The Effectiveness of Scientific Approach to Early Childhood Interest in Learning the Holy Qur’an

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Abstract: Al-Quran is the holy book of Muslims that must be introduced from an early age. Introducing the holy Qur’an in the Early Childhood institution is over reciting, writing, and memorizing versicle. The approaches used by teachers however do not convenient to students’ characteristics. In addition, the teachers rarely integrate the themes of material to the verses of the holy Qur’an, such as: the environment, the universe, natural phenomena, water, air, and fire. The learning process will be better if the students understand the meaning in it. This can be completed by a scientific approach for their thinking skill. This study aims to identify the effectiveness of the scientific approach to interest of children aged 5-6 years in learning the Qur’an. This research is quantitative research with one group pretest-posttest design. The data were gained through observation, and were analyzed by using the T-test, namely paired sample test. The results proved that t count 5.436 ≥ t table 1.76 with significance value of 0.00 ≤ 0.05. It thus believes that Ha is accepted and Ho is rejected, which means the scientific approach is effective to students’ interest in learning the Qur’an.

Keywords: Scientific Approach; Qur’an Learning; Early Childhood
INTRODUCTION

Early childhood education aims to optimize children development. To achieve this, several development programs are needed. One of them is the development of religious values. The development of religious values is an important aspect in instilling good values and develop the nature of faith so that a good personality is formed. Because the stimulation obtained since childhood, will affect the development of religious values as adults (Amelia, 2022). For that, it is necessary to have good religious knowledge from an early age. One way to develop religious values is through the Qur’an.

Al-quran adalah kitab suci umat Islam yang berisi dasar ajaran Islam yang berkaitan dengan masalah ketauhidan dan akidah. The Qur’an is the holy book of Muslims which contains the basic teachings of Islam relating to issues of monotheism and faith, morals, worship, law, and science or knowledge needed by humans in life (Sani, 2020). The Qur’an emphasizes the importance of reading (read: observing) natural phenomena and reflecting on them. The Qur’an takes examples from cosmology, physics, medicine, biology, this is a sign of Allah's power to be contemplated by humans. According Sani (2020) of seven hundred and five dozen verses - about one-eighth of the Qur’an - that encourage believers to study nature (science), think and investigate with the ability of his mind and try to get natural knowledge and understanding as part of his life. This means that the Qur’an discusses all aspects of life, one of which is natural knowledge. The Qur’an also emphasizes the importance of reading, so that one can think about the signs of Allah's power.

The stages of thinking that humans do so that they find answers to everything that occurs in nature and its properties are known as science. Science is also a process of curiosity that arises in humans in order to be able to explain phenomena and events that occur in the real world. (Diana & Setiadi, 2018). Science learning is not only introduced and taught to elementary and middle school children, but must be introduced from an early age. This is because early childhood is in the golden age phase in its development period. Children's lives cannot be separated from science, social activities and creativity. This should be able to stimulate children with various activities or activities related to science. The process of science in children's learning is how children try to explore objects, both living and non-living things.

So far, the introduction of the verses of the Koran in early childhood has more often focused on memorizing short suras or what is known as juz ‘amma. This memorization is then implemented in prayer readings. In the process of memorizing the Qur’an there are 3 activities that are carried out at once, namely: reading, repeating reading, and memorizing, therefore memorizing the Koran is the highest level in the process of storing information (Susianti, 2016). The process of memorizing the verses of the Qur’an has its own advantages and disadvantages. The advantages are (Lubis & Ismet, 2019): Early childhood still has a good memory, which is permanent until the age of 4 years and reaches its best intensity at the age of 8-12 years. Besides that, memorizing verses of the Koran can also develop religious potential. While the weaknesses are: children can only mention but cannot understand what is memorized, other than that memorization is only temporary (if it is not repeated). The memorization process is usually done face to face in a quiet sitting position, Then the teacher guides the children to repeat the verse that was read until the children really memorizes it (Susianti, 2016).
The memorization process that is too rigid and forces them to stay focused and ignores the child’s learning style will make the children depressed. As a result, the children only remembers some time and forgets it a few moments later. To maintain memorization, these verses must be repeated often (muraja’ah) to remain in the memory of the children. Therefore, it is necessary to pay attention to how to memorize in accordance with the development and characteristics of children. Some of the ways used in introducing verses of the Qur’an to children are: Al-Baghdadi (Classic & Malaysian), Iqra, Iqra Klasikal, Iqra Terpadu, Qira’ati, Lamma, Wafa, Nahdiyah, Al Barqy Tilawati, Muyassar, Ijmali, Yanbu’a, and Ummi which tends to focus on how early childhood can recognize, read, memorize and write hijaiyah letters (Nurhayati, 2019; Yuzaidi & Sari, 2021).

This study does not intend to explain what method of learning the Qur’an is most effective for early childhood. The rope aims to find out what kinds of activities allow children to understand the verses of the Qur’an that are in accordance with the stages of development, namely by applying a scientific approach. Science is not something new and foreign, in everyday life children are often involved in science activities either consciously or not. The introduction of science to early childhood should be done with an approach that can provide opportunities for children to actively explore various ideas. Children need to develop hypotheses, logical thinking skills, and critical thinking.

Science learning at the early childhood stage is focused on the theme of oneself, the environment, and natural phenomena (Prasetyo, 2016). Prasetyo further stated that the objectives of learning science for early childhood are: 1) give children an understanding of science concepts and their relevance to everyday life, 2) foster children’s interest to be able to recognize and learn objects and events in the surrounding environment, 3) to help children apply science concepts to explain natural phenomena and solve everyday life problems, 4) introduce and cultivate a sense of love for the natural environment that allows children to know the greatness of God. To achieve this goal, it can be done through a scientific approach.

Sari & Maulani (2019) in the Guidelines for Management of Early Childhood Education Curriculum Learning states that the scientific approach is one approach to building a way of thinking so that children have reasoning abilities that are obtained by observing to communicating the results of their thoughts. The scientific approach is used when children are involved in playing activities (including during science learning activities or activities), even other activities, such as role playing, playing blocks, playing literacy (for example reading hijaiyah letters using media in learning the Qur’an and so on), as well as art activities, learning with a scientific approach is implemented in PAUD institutions to continue the learning behavior that has been owned by children. Thus it is important to help children understand the world around them. The stages in collecting, processing information and communicating what they know are critical thinking development steps.

This study uses five scientific approaches, namely: observing, questioning, reasoning, gathering information, and communicating. 1) Observing, means the activity of using all the senses (sight, nose, hearing, taste and touch) to recognize and understand an object being observed. 2) Questioning is a stage of thinking that is driven by the child’s curiosity about an object or event. That way, by asking questions or asking children who initially don't know, they become aware of something. 3) Gathering information, which is the process of finding answers to questions submitted by children, is carried out by children after the questioning
stage. So that the children gets or obtains information from the question itself, 4) Reasoning (associating) is matching or connecting previously owned knowledge with new experiences obtained. Reasoning is a children's critical thinking process, because it involves the knowledge he has with his newly acquired knowledge, 5) Communicating, is a process of strengthening or motivation regarding the knowledge of new skills acquired by children. Communicating can be done through various ways, such as spoken language, movement and work.

Furthermore, this study tested the effectiveness of the scientific approach on interest in learning the Koran in early childhood. Interest in learning is a feeling or feeling that encourages someone to carry out or carry out an activity or encouragement that makes someone do learning activities. There are four indicators of interest in learning, namely feelings of pleasure, interest, attention, and involvement (Septiani, 2020). 1) Feeling happy; This can be seen when children always and continue to learn knowledge without any coercion in doing so. 2) Interest; related to the power of motion that encourages a sense of interest in objects, people, activities or activities, it can even be an affective experience that is stimulated by the activity itself, causing a strong curiosity. 3) Attention is the concentration or activity of the soul towards understanding and also observing, by prioritizing one thing and ignoring others. 4) Involvement is related to the children's participation in an object or object that causes the children to feel happy and interested in doing or working on the activity of the object itself, not only that the children will also be directly involved in what is learned such as asking, thinking and observing it actively.

Al-Quran learning activities in early childhood focus on memorizing, reading, and writing juz 'amma so that interest in learning the Qur'an is also still lacking. At school, it is rare to discuss verses from the Qur'an related to themes such as: the environment, the universe, natural phenomena, water, air, and fire even though they are all in the Qur'an. It would be better if the children can understand the meaning contained in it, by developing his thinking through a scientific approach.

METHODS
The type of research used is quantitative research, namely quasi-experimental research with one group pretest-posttest design (Sugiyono, 2020). The selection of research subjects was carried out in a purposive manner, namely the sample was selected based on certain characteristics according to the needs of the researcher. The research sample is group B children (5-6 years) in RA Hj. Fatimah Ali consisted of 15 children: 9 girls and 6 boys. The independent variable (variable X) in this study is a scientific approach, while the dependent variable (variable Y) is interest in learning the Quran for early childhood.

![Picture 1. Research Design](image)

The steps of the scientific approach taken by the teacher according to Nugraha et al (Dista, 2019) are as follows:

**Opening activity** : 
1. Pray before and after learning
2. Preparing learning tools/media

**Core activities:**

a. Observe:
3. The teacher delivers the material according to the theme
4. The teacher conveys verses of the Quran related to the theme
5. The teacher explains the assignment that will be done
6. The teacher helps the child to find something

b. Questioning:
7. The teacher helps and encourages children to ask questions
8. Teacher answers children's questions

c. Gathering information:
9. Teachers help children in collecting more guided learning concepts
10. The teacher guides children who have difficulty

d. Reasoning:
11. Teachers help children in processing information
12. The teacher helps children draw conclusions
13. The teacher provides reinforcement for new information

e. Communicating:
14. Teacher gives feedback and motivation
15. The teacher gives more information

**Closing activity:**
16. Teachers provide opportunities for children to develop their ideas
17. Reviewing today's activities and reciting the verses that have been learned
18. Praying
19. Conduct an assessment at the end of the lesson

The data collection technique used observation, while the data analysis technique used the T-test, namely the paired sample test. The data tested one sample, namely interest in learning the Koran. The instrument used to measure interest in learning the Quran for children aged 5-6 years refers to the theory of Ayuningtyas & Wijayaningsih (2021) which consists of feelings of pleasure, interest, attention, and involvement of children in learning. These indicators are then adjusted to the needs of the research variables.

<table>
<thead>
<tr>
<th>No</th>
<th>Aspect</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Feeling happy</td>
<td>- Children can do activities with enthusiasm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Children can do activities without being forced</td>
</tr>
<tr>
<td>2</td>
<td>Interest</td>
<td>- Children can interact with teachers and friends in activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Children can show a desire to see/hold learning media</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Children can show affective experiences</td>
</tr>
<tr>
<td>3</td>
<td>Attention</td>
<td>- Children can concentrate during learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Children can give questions or answers about verses</td>
</tr>
<tr>
<td>4</td>
<td>Involvement</td>
<td>- Children can do learning activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Children can relate verses to everyday life</td>
</tr>
</tbody>
</table>

The results of observations are also converted by giving scores, namely: a) a score of 4 for the Excellent category, b) a score of 3 for the Good category, c) a score of 2 for the Fair category, d) a score of 1 for the Poor category. The calculation results were then consulted with t table with 95% confidence level and 5% significance level (α 0.05). The hypothesis tested
in this study is the effectiveness of the scientific approach on children's interest in learning. Ha: the scientific approach is effective on children's interest in learning the Koran, Ho: the scientific approach is not effective on children's interest in learning the Koran. if t count > t table then Ha is accepted and Ho is rejected, but if t count < t table then Ha is rejected and Ho is accepted.

RESULT
The introduction of the Quran should be done in a fun, meaningful, creative, dynamic, and dialogical learning atmosphere. Furthermore, the learning process is also held interactively, inspiring, challenging, and motivating children to participate actively. Teachers must also be able to provide sufficient space for creativity, independence, and child-centered interests. In this study, integrating several verses of the Quran in learning using a scientific approach to see how interested in learning the Quran early childhood is.

1. The integration of the Qur'anic verses in this study is related to the ongoing theme. In the first treatment with the theme of sailing ships, the integrated verse is the Koran Surah Luqman verse 31 which reads:

اَلَمْ تَرَ اَنَّ الْفُلْكَ تَجْرِيْ فِى الْبَحْرِ بِنِعْمَتِ اللّٰهِ لِيُرِيَكُمْ مِنْ اٰيٰتِه ٖۗ اِنَّ فِيْ ذٰلِكَ لََٰيٰت
Meaning: "Have you not noticed that the ship is actually sailing on the sea by the grace of Allah, so that He may show you some of His (greatness) signs. Indeed, in that are His signs for everyone who is very patient and very grateful." This verse means that Allah proves his power through phenomena on earth. Humans can pay attention to ships that sail in the sea but do not sink, so that ships can be used to transport needed goods and can be used as a means of transportation to travel anywhere.

2. In the treatment of the two themes being studied is wind, then the integrated verse is the Qur'an Surah Al-Furqan verse 48 which reads:

وَهُوَ الَّذِيْْٓ اَرْسَلَ الرُّيَاحَ بُشْرًاۢ بَيْنَ يَدَيْ رَحْمَتِه ٖۚ وَاَنْزَلْنَا مِنَ السَّمَاۤءِ مَاۤءً طَهُوْرًا ۙ
Meaning: "And it is He who blows the wind (as) the bearer of glad tidings before the arrival of His mercy (rain); And We send down from the sky very clean water". This verse means that Allah proves his power by ordering the angels to blow the wind before it rains as a form of love for his creatures and so that it can be used for various purposes of human life.

3. In the treatment of the three themes being studied is interest, then the integrated verse is the Qur'an Surah Ar-Rahman verse 12 which reads:

وَالْحَبُّ ذُو الْعَصْفِ وَالرَّيْحَانُ
Meaning: "And the grain with the skin and the fragrant flowers". This verse means that Allah shows His power by making the seeds grow and develop into beautiful and fragrant flowers. Humans can use it for various purposes such as, flower vase, decoration, air freshener, food colouring, textile dyes, medicine, etc.
Table 1. The verses of the Quran that are integrated in a scientific approach

<table>
<thead>
<tr>
<th>No.</th>
<th>Surah</th>
<th>Theme</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>QS. Luqman: 31</td>
<td>Sailing Boat</td>
<td>“Lets Go Sail!” Create a ship out of paper, straws, banana leaf stems, and cardboard.</td>
</tr>
<tr>
<td>2.</td>
<td>QS. Al-furqan: 48</td>
<td>Wind</td>
<td>“Do you want to know the wind?” Windmill or kite construction: colorful paper, glue, and straws</td>
</tr>
<tr>
<td>3.</td>
<td>QS. Ar-Rahman: 12</td>
<td>Flower</td>
<td>“I’am a flower collector” Flowers, cardboard, plastic, glue, wrapping paper, ribbon, used bottles, and water</td>
</tr>
</tbody>
</table>

The treatment was given 3 times, then it was assessed as a post-test value. In every activity the teacher guides children in a scientific approach by applying 5 stages: 1) Observing stage: the teacher will invite children to observe videos, photos, learning media, or the surrounding environment. 2) Questioning stage: the teacher will encourage the child to actively ask questions by providing contradictory statements, then the teacher answers the questions. 3) Information gathering stage: the teacher gives the child the opportunity to explore the tools and materials that will be used. 4) Reasoning stage: the teacher gives children the opportunity to use their reasoning to create a work related to the theme. 5) Communicating stage: the teacher gives the child the opportunity to tell about the work that has been made, then relates it to the verses of the Koran that have been studied. Based on the assessment before and after treatment, the following results were found:

Table 2. Pre-test and Post-test Recapitulation

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-test (%)</th>
<th>Post-test (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>26.67</td>
<td>0</td>
</tr>
<tr>
<td>Fair</td>
<td>53.33</td>
<td>40</td>
</tr>
<tr>
<td>Good</td>
<td>13.33</td>
<td>40</td>
</tr>
<tr>
<td>Excellent</td>
<td>6.67</td>
<td>26.67</td>
</tr>
</tbody>
</table>

During the learning process, the children were very enthusiastic. This can be proven from the difference in pre and post treatment scores. The most prominent score is seen in the "poor" category, from 26.67% it decreased to 0%, meaning that all children were interested in learning the Koran because the scientific approach was successful in providing variations in learning. In addition, the "good" category also experienced a drastic increase from 13.33% to 60%, this means that there was a significant increase in interest in learning the Koran for early childhood.

Table 3. Descriptive Statistics

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>6.60</td>
<td>8.80</td>
</tr>
<tr>
<td>Median</td>
<td>6.00</td>
<td>9.00</td>
</tr>
<tr>
<td>Mode</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>2.667</td>
<td>2.111</td>
</tr>
<tr>
<td>Minimum</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Maximum</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

The table shows the number of samples of 15 people, meaning that there is no missing data. Based on the mean and median, the value is greater at the posttest than the posttest. So
we can indicate that the treatment given is effective. In addition, in terms of the total score, many got a score of 9 (posttest) while previously many got a score of 6. Meanwhile, judging from the distribution of the data (standard deviation) the posttest value was lower than the pretest.

Table 4. Paired Samples Statistics

<table>
<thead>
<tr>
<th>Paired Samples Test</th>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>Pretest - Posttest</td>
<td>-2.200</td>
<td>1.568</td>
<td>.405</td>
<td>-3.068 -1.332</td>
<td>-5.436</td>
<td>14</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 4 shows the results of t-count -5.436, which is negative because the mean value before treatment is lower than the average value after treatment. Therefore, in this case the negative value is ignored and is considered positive. So the value of t count is 5.436 > t table 1.76. The sig value is 0.00 which is smaller than the significance level of 0.05. So it can be concluded that Ha is accepted and Ho is rejected, meaning that the scientific approach is effective towards children's interest in learning the Koran.

DISCUSSION

Islam teaches that the potential for religion has been brought by humans since birth, which is known as "fitrah". Fitrah is an ability that exists in humans so that they always believe and acknowledge the existence of Allah as the creator of the universe and all its contents (Amelia, 2022). One way to introduce God to early childhood is through His creation. Science is not only a collection of knowledge, science is also a natural way to think, attract hearts, encourage children's natural desire to observe or observe and explore concrete objects. Science and the Koran are 2 things that are closely related, because the Quran contains scientific theories that are in accordance with the material for playing activities in PAUD.

The discussion of the existence of information or news about natural phenomena itself, is a goal in the Qur'an as a manifestation of the signs of its power or greatness. Because this complex knowledge and understanding of nature can bring humans closer to their God. This means that in the content of the Qur'an it has been explained that the universe is a creation of Allah for living beings, where with natural science one can observe or observe and explore concrete objects. In this way, you can indirectly know and draw closer to Allah. So learning the Qur'an becomes an interesting thing when it is associated with science, because you can observe it for real.

The relationship between science and early childhood, emphasizes the learning process that is in accordance with the learning characteristics of early childhood. Science is an interesting part of children's lives related to the world around them, about simple things. Characteristics of early childhood learning, learning while playing is a fun process and enjoyed by children and in the form of questions. This means that with science activities
children can learn in an interesting way, because children will learn while playing to get meaningful information.

The link between the Qur'an and science for early childhood is that children have a strong curiosity to know about something they see, hear, touch, taste, and smell. With children carrying out a scientific process such as observing, exploring, collecting information and studying as well as questions about something or real objects through the surrounding environment, related to learning the Qur'an is something that becomes interesting when done with a scientific approach. The Qur'an was revealed to be read and then understood its meaning. There is a correlation between the verse and the theme of learning which is then carried out with a scientific approach, it can attract children's learning interest. because in the process the child recites the verse, recites the meaning of the verse, connects the verse with the theme of learning, observes objects or the surrounding environment, asks whatever comes to mind, collects a lot of information (observations and questions), uses reason to make works from materials, provided, then communicate what the child has learned. Not only that, children's lives cannot be separated from science, because science can help children to be able to recognize and grow a sense of love for the surrounding nature so that they realize the greatness of God Almighty.

Scientific approach or learning can be used as a means to develop cognitive, affective, and psychomotor abilities (Toyibah, 2018). This means that science can develop affective abilities (religious and moral values), where affective itself is related to learning the Qur'an, because it can indirectly get used to good behavior in children's daily lives. According to Suyadi in (Izzuddin, 2019) states that the learning experience obtained by children by observing, imitating and even simple experiments in their environment through an iterative process will affect the entire potential or abilities and intelligence of children. Therefore, serious efforts are needed in facilitating children during their growth and development in the form of educational and learning activities according to the age, needs and interests of children. The introduction and scientific approach should be carried out in children with fun activities and through habituation so that children experience the scientific process directly. This means that science can be used to introduce and learn, one of which is learning the Qur'an because children's learning experiences are obtained through observing, imitating, habituation and fun activities. Therefore, a scientific approach in learning the Qur'an can be used to foster children's interest in learning the Qur'an.

CONCLUSION

The introduction of the holy Qur'an for childhood can be through a scientific approach. This approach provides an opportunity for children to actively explore the surrounding environment and develop ideas, so that children can recognize Allah through His creation. Besides, it is effective for improving the children interest in learning the holy Qur’an. Through this, the learning materials will be integrated with the verses of the holy Qur’an, so they will not only repeat verses but also understand the meaning of the holy Qur’an. Finally, further research related to the topic is highly needed to explore what approach can be applied to other verses.
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REFERENCES


