

## INTEGRATION OF ISLAMIC VALUES IN MATHEMATICS LEARNING IN CLASS IV STUDENTS OF MADRASAH IBTIDAIYAH

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### Abstrak

*Pembelajaran matematika harus mengalami perubahan dalam konteks perbaikan mutu pendidikan yang religius sehingga perlunya menambahkan nilai keislaman yang dapat meningkatkan proses pembelajaran yang optimal. Tujuan Penelitian ini untuk mengetahui bagaimana pengintegrasian nilai-nilai keislaman dalam pembelajaran matematika pada siswa kelas IV Madrasah Ibtidaiyah. Penelitian ini merupakan penelitian kualitatif studi literature yang dimaksudkan untuk mendeskripsikan model integrasi matematika dengan nilai-nilai Islam dalam pembelajaran matematika. Adapun metode pengumpulan data dilakukan dengan Wawancara dan Kajian literature. Hasil penelitian menunjukkan bahwa ada beberapa hal yang digaris bawahi dalam menerapkan nilai-nilai keislaman dan teknologi dalam pembelajaran matematika. Temuan terkait dengan fenomena tersebut, yaitu : 1) Guru walikelas IVG di MI Aliyah 2 yang diteliti sudah menerapkan pengintegrasian nilai-nilai ilmu keislaman dengan ilmu matematika dalam pembelajaran; (2) Guru yang menerapkan integrasi matematika dengan ilmu keislaman menyesuaikan dengan materi yang dipelajari; (3) Kelebihan dari mengintegrasikan nilai-nilai islam dalam sistem pembelajaran matematika dapat menanamkan sifat jujur, disiplin, dan bertanggung jawab. Berdasarkan pernyataan tersebut pengintegrasian konsep-konsep matematika dengan nilai-nilai keislaman sangat penting untuk diterapkan sebagai cara pembentukan karakter generasi bangsa. Sehingga, perlu dikembangkan secara kontinu analisa materi matematika dengan mengaitkan ayat-ayat Al-Quran yang merupakan sumber dari segala sumber ilmu yang dapat diambil hikmah dan pelajarannya melalui matematika oleh setiap manusia.*

*Kata Kunci : Integrasi, Nilai Keislaman, Matematika*

### Abstract

*Mathematics learning must experience changes in the context of improving the quality of religious education so it is necessary to add Islamic values that can increase optimal learning processes. The purpose of this study was to find out how to integrate Islamic values in learning mathematics in fourth-grade students of Madrasah Ibtidaiyah. This research is a qualitative research study of literature that is intended to describe the integration model of mathematics with Islamic values in learning mathematics. The data collection method is done by interview and literature review. The results of the study indicate several things are underlined in applying Islamic values and technology in learning mathematics. The findings related to this phenomenon, namely: 1) The IVG homeroom teacher at MI Aliyah 2 studied had implemented the integration of Islamic science values with mathematics in learning; (2) Teachers who apply the integration of mathematics with Islamic science adjust to the material being studied; (3) The advantages of integrating Islamic values in the mathematics learning system can instill honesty, discipline, and responsibility. Based on this statement the integration of mathematical concepts with Islamic values is very important to be applied as a way of forming the character of the nation's generation. Thus, it is necessary to develop a continuous analysis of mathematical material by linking the verses of the Qur'an which is the source of all sources of knowledge that can be taken wisdom and lessons through mathematics by every human being.*

*Keywords: Integration, Islamic Values, Mathematics*

### INTRODUCTION

Mathematics learning must change the context of improving the quality of education so that it can increase the optimal learning process. Islam is a religion that highly values science. Education

as stated by the Prophet Muhammad is a must for every Muslim and Muslim woman, because education has a very important role for human beings to maintain their existence in global life.<sup>1</sup>

Education in the process is a major factor in shaping a person's individual. As Rasulullah SAW said that education is a must for every human being, therefore education plays a very important role in shaping his existence in the global arena of life in this era. With education, a person will be able to develop himself to form a good personality, spiritual, moral, and moral, and be able to live in his social environment. In addition to education, in shaping students to have religious characters, the role of the social environment in the social process is very important. Because, through their social environment in interaction with their peers, students can learn and reflect their character in the surrounding environment.<sup>2</sup>

Al-Quran is the holy book of Muslims which is the source of all sources of knowledge. His majesty will be unmatched by the ages. Therefore, we as Muslims should and must make the Al-Quran the main reference for the development of knowledge before referring to theories or other concepts. Such a view is not wrong because the Qur'an is very influential in the development of the field of science. There is a very high appreciation for those who have faith and knowledge compared to ordinary people.<sup>3</sup> Allah has also emphasized that in the development of science it is necessary to analyze an event by using the logic that we have and to think systematically. In Surah Al-A'la: 1-6.<sup>4</sup>

سَبِّحْ اسْمَ رَبِّكَ الْأَعْلَى ۝ الَّذِي خَلَقَ فَسَوَّى ۝ وَالَّذِي قَدَّرَ فَهَدَى ۝ وَالَّذِي أَخْرَجَ الْمَرْعَى ۝ فَجَعَلَهُ غُثَاءً أَحْوَى ۝ وَسَنُقَرِّكَ فَلَا تَنسَى ۝  
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"Salt the name of your Lord Most High. Who created and perfected-(it). And that determines then shows. And who grows vegetation. Then he made the plants dry and black. We will recite to you so that you do not forget."

From the verse, how Allah commands humans to analyze the occurrence of an object and how the creation of plants. This shows that the Qur'an is very concerned with the development of science. How a systematic process, analysis, and exploration of an object has been shown in the Qur'an.

Integralistic science is a science that unites (not just combines) God's revelation and the findings of the human mind. Integralistic sciences will not exclude God (secularism) or isolate

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<sup>1</sup> Zahroh, I. F. Integrasi Nilai-Nilai Islam Dalam Pembelajaran Ips Di Mi. *Al-Munqidz : Jurnal Kajian Keislaman*, 8(1), (2020)

<sup>2</sup> Hasanah, F. F., & Munastiwi, E. Pengelolaan Pendidikan Karakter Religius Melalui Metode Pembiasaan di Taman Kanak-Kanak. *Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini*, 4(1). (2019)

<sup>3</sup> Mutijah, Model Integrasi Matematika Dengan Nilai-Nilai Islam Dan Kearifan Lokal Budaya Dalam Pembelajaran Matematika. *Pendidikan Matematika (Kudus)*, 1(2). (2019).

<sup>4</sup> Maarif, S. Integrasi Matematika Dan Islam Dalam Pembelajaran Matematika. *Infinity Journal*, 4(2). <https://doi.org/10.22460/infinity.v4i2.85>, (2015)

humans (otherworldly asceticism).<sup>5</sup> The integration of Islam in the teaching of science is certainly possible, considering that there are many phenomena of scientific discourse that use religious arguments which will be dangerous for ordinary people. In the instructions for use, the integration of Islamic values is associated with choosing work procedures that require students to experience Islam, for example reading a prayer first. In developing evaluation instruments, Islamic values are reflected in the selection of evaluation tools, objectives, and methods that comprehensively reflect spiritual, social, knowledge, and skills attitudes.<sup>6</sup>

Teaching mathematics to elementary school children to be more successful should be delivered using something concrete, simple examples, language that is also easy to understand, and mastering learning situations so that it is more attractive to students and does not get bored quickly.<sup>7</sup> So it is necessary to develop a continuous analysis of mathematical material by linking the verses contained in the Qur'an which are the source of all sources of knowledge that can be taken lessons and lessons by every human being through mathematics.<sup>8</sup>

Based on previous research, Nanang Supriadi stated that it showed that there was an increase in students' mathematical connection abilities using interactive electronic teaching materials that integrated Islamic values.<sup>9</sup> Meanwhile, according to Deysti Trifena Tarusu, Zulela, and Adi Apriadi Adiansha, the results of the research are 1) The value of the character of independence must be instilled in elementary schools so that students can emerge awareness of following school rules and honesty in students themselves; 2) The formation of the value of the character of independence must be given to children from childhood through education in schools, families, and communities; 3) Positive influence on the formation of independence character values in Mathematics Learning in the Industrial Age 4.0.<sup>10</sup>

So, the world of education must be no exception in learning mathematics to integrate the values contained in the Islamic religion in every lesson. So apart from being able to study mathematics, students can also learn the greatness of God through the approach of mathematical

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<sup>5</sup> Fardiana, I. U. Pengembangan media pembelajaran ilmu pengetahuan alam berbasis integrasi sains dan islam pada kelas iv mi mamba'ul huda ngabar ponorogo. *Qalamuna: Pendidikan, Sosial, Dan Agama*, 7(01), (2015).

<sup>6</sup> Kusno, Islamic Values-Based Mathematics Learning for Secondary Schools in Islamic Boarding Schools. *Indonesian Journal of Ethnomathematics*, 1(1), 15–28, (2022).

<sup>7</sup> Malikhah, N., & Widhiasti, L. D. Penerapan Metode Kartu Make and Match terhadap Hasil Belajar Matematika pada Materi Bangun Ruang. *Pendidikan, Sosial*, (2019).

<sup>8</sup> Ferrayanti, Embong, R., Lateh, H. M., & Kadir, F. K. A. Analysis on KH. Fahmi Basya's Thoughts of Islamic Mathematics Ferayanti. *International Journal of Academic Research in Progressive Education and Development*, 8(2), 249–256. <https://doi.org/10.6007/ijarped/v8-i2/5767>, (2019).

<sup>9</sup> Supriadi, N. Mengembangkan Kemampuan Koneksi Matematis Melalui Buku Ajar Elektronik Interaktif (Baei) Yang Terintegrasi Nilai-Nilai Keislaman. *Al-Jabar : Jurnal Pendidikan Matematika*, 6(1). <https://doi.org/10.24042/ajpm.v6i1.51>, (2015).

<sup>10</sup> Tarusu, D. T., Zulela, Z., & Adiansha, A. A. Integrasi Pembentukan Nilai Karakter Kemandirian Siswa Sekolah Dasar dalam Pembelajaran Matematika di Era Industri 4.0. *Jurnal Ilmiah Mandala Education*, 6(2). <https://doi.org/10.36312/jime.v6i2.1165>, (2020).

materials. In connection with the statements above, the researcher is interested in making an article entitled "Integration of Islamic Values in Mathematics Learning for Class IV Madrasah Ibtidaiyah Students"

## RESARCH METHODS

This type of research is empirical research, namely research with field data as the main data source. This type of research obtains the data using field research, namely by interviews and observations, and library research obtained from books related to the main problem. In this study, the researcher used a qualitative approach, which is a way of analyzing research results that produce analytical descriptive data, namely data that is stated in writing or verbally as well as real behavior, which is researched and studied as a whole.<sup>11</sup> From the material that has been collected, the researchers then analyzed it using a descriptive method. The descriptive method is an attempt to make a systematic, factual, and accurate description of the facts and characteristics of a particular population or area.<sup>12</sup>

Arikunto said the characteristics of a qualitative approach are (1) having an inductive nature, (2) seeing the setting as a whole or holistically, (3) understanding the respondent from the point of view of the respondent's view, (4) emphasizing the validity of the study, (5) emphasizing the setting nature, (6) prioritizing the process over results, (7) using non-probability sampling, (8) researchers as the key instrument, (9) advocating the use of triangulation, (10) relying on basic field study techniques, and (11) conducting data analysis from the start. The research design that will be used is a case study.<sup>13</sup>

The research source as meant by Spradley (1979) is a source of information, while according to Molong (1989) it is stated that a research subject is a person in the research setting. Modeling explicitly said that they were people who were used to providing information about the situation and condition of the research setting. To determine or choose a good research subject, at least several requirements must be considered, among others: 1. They have long and intensively integrated with the activity or field that is the research study. 2 They are fully involved with the activity or field. 3. They have sufficient time to be asked.<sup>14</sup>

There are two forms of data sources in this study that are used by researchers as supporting information centers used as data sources, namely Primary Data Sources and Primary Data Sources.

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<sup>11</sup> Fajar ND, M., & Achmad, Y. Dualisme Penelitian Hukum. In *Yogyakarta. Pensil Komunika* (Vol. 1), (2007).

<sup>12</sup> Suryabrata, S. Metode Penelitian. In *(PT. Raja Grafindo Persada, Cetakan 28, 2018)*.

<sup>13</sup> Arikunto, & Suharsimi. Prosedur Penelitian Suatu Pendekatan Praktek Edisi Revisi VI. In *Rineka Apta*, (2014).

<sup>14</sup> Suwandi, & Basrowi. Memahami Penelitian Kualitatif. Jakarta: Rineka Cipta Bungin. *Journal of Chemical Information and Modeling*, 53(9), (2008).

The type of primary data is the main data related and obtained directly from the research subjects through interviews or observations. The primary data source in this study was data taken from the Madrasah Ibtidaiyah teacher. The type of secondary data is the type of data that is used to support the main data, or can be defined as a data source that is capable of or can provide additional information or data that can strengthen the main data.<sup>15</sup> In this study, the secondary data source is something that has competence with the problem that is the subject of this research, either in the form of magazines, books, newspapers, or data in the form of photos.

## RESULTS AND DISCUSSION

### Implementation of the Integration of Islamic Values in Mathematics Learning for Class IV Students at MI Aliyah 2 Palembang

Defines integration as a merger between two or several entities to form unions or consolidations. Explain the concept of integration with the corpus of knowledge today by highlighting that the integration of knowledge and religion refers to the integration of knowledge and Islam as a unit.<sup>16</sup> The integration of science (mathematics) and religion (Islam) aims to balance the intellectual and spiritual sides. But for Muslims (Muslims) it is also useful to remember the triumph of Muslim mathematicians in the development of science (mathematics) such as Al Khwarizmi as the greatest figure in algebra and arithmetic, Ibn Al Haytham as one of the leading Muslim physicists as well as astronomers, philosophy, medicine. , and a mathematician in the fields of geometry and arithmetic, Al-Biruni a chronology, mathematical geography, physics, chemistry, mineralogy, history, anthropology, religion, medicine, astrology, poetry, and a mathematician in the fields of geometry, arithmetic (including the number  $\pi$  ), trigonometry, Omar Khayyam is an expert in geometry and algebra, and Al Tusi is an expert in geometry and trigonometry. In the concept of learning, the integration of mathematics and Islamic values, especially the integration of mathematics and the Qur'an, is a learning model that can be applied in learning mathematics at the primary, secondary, or higher education levels.<sup>17</sup>

Based on this, there are several questions that the researcher posed to one of the IV homeroom teachers at MI Aliyah 2 Palembang, the results obtained with interviews from the fourth-grade homeroom teacher at MI Aliyah 2 Palembang, are as follows:

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<sup>15</sup> Joko P Subagyo. Metodologi Penelitian dalam Teori dan Praktek. In *Rineka Cipta* (Cetakan 7), (2015).

<sup>16</sup> Anas, y N., Alwi, D. E. A. Z. E., Razali, D. M. H. H., Bakar, Subki, R. N., & Abu, N. A. The Integration Of Knowledge In Islam:, Concept And Challenge. *Global Journal of HUMAN SOCIAL SCIENCE Linguistics & Education*, 13(10), 3, (2013).

<sup>17</sup> Nesa, M. Z. Z. Tanggapan Siswa Mengenai Implementasi Nilai-Nilai Islam dalam Pembelajaran Matematika. *Diskusi Panel Nasional Pendidikan Matematika*, 5(1). <http://proceeding.unindra.ac.id/index.php/DPNPMunindra/article/view/555>, (2019).

**Table 1. Table of interview results**

| No. | Question  | Answer  |
|-----|---|---|
| 1.  | What do you think is meant by the integration of educational knowledge?                                 | Educational integration is connecting or linking a religious science and other sciences. For example, religion is associated with science.  |
| 2.  | How do you apply the integration of Islamic education, especially in learning mathematics?              | I will give one example, namely honesty, namely honesty is one of the qualities that every Muslim must-have. The connection with learning mathematics is when doing math problems we can instill this honest trait. Where when the child is not by the principles, concepts, formulas, or is not appropriate to be taught by the teacher, the results obtained will be wrong. So that the child must be recognized by the child |
| 3.  | Has the integration of this knowledge been applied to the learning system?                              | Insya Allah, has been applied to the learning system.   |
| 4.  | Are there advantages and disadvantages integrating Islamic values into the mathematics learning system? | The advantages, as I mentioned earlier, can instill honesty, discipline, and responsibility. While the weakness is because each character and the background of the child are different, so some are difficult to apply in learning mathematics.  |
| 5.  | How do overcome or solutions to overcome these weaknesses?  | In a way, I will give rewards or prizes such as candy that the children like when the children are able or responsible for doing the questions.   |
| 6.  | What materials have included the integration of Islamic values in learning mathematics?                 | In the matter of numbers, where the material for numbers is that the inventor of the number Zero was discovered by a Muslim inventor named al-Khwarizmi and can be told to the children who discovered it, namely Muslim scientists so that children are interested that not all great things were discovered by westerners.  |

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|----|--|--|
| 7. | Does learning mathematics already contain educational values with Islamic character?   | Yes, we try to always associate with character values.   |
| 8. | Theoretically, do the books/teaching materials/mathematical learning modules used accommodate the integrated value of Islamic character education? | Al-Qur'an, where there are several verses of the Qur'an that explain the relationship between religious values and science (mathematics) |
| 9. | In practice, does the mathematics learning used to accommodate the integrated value of character education?  | Yes, it has accommodated character values, such as honesty, discipline, responsibility, and trust.                                       |
| 10 | Why does mathematics learning have to include/include the integration of Islamic values?   | So that children have Islamic values, have more character, are more civilized, and hopefully can also be applied to their environment.   |

Based on the results of interviews with the 4G homeroom teacher at MI Aliyah 2 Palembang, it was stated that the integration of education is to continue or link one another between a religious science and other sciences. For example, religion is associated with science. The informant gave an example of how to apply the integration of Islamic education in mathematics learning, one of which is honesty, honesty is one of the qualities that every Muslim must possess. The connection with learning mathematics is when doing math problems we can instill this honest trait. Where when the child is looking for answers to math problems and the child is not by the concept, formula, or not being taught by the teacher, the results obtained will be wrong. So that the child must be recognized by the child.

The informant also said that the integration of knowledge has been applied to the learning system. The advantages of integrating Islamic values in the mathematics learning system can instill honesty, discipline, and responsibility. While the weakness is in the character and background of the different students so some are difficult to apply in learning mathematics. The informant said that the solution to reduce this weakness could be by giving rewards or prizes such as candy that the children liked when the children were able or responsible for doing the questions.

The informant said that one of the materials that already contains the integration of Islamic values in mathematics learning is number material, in this number material the inventor of the number Zero was found by a Muslim inventor named al-Khwarizmi and can be told to the children who found it, namely Muslim scientists, so that the children were intrigued that not all great things

were invented by westerners. The informant also said that every lesson he tried to always relate to character values.

The source used by the informant to accommodate the integration value of character education as teaching material for mathematics learning is one of the Al-Qur'an, where there are several verses of the Qur'an that explain the relationship between religious values and science (mathematics). In practice, mathematics learning has accommodated character values, such as honesty, discipline, responsibility, and trust. The informant said that mathematics learning must include/include the integration of Islamic values so that children have Islamic values, are more moral, more civilized, and hopefully can also be applied around their environment.

Based on the results of the interview that the importance or need for the integration of character Islamic values in learning mathematics, is because humans are like social beings who have different characteristics and personalities, but these provisions are comprehensive so that Islam can cover all these differences and apply and implement it according to good character, which has good morals.

### **Integration of Mathematics and Islam in Mathematics Learning**

Education is also expected to be able to build the values and character of each student through religious values education. Therefore, it is necessary to make efforts to create innovative learning by the religious values in the Qur'an. The integration of mathematical concepts with Islamic values is very important as a way to form human capital. So, apart from being able to learn mathematics, students can also learn about the greatness of God through a mathematical approach.<sup>18</sup>

To further illustrate the position of mathematics in the perspective of the Islamization of science, we first describe the similarities between the principles of mathematics and the principles of the Islamization of science. Ismail Al-faruqi, a figure in the Islamization of science, put forward five principles of Islamic methodology in the field of science as follows.<sup>19</sup>:

- a. The Principle of the Oneness of God. He is the Creator, he is the creator of all kinds of scientific disciplines that exist on this earth. He is the Creator and by His command, all events occur. He is the first and last cause of everything.
- b. The principle of the unity of the universe. As a logical consequence of the oneness of God, we must believe in the unity of His creation. God not only creates and then resigns but actively regulates and controls nature.

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<sup>18</sup> Azzhaidi, M. *Konsep 'Arsy Menurut Fahmi Basya*. (UIN Sunan Kaliaga Yogyakarta, 2016).

<sup>19</sup> Firdaus, A. 'Inayatu. Integrasi Nilai-nilai Alquran dalam Pembelajaran Matematika Materi Peluang. *Open Science Framework*. <https://doi.org/https://doi.org/10.31219/osf.io/j8yrm>, (2018).



- c. The principle of unity, truth, and unity of knowledge. Although humans can to reason, that ability is limited, and may make mistakes or deviations. Reason can criticize, both against itself and the reasoning of others and criticism is a mechanism for correcting mistakes.
- d. The principle of the unity of life. Humans are creatures who carry out the mandate (belief in Allah) namely that their lives are intended to serve Him. Devotion to God is realized by carrying out His will.
- e. The principle of the unity of mankind. Islam teaches that everyone is a creation of Allah SWT and therefore they are essentially equal before Allah

Through the principles that have been mentioned, here are some mathematical materials that can be associated with the values contained in Islam.<sup>20</sup>

**Table 2. Learning Materials that are integrated with Islamic Values**

| No. | Math Material      | Integration of Islamic values  |
|-----|--------------------|--|
| 1   | Number             | Al-Khwarizmi is a Muslim scientist who is an expert in mathematics. He introduced the number zero to the whole world   |
| 2   | Build Space (Cube) | Ka'aba is the direction of Qibla for Muslims when performing prayers. The Ka'aba is in the form of a cube that has 6 sides. The Ka'aba is an example of building space   |
| 3   | Opportunity        | Everyone has the opportunity to go to heaven and hell because only lucky people can enter heaven. This situation certainly happens to someone who obeys Allah's commands and stays away from all His prohibitions. |

Islamic values can be integrated into the learning process, especially in learning mathematics. So that it can lead students to achieve knowledge (cognitive), understanding, and application of Islamic values. In other words, through learning mathematics, religious values can be instilled in children. Therefore we need a mathematics learning that integrates Islamic values on school mathematics topics, especially at the Madrasah Ibtidaiyah or Elementary School level.

The integration of mathematics and religion is not a process of Islamization of mathematics. This integration is not to produce Islamic mathematics, but to make religious people more religious

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<sup>20</sup> Nurjanah, M. Integrasi Nilai-nilai Islam dalam Pembelajaran Matemtika di Madrasah Ibtidaiyah. *AL-QALAM Jurnal Kajian Islam & Pendidikan*, 13(2), 38–45. <https://doi.org/https://doi.org/10.47435/al-qalam.v13i2.74>, (2021).

through mathematics. More specifically, not the Islamization of mathematics, but the Islamization of humans and the surrounding environment with mathematics.<sup>21</sup> The integration of Islamic values with mathematics is so closely related to achieving educational goals that we should be aware. This is confirmed by Abdussakir's opinion that the integration of science (mathematics) and religion (Islam) aims to balance the intellectual and spiritual sides.<sup>22</sup>

However, for Muslims (Muslims) it is also useful to remember the triumph of Muslim mathematicians in the development of science (mathematics) such as Al-Khwarizmi as the greatest figure in algebra and arithmetic, Ibn Al-Haytham as one of the leading Muslim physicists as well as astronomers, philosophy, medicine, and mathematician in the fields of geometry and arithmetic, Al-Biruni was an expert in chronology, mathematical geography, physics, chemistry, mineralogy, history, anthropology, religion, medicine, astrology, poetry, and mathematician in the fields of geometry, arithmetic ( including the number ), trigonometry, Omar Khayyam is an expert in geometry and algebra, and Al Tusi is an expert in geometry and trigonometry.<sup>23</sup>

### **Learning Strategy for Integration of Islamic Values in Mathematics Learning**

Law number 20 of 2003 states that education functions in the context of shaping the character and civilization of a dignified nation to educate the nation's life, aiming at developing the potential of students to become human beings who believe and fear God Almighty, have a noble character, are healthy, knowledgeable. , capable, creative, independent, and become a democratic and responsible citizen. Based on this, it shows that the quality of education in Indonesia is expected to form humans who can balance the values of faith, morality, and sharia values.

To realize the goals of national education, there are 4 (four) strategies that can be carried out in learning mathematics in the classroom, namely:<sup>24</sup>

- a. In Infusion, in teaching mathematics, the teacher emphasizes the value aspects of the Qur'an in the material
- b. In Analogy, in teaching mathematics, the teacher makes an analogy of the value of goodness.
- c. In the Narrative, in teaching mathematics, the teacher tells stories related to mathematics and Muslim mathematicians to learn from.

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<sup>21</sup> Rahmadhani, E., & Wahyuni, S. Missouri Mathematics Project (MMP) Model: Encouraging the Enhancement of Reasoning Ability and the Advanced Mathematical Thinking (AMT). *Al-Ta Lim Journal*, 27(3). <https://doi.org/10.15548/jt.v27i3.641>, (2020).

<sup>22</sup> Abdussakir, Internalisasi nilai-nilai islami dalam pembelajaran matematika dengan strategi analogi. *Seminar Nasional Integrasi Matematika Dan Nilai Islami*, 1(1), (2017).

<sup>23</sup> Mohamed, M. Matematikawan Muslim Terkemuka. *Salemba Teknika*, 6(1), 82–83. <https://doi.org/10.1053/ejpn.2001.0548>, (2004).

<sup>24</sup> Nurjanah, M. Integrasi Nilai-nilai Islam dalam Pembelajaran Matemtika di Madrasah Ibtidaiyah. *AL-QALAM Jurnal Kajian Islam & Pendidikan*, 13(2), 38–45. <https://doi.org/https://doi.org/10.47435/al-qalam.v13i2.741>, (2021).

d. Uswah Hasanah, in teaching mathematics, teachers show exemplary behavior related to mathematics, such as honesty, sincerity, accuracy, obedience, and thoroughness.

Meanwhile, describes in detail learning strategies that integrate Islamic values in mathematics learning, namely as follows:<sup>25</sup>

- a. Always mention the name of Allah Before learning begins, it is customary to start by reading Basmalah and praying together. Sometimes it is even found in some lesson plans that contain written mention/pronunciation of Basmallah and read study prayers. Then at each step by step in solving mathematical problems and when ending learning activities, try to close together by saying Alhamdulillah. Educators or teachers should always remind students how important it is that we always remember, in the name of Allah for all activities and give thanks to Allah, especially when we are studying Allah.
- b. The use of terms in mathematics is very much. Among these terms can be interpreted with terminology in Islamic teachings, including the use of names, events, or objects that have Islamic nuances. For example names (Ahmad, Fatimah, Khodidjah), events (endowing land with a certain size, speed of travel when doing said from Saffa to Marwa during the pilgrimage), objects (collection of holy books, collection of mosques).
- c. Visual Illustrations Learning tools and media in mathematics can be visualized with Islamic pictures or portraits. For example, in discussing symmetry, the mosque or prayer room ornaments can be exemplified, in the discussion of building space it can display the Kaa'ba, in the discussion of flat shapes it can display the area of the prayer rug.
- d. Applications or Examples In explaining a competency, you can use teaching materials by providing applicable examples. For example, in the discussion of fractions can be related to the distribution of inheritance by the guidelines in the Qur'an (Sura An-Nisaa 'verse 11 and 12) and Hadith. Materials about money and trade can be explained with the help of Islamic banking practices with a profit-sharing system.
- e. Inserting Relevant Verses or Hadith In the discussion of certain materials, relevant verses or hadiths can be inserted, for example in discussing social arithmetic, inserting verses 9 and 10 of Al-Jumu'ah (about commerce) and hadiths about buying and selling. When discussing the angles and maps of the cardinal points, Al-Quran Surah Al An'am verse 96 is inserted regarding the circulation of the sun and moon. When discussing fractions, verses 11 and 12 of Surah An-Nisaa' are inserted about the procedure for dividing an inheritance.

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<sup>25</sup> Hariyani, M. (103 C.E.). Strategi Pembelajaran Matematika Madrasah Ibtidaiyah Berintegrasi Nilai-nilai Islam. *MENARA RIAU : Jurnal Ilmu Pengetahuan Dan Pengembangan Masyarakat Islam*, 12(2). <https://doi.org/http://dx.doi.org/10.24014/menara.v12i2.418>,

- f. Historical Tracing The explanation of competency can be linked to the history of the development of science by Muslim scientists. For example, in the discussion of integers, the inventor of the number zero can be conveyed, in the explanation of trigonometric material, the discovery of sine and cosine can be explained

## CONCLUSION

This study shows that several things are underlined in applying Islamic values and technology in learning mathematics. The findings related to this phenomenon, namely: 1) The IV homeroom teacher at MI Aliyah 2 studied had implemented the integration of mathematics with Islamic science in learning; (2) Teachers who apply the integration of mathematics with Islamic science adjust to the material being studied; (3) The advantages of integrating Islamic values in the mathematics learning system can instill honesty, discipline, and responsibility

Based on this statement, the integration of mathematical concepts with Islamic values is very important to be applied as a way of forming the character of the nation's generation. Thus, it is necessary to develop a continuous analysis of mathematical material by linking the verses of the Qur'an which is the source of all sources of knowledge that can be taken wisdom and lessons through mathematics by every human being.

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