

Implementation of The Qur'an in Modern Science Learning

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ABSTRACT

Alqur'an is a very perfect human guideline, because it regulates all aspects of human life, both worldly life including very small things and the afterlife. But unfortunately, the development of the times has led to the teachings of alqur'an and further away from the monitoring and implementation of the contents of alqur'an "in human life. From the perspective of Islamic science, Islamic science is used as a tool to gain knowledge about Allah, pleasure and closeness to Allah. Knowledge must be able to direct a Muslim in various ways and efforts to get close to Allah SWT. The method used in this research is the literature review method by looking for various relevant theoretical references. The data sources in this study are 10 articles obtained from the database Google Scholar and Google Scholar. This study aims to find out how the Implementation of alqur'an in Modern Science Learning. Based on the results of the literature review, it can be concluded that alqur'an plays a role in the advancement of science, especially science, both in Biology, Mathematics, Physics, Chemistry, Medicine, and other sciences. In the field of biology, alqur'an explains how the creation of humans, the creation of the heavens and the earth, the functions of the structures of living things (animals), etc. In the fields of mathematics, Algebra, Sets, Geometry and Measurement, Logic, Statistics and Estimation (estimates) are several concepts mathematics in the Qur'an, and in the field of chemistry alqur'an also explains how the creation of the universe. Thus, it seems clear that learning science cannot be separated from the verses of alqur'an.

Introduction

Al-Qur'an is a very complete guide for humans because it regulates all aspects of human life, and the life of the world, including very small affairs, and life after death. But unfortunately, the development of the times has caused the teachings of the Qur'an to move away from following and applying the contents of the Qur'an in human life. The existence of an increasingly deviant education cannot be separated from teachers who are supposed to be role models for their students, but lately many teachers have enabled and even shaped students to move away from the teachings of the Al-Quran, so moral damage cannot be avoided. (Nurdin et al., 2019)

Talking about science, Khusnul Khotimah (2014) in his writing quoted by M. Damhur stated that there were three groups of Muslims involved. First, the Islamic apologetics group: this group considers modern science to be neutral or universal. Their aim is to legitimize scientific discoveries by harmonizing them with the verses of the Qur'an that are compatible with their scientific theories. Second, groups that acknowledge Western science but seek to study the history and philosophy of scientists so they can filter out anti-Islamic elements. And third, groups that believe in the existence of Islamic knowledge and try to build Islamization in all elements of that knowledge. This proves that Muslims are trying to find the essence of knowledge about Islam, because Islam is said to be the perfect religion. (Kumara et al., 2020)

According to the Big Indonesian Dictionary (KBBI), knowledge means everything that is known; intelligence: that is everything that is known about the thing (subject). According to Pudjawidjana, knowledge is a person's response to natural environmental stimuli, which creates contact with objects through the senses, and knowledge is the result that occurs after a person perceives a particular object. Meanwhile, according to Notoatmodjo, knowledge is the result of knowledge and it occurs after people perceive certain objects. Perception occurs through the five human senses, namely sight, hearing, smell, taste and touch. Most of people's information comes through their eyes and ears (Makhmudah & Kertosono, 2018). From some of the meanings of science above, it can be concluded that knowledge is everything that is known that is obtained through contact of the five senses with a certain object. Knowledge is essentially the result of the process of seeing, hearing, feeling and thinking, which forms the basis of human behavior and actions.

Science, or knowledge, is a systematic intellectual activity aimed at investigating, discovering, and increasing rational and empirical understanding of various aspects of the reality of the universe. These aspects are limited so proper forms arise from them. Science provides certainty by limiting the scope of its vision, and the certainty of knowledge comes from its limitations. From the above understanding it can be concluded that IPA is not just knowledge, but is a summary of knowledge or results of knowledge and facts, based on generally accepted/agreed theories and obtained by various systematic methods tested by a recognized set of knowledge. method . in certain information fields (Makhmudah & Kertosono, 2018)

Science is information that is arranged systematically through reasoning, where this information can always be studied and examined critically. The purpose of science is to learn more and explore all aspects of life. In essence, science was born from the desire of society to know. Science can support the welfare of all human life, both natural, social and human. In further discussion, we will understand that this knowledge is ultimately divided into two general sciences, namely ushul science, or shari'ah science, and social science, or world science. (Estuningtyas, 2018.)

Science or science and technology are two characters that cannot be separated from one another. Science is a source of technology that can provide opportunities for various inventions and technical ideas. Technology is the application or application of science that can be demonstrated as a real result that is more advanced and can encourage

humans to develop even more. Originally, the concept of science was all kinds of knowledge, including "social science" and "natural science". Then the term scientific understanding only applies to "natural sciences" and as translated the natural sciences (IPA). The social sciences are a group that deals specifically with the problems of human life and includes sociology, law, economics, languages, psychology, religion, and the arts. While the natural sciences are a group that studies human-physical natural problems and their environment, which consists of mathematics, physics, chemistry, biology, astronomy, meteorology, and geology. (Shafi', 2020)

In the view of Sumantri (1982) in (Adhiguna & Bramastia, 2021), explains that the purpose of science is to explain natural phenomena and manipulate the factors that influence them to control and direct the processes that occur. The bottom line is that science was created to satisfy human needs. From the perspective of Islamic science, according to Ghulshan, Islamic science is used as a means to gain knowledge about Allah, enjoyment and closeness to Allah.

Knowledge must be able to guide a Muslim in various ways and efforts to get closer to Allah SWT. Above all, knowledge must be able to increase the knowledge of Allah SWT, help develop Islamic society and realize all its goals, guide others and solve various social problems. closer. Allah SWT and while science fulfills this role, science becomes sacred. If knowledge is not channeled into this role, then knowledge becomes a major obstacle to efforts to draw closer to God.

Therefore, this article is important to study to describe how the Qur'an is applied to scientific knowledge from the perspective of modern scientific learning. The purpose of this research is to find out how the application of the Qur'an in modern scientific education. This study was carried out by examining the literature on Al-Qur'an studies related to the study of Islamic religion with science learning.

Method

The method used in this research is the literature review method by looking for various relevant theoretical references. This research was conducted by browsing articles in nationally and internationally accredited or indexed journals related to the Implementation of the Qur'an in Science Learning. The articles used in this literature review are articles obtained from the Google Scholar and Google Scholar databases.

The type of data in this research is secondary data. Secondary data is data obtained from previous research results, so the authors do not collect data directly from the object under study. Sources of data in this study are 10 articles that are relevant to the topic under study

Result and Discussion

Based on the results of research conducted in a literature review from several SINTA accredited journals. The data used is secondary data in a number of 3 articles from 2017-2020 that are relevant to the author's research. The results of the collection of data analysis can be seen in Table 1.

Table 1. Summary of Article Analysis Results

Title	Year	Writer	Objective	Results	Conclusion
Implementation of Al-Qur'an Surah Al-'Alaq Verses 1-5 in Learning Science and Technology	2020	Muhtadi	Describe the Implementation of the Qur'an Surah al-'Alaq verses 1-5 in Learning Science and Technology.	Its implementation in learning Science and Technology is implied in the word Iqra' (reading)	Implementation of learning in sura al-'Alaq verses 1-5 in studying science and technology. The most important command of Allah to Muslims is reading
Science-Islamic Integration and Its Implementation in Biology Learning	2017	Eko Budi Minarno	As a Confirmation Source, namely conducting critical analysis/discussion of phenomena in science, which is then confirmed with the Al;- Qur'an	The source of inspiration for science or the main source of reference which is then explained by various phenomena in science.	The Al-Qur'an Integration Model as a Source of Inspiration, namely placing the Al-Qur'an at the beginning which is then explained by various phenomena in science.
Implementation of Mathematical Concepts in the Qur'an in the Madrasah Curriculum	2017	Abdul Fattah Nasution	Form the character and personality of students who are conscientious, accurate, careful calculations, use common sense	Covers; algebra, geometry, sets, measurements, statistics, logic, estimation and others.	The current implementation of the mathematics curriculum in madrasahs has not been integrated with the curriculum concept according to the Qur'an.

Table 1 above shows that the implementation of the Qur'an has a big influence on the development of science learning. From the 5 SINTA accredited articles that were traced, it was found that the Qur'an plays a role in the advancement of science, especially science, both in Biology, Mathematics, Physics, Chemistry, Medicine, Geography and other sciences that have developed from the heyday of Islam to modern times following the development of science and technology, from the first research article shows that the implementation of science learning is found in the Qur'an Surah al-'Alaq verses 1-5

In the first verse of Al'alaq which was revealed by Allah SWT to the Prophet Muhammad through the angel Jibril while alone in the Cave of Hira ordered him to recite in the name of his Lord who created it. The angel Gabriel said Iqra bismi rabbika means: read in the name of your Lord

إِقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ (٥) خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ (٥) إِقْرَأْ وَرَبُّكَ الْأَكْرَمُ (٥)
 الَّذِي عَلَّمَ بِالْقَلَمِ (١) عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ (٥)

Read in (mentioning) the name of your Lord who created, He has created man from a clot of blood, read, and your Lord is the most gracious, who teaches people through the medium of the word, He teaches people what they do not know. (QS: Al-'Alaq: 1-5)

In iqra it has an important meaning because it is not just understanding and reading because of orders. But more meaningful than that, iqra has the meaning of reading the names and glory of Allah, genetic technology, communication technology, and all things that have not been read. The command to read and study in Islam is very clear, which begins with the word iqra. Even though reading orders are not absolute (Muhtadi, 2020)

Al-Qur'an is a holy book that was revealed for all human beings who have a mind to use in understanding the process of the creation of the universe. Many verses of the Qur'an contain various knowledge, that is why the Qur'an is also known as the source of all knowledge.

One verse that discusses the basics of science is as follows:

a) Al-Mu'minuun: 12-13 :

وَلَقَدْ خَلَقْنَا الْإِنْسَانَ مِنْ سُلَالَةٍ مِنْ طِينٍ (١٢) ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَكِينٍ (١٣)

And verily We have created man from an essence (derived) from the ground, then We made the essence of semen (which is stored) in a firm place (womb). 18 (QS. Al-Mu'minuun, 23: 12-13) .

The book of Tafsir Al-Maraghi explains that sperm is produced from soil that comes from animal or vegetable food. Animal food ends with plant food, and plant food comes from land and water. Basically humans come from the natural land and then experience the development of the seeding process. Thus it can be explained that knowledge concerning the origin of the process of human formation, the place of origin, then science, can be studied by people in majors such as biology and medicine.

The development of science has existed since 638 AD from Alexandria or Alexandria. The development of science at that time included astronomy, pharmacy, physics, chemistry, medicine and mathematics. The development of science at that time could not be separated from the influence of Muslim scientists who played a role, especially chemistry, such as Al-Khindi, Ar-Razi and Jabir Ibnu Hayyan. In the second

article there is a link between the Qur'an and Science, Biology is a science whose truth is explained in the verses of the Qur'an. But science must be proven by conducting research, not all scientific research can prove the contents of the verses in the Qur'an.

The Qur'an is a guide that contains inspiration. The Qur'an should be at the beginning of study, but not as a justification for science but as an explanation in science. Some of the following descriptions are to explain this.

Surah Ali Imran 191 :

الَّذِينَ يَذْكُرُونَ اللَّهَ قِيَامًا وَقُعُودًا وَعَلَىٰ جُنُوبِهِمْ وَيَتَفَكَّرُونَ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ رَبَّنَا مَا خَلَقْتَ هَذَا بَاطِلًا
(سُبْحَانَكَ فَقِنَا عَذَابَ النَّارِ (١٩١)

191) (that is) those who remember Allah while standing or sitting or lying down and they think about the creation of the heavens and the earth (saying): "Our Lord, You did not create this in vain, Glory be to You, So protect us from the torment of hell.

The law of structure follows function is one of the laws of biology which explains that there is no structure in living things that does not have a function. Structure cannot exist in living things if it has no function. Then each structure has a clear task. For example, animals have a tail that functions as a stabilizer or body rocker. In humans, they no longer need a tail because they can already be balanced.

The same thing can be seen in the shape of the beak and legs of birds, each of which has a role in survival. Birds have different beaks, fish-eating or insect-eating birds have longer beaks, while meat- and grain-eating birds have shorter, sharp noses. Animal feet also have different functions, for example, eagles have pointed feet that catch prey, while ducks and ducks have wide, webbed feet that relieve pressure when swimming in water. (Minarno et al., 2019)

Various things of life in Biology are sourced from the Qur'an not only related to morphology but physiology, namely: (1) Carnivorous animals have many proteolytic enzymes compared to herbivorous animals. (2) Rubisco which is a carbon fixation reaction in the process of photosynthesis catalyzed by enzymes, in plants there are many proteins which are abundant in protein. In animals there is no Rubisco Enzyme because animals do not carry out photosynthesis, if there is then the presence of enzymes does not have a function and role in animals.

Surah Al-Qomar 49 :

إِنَّا كُلَّ شَيْءٍ خَلَقْنَاهُ بِقَدَرٍ

49) Verily, We have created everything according to measure.

In all Allah S.W.T created objects have sizes according to their functions and needs. For example, in your biology major, cell biology, you learned everything about cells and their components, such as mitochondria (energy-producing cell organelles), which have folded inner membranes called cristae, where the electron transport system takes place. last part Respiration frequency, or the process of energy production, is a

different multiplier because it corresponds to the amount of energy required by a type of cell. it can prove that everything in this world is created related.

In the third article it can be seen that the Qur'an also acts as a curriculum, because there are explanations of the various components in the curriculum. The Al-Qur'an also explains the purpose of life and all things that need to be learned, understood and implemented by humans. Several aspects related to the learning process have been disclosed in the Al-Qur'an.

The motivation given by the Qur'an to understand the concept of mathematics is contained in the letter of Yunus verse 5: "It is He who makes the sun shine and the moon shine and He determines the manzilah (places) for the journey of the month, so that you know the number of years and calculations (time). Allah did not create such things except by truth. He explains the signs (of His greatness) to those who know."

In mathematics, there are objects that are abstract but not magical, so mathematical objects are not aspects. Mathematics is an abstraction from the real world, so that the object of mathematics is a language of symbols. The understanding of the mathematical concepts contained in the verses of the Qur'an cannot be separated from the mathematical concepts themselves. Algebra, sets, geometry and measurement, logic, statistics and estimation (estimation) are some of the mathematical concepts of the Al-Quran.

Several verses of the Qur'an that put forward the concept of algebra, namely Al-Hijr [15]: 19, AlQomar [54]: 49, Al-Furqaan [25]: 2 and others. While the concept of set can be seen in al-Fathir verse 1 and surah an-Nur verse 45 in which there is a mathematical concept, namely a collection of objects that have very clear characteristics. For example, humans have a body structure consisting of very clear parts and functions. The existence of a functional relationship between humans and nature tells that there are elements of education regulation and management (Nasution, 2017).

Thus, it seems clear that the study of science cannot be separated from the things that have been written in the verses of the Qur'an. The application of the Qur'an in the study of science has existed for a long time through Muslim scholars who brought knowledge from European civilization and experienced its development until now.

Conclusion

The Based on the results of the literature review, it can be concluded that the Qur'an has a role in the development of science, especially natural sciences, as well as biology, mathematics, physics, chemistry, medicine, and other sciences. In the field of biology, the Qur'an explains the function of human creation, the creation of the heavens and the earth, the formation of living things (animals). Mathematics, algebra, sets, geometry and measurement, logic, statistics and estimates are some of the mathematical concepts contained in the Qur'an, and in the field of chemistry, the Qur'an also explains the creation of the universe. So it seems clear that learning science cannot be separated from the verses of the Qur'an.

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