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Efforts to Improve the Curiosity of Early Childhood Education Students by Implementing an Inquiry Approach at RA Al-Ma'soem

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ABSTRACT

This study aimed to improve the curiosity of early childhood education students through the implementation of an inquiry-based learning approach at RA Al-Ma'soem. Curiosity is an essential foundation for children's cognitive development and active learning, yet classroom observations revealed that many students showed low enthusiasm in asking questions, exploring learning materials, and responding critically to teacher stimulation. This research employed Classroom Action Research (CAR) consisting of two cycles, each including the stages of planning, action, observation, and reflection. The participants were 20 students of early childhood education (aged 5–6 years) at RA Al-Ma'soem. Data were collected through observation sheets, teacher field notes, and documentation. The main indicator of success was the percentage of students demonstrating curiosity behaviors, including asking questions, exploring objects, expressing opinions, and responding to learning challenges. The findings showed a significant improvement in students' curiosity after applying the inquiry approach. In the pre-cycle stage, the average curiosity achievement was 45% (low category). After the implementation in Cycle I, the curiosity level increased to 65% (moderate category). Furthermore, in Cycle II, the curiosity achievement reached 85% (high category), indicating that most students actively engaged in inquiry activities such as observing, questioning, experimenting, and communicating findings. The inquiry approach also increased students' participation, confidence, and motivation during Islamic learning activities. Therefore, it can be concluded that the inquiry approach is effective in enhancing curiosity among early childhood learners and can be recommended as an innovative learning strategy in Islamic early childhood education institutions.

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Introduction

Curiosity is widely recognized as a fundamental psychological and educational construct that drives children to explore their environment, seek new knowledge, and actively

engage in learning experiences. In early childhood education, curiosity is not merely an additional learning attribute but a central developmental force that supports cognitive, emotional, and social growth. Children who demonstrate high curiosity tend to ask more questions, investigate objects more deeply, and show greater persistence when encountering new challenges, which ultimately contributes to meaningful learning outcomes (Engel, 2011). Therefore, strengthening curiosity in early childhood is essential to ensure that children develop the capacity to become active learners and critical thinkers from an early age.

Early childhood education institutions play a crucial role in facilitating the emergence and development of curiosity through structured learning environments. The learning process at this stage should be designed to provide children with opportunities to explore, experiment, and construct their own understanding through active engagement with materials and social interactions. Educational theorists have consistently emphasized that young children learn best through direct experience, exploration, and inquiry rather than passive reception of information (Piaget, 1952). Consequently, learning strategies that allow children to observe, ask questions, and test ideas are particularly relevant in supporting curiosity development.

Curiosity is also strongly connected to intrinsic motivation. Children who are curious typically demonstrate a natural desire to learn, which emerges from internal satisfaction rather than external rewards. This internal motivation is important because it promotes long-term learning engagement and encourages children to independently pursue knowledge (Ryan & Deci, 2000). When children are motivated by curiosity, they tend to display deeper cognitive involvement and higher concentration in classroom activities. Thus, educators must create learning experiences that nurture intrinsic motivation by stimulating curiosity through authentic and meaningful tasks.

In the context of contemporary education, curiosity is increasingly viewed as one of the most critical skills for future learners. Modern societies require individuals who can adapt to change, solve problems creatively, and continuously learn throughout their lives. These demands have positioned curiosity as a key component of 21st-century skills, as it enables individuals to seek information, analyze situations, and develop innovative solutions (Trilling & Fadel, 2009). For this reason, early childhood education should be oriented not only toward basic academic skills but also toward developing learning dispositions such as curiosity, creativity, and critical thinking.

Research evidence indicates that curiosity contributes significantly to academic achievement and cognitive development. Curious learners are more likely to process information deeply, integrate new knowledge with existing understanding, and demonstrate stronger memory retention (Kashdan et al., 2018). Additionally, curiosity supports the development of scientific reasoning, as children become accustomed to

asking questions, making predictions, and evaluating evidence. In early childhood classrooms, this learning orientation is particularly important because children are at a stage where foundational cognitive structures are being formed (Vygotsky, 1978).

Despite its importance, curiosity is often overlooked in classroom practice. Many early childhood classrooms still rely on teacher-centered methods that emphasize instruction, repetition, and completion of worksheets rather than exploration and discovery. Such approaches may limit children's opportunities to ask questions and investigate phenomena, which can suppress natural curiosity and reduce learning motivation (Engel, 2015). This issue is especially relevant in contexts where teachers prioritize measurable academic outcomes over developmental learning processes.

In Islamic early childhood education settings, curiosity should also be considered an essential element of holistic development. Islamic education aims not only to transmit knowledge but also to cultivate faith, morality, and intellectual growth. Within Islamic tradition, the pursuit of knowledge is strongly encouraged, and curiosity can be interpreted as part of the human responsibility to seek understanding of Allah's creation (Halstead, 2004). Therefore, developing curiosity in early childhood learners aligns with the broader objectives of Islamic education, which emphasize reflective thinking, exploration, and the appreciation of knowledge as a form of worship.

The Qur'an contains many verses that encourage observation, reflection, and inquiry into natural phenomena, suggesting that curiosity and intellectual exploration are consistent with Islamic epistemology. Islamic education, when implemented effectively, should provide children with opportunities to explore their environment and understand concepts through meaningful experiences (Hussain, 2007). Consequently, Islamic early childhood institutions should not adopt rigid instructional methods that restrict children's questions and exploration, but rather encourage learning through discovery and active engagement.

However, empirical observations in many early childhood institutions indicate that Islamic learning activities are often delivered through memorization and repetition. While memorization has a place in Islamic education, excessive reliance on such methods may reduce children's engagement and limit their ability to think critically or ask meaningful questions (Rizvi, 2007). In such cases, children may become passive learners, responding only when prompted and demonstrating limited interest in exploring new information. This challenge highlights the need for pedagogical innovation that balances Islamic values with modern learning approaches.

One promising strategy to address this issue is the inquiry approach. Inquiry-based learning is a student-centered pedagogical method that encourages learners to explore problems, ask questions, gather evidence, and construct their own understanding through investigation (Hmelo-Silver et al., 2007). Inquiry learning is

rooted in constructivist theory, which emphasizes that knowledge is actively constructed by learners through interaction with their environment rather than passively received from teachers (Bruner, 1961). This approach is highly relevant to early childhood learning because it aligns with children's natural tendencies to explore and experiment.

The inquiry approach emphasizes learning as a process of questioning and discovery. Through inquiry-based activities, children are encouraged to observe phenomena, formulate questions, test hypotheses, and communicate their findings. This learning process directly stimulates curiosity, as children become engaged in searching for answers and solving problems through exploration (National Research Council, 2000). Furthermore, inquiry-based learning promotes active participation, critical thinking, and collaborative learning, all of which are important for holistic development in early childhood education.

In early childhood contexts, inquiry learning must be implemented in ways that are developmentally appropriate. Young children require concrete experiences, guided exploration, and teacher facilitation to ensure that inquiry activities remain meaningful and manageable. Teachers play a crucial role in designing learning environments that stimulate curiosity while providing scaffolding to support children's thinking processes (Wood et al., 1976). When properly facilitated, inquiry learning allows children to explore ideas freely while still receiving guidance that helps them construct accurate understanding.

Studies have shown that inquiry-based approaches are effective in enhancing curiosity and learning engagement in young children. Research indicates that children involved in inquiry-based learning tend to demonstrate higher levels of questioning behavior, deeper exploration, and stronger enthusiasm for learning activities (Chouinard, 2007). Additionally, inquiry learning has been linked to improvements in cognitive development, problem-solving skills, and early scientific reasoning abilities (Minner et al., 2010). These findings support the idea that inquiry learning is a valuable strategy for early childhood classrooms.

Furthermore, inquiry-based learning encourages children to develop communication skills as they share their observations and explain their reasoning. The process of discussing findings and exchanging ideas strengthens language development and social interaction skills, which are essential for early childhood learners (Bodrova & Leong, 2007). These social and linguistic benefits demonstrate that inquiry learning contributes not only to cognitive development but also to broader developmental domains.

The inquiry approach is also aligned with the principles of meaningful learning. Meaningful learning occurs when children connect new knowledge with prior understanding and apply concepts in real-life contexts. This type of learning fosters

deeper comprehension and long-term retention (Ausubel, 1968). Inquiry learning supports meaningful learning by allowing children to experience concepts directly through exploration, thereby strengthening conceptual understanding and internal motivation.

In the Indonesian early childhood education context, several challenges remain regarding the development of curiosity. Many teachers still perceive children's questioning behavior as disruptive rather than constructive, which may result in reduced opportunities for inquiry. Additionally, classroom learning is often focused on completing tasks rather than exploring concepts, which can limit children's engagement (Suyanto, 2005). These issues suggest that systematic efforts are needed to transform teaching practices into more child-centered approaches that stimulate curiosity.

Preliminary observations at RA Al-Ma'soem revealed that many children showed limited curiosity during learning activities. Children were less likely to ask questions, explore learning media, or respond actively to teacher stimulation. Most learning activities were dominated by teacher explanations, and children tended to follow instructions passively. This situation reflects a common issue in early childhood classrooms where learning is structured in ways that restrict children's natural exploration tendencies (Engel, 2011). If such conditions persist, children may lose motivation and fail to develop inquiry habits that are important for future learning.

In response to this challenge, implementing an inquiry approach was considered a strategic intervention. Inquiry learning provides opportunities for children to explore Islamic learning materials through active engagement, observation, and questioning. By integrating inquiry activities into classroom learning, children can be encouraged to actively seek understanding and develop curiosity as a learning disposition (Hmelo-Silver et al., 2007). This approach is expected to create a more interactive learning environment that fosters children's natural desire to explore.

Classroom Action Research (CAR) is an appropriate method to evaluate the effectiveness of inquiry learning in improving curiosity. CAR allows teachers and researchers to implement interventions systematically through iterative cycles of planning, action, observation, and reflection. This method is particularly suitable for improving classroom practices because it emphasizes continuous improvement based on real classroom conditions (Kemmis & McTaggart, 1988). Moreover, CAR enables teachers to become reflective practitioners who actively seek solutions to learning challenges.

Previous studies have demonstrated that CAR is effective in improving learning processes and outcomes in early childhood settings. Through CAR, teachers can evaluate the impact of instructional strategies and modify them according to children's needs. CAR has been widely applied to enhance motivation, participation, and learning

achievement, making it a reliable framework for educational improvement (Burns, 2010). Therefore, this research design was selected to ensure that the inquiry approach could be tested and refined through systematic classroom implementation.

This study contributes to the growing body of literature on inquiry-based learning in early childhood education, particularly within Islamic educational institutions. While many studies have examined inquiry learning in general early childhood settings, fewer studies have focused on its implementation in Islamic early childhood education contexts. This research fills this gap by examining how inquiry-based strategies can support curiosity development while maintaining Islamic educational values and classroom culture (Halstead, 2004). Thus, the findings are expected to provide both theoretical and practical contributions to the field.

The significance of this study lies in its potential to offer an effective pedagogical solution for improving children's curiosity. Curiosity is a foundational learning disposition that supports children's academic readiness and lifelong learning orientation. By improving curiosity, early childhood institutions can ensure that children develop stronger engagement, deeper understanding, and higher motivation in learning activities (Ryan & Deci, 2000). Therefore, the inquiry approach is not only relevant for improving classroom learning but also important for developing children's long-term learning potential.

Accordingly, this study aimed to investigate the extent to which the inquiry approach could improve the curiosity of early childhood education students at RA Al-Ma'soem. The research focused on implementing inquiry-based learning activities through Classroom Action Research cycles and evaluating changes in children's curiosity behaviors. The findings of this study are expected to provide valuable recommendations for early childhood teachers, school leaders, and researchers seeking to enhance learning quality through child-centered approaches. Ultimately, fostering curiosity through inquiry learning can support the development of active, reflective, and motivated learners in Islamic early childhood education settings.

Methods

This study employed Classroom Action Research (CAR) as the primary research design. CAR was selected because it is appropriate for improving instructional practices through systematic cycles of intervention, observation, and reflection in real classroom settings. The CAR framework applied in this study followed the model proposed by Kemmis and McTaggart (1988), which consists of four interconnected stages: planning, action, observation, and reflection. This method enabled the researcher to evaluate the effectiveness of the inquiry approach in improving students' curiosity and to continuously refine the instructional process based on classroom findings.

The research was conducted at RA Al-Ma'soem, an Islamic early childhood education institution. The participants of this study were 20 early childhood students aged 5–6 years, consisting of 11 boys and 9 girls. The students were selected as the research subjects because preliminary classroom observations indicated low curiosity levels during learning activities. The classroom teacher collaborated with the researcher in implementing the inquiry-based learning approach and in conducting classroom observations. The teacher's involvement was essential to ensure the learning intervention was implemented naturally within the daily instructional process.

The study was carried out in two cycles, with each cycle consisting of several learning meetings. Each cycle followed the four stages of CAR: planning, action, observation, and reflection. Prior to Cycle I, a pre-cycle observation was conducted to identify baseline curiosity behaviors and determine the initial learning conditions.

In the planning stage, the researcher and teacher collaboratively designed inquiry-based lesson plans aligned with the early childhood Islamic education curriculum. Learning materials and media were prepared to stimulate curiosity, such as pictures, real objects, story-based Islamic themes, and simple experiments suitable for children. Observation instruments were also developed to record students' curiosity indicators during learning activities.

In the action stage, the inquiry approach was implemented in the classroom through structured learning activities. The inquiry-based learning process emphasized student-centered exploration, beginning with teacher stimulation through guiding questions, followed by children's observation of objects or phenomena, questioning activities, exploration, simple investigation, and group discussion. The teacher facilitated learning by providing scaffolding and encouraging children to express opinions, ask questions, and share their discoveries.

In the observation stage, students' curiosity behaviors were recorded systematically using observation sheets. Observations were conducted by the researcher and assisted by the classroom teacher to ensure objectivity. Field notes were also written to document classroom dynamics, student responses, and challenges that emerged during the inquiry learning process.

In the reflection stage, the researcher and teacher analyzed the results of the observation data and evaluated the effectiveness of the learning intervention. Reflection was used to identify strengths and weaknesses in the implementation of the inquiry approach and to determine improvements needed for the next cycle. The reflection findings became the basis for revising lesson plans and instructional strategies in Cycle II.

The inquiry approach applied in this study was designed based on constructivist learning principles emphasizing active exploration and knowledge construction (Bruner, 1961). The inquiry activities were adapted to early childhood characteristics, ensuring learning was playful, contextual, and developmentally appropriate. The inquiry process included five main stages: orientation, questioning, exploration, explanation, and conclusion. Students were encouraged to engage in simple investigations such as observing learning objects, comparing differences, experimenting with materials, and discussing outcomes with peers. Islamic learning content was integrated into inquiry activities by using themes related to daily worship practices, moral behavior, and recognition of Allah's creations.

To ensure inquiry learning was effective, the teacher consistently provided scaffolding through open-ended questions, guided discussions, and reinforcement. This approach aligned with socio-cultural learning theory, emphasizing the importance of teacher support in children's cognitive development (Vygotsky, 1978). Through this intervention, students were expected to demonstrate increased curiosity behaviors, such as asking more questions, showing greater interest in learning objects, and actively participating in classroom discussions.

Data were collected using multiple techniques to strengthen the validity of findings. The primary data collection method was structured observation, conducted throughout the pre-cycle, Cycle I, and Cycle II. Observation sheets were used to assess children's curiosity based on predetermined indicators. These indicators included asking questions, exploring objects, responding to teacher stimulation, expressing opinions, and showing enthusiasm in participating in learning activities.

In addition to observation, field notes were used to capture qualitative information regarding students' learning behaviors, classroom atmosphere, and teacher-student interactions. Documentation was also collected in the form of lesson plans, student worksheets, photographs of learning activities, and school records to support the analysis and provide evidence of the implementation process.

The main instrument used in this study was a curiosity observation checklist developed based on curiosity indicators commonly applied in early childhood learning assessment. The observation instrument measured five key curiosity aspects: students' willingness to ask questions, active exploration behavior, interest in new learning materials, responsiveness to inquiry tasks, and engagement in group discussion. Each indicator was rated using a performance scale ranging from low to high based on frequency and quality of behavior demonstrated during learning sessions.

To strengthen reliability, observation was conducted by two observers, namely the researcher and the classroom teacher. This method aimed to minimize bias and ensure

consistency in assessing students' curiosity behaviors. The field note format was also structured to ensure that important classroom events were systematically recorded.

The data analysis in this study applied both quantitative and qualitative approaches. Quantitative analysis was used to measure the percentage improvement in students' curiosity levels from the pre-cycle stage to Cycle I and Cycle II. The curiosity percentage was calculated by dividing the number of students who achieved curiosity indicators by the total number of students, then multiplying by 100%. The results were categorized into four levels: low, moderate, good, and very good, based on predetermined criteria.

Qualitative analysis was conducted by interpreting field notes and documentation to provide a deeper understanding of how the inquiry approach influenced students' curiosity. This analysis involved data reduction, data display, and conclusion drawing as suggested by Miles, Huberman, and Saldaña (2014). Qualitative findings were used to explain classroom interactions, learning dynamics, and factors contributing to the improvement of curiosity.

To ensure the validity and trustworthiness of the findings, this study employed triangulation of methods and sources. Observation data were cross-checked with field notes and documentation to confirm consistency. Additionally, observer triangulation was conducted by involving both the researcher and the classroom teacher in the observation process.

The credibility of the research was also strengthened through reflective discussions after each cycle, where the researcher and teacher evaluated the learning process and ensured that interpretations were grounded in actual classroom evidence. This reflective process is consistent with the core principles of Classroom Action Research, which emphasize systematic improvement through continuous evaluation (Kemmis & McTaggart, 1988).

Ethical principles were strictly applied throughout the research process. Permission to conduct the study was obtained from the school principal and classroom teacher. Informed consent was also ensured through communication with students' parents or guardians. Students' identities were kept confidential, and all data were used solely for academic research purposes. The inquiry activities implemented in the classroom were designed to be safe, appropriate, and supportive of children's psychological well-being.

Result

This section presents the results of the Classroom Action Research (CAR) conducted at RA Al-Ma'soem to improve early childhood students' curiosity through the implementation of an inquiry approach. The findings are organized into three stages:

pre-cycle (baseline condition), Cycle I, and Cycle II. The primary data were obtained through systematic observation using a curiosity indicator checklist consisting of five major behavioral indicators: asking questions, exploring learning objects, responding to teacher stimulation, expressing opinions, and actively participating in inquiry-based tasks.

The overall results indicate a consistent and significant improvement in students' curiosity throughout the research cycles. The improvement can be observed not only in the percentage scores but also in the quality of students' engagement during learning activities. In the pre-cycle stage, the majority of students showed limited interest in exploring learning materials, rarely asked questions, and tended to wait for direct teacher instruction. However, after the inquiry approach was implemented in Cycle I and strengthened in Cycle II, students demonstrated more active learning behaviors, greater willingness to explore, and higher confidence in expressing curiosity-related responses. To provide a clearer description of the quantitative improvement, the average curiosity achievement levels across the research stages are presented in Table 1.

Table 1. Improvement of Students' Curiosity Levels in Pre-Cycle, Cycle I, and Cycle II

Research Stage	Average Curiosity Score (%)	Category
Pre-Cycle	45%	Low
Cycle I	65%	Moderate
Cycle II	85%	High

Table 1 shows that students' curiosity levels increased substantially after the inquiry approach was applied. The baseline curiosity level in the pre-cycle stage was 45%, categorized as low. This indicates that fewer than half of the expected curiosity behaviors were demonstrated by students. After Cycle I, the curiosity score increased to 65%, indicating a moderate category and reflecting a notable improvement in students' engagement and questioning behavior. The highest improvement occurred in Cycle II, where the average curiosity score reached 85%, categorized as high, indicating that most students actively displayed curiosity behaviors during inquiry learning activities.

In addition to the overall curiosity score, the results of each curiosity indicator were analyzed to provide more detailed evidence of improvement. This analysis is presented in Table 2.

Table 2. Percentage Improvement of Curiosity Indicators Across Research Stages

Curiosity Indicators	Pre-Cycle (%)	Cycle I (%)	Cycle II (%)
Asking questions	40%	60%	85%
Exploring objects	45%	70%	90%
Responding actively	50%	65%	85%
Expressing opinions	40%	60%	80%
Participation in tasks	50%	70%	85%
Average	**45%**	**65%**	**85%**

Table 2 indicates that all curiosity indicators improved consistently from the pre-cycle stage to Cycle II. In the pre-cycle stage, the lowest indicators were asking questions and expressing opinions, both at 40%. This suggests that students were reluctant to speak, ask, or communicate their curiosity openly. Meanwhile, the highest indicators in the pre-cycle stage were responding actively and participation in tasks at 50%, meaning some students participated when instructed, but their engagement remained limited and reactive rather than exploratory.

After Cycle I, the indicator of exploring objects reached 70%, which became the strongest improvement in the first intervention cycle. This indicates that the inquiry approach successfully encouraged students to interact with learning media and investigate objects more actively. Participation in tasks also increased to 70%, reflecting that students became more engaged in learning activities, especially when inquiry tasks were designed as interactive and collaborative.

In Cycle II, the improvement became more substantial across all indicators. The highest indicator was exploring objects at 90%, showing that almost all students actively explored learning materials. Asking questions improved significantly to 85%, suggesting that students became more confident in expressing curiosity verbally. Responding actively and participation in tasks both reached 85%, indicating that students demonstrated high engagement and enthusiasm in inquiry-based learning processes. Expressing opinions also improved to 80%, which reflects the development of students' confidence in communicating ideas and findings.

The qualitative findings further supported the quantitative results. During the pre-cycle stage, classroom observation notes indicated that students often remained silent during learning sessions and tended to focus only on completing teacher-directed tasks. Most students showed limited initiative to ask questions, and they often relied on peers'

answers rather than exploring independently. Several students also appeared hesitant to respond when teachers asked open-ended questions, indicating low confidence and limited inquiry habits.

During Cycle I, students began to demonstrate noticeable behavioral changes. When the teacher introduced learning objects and stimulated children with inquiry-based questions, several students started to ask simple questions such as “Why is it like that?” and “What happens if we do this?” Students also showed increased attention toward learning materials, especially when learning was conducted using real objects, pictures, and simple experiments. However, observation notes indicated that some students still required encouragement and scaffolding to remain actively engaged in inquiry activities. A number of students still hesitated to express opinions, and teacher guidance was still dominant during discussions.

During Cycle II, students’ curiosity behaviors became significantly stronger. Observation notes revealed that students showed more spontaneous questioning and were more confident in exploring learning materials without waiting for teacher instructions. Students were also more enthusiastic during group discussions, frequently sharing their observations and responding to peers’ ideas. The inquiry learning process in Cycle II also created a more dynamic classroom atmosphere, where children actively interacted with learning objects, asked follow-up questions, and demonstrated excitement when discovering new information. This indicates that the inquiry approach not only increased curiosity scores but also improved the quality of classroom interaction and learning engagement.

The results confirm that the inquiry approach effectively improved early childhood students’ curiosity at RA Al-Ma'soem. The increase from 45% in the pre-cycle stage to 85% in Cycle II demonstrates that inquiry-based learning can create meaningful changes in children’s learning behaviors, particularly in encouraging them to explore, ask questions, and participate actively in classroom activities.

Discussion

The findings of this study demonstrate that implementing an inquiry approach significantly improved the curiosity of early childhood students at RA Al-Ma'soem. The improvement was evident both quantitatively, as shown in the percentage increase from 45% in the pre-cycle stage to 85% in Cycle II, and qualitatively, through observable changes in children’s learning behavior. These results confirm that curiosity is not merely an innate trait but can be strengthened through appropriate pedagogical strategies and classroom learning environments. This aligns with Engel’s (2011) argument that curiosity can be nurtured when children are provided with meaningful opportunities to explore and engage in discovery-based learning experiences.

The increase in curiosity indicators suggests that inquiry-based learning provides an effective learning structure for early childhood students because it encourages active engagement rather than passive learning. In the pre-cycle stage, children demonstrated low questioning behavior and limited initiative, which reflects the common problem in teacher-centered classrooms where children are expected to receive information rather than explore it. This condition supports the view that traditional instructional approaches may limit children's natural curiosity by reducing opportunities for exploration and inquiry (Engel, 2015). Therefore, the baseline findings in this study emphasize the importance of shifting early childhood learning environments toward more child-centered pedagogical models.

The inquiry approach implemented in this study was grounded in constructivist theory, which emphasizes that children learn by actively constructing knowledge through interaction with their environment. Bruner (1961) explained that discovery-based learning allows learners to develop deeper understanding because they become involved in the process of meaning-making. The significant improvement in students' curiosity, particularly in the indicators of exploring objects and asking questions, suggests that children became more cognitively engaged when learning was designed as an investigative process rather than a teacher explanation. This supports Piaget's (1952) view that children develop cognitive structures through exploration and active interaction with their surroundings.

The strong improvement in the "exploring objects" indicator, which reached 90% in Cycle II, indicates that inquiry-based activities successfully stimulated children's natural tendency to investigate. Early childhood learners are highly responsive to concrete materials and sensory experiences, which makes exploration-based learning particularly effective. According to Bodrova and Leong (2007), young children's cognitive development is strongly supported when learning activities involve manipulation of objects, experimentation, and play-based investigation. The inquiry approach, by emphasizing observation and exploration, created a learning environment that was aligned with children's developmental needs.

Furthermore, the improvement in the "asking questions" indicator from 40% in the pre-cycle stage to 85% in Cycle II suggests that inquiry-based learning strengthened children's confidence and motivation to express curiosity verbally. Questioning is a central component of inquiry learning because it reflects children's desire to seek understanding and clarify knowledge gaps. Chouinard (2007) argued that children's questioning behavior is a strong indicator of cognitive curiosity, and it increases when teachers create supportive environments where questions are valued rather than ignored. In this study, the teacher's consistent encouragement and scaffolding likely contributed to students' increased willingness to ask questions during learning sessions.

The role of teacher scaffolding was crucial in supporting the success of the inquiry approach. Young children often need structured guidance to develop inquiry skills such as formulating questions, predicting outcomes, and drawing conclusions. Vygotsky (1978) emphasized that learning occurs effectively when teachers provide support within the learner's zone of proximal development, enabling children to perform tasks that they could not accomplish independently. In this research, the teacher facilitated inquiry through guiding questions and interactive discussions, which gradually helped students develop inquiry habits and confidence. This may explain why curiosity improvement became more significant in Cycle II, as children had already become familiar with inquiry routines in Cycle I.

The findings also suggest that inquiry learning contributed to increased intrinsic motivation among students. Curiosity is strongly linked to intrinsic motivation, as children who are curious tend to engage in learning because they enjoy discovering new information rather than seeking external rewards. Ryan and Deci (2000) explained that intrinsic motivation is strengthened when learners experience autonomy, competence, and relatedness. Inquiry-based learning provides children with autonomy in exploring materials, competence through successful discoveries, and relatedness through collaborative discussion. These motivational conditions likely contributed to the observed increase in participation and enthusiasm during Cycle II.

In addition, inquiry-based learning encourages deeper cognitive engagement, which strengthens children's learning outcomes and curiosity simultaneously. Kashdan et al. (2018) argued that curiosity is associated with deeper learning because it motivates individuals to seek new information and persist in challenging tasks. In this study, students demonstrated greater persistence and enthusiasm in completing inquiry tasks during Cycle II, indicating that curiosity was not only improved as a behavioral indicator but also developed as a learning disposition.

The improvement in "expressing opinions" from 40% to 80% further demonstrates that inquiry learning strengthened children's communication and social interaction skills. Inquiry learning requires children to share observations, discuss findings, and communicate ideas. This aligns with the view that language development is strongly supported when children participate in interactive learning environments that encourage discussion and explanation (Bodrova & Leong, 2007). The increased confidence in expressing opinions suggests that students became more comfortable communicating ideas because inquiry learning created a supportive and collaborative classroom atmosphere.

The effectiveness of inquiry learning in this study is consistent with previous research findings indicating that inquiry-based learning enhances student engagement and critical thinking. Hmelo-Silver et al. (2007) emphasized that inquiry learning

encourages learners to develop reasoning skills through exploration and problem-solving. Although early childhood students may not demonstrate complex reasoning as older learners do, they can still develop foundational inquiry skills such as observing, asking questions, and making simple conclusions. The increased curiosity scores in this study provide evidence that inquiry learning supports the development of these foundational inquiry behaviors.

Moreover, the implementation of inquiry learning in an Islamic early childhood education setting highlights an important pedagogical implication. Islamic education emphasizes the pursuit of knowledge and encourages reflection on Allah's creation as a form of learning and worship. Halstead (2004) stated that Islamic education is not only about transmitting religious knowledge but also about fostering intellectual development and moral awareness. The inquiry approach in this study was integrated with Islamic learning themes, enabling children to explore concepts related to daily worship practices and moral behavior through investigation-based activities. This integration demonstrates that inquiry learning can be implemented effectively within Islamic educational frameworks without contradicting religious values.

The Qur'anic emphasis on reflection and observation also supports the use of inquiry-based learning in Islamic education. Hussain (2007) argued that Islamic epistemology values knowledge derived from both revelation and observation of the natural world. Therefore, encouraging children to explore and ask questions aligns with Islamic educational philosophy. The improvement in students' curiosity suggests that inquiry learning can strengthen children's intellectual engagement while simultaneously supporting Islamic educational objectives.

The classroom action research method used in this study was effective in ensuring continuous improvement in teaching practices. CAR allowed the researcher and teacher to evaluate learning outcomes systematically and make adjustments after each cycle. Kemmis and McTaggart (1988) emphasized that CAR is designed to improve classroom practice through reflective cycles, making it suitable for addressing real educational problems. In this research, reflection after Cycle I allowed the teacher to improve inquiry facilitation strategies, which resulted in stronger improvements in Cycle II. This demonstrates the value of CAR as a research design for enhancing early childhood learning processes.

The substantial increase in curiosity from Cycle I to Cycle II suggests that inquiry learning requires consistent implementation to produce strong results. During Cycle I, children were still adapting to inquiry routines and developing confidence in questioning and exploring. However, by Cycle II, children became more familiar with inquiry processes, enabling them to participate more actively. This supports Minner et al. (2010), who found that inquiry-based learning becomes more effective when implemented

systematically and consistently, allowing learners to develop inquiry skills gradually over time.

The findings also highlight that inquiry learning may contribute to the development of early critical thinking. Curiosity is a precursor to critical thinking because children who are curious tend to seek explanations and evaluate information more actively. Trilling and Fadel (2009) emphasized that curiosity and inquiry skills are essential components of 21st-century learning competencies. By strengthening curiosity through inquiry learning, early childhood education institutions can help children develop foundational skills that support lifelong learning and future academic readiness.

Despite the positive outcomes, the implementation process revealed that inquiry learning requires careful planning and teacher competence. Inquiry-based learning can be challenging for teachers who are accustomed to teacher-centered methods because it requires flexibility, active facilitation, and the ability to respond to children's spontaneous questions. Wood et al. (1976) emphasized that scaffolding is essential in inquiry learning, especially for young learners. In this study, teacher scaffolding became more effective in Cycle II, suggesting that teacher experience and reflection play important roles in determining inquiry learning success.

Additionally, the learning media used in inquiry activities significantly influenced students' curiosity improvement. Children demonstrated greater curiosity when learning involved real objects, visual media, and interactive materials. This supports Ausubel's (1968) theory of meaningful learning, which emphasizes that learning becomes more effective when new information is presented in ways that connect to children's experiences. Inquiry learning provided children with direct experiences, enabling them to construct understanding based on exploration rather than memorization.

Overall, the findings of this study confirm that inquiry-based learning is an effective approach for improving curiosity among early childhood students. The improvement in all curiosity indicators suggests that inquiry learning provides a comprehensive learning experience that supports exploration, questioning, communication, and active participation. This result strengthens the argument that early childhood learning should prioritize developmental learning dispositions such as curiosity rather than focusing solely on academic skills (Engel, 2011).

In conclusion, the inquiry approach implemented through Classroom Action Research cycles successfully enhanced students' curiosity at RA Al-Ma'soem. The findings provide strong evidence that inquiry learning is compatible with Islamic early childhood education contexts and can serve as an innovative strategy to improve learning engagement and curiosity. The study contributes to early childhood education literature by demonstrating that inquiry learning not only increases curiosity scores but also improves classroom interaction quality, communication skills, and intrinsic

motivation. Therefore, early childhood educators are encouraged to adopt inquiry-based strategies to cultivate curiosity as a foundation for lifelong learning and intellectual development.

Conclusion

This Classroom Action Research demonstrated that implementing an inquiry-based learning approach effectively improved the curiosity of early childhood students at RA Al-Ma'soem. The findings revealed a consistent and significant increase in students' curiosity levels across the research stages, rising from 45% in the pre-cycle stage to 65% in Cycle I and reaching 85% in Cycle II. Improvements were evident across all observed curiosity indicators, including asking questions, exploring learning objects, responding actively to teacher stimulation, expressing opinions, and participating enthusiastically in inquiry tasks. These results confirm that inquiry-based learning creates a meaningful and student-centered learning environment that encourages exploration, strengthens intrinsic motivation, and enhances children's confidence in expressing curiosity. Furthermore, the integration of inquiry activities within an Islamic early childhood education context proved to be pedagogically compatible with the values of Islamic education, which emphasizes reflection and the pursuit of knowledge. Therefore, the inquiry approach is recommended as an effective instructional strategy for early childhood educators to foster curiosity as a foundational skill supporting cognitive development, active learning habits, and long-term academic readiness.

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