbles; and (c) **Literacy**, which refers to understanding the relationship between letters and sounds, imitating letter forms, and comprehending words in stories.

One essential component of language development is receptive language, which refers to a person's ability to comprehend and process information received through spoken or written language. This skill encompasses the understanding of words, sentences, and instructions, as well as the ability to interpret meaning conveyed by others. Receptive language involves listening and reading skills, enabling individuals to effectively receive and interpret messages (Husna & Eliza, 2021). During this stage, every potential within the child can be maximized through appropriate stimulation (Levi et al., 2023).

Based on observations conducted at TK Aisyiyah Bustanul Athfal 27 Sedayulawas Lamongan, the researcher found that the children's receptive language development still needed improvement. During both indoor and outdoor activities, teachers typically gave explanations and demonstrations before play sessions. However, during an initial

observation using a “Whisper and Do” activity, which aimed to train children in understanding vocabulary, sentence structure, and verbal instructions, several children still struggled to follow directions correctly or made repeated errors.

This research also emerged from gaps identified in previous studies. Hardiyanti (2019) found that the use of a “Whisper Chain” game method could improve children’s receptive language ability. Similarly, Fitriani et al. (2019) demonstrated that using *big book* media effectively developed children’s receptive language skills. However, these studies primarily focused on a single game method and targeted children aged 5–6 years.

Therefore, the present study focuses on children aged 4–5 years and introduces a modified traditional game that incorporates running and jumping elements—activities rarely explored in previous research. This study offers a novel approach that integrates physical and verbal activities to enhance receptive language development more effectively. As ‘Aini et al. (2024) suggest, learning materials should be creatively and joyfully designed by educators.

To stimulate receptive language development, this study develops a modified version of the “Whisper Chain” game, referred to as “**Bisik Lalongklek**” — short for *lari* (run), *lompat* (jump), and *engklek* (hopscotch). In this game, children listen to whispered messages, then repeat them to their peers after completing a set of physical challenges presented on a large banner, including running, jumping, and hopping

on one foot as in the traditional *engklek* game. This combination not only provides physical stimulation but also trains children to listen carefully and follow instructions accurately, thereby enhancing their receptive language ability.

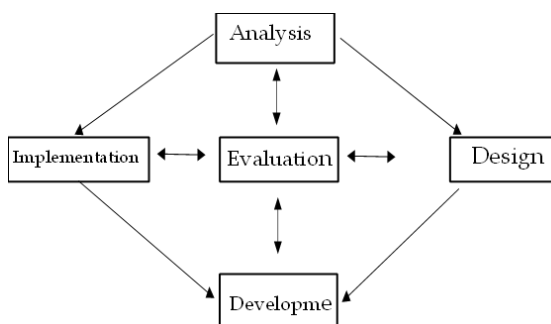
The “Bisik Lalongklek” game innovates upon the traditional “Whisper Chain” by integrating dynamic movement activities. It aims to develop the receptive language skills of children aged 4–5 years through whispering, running, jumping, and playing *engklek*. Practically, this study seeks to describe the implementation of the “Bisik Lalongklek” game as a medium to improve receptive language skills in children aged 4–5 years. As Putri and Komalasari (2014) note, one of the key factors influencing learning success in early childhood education is the effective use of learning media and resources.

Methods

This study employed a Research and Development (R&D) approach using the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). According to Sugiyono (2019), R&D is a research method used to produce a product and to test its effectiveness and validity. The ADDIE model was selected because it provides a systematic framework suitable for developing and evaluating the effectiveness of the “Bisik Lalongklek” game in improving the receptive language abilities of children aged 4–5 years. Various product development methods can be applied within this model, one of which involves designing educational games. The ADDIE model consists of

five main stages: Analysis, Design, Development, Implementation, and Evaluation, as illustrated in Figure 1.

Figure 1. The ADDIE Development Model



The ADDIE model provides a structured process for analyzing needs, designing learning materials, developing and validating products, implementing them in learning settings, and conducting evaluations to determine their effectiveness and feasibility.

Result and Discussions

The development of the *Bisik Lalongklek* game to improve receptive language skills in children aged 4–5 years was carried out through the stages of the ADDIE model: Analysis, Design, Development, Implementation, and Evaluation. The development process is described as follows:

1. Analysis

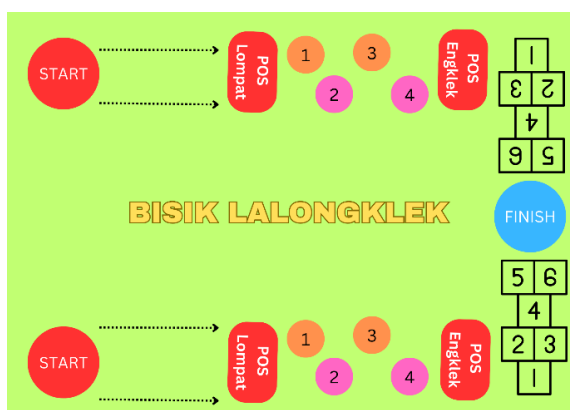
The initial stage involved identifying problems observed in the field. Based on observations and interviews conducted at TK Aisyiyah Bustanul Athfal 27 Sedayulawas, it was found that the receptive language ability of children aged 4–5 years was relatively low. The

children were not yet optimal in listening to instructions, understanding verbal information, or responding appropriately. The lack of engaging and developmentally appropriate learning media was one of the contributing factors. Therefore, a contextual and attractive play-based learning medium was needed.

2. Design

At this stage, the researchers designed the *Bisik Lalongklek* game by combining running, jumping, and hopscotch activities (*engklek*) with language-based activities, namely whispering messages and responding to instructions. The main media used was a 350 × 210 cm banner, accompanied by a teacher's guidebook to assist in implementing the learning process. The game design was aligned with receptive language development indicators from the National Early Childhood Education Standards (STPPA) to ensure that it targeted appropriate learning outcomes for children.

Figure 2. Initial Design



3. Development

The game was developed and validated by experts, including a **material expert** (75%), **media expert** (96.8%), and **early childhood teacher** (95%). All validators confirmed that the media was suitable for classroom implementation. A limited trial was then conducted with 16 early childhood students from another institution. The trial showed that children enthusiastically participated in the game, understood its flow, and actively engaged in both physical and verbal interactions.

An initial field test was conducted at KB Punggur Lamongan, and the validity test results are presented below:

Item	r-calculated	r-table	Sig.	Criteria
1	0.878	0.4973	0.000	Valid
2	0.674	0.4973	0.004	Valid
3	0.690	0.4973	0.003	Valid
4	0.865	0.4973	0.000	Valid
5	0.652	0.4973	0.006	Valid

The validity test aimed to determine the extent to which each item in the observation instrument accurately measured the intended aspect—children’s receptive language ability. The instrument was used during the initial field test involving 16 children from Group A as research subjects.

4. Implementation

The developed media was implemented with 21 children from Group A at TK Aisyiyah Bustanul Athfal 27 Sedayulawas. Before the intervention, a **pretest** was administered to assess children’s initial receptive

language skills. Then, over three consecutive days, children participated in *Bisik Lalongklek* play sessions, followed by a posttest to measure improvement.

The following table presents the posttest results for children's receptive language development:

Variable	Indicator	Score	Score	Score	Score
		1	2	3	4
X1	Children can follow teacher's instructions	0	0	6	15
X2	Children can understand the rules of the game	0	1	6	15
X3	Children can recognize whispered words correctly	0	0	8	13
X4	Children can understand the meaning of words	0	0	5	16
X5	Children can deliver the whispered word correctly	0	0	3	18

The comparison between pretest and posttest results indicated a significant improvement in receptive language skills. During the treatment, several key changes were observed:

- **Children became more attentive listeners**

They showed increased focus while listening to whispered sentences, realizing they needed to repeat them accurately. This trained active listening skills.

- **Improved sentence comprehension**

Children understood simple sentences, including commands, statements, and questions, demonstrating growing awareness of sentence structure and vocabulary meaning.

- **Accurate responses**

Most children were able to repeat the whispered sentences correctly, indicating successful comprehension and information processing.

- **Vocabulary expansion**

Through varied sentence exposure, children encountered new words, enriching their vocabulary and comprehension.

- **Enhanced verbal memory**

Remembering and relaying whispered sentences trained short-term auditory memory, crucial in receptive language development.

- **Contextual understanding**

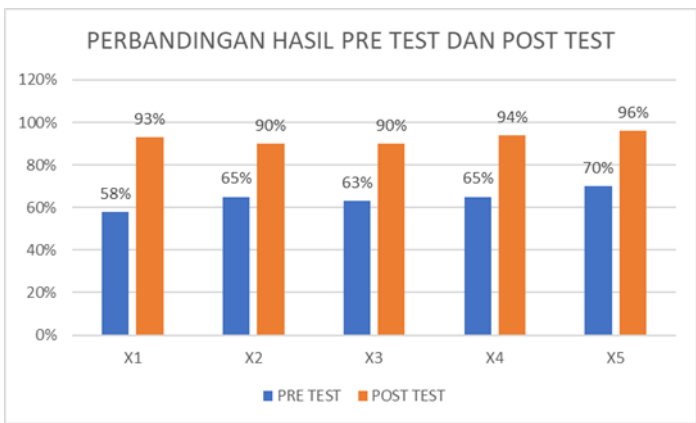
The playful and movement-based context helped children associate language with concrete actions, reinforcing comprehension through experience.

The comparison of pretest and posttest results showed noticeable gains:

- X1 (Following instructions): from 58% to 93%
- X2 (Understanding rules): from 65% to 90%
- X3 (Recognizing whispered words): from 63% to 90%
- X4 (Understanding words): from 65% to 94%
- X5 (Delivering whispered words): from 70% to 96%

In this graphic showed the result of pretest and posttest:

Graphic 1. The Comparison Between the Pretest and Posttest Results



The **N-Gain** test results are as follows:

Variable	Pretest	Posttest	N-Gain	Category
X1	49	78	0.83	High
X2	55	76	0.72	High
X3	53	76	0.74	High
X4	55	79	0.83	High
X5	59	81	0.88	High
Average	—	—	0.80	High

These results indicate that all indicators of receptive language skills showed significant improvement following the implementation of the

Bisik Lalongklek game.

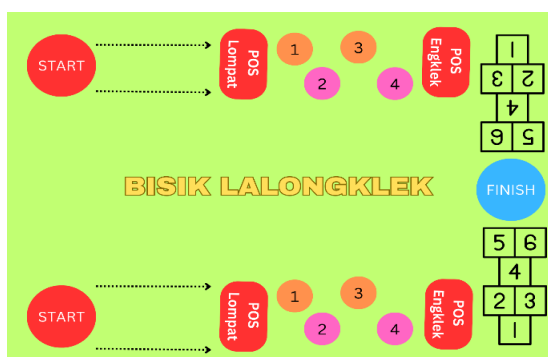
5. Evaluation

The evaluation phase assessed various aspects of implementation. The children demonstrated strong interest in the *Bisik Lalongklek* game, which positively influenced learning outcomes, although some still required teacher assistance after the sessions.

During the Analysis phase, it was found that suitable play-based media for supporting receptive language development were lacking. In the Design phase, experts suggested using bright colors and adding visual elements to enhance engagement. In the Development phase, experts' validation confirmed the feasibility of the media, and visual revisions were made for better appeal.

During Implementation, although some children initially struggled with the rules, they later showed enthusiasm and active participation after repeated practice. The final Evaluation suggested future improvements, such as adding word or sentence cards to help teachers deliver material more efficiently.

Figure 3. Revised Version of the Game



Discussion

The *Bisik Lalongklek* game was designed to stimulate the receptive language abilities of children aged 4–5 years through the integration of traditional games and verbal activities. It combines physical and linguistic components, using visual media (a banner) as a guide for movement and instruction.

Expert validation results confirmed that the game was **highly valid** in terms of content, language, and design. Teachers found it **practical** to implement, as it required no complex tools and the instructions were clear. The **effectiveness** of the game was demonstrated through the N-Gain analysis, which showed a transition from medium to high categories of receptive language achievement. These findings indicate that the game successfully enhanced children's ability to listen, comprehend, and respond to spoken information.

This result aligns with Jean Piaget's (1954) theory, which emphasizes that children in the preoperational stage learn best through concrete, hands-on, and play-based experiences. Play thus becomes an effective vehicle for developing both cognitive and linguistic skills in early childhood. Therefore, the *Bisik Lalongklek* game can be concluded as a valid, practical, and effective educational medium that improves young children's receptive language skills through enjoyable, developmentally appropriate, and meaningful play experiences.

Conclusion

Based on the findings and discussion of the *Bisik Lalongklek* game

development, it can be concluded that the game was designed in accordance with the developmental characteristics of children aged 4–5 years, particularly to stimulate receptive language skills. The game integrates verbal communication with physical activities such as running and jumping, while also incorporating elements of the traditional *engklek* game. Through an interactive and visually engaging banner, children are trained to listen, comprehend, and respond to instructions step by step. This design reflects the principle of *learning through play*, which serves as the foundation of early childhood education.

Validation results from material experts, media experts, and educators confirmed that the *Bisik Lalongklek* game is both feasible and valid to be used as a learning medium for enhancing receptive language skills in young children. The game fulfills the criteria of content validity, visual attractiveness, and practical implementation, while also promoting active engagement among children during learning activities.

From a practical perspective, early childhood teachers found the game easy to understand, prepare, and implement in class without requiring complex materials or lengthy preparation. Children participated enthusiastically and encountered minimal difficulties, making the game both enjoyable for learners and helpful for teachers in facilitating interactive lessons. The effectiveness test using N-Gain analysis indicated that the *Bisik Lalongklek* game effectively improved

the receptive language abilities of children aged 4–5 years. Therefore, it is suitable to be adopted as an innovative, educational, and enjoyable play-based learning medium for promoting early language development.

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