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Implementation Of The Reggio Emilia Approach In Developing Higher Order Thinking Skills (HOTS) Of Children Aged 5-6 Years At RA Nahdliyatul Islamiyah

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Abstract

This study was conducted to examine how the Reggio Emilia Approach contributes to the development of Higher Order Thinking Skills (HOTS) in children aged 5-6 years. HOTS, which involve the abilities to analyze, evaluate, and create, need to be fostered from an early age to support children's critical and creative thinking development. This research applied a qualitative descriptive design and was carried out at RA Nahdliyatul Islamiyah. The research participants included a classroom teacher and children in the 5-6 age group. Data were obtained through direct observation of learning activities, in-depth interviews with the teacher, and documentation of children's learning processes and products. The data were then analyzed using the stages of data reduction, data presentation, and conclusion drawing. The findings indicated that learning activities based on the Reggio Emilia Approach, such as project work, exploration, and group discussion, were able to encourage the development of children's higher-level thinking. Children demonstrated analytical skills when identifying and exploring objects, evaluative skills when expressing opinions, and creative skills when producing their own work. In addition, the teacher's role as a facilitator and the provision of a supportive learning environment strengthened this development. It can be concluded that the Reggio Emilia Approach is effective in supporting the enhancement of HOTS in early childhood learning.

Abstrak

Kata Kunci:
Reggio Emilia Approach; Higher Order Thinking Skills; Pendidikan Anak Usia Dini

Penelitian ini bertujuan untuk mengkaji implementasi Reggio Emilia Approach dalam mengembangkan Higher Order Thinking Skills (HOTS) pada anak usia 5-6 tahun. HOTS yang meliputi kemampuan menganalisis, mengevaluasi, dan mencipta merupakan kemampuan penting yang perlu distimulasi sejak usia dini guna mendukung perkembangan berpikir kritis dan kreatif anak. Penelitian ini menggunakan pendekatan kualitatif deskriptif dan dilaksanakan di RA Nahdliyatul Islamiyah. Subjek penelitian terdiri dari seorang guru kelas dan anak kelompok usia 5-6 tahun. Pengumpulan data dilakukan melalui observasi kegiatan pembelajaran, wawancara dengan guru, serta dokumentasi proses dan hasil belajar anak. Analisis data dilakukan melalui tahapan reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa penerapan Reggio Emilia Approach melalui kegiatan proyek, eksplorasi, dan diskusi mampu menstimulasi perkembangan kemampuan berpikir tingkat tinggi anak. Anak menunjukkan kemampuan menganalisis saat mengamati dan mengidentifikasi objek, kemampuan mengevaluasi saat menyampaikan pendapat, serta kemampuan mencipta melalui pembuatan karya berdasarkan ide sendiri. Selain itu, peran guru sebagai fasilitator dan lingkungan belajar yang mendukung menjadi faktor penting dalam proses tersebut. Dengan demikian, Reggio Emilia Approach dapat menjadi salah satu alternatif pembelajaran untuk mengembangkan HOTS anak usia dini.

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1. Introduction

Early childhood education plays a strategic role in building children's cognitive, social, emotional, and spiritual foundations. At this stage, children experience rapid brain development, which makes early stimulation essential to support optimal development. One of the important competencies that need to be developed from an early age is Higher Order Thinking Skills (HOTS). HOTS include the ability to analyze, evaluate, and create, which are necessary for problem solving and critical thinking (Anderson & Krathwohl, 2001). These skills help children not only understand information but also use it in meaningful ways.

However, the reality in many early childhood education institutions shows that learning practices still emphasize memorization and teacher-centered instruction. Children are often positioned as passive recipients of knowledge, which limits their opportunities to explore, question, and develop independent thinking. Based on preliminary observations conducted at RA Nahdliyatul Islamiyah, it was found that children tended to follow instructions without being actively involved in exploration and investigation activities. This condition

indicates that children's higher-order thinking skills have not been optimally facilitated.

In response to this issue, learning approaches that position children as active learners are needed. One of the approaches that has been widely recognized for its potential to develop children's thinking skills is the Reggio Emilia Approach (REA). This approach originated in Italy and views children as competent individuals who are capable of constructing their own knowledge through interaction with their environment (Edwards, Gandini, & Forman, 2012). Learning in REA emphasizes exploration, project-based activities, collaboration, and reflection. Children are encouraged to ask questions, investigate phenomena, and express their ideas through various forms.

From a theoretical perspective, the Reggio Emilia Approach is rooted in constructivist learning theory, which emphasizes that knowledge is actively constructed by learners through experience (Piaget, 1964; Vygotsky, 1978). Through active involvement, children develop deeper understanding and higher-level thinking skills. Previous studies have shown that the Reggio Emilia Approach can enhance children's creativity, problem-solving ability, and critical thinking (Gandini, 2012; Rinaldi, 2006). However, most of these studies were conducted in general educational settings and did not specifically examine its implementation in Islamic early childhood education institutions.

In the context of Islamic education, the development of thinking skills is closely related to reflective learning. Reflection is an important concept in Islamic teaching, which encourages individuals to think deeply about the signs of Allah's creation. The Qur'an repeatedly invites humans to reflect, observe, and use their reasoning abilities, as stated in Surah Ali-Imran verse 190, which emphasizes the importance of thinking and reflection for people of understanding. This shows that critical and reflective thinking is not only an educational goal but also part of Islamic values.

The reflective approach in Islamic education encourages learners to observe, contemplate, and draw meaning from their experiences. This principle is aligned with the Reggio Emilia Approach, which emphasizes exploration and reflection as part of the learning process. Both approaches position learners as active participants in constructing knowledge. In Islamic educational settings, integrating the Reggio Emilia Approach can support not only cognitive development but also spiritual and reflective awareness.

Despite the potential benefits of the Reggio Emilia Approach, its implementation in Islamic early childhood education, particularly in RA (Raudhatul Athfal), remains limited. Previous studies mostly focused on its impact on creativity and general development, but few studies have examined its role in developing Higher Order Thinking Skills within the context of Islamic education. In addition, the integration between the Reggio Emilia Approach and Islamic reflective learning values has not been widely explored.

Therefore, this study has novelty in several aspects. First, it examines the implementation of the Reggio Emilia Approach

specifically in an Islamic early childhood education setting. Second, it integrates the concept of reflective thinking in Islamic education with the principles of the Reggio Emilia Approach. Third, it focuses on the development of Higher Order Thinking Skills as the main outcome of learning.

Based on these considerations, the purpose of this study is to analyze the implementation of the Reggio Emilia Approach in developing Higher Order Thinking Skills in children aged 5-6 years at RA Nahdliyatul Islamiyah. This research is expected to contribute to the development of learning practices in Islamic early childhood education and provide alternative strategies to support children's higher-order thinking skills.

2. Methods

This study employed a qualitative descriptive design to explore the implementation of the Reggio Emilia Approach in developing Higher Order Thinking Skills (HOTS) among children aged 5-6 years. This approach was considered appropriate because it allows an in-depth understanding of learning practices and children's thinking processes within their natural educational setting.

The research was conducted at RA Nahdliyatul Islamiyah, located in Pamekasan, East Java, Indonesia. This institution was selected because it has begun to incorporate child-centered learning practices that encourage exploration and active participation. The study was carried out over a three-month period, from October to December 2025, during regular classroom learning activities.

The participants of this study consisted of one classroom teacher and twelve children aged between 5 and 6 years. The participants were selected using purposive sampling, which involves choosing individuals based on specific criteria relevant to the research objectives. The selection was carried out by the researcher in consultation with the classroom teacher, who provided recommendations based on her knowledge of the children's learning behaviors.

In this study, active participation was defined as the child's consistent involvement in learning activities, including engaging in exploration tasks, observing objects carefully, expressing ideas or asking questions, participating in group discussions, and producing work related to project activities. The twelve children included in the study met these criteria and demonstrated regular engagement during the learning process.

The primary focus of the study was to examine how the Reggio Emilia Approach was implemented and how it contributed to the development of children's Higher Order Thinking Skills, particularly in terms of their ability to analyze, evaluate, and create. These skills were observed during classroom activities and project-based learning.

Data were collected through classroom observations, interviews, and documentation. Observations were conducted directly during learning activities to examine children's engagement and responses. Interviews were carried out with the classroom teacher to gain insight into instructional practices and children's development.

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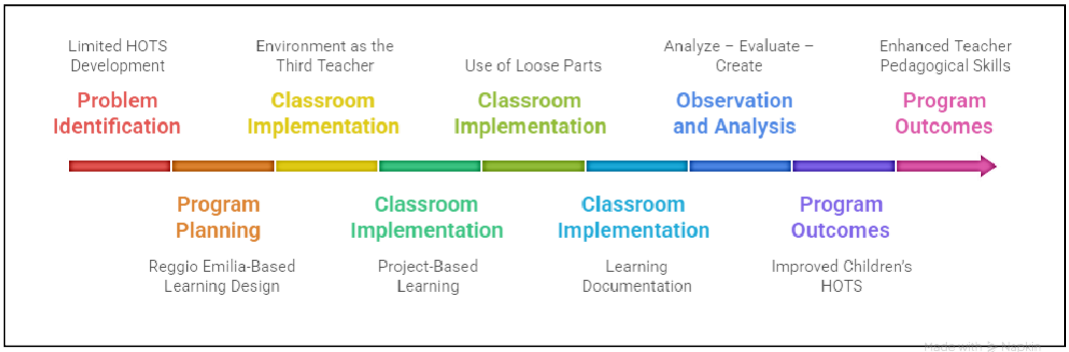
Documentation, including photographs, lesson records, and samples of children's work, was also collected to support and validate the findings.

The data were analyzed using the interactive model proposed by Miles and Huberman, which consists of three steps: data reduction, data display, and conclusion drawing. The researcher first organized and selected relevant data, then presented the information in a systematic way, and finally interpreted the findings to answer the research questions.

To ensure the trustworthiness of the data, triangulation was applied by comparing information obtained from different sources and methods. This process helped strengthen the credibility and accuracy of the findings.

learning materials, evaluate their own and peers' work, and create original products during project-based activities.



Fg. 1 *Qualitative Research Design: Case Study of the Implementation of the Reggio Emilia Approach in Developing HOTS in Children Aged 5-6 Years*

3. Result and Discussion

The results of this study are presented based on observations, interviews, and documentation conducted during the implementation of the Reggio Emilia Approach in children aged 5-6 years at RA Nahdliyatul Islamiyah. The findings focus on how this approach contributed to the development of Higher Order Thinking Skills (HOTS), particularly in terms of analyzing, evaluating, and creating abilities. Furthermore, this section discusses the implications of the learning program as a form of educational engagement within the school community, especially in the context of education in general and Islamic early childhood education in particular.

Implementation of the Reggio Emilia Approach in Learning Activities

The implementation of the Reggio Emilia Approach was carried out through project-based learning activities that emphasized exploration, investigation, and reflection. Children were given opportunities to observe objects in their surroundings, ask questions, and express their ideas through discussion and creative work. The teacher acted primarily as a facilitator who guided children's thinking rather than providing direct instruction.

During the learning process, children were observed to actively interact with materials, peers, and teachers. They showed curiosity by

asking questions, making observations, and attempting to explain what they had discovered. This finding supports the constructivist theory proposed by Piaget (1964), which states that children construct knowledge through active interaction with their environment. Similarly, Vygotsky (1978) emphasized the importance of social interaction in cognitive development. The findings of this study confirm that when children are given opportunities to explore and reflect, their thinking skills develop more meaningfully.

From the perspective of Islamic education, these activities also reflect the concept of tafakkur (reflection), which encourages learners to observe, think, and draw conclusions from their experiences. This shows that the Reggio Emilia Approach is relevant not only in the context of education in general but also in Islamic educational settings, where reflective thinking is an essential component of learning.

This learning program is implemented through several systematic stages, starting with problem identification, planning, implementation, and evaluation. Each stage contributes to improving the quality of learning and developing children's thinking skills.These stages can be seen in Table 1.

Table 1. Implementation Stages of the Community Engagement Program and Observed Outcomes

Program Stage	Activity Description	Observed Outcomes
Problem Identification	Observation of teacher-centered learning practices	Identification of limited HOTS development among children
Program Planning	Designing Reggio Emilia-based learning activities	Teachers gained understanding of child-centered learning
Implementation	Project-based learning, use of loose parts, learning documentation	Increased child engagement and exploratory behavior
Evaluation	Observation and reflection on learning outcomes	Improvement in children’s analytical, evaluative, and creative thinking

Source: Research Data (2025)

Table 1 shows that learning programs designed based on the Reggio Emilia Approach have a positive impact on child engagement. Children become more active, show curiosity, and engage in exploratory activities.

Furthermore, teachers also experienced an increased understanding of child-centered learning. In the general educational context, shifting the teacher's role from information center to facilitator

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is a crucial factor in supporting the development of children's thinking skills.

Development of Children's Higher Order Thinking Skills

The results showed that the implementation of the Reggio Emilia Approach contributed to the development of children's Higher Order Thinking Skills. These developments were observed in three main aspects: analyzing, evaluating, and creating.

Table 2 presents the summary of children's observed Higher Order Thinking Skills during the learning process.

Table 2. Development of Higher Order Thinking Skills in Children

Aspect of HOTS	Observed Indicators	Number of Children (n=12)
Analyzing	Observing objects carefully and identifying differences	10
Evaluating	Expressing opinions and responding to questions	9
Creating	Producing original work based on their own ideas	11

Source: Research Data (2025)

As shown in Table 2, most children demonstrated the ability to create original work, followed by analyzing and evaluating skills. Children's analytical skills were reflected in their ability to observe objects and explain their characteristics. Their evaluative skills were seen when they expressed opinions or responded to questions during discussions. Meanwhile, their creative skills were evident in their ability to produce drawings, constructions, and other project outcomes based on their own ideas.

These findings are consistent with Edwards, Gandini, and Forman (2012), who stated that the Reggio Emilia Approach encourages children to express their thinking through multiple forms of representation. The opportunity to explore and create allows children to develop deeper understanding and independent thinking.

Observations also show that implementing the Reggio Emilia Approach significantly improves children's thinking skills. Prior to the program, learning tended to be teacher-centered, resulting in children relying more on instructions and limited ability to develop independent thinking skills. After implementing this approach, children demonstrated more active engagement in learning activities. These changes can be seen in Table 3.

Table 3. Changes in Children's Higher Order Thinking Skills After the Implementation of the Reggio Emilia Approach

HOTS Dimension	Indicators	Learning Conditions Before Program	Learning Conditions After Program

Analytical Thinking	Observing and classifying objects	Children tended to rely on teacher instructions and showed limited ability to independently observe and classify objects	Children were able to independently observe, compare, and classify objects during project-based learning activities
Evaluative Thinking	Reflecting on learning outcomes	Children rarely evaluated their own work or that of their peers and needed guidance from the teacher	Children were able to express their opinions about their own work and provide simple evaluations of their peers' work
Creative Thinking	Producing original ideas and products	Children's work tended to be similar to each other and mostly imitative of teacher examples	Children produced more varied and original work using loose parts and their own ideas

Source: Research Data (2025)

Based on Table 2, it can be seen that children's analytical skills develop through independent observation and object classification activities. Evaluative skills develop as children begin to form opinions about their work. Furthermore, children's creative abilities also increase, as demonstrated by more diverse and original works.

These findings align with constructivist theory, which states that children construct knowledge through direct experience. In a general educational context, learning that provides opportunities for exploration can help children develop more complex thinking skills. This also aligns with the principles of the Reggio Emilia Approach, which emphasizes the importance of exploration and reflection in the learning process.

Role of Teachers in Facilitating Thinking Development

Another important finding was the role of the teacher in supporting children's thinking processes. Instead of acting as the sole source of knowledge, the teacher provided guidance, encouragement, and open-ended questions that stimulated children's thinking.

For example, when children were working on a project, the teacher asked questions such as, "Why do you think this happened?" and "What do you want to try next?" These questions encouraged children to reflect and make decisions independently.

This finding supports the Reggio Emilia principle that teachers function as facilitators and co-learners (Rinaldi, 2006). In the context

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of education in general, this approach promotes student-centered learning, which is essential for developing critical thinking skills.

Implications of the Educational Engagement Program

The implementation of the Reggio Emilia Approach in this study also had broader implications for the school community. As a form of educational engagement program, this approach contributed to improving the quality of learning and strengthening children's active participation.

The implementation of the Reggio Emilia Approach in this study also had broader implications for the school community. As a form of educational engagement program, this approach contributed to improving the quality of learning and strengthening children's active participation.

The impact of this program can be seen in several aspects: Children became more confident in expressing their ideas, Children showed greater curiosity and engagement in learning, Teachers adopted more reflective and child-centered teaching practices

In addition, this program contributed to strengthening the integration between educational theory and practice. The school community, including teachers and students, benefited from a learning environment that supported active exploration and meaningful learning.

In the context of Islamic education, the integration of reflective learning with the Reggio Emilia Approach also supported the development of reflective awareness in children. This shows that educational engagement programs based on appropriate learning approaches can contribute to both cognitive and character development.

This study offers several important contributions compared to previous research. First, this study specifically examined the implementation of the Reggio Emilia Approach in an Islamic early childhood education setting, which has received limited attention in previous studies. Second, this study integrated the concept of reflective thinking in Islamic education with the principles of the Reggio Emilia Approach. This integration provides a new perspective on how modern educational approaches can be aligned with Islamic educational values. Third, this study focused specifically on the development of Higher Order Thinking Skills, which is an essential competency in education in general but has not been widely explored in Islamic early childhood education contexts. These findings indicate that the Reggio Emilia Approach can be effectively implemented in Islamic educational institutions and can support the development of children's thinking skills.

4. Conclusion

The findings of this study indicate that the implementation of the Reggio Emilia Approach at RA Nahdliyatul Islamiyah contributed positively to improving learning quality and supporting the development of Higher Order Thinking Skills (HOTS) among children aged 5-6 years. The shift from teacher-dominated instruction toward

child-centered, project-based learning provided opportunities for children to explore, observe, reflect, and express their ideas more actively. As a result, children showed noticeable progress in analytical, evaluative, and creative thinking. In addition, teachers demonstrated improvement in managing learning activities that encouraged participation, exploration, and independent learning.

The novelty of this study lies in the application of the Reggio Emilia Approach within the context of Islamic early childhood education, showing that this approach can be adapted to institutional characteristics while maintaining its essential principles. These results suggest that the Reggio Emilia Approach can serve as an effective alternative for facilitating higher-order thinking development in early childhood settings. Future studies are recommended to involve a larger number of participants and different educational contexts to provide broader evidence regarding the effectiveness and sustainability of this approach.

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