

Research Article

Story-based mathematics learning: Inspiration from stories in the Qur'an

Rifatul Chusnia, Abdul Halim Fathani

Department of Mathematics Education, Universitas of Islam Malang, Malang, Indonesia

*Correspondence e-mail: fathani@unisma.ac.id | Phone: +6281334843475

Received: 23 April 2023

Revised: 22 May 2023

Accepted: 20 June 2023

Available online: 30 June 2023

ABSTRACT

Science is the most essential component that human beings must have because they can distinguish between right and wrong only with science. Allah Almighty gives gifts to humans in the form of reason that can be used to think and develop the science that Allah has created. In Allah's verse, Surah Al-Mujadalah, verse 11, it is stated that Allah will elevate the degree of a knowledgeable man. Therefore, Muslims are obliged by law to seek knowledge by using the Qur'an and Sunnah as guidelines. Understanding the content of the Qur'an was also necessary; thus, scholars revealed the content of the Qur'an through the stories in the Qur'an. This article discussed the stories in the Qur'an and their integration into mathematics education through story-based methods. The research reason, i.e., many children and the public perception that learning mathematics was not necessary and assumed that mathematics was difficult to understand. This article proposed solutions to overcome these problems through the story method because the stories' knowledge conveyed would be easier to understand and stuck in the minds of children and society where the story was taken from the stories in the Qur'an.

Keywords: stories in the Qur'an; education; mathematics-learning; science stories in Qur'an

1. INTRODUCTION

Mathematical subjects consist of interrelated concepts. This is not only between concepts in mathematics, but mathematics is also related to other disciplines, and mathematics is related to real life (Afandi, 2018; Trisnawati, 2018). This is supported by the NCTM (2000) statement, "Mathematics is not a collection of separate. In the lives of Muslims, the Qur'an is the main source for achieving success in the world and the hereafter. Moreover, in terms of education, human beings endowed with reason by Allah SWT can use this gift to determine each individual's quality of life. Reason of mind is closely related to science. Humans will become more advanced as they gain more knowledge. It is written in the Qur'an and the Hadith that Allah SWT glorifies a knowledgeable human being.

The position of science in Islam is implied in the verse of Allah SWT Q.S. Al-Alaq: 1–5, which means "Recite in the name of your Lord, Who created man from a clot of congealed blood. Recite: and your Lord is Most Generous, Who taught by the pen, taught man what he did not know".

Science is the most essential component that every human being must have. The role of science in human life is enormous, and human science degrees will differ from one to another. According to the book of Ihya' Ulumuddin, man realizes how much favor Allah Almighty has given in the form of knowledge, which He taught man after He created him. Thus, the explanation of the heights and virtues of science is summarized in His words (Al-Ghazali: 6).

The advantages and virtues of science are summarized in the words of the Prophet Muhammad SAW, namely:

مَنْ يُرِدِ اللَّهُ خَيْرًا يَفْقَهُهُ فِي الدِّينِ وَيُلْهِمُهُ رُشْدَهُ

Meaning: "Whomever God wills good is on him, so He bestows upon him the knowledge (understanding) in matters of religion, and His Inspiration to him are instructions that he can follow", quoted from his work (Al-Ghazali: 6).

The scholars expressed the content of the Qur'an through the stories contained in the Qur'an. These stories have many privileges; one of which is expressed by Abdurrohman An Nahlawi in Muh Anshori's work (2020). Q.S Hud; 120 Allah SWT said:

وَكُلًّا نَقُصُّ عَلَيْكَ مِنْ أَنْبَاءِ الرُّسُلِ مَا نُثَبِّتُ بِهِ فُؤَادَكَ وَجَاءَكَ فِي هَذِهِ الْحَقُّ وَمَوْعِظَةٌ وَذِكْرَى لِلْمُؤْمِنِينَ

Meaning: “And all that We relate to you of the news of the Messengers is so that We may make strong and firm your heart thereby. And in this has come to you the truth, as well as an admonition and a reminder for the believers”.

The meaning that can be inferred from the verse is that the stories that God describes in them are true and valid and that by understanding them, he will strengthen his faith. With the information above, it is possible to conclude that the specialty of the stories in the Qur’an is as follows: the first stories in the Qur’an focus on aspects of truth and factuality rather than imagination, and the second stories focus on the purpose of the story’s exposure. In this case, Al-Jabiri argues that the Qur’an is not a “storybook” in the sense of being a literary work, but the Qur’an is a book of religious proselytizing. The Qur’an becomes the main reference for mankind, and the stories in the Qur’an become an inseparable part of the content of the Qur’an.

There is no doubt that the best story is the one contained in the Qur’an, whose meaning is easy to understand. Even when a story is told in the right way and atmosphere, the story of the Qur’an can be integrated with education because education requires a variety of patterns. In addition, the stories in the Qur’an are useful for building a virtuous human character and have *aqidah* and *tawhid*.

The term “education” is linguistically defined as the provision of teaching, moral improvement, and intellectual training carried out by adults (teachers) to children (students). Sholichah (2018) revealed that guidance for children can be done with formal education and that the family and community also participate in fostering understanding and knowledge. Meanwhile, in formal school education, children will be equipped with knowledge, skills, and socialization in the school environment. In this case, educators need varied learning so that in educational patterns, they do not only use the lecture method in a monologue because the learning method is boring for students.

The article’s writing will discuss the varied learning methods by inserting stories in the Qur’an that are closely related to competence and the material studied. In this case, the author will refer to the learning method for learning mathematics because integrating mathematics with Islamic values is significant to apply to build the nation’s character. Through the Qur’an stories integrated into story-based mathematics learning, students will obtain values that affect character and soul formation, especially in the psychomotor and affective realms, because mathematics teaches awareness of human existence on the surface of the earth, patience, and living life (Royani, 2018).

2. RESEARCH METHOD

The research method in this article used library research by collecting data and information through materials contained in the library, such as books, scientific journals, mass media, and others. The approach used was qualitative, and the analysis used was descriptive. Nazir (2005) revealed that a qualitative approach with descriptive analysis was fact-finding with proper interplay by studying an existing problem or a specific situation as well as an ongoing process and the influence of a phenomenon. The stages in the descriptive analysis used were: collecting data and information that explains the stories in the Qur’an; collecting data and information related to mathematics learning methods; finding out problems that often arise in the mathematics learning process; and collecting data and information explaining the effect and reorientation of story material. Therefore, data collection was carried out by studying or exploring various sources of data or other information related to research.

3. RESULTS AND DISCUSSION

Stories in the Qur’an

A story is a discourse of the story-based, either based on observation or fiction. The word “story” comes from the word *al-qassu*, meaning to seek or follow a trail (Al Qattan, 2021). Manna’ Al-Qaththan defines a story as one that the Qur’an tells concerning the circumstances of the early people and the prophets and events that happened *waqi’* (actually happened) (Mustaqim, 2018).

In education, there are indeed fictional and imaginative story values. However, it is different from the story in the Qur’an because the story contained in the Qur’an is real. It is obviously made by the word of Allah Almighty in Surah Al-Kahfi verse 3, which means, “We tell you their story (Muhammad’s) in truth.” The purity of the Qur’an is a miracle of Prophet Muhammad SAW, in which the Qur’an was handed down to correct the previous prophets’ people’s misunderstanding of God the creator. In the Qur’an, there are various stories, including; the *first* is the story of the prophets who contain proselytizing to their people, miracles to strengthen their proselytizing, stages of proselytizing, the attitudes of someone hostile to him, and the consequences that will be received by those who believe and who lie. *Secondly*, stories that relate to events that occurred in the past and people whose prophethood is not ascertained. The third is the stories that occurred in the events of the time of the Prophet Muhammad SAW.

The story in the Qur'an should be something that must be thought of by humans, especially Muslims because these stories contain many messages that can be used as knowledge for each individual and used as a provision to improve themselves and thicken their faith in Allah. In the Qur'an, Surah Yusuf verse 111, it is explained that the stories contained in it contain lessons for the thinking people. As for the verse, it reads as follows:

لَقَدْ كَانَ فِي قَصَصِهِمْ عِبْرَةٌ لِّأُولِي الْأَلْبَابِ مَا كَانَ حَدِيثًا يُفْتَرَىٰ وَلَٰكِن تَصَدِّيقَ الَّذِي بَيْنَ يَدَيْهِ وَتَفْصِيلَ كُلِّ شَيْءٍ وَرَحْمَةً لِّقَوْمٍ يُؤْمِنُونَ

Meaning: “In their stories, there is a lesson for people of reason. This message cannot be a fabrication. Rather ‘it is’ a confirmation of previous revelation, a detailed explanation of all things, a guide, and a mercy for people of faith.” (Q.S Yusuf; [12] 111).

Integration of Stories in the Qur'an with Education

Education is a means of developing human resources by increasing knowledge, skills, and self-capacity. Self-capacity means that education is an effort to improve attitudes and behaviors through teaching and practice. Education will make a person more mature because education has a positive impact.

Based on Law Number 20 of 2003, education is defined as a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious and spiritual power, personality, self-control, noble character, intelligence, and skills needed by themselves, society, and the state. Education in a country is a significant factor because it will affect the quality of society in that country. The more qualified the people, the more developed the country will be. However, in Indonesia, education problems are rooted in four crises: quality, relevance, elitism, and management (Anwar, 2014). These four critical problems are major, fundamental, and multi-dimensional. Heretofore, no solution has been found. This problem occurs in general in education in Indonesia.

Nowadays, technological developments are very significant, including in Indonesia, where all aspects of life are influenced by technology and education. Learning is no longer difficult because, anywhere, anytime, humans can access lessons through the internet. The AECT Definition and Terminology Commission defines educational technology as a means to facilitate human learning through systematic efforts in identifying, developing, organizing, and utilizing a wide variety of learning resources. Technology development cannot be separated from its positive and negative impacts.

The existence of new learning methods that facilitates students and teachers to participate in the learning process, the existence of an assessment data processing system that uses technology, the fulfillment of a need for educational facilities that can be met quickly, and other positive effects of technology in education are all examples of positive impacts of technology in education. Meanwhile, the negative effects of technology include students becoming lazy to study because the facilities owned for learning are used to play games, the occurrence of immoral violations, the misuse of mass media, and others. This negative impact often happens, as many children do not prioritize school.

As a result, in writing this article, a learning method that can instill good behavior in students is offered as a story method, where the story's content is quoted from stories in the Qur'an. Stories greatly influence humans because human nature finds fun in the story. When telling stories, the listener appears to be beneath the setting, and the setting appears to be the story's content. Subconsciously, the existing moral values will be instilled among the students. Teachers with story ammunition can transfer knowledge and ethics through the stories presented (Qowim, 2020). Although it is almost the same as lectures, storytelling seems more effective for attracting attention (Shaleh, 2005). Therefore, using stories as a learning method is correct because stories hone intellectuality and instill morality and true humanism. The story method must pay attention to the right situation, of course, and learning objectives so that the delivery of material and stories is right on target.

Anshori (2020) in his article mentioned that the use of the story method in education has five aspects; the *first* is to educate by example; in this case, the educator or teacher must be good at determining the material to be taught so that the selection of stories in the Qur'an with the context of the lesson is in line and can lead students to morality and moral mastery. *Secondly*, attracts attention and stimulates the brain, which is influenced by the brain, and can stimulate stories containing wisdom. The *third* is instilling moral and emotional values where providing stimulus by telling stories will encourage students to perform kindness because the sensitivity of the child's soul and feelings is more aroused. The *fourth* is preschool-age children, and the *fifth* is that students have verbal-linguistic intelligence. Hence, it can be concluded that the compilation of the Qur'an and education is very suitable because the stories contained in the Qur'an can be used as material for providing subject material for children; thus, they are accustomed to being able to take the lessons in it.

Story-based Mathematics Learning

The term *mathematics* is familiar to the ear because, since childhood, we have been introduced to it by our parents. Mathematics is the parent of all kinds of sciences and their branches. The word *mathematics* comes from the Greek “*mathein*” or “*manthanein*”, which means to learn. This word is closely related to the Sanskrit word “*medha*” or “*widya*”, which means intelligence, knowledge, or insight (Kurniati, 2015).

Mathematics is one of the sciences resulting from observation, experimentation, and logical reasoning developed based on the Qur'an and the Sunnah. As a results, Muslims are encouraged to study mathematics, whether for pure knowledge or as material for life. Mathematics is a central science in daily life. However, heretofore, there have been many students and people who think that mathematics is difficult and insignificant. The toughest challenge for math teachers is to change students' and people's perceptions of mathematics from 'dislike' to 'like'. The main key to overcoming these problems is teacher creativity. An educator or teacher must be creative for the atmosphere of mathematics learning to be more pleasant if the methods used are not monotonous and for students' power of understanding to increase.

The storytelling method has several advantages. In addition to being *just for fun*, the storytelling method has a lot of potential because it can insert special values such as messages and advice. Teachers or educators must have good storytelling skills. In formal education, teachers who apply the storytelling method must be good at combining the subject material with the Qur'an story that will be integrated into the lesson. The accuracy of the material combined with the story must be appropriate so that the understanding of the material will be more inherent because it is combined with the story. Stories are easy to remember, both for children and adults. Hence, in this case, the storytelling method is not only for children but for adults as well. Therefore, in this case, the knowledge of the teacher or educator is challenged. In addition to mastering the subject matter, educators must also master the story material that will be integrated into learning.

The integration of stories with the subject matter in mathematics learning needs to be carried out because, with stories that are easy to remember and understand, it will be easier for students to learn mathematics. In this article, the author will present stories taken from the stories in the Qur'an. According to Abdussakir in his book *When Kyai Teaches Mathematics*; mathematics has a close relationship with Muslim spiritual traditions, is familiar with the Qur'an, and is, of course, used as a path to the achievement of the benefits of happiness both in the world and in the hereafter. Huda et al. (2017:190) reveal that this integration model is to make the Qur'an and Sunnah the *grand theory* of knowledge. Thus, the Kauniyah and Qauliyah verses can be used. As explained in Fathul Mufid (2013: 68), this integration is an effort to combine general science with Islam without eliminating the uniqueness between the two sciences.

There are several examples of mathematics learning that are integrated with the story in the Qur'an, as follows: (a) *learn summation*, the teacher can apply the summation material with the story of the Prophet Muhammad SAW when trading, (b) *learn division*, the teacher can integrate the division material with the Miracle of the Prophet Muhammad SAW in the form of splitting the moon, or the miracle of the Prophet Moses as that is to split the ocean (the story of the red sea), (c) *learning angular material* can be integrated with the story of Prophet Adam when Allah commanded Angels and Satan to bow down to Prophet Adam, or the story of shifting direction of the prayer qibla, (d) *learning about distance, time, and speed* can be integrated with the story of Prophet Muhammad SAW while traveling, i.e., *Isra' Mi'raj*, (e) *learning mathematics to sort numbers* can be integrated with the genealogy of Prophet Muhammad SAW, (f) when *learning about comparison*, the teacher can integrate the comparison of the number of Islamic troops with the enemy forces when fighting, (g) while *learning geometry* or building space, the teacher can integrate stories related to the Kaaba and many more Qur'anic stories that can be integrated into mathematics learning.

Mathematics is a science that is central to life. Everything we do in our daily lives cannot be separated from mathematics. A small example: We never escape time when we want to do activities. We need hours to tell the time; one day consists of 24 hours, one hour consists of 60 minutes, and one minute consists of 30 seconds. This simple thing has a mathematical component that we frequently overlook. Another example is when we want to go to a city and need a vehicle to make the trip easier. We must know how many hours it takes to get to the destination using the vehicle and how many liters of gasoline or diesel are needed during the trip. What speed is needed to arrive at the destination at the right time? And so on, so that we humans cannot escape the elements of mathematics, and we must believe that mathematics is indeed involved in life and that mathematics is a much-needed science.

4. CONCLUSION

Based on the results of the explanation above, the author can conclude that in the Qur'an, there are various stories, including those of prophets who contain proselytizing to their people, miracles to strengthen their proselytizing, stages in proselytizing, the attitudes of someone hostile to him, and the consequences that will be received (those) who believe and who lie. Then, the stories that relate to the events that happened in the past, those whose prophethood is not confirmed,

and the stories that happened in the events of the time of the Prophet Muhammad SAW. The stories in the Qur'an can be integrated into education through learning methods, where the learning method can instill good behavior in students in the form of a story method where the content of the story is quoted from the stories in the Qur'an. Stories greatly influence humans because human nature finds fun in the story. In addition, the choice of this storytelling method is because the story has several advantages; in addition to being just for fun, the storytelling method has a lot of potential because it can insert special values such as messages and advice. It is the foundation for writing articles. In discussing the integration of the stories in the Qur'an with education, the author refers to one field of science, i.e., mathematics. Mathematics is one of the sciences developed based on the Qur'an and As-Sunnah, as well as the results of observation, experiments, and logical reasoning. In addition, mathematics is a central science in daily life, so humans cannot be separated from mathematical elements and must believe that mathematics is indeed involved in life and the science needed.

CONFLICT OF INTEREST

There are no conflicts of interest declared by the authors.

REFERENCES

- Abdusysyakir. (2007). *Ketika Kyai Mengajar Matematika*. Malang: UIN-Malang Press.
- Al-Ghazali, (1997). *Ihya' Ulumuddin, Jilid 1 Bab Keutamaan Ilmu*, Trans. Semarang: As Syifa'.
- Al Qattan, Manna' Khalil. (2012). *Studi Ilmu-ilmu Al-Qur'an*. Surabaya: Pustaka Litera Antar Nusa.
- An-Nahlawi, Abdurrahman. (2003). *Ushul at-Tarbiyah al-Islamiyah wa Asalibuha*. Damaskus: Dar al-Fikr
- Anshari, Muh. (2020). Pengaruh Kisah-kisah Al-Qur'an dalam Aktivitas Pendidikan. *Jurnal Dirasah*, 3 (2):155-167 (<https://stai-binamadani.e-journal.id/jurdir>), accessed on July 12, 2021.
- Anwar, ME. (2014). Menelusuri Kebijakan Pendidikan Islam di Indonesia. *Edukasi Islami Jurnal Pendidikan Islam*, 3:483-496
- Fathul Mufid, (2013). Integrasi Ilmu-Ilmu Islam. *Jurnal Equilibrium*, 1 (1), journal.stainkudus.ac.id/index.php/equilibrium/article/download/200/pdf accessed on July 11, 2021
- Huda, Muallimul, et al. (2017). Mengenal Matematika dalam Perspektif Islam. *Jurnal Kajian Keislaman dan Kemasyarakatan*, 2 (2): 182-199
- Kurniati, Annisah. (2015). Mengenalkan Matematika terintegrasi Islam kepada Anak Sejak Dini. *Jurnal Matematika UIN Suska Riau*, 1 (1):1-8
- Maarif, Samsul. (2015). Integrasi Matematika dan Islam dalam Pembelajaran Matematika. *Infinity Jurnal Ilmiah*, 4 (2):223-236 <https://doi.org/10.22460/infinity.v4i2.p223-236>
- Mujahidin, Endin, et al. (2018). Pengaruh Materi Cerita terhadap Perkembangan Kepribadian Anak. *Jurnal Pendidikan Islam*, 7 (2):211-228 <http://dx.doi.org/10.30868/ei.v7i2.283>
- Maulida, Ali. (2017). Kedudukan Ilmu, Adab Ilmuwan dan Kompetensi Keilmuan Pendidik. *Jurnal Pendidikan Islam*, 6 (11):115-123
- Mustaqim, Abdul. (2011). Kisah Al-Qur'an: Hakikat, Makna, dan Nilai-nilai Pendidikannya. *Jurnal Studi Keislaman*, 15 (2):265-290
- Qowin, AN. (2020). Metode Pendidikan Islam Perspektif Al-Qur'an. *IQ (Ilmu Al-Qur'an): Jurnal Pendidikan Islam*, 3 (1):35-58
- Royani, Muhammad. (2015). Membangun Kepribadian dengan Nilai-nilai Pendidikan Matematika. *Jurnal Pendidikan Matematika*, 1 (1): 23-32
- Setiawan, Agus. (2018). Reorientasi Keutamaan Ilmu dalam Pendidikan Perspektif Al-Ghazali pada Kitab Ihya' Ulumuddin. *Jurnal Ilmiah Al-Qalam*, 12 (1):31-50
- Sholichah, AS. (2018). Teori-teori Pendidikan dalam Al-Qur'an. *Jurnal Pendidikan Islam*, 7 (1):23-46 <http://dx.doi.org/10.30868/ei.v7i01.209>
- Yuberti. (2016). *Dinamika Teknologi Pendidikan*. Bandar Lampung: IAIN Raden Intan Lampung.