



## Integration of Science and Islamic in Schools: Studies on Learning Islamic Religious Education in the Digital Era

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### Abstract

**Keywords:**

Scientific  
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Islamic  
Education;  
Science  
Education;  
Schools

The purpose of this study is to determine the integration of Islamic science and general education in schools and find out its implementation factually. This research uses qualitative methods with descriptive types of research and approaches using literature studies. Data sources and collection are carried out using literature relevant to the research, such as national and international books or journals. The results showed that the integration of Islamic science and science is more suitable for schools under the auspices of religion, such as madrasahs, Islamic boarding schools, and schools with integrated Islamic information. The implementation of the integration of Islamic science and science in schools, namely the change in applicable learning methods, requires the involvement of parents and the equation of vision and mission, as well as an integrative model curriculum.

### Abstrak:

**Kata Kunci:**

Integrasi Keilmuan,  
Pendidikan Islam,  
Pendidikan Sains,  
Sekolah

Tujuan penelitian ini untuk mengetahui integrasi ilmu keislaman dan ilmu sains di sekolah serta mengetahui implementasinya secara faktual. Penelitian ini menggunakan metode kualitatif dengan jenis penelitian deskriptif dan pendekatan menggunakan studi pustaka. Sumber dan pengumpulan data dilakukan dengan menggunakan literatur-literatur yang relevan dengan penelitian, seperti buku atau jurnal nasional dan internasional. Hasil penelitian menunjukkan bahwa integrasi ilmu keislaman dan sains lebih cocok untuk sekolah dibawah naungan agama, seperti madrasah, pesantren, maupun sekolah dengan keterangan Islam terpadu. Implementasi integrasi ilmu keislaman dan sains di sekolah, yakni adanya perubahan metode belajar yang aplikatif, memerlukan keterlibatan orang tua dan persamaan visi misi, serta kurikulum model integratif.

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## 1. Introduction

Education is the right of every human being. Free human beings are given the option of receiving education from various parties and the environment.<sup>1</sup> The environment becomes the most important thing in the formation of a person's character.<sup>2</sup> Some people will agree with the response. However, those who disagree will assume that character-building occurs due to heredity. It should be emphasized that the formation of a person's character can indeed be by heredity but to form a character only derived from heredity is not enough. Because humans need an environment so that they can find their real character. The environment is the most important factor for humans in humanizing humans. Because humanizing humans is not only enough with one factor, humans need several other factors so that they can know the world and live their lives like humans in general, namely socializing.

Socializing requires a role with many humans so that humans can get understand from various points of view.<sup>3</sup> Sometimes people forget about the main thing in living life, which is to socialize. Maybe some people underestimate this because it is considered too easy and not too important. Related to socialization, humans need education to be able to change their attitudes and behaviors in socializing. Because in socializing, good ethics are needed. so as not to easily bring down let alone demean the *statements* or identities of others. Through education, the human view of a problem or knowing other humans becomes wider and not only limited to physical views.

Talking about education is generally carried out in schools with teachers as their mentors. School is the main key for parents in providing education to their children.<sup>4</sup> Therefore, parents entrust school as a place for their children to study. But education for a child is not only the responsibility of the school<sup>5</sup>. However, it is also parents. Because the education that children get for the first time should come from their parents. However, parents forget this and make the child's education the full responsibility of the school. The existence of teachers in education in schools senders in knowledge in children from ignorance to their knowledge of subjects and other external knowledge. The knowledge available in schools today is mostly related to theories, formulas, and logic.

Thus, the knowledge received by the majority of children is related to general subjects. In fact, in carrying out education it is necessary to include religious values. This has been exposed to two main foundations in the 1945 Constitution (Amendment version), *firstly* Article 31 paragraph 3 explains that "the government manages and organizes a national education system, which enhances faith and piety as noble morals to educate the life of the nation that has been regulated in law. *Second*, article 31 paragraph 5 explains "the government advances science and technology by upholding religious values and national unity for the advancement of civilization and the welfare of mankind"<sup>6</sup>. Based on the

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<sup>1</sup> Ahmad Rusdiana, "Integrasi Pendidikan Agama Islam Dengan Sains Dan Teknologi," *Istek* 8, no. 2 (2014): 123–43.

<sup>2</sup> Firman Mansir, "Aktualisasi Pendidikan Agama Dan Sains Dalam Character Building Peserta Didik Di Sekolah Dan Madrasah," *J-PAI: Jurnal Pendidikan Agama Islam* 7, no. 2 (2021).

<sup>3</sup> M Akbarizan, "Integrasi Ilmu: Perbandingan Antara UIN Suska Riau Dan Universitas Ummu Al Quran Makkah (MA Almaktsur, Ed.)" (Suska Press, 2014).

<sup>4</sup> Dosen STAI Luqman Al Hakim, "Integrasi Ilmu Dalam Pendidikan," n.d.

<sup>5</sup> Novianti Muspiroh, "Integrasi Nilai Islam Dalam Pembelajaran IPA (Perspektif Pendidikan Islam)," *Jurnal Pendidikan Islam* 28, no. 3 (2013): 484–98.

<sup>6</sup> Novianti Muspiroh, "Integrasi Nilai-Nilai Islam Dalam Pembelajaran IPA Di Sekolah," *Jurnal Pendidikan Islam*, 2013.

presentation of the two laws above, it has been proven that carrying out education, especially in distributing knowledge, is not only about educating and expanding the capacity of students' abilities through general knowledge, but also about forming a human character that obeys the beliefs held by each student.

However, in reality, many schools, especially public schools, do not apply these regulations and emphasize general subjects more, because they are considered to play a very important role in daily life<sup>7</sup>. General knowledge in the absence of religious science will not work well. For in religion all are well organized without the slightest error. The application of the regulation is even more practiced by faith-based schools, be it madrasas or schools with the addition of integrated Islam. Because they think the regulation is more suitable for schools under the auspices of religion. Meanwhile, the absence of the application of religious values in public schools will have a bad impact on its students, namely, slowly the school seems to distance students from the cultivation of faith and piety from the religion adopted by students. Although the school has included one lesson about religion, for example, Islamic Religious Education (PAI) as an increase in the knowledge and faith of its students, this is not enough. Because those subjects generally don't run less effectively. Thus, the faith and knowledge gained by students are also lacking to the point that the cultivation of religious moral values slowly.<sup>8</sup>

One of the common knowledge that has a connection with religious science, namely science. Because the scientific discoveries that have been studied and those that have been discovered have similarities with the events that have been written in the Qur'an. One example can be taken regarding the scientific material on the theory of the universe. According to the scientific view, the universe was formed because of an explosion in the universe or called the big bang theory invented by Abbe and Georges L in the 1920s. The theory shows similarities to that written in the Qur'an in Sura Al-Anbiya verse 30 in 14 centuries ago. Thus, it can be said that science with religious science is an inseparable science.<sup>9</sup>

Research by Purwaningrum on the elaboration of science verses in the Qur'an: a step towards the integration of religion and science in education, shows the effort to integrate religion and science in theory by collecting various science verses in the Qur'an so that these efforts are categorized as integration.<sup>10</sup> Meanwhile, the research by the author actually integrates the learning process in Islamic educational institutions, both Islamic boarding schools, madrasahs, and Islamic schools. This research is different from Purwaningrum because the aspects it uses lie at the level of theory and practice, although both seek to integrate science and religion.

Research by Muspiroh on the integration of Islamic values in science learning in schools, explains the need for Islamic integration in every science learning, so that science does not stand alone and seems to be seen differently in real terms by students, even though science learning needs to be explained with an Islamic approach so that students can understand more easily about the

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<sup>7</sup> Firman Mansir, "Implications of Teacher Certification on Professionalism and Welfare of 21st Century PAI Teachers," *Tadrib* 5, no. 2 (2019): 138–52.

<sup>8</sup> declines (Muspiroh, 2013)

<sup>9</sup> R I Kemenag, "Al-Quran Dan Terjemahan," *Jakarta: PT. Sygma Examedia Arkanleema*, 2010.

<sup>10</sup> Purwaningrum, Septiana. "Elaborasi ayat-ayat sains dalam Al-Quran: Langkah menuju integrasi agama dan sains dalam pendidikan." *Inovatif: Jurnal Penelitian Pendidikan, Agama, Dan Kebudayaan* 1.1 (2015): 124-141.

various creations of Allah SWT on earth.<sup>11</sup> This study is different from the author's research, because of its different objects. In this article, Islamic learning needs integration with modern science, especially in the digital age. This method is to open the paradigm and insight of students in Islamic educational institutions, and show that Islamic religious learning has a connection with the progress of modern science.

However, some groups/societies have the view that science and religious science are not related and each of the two sciences can stand alone. According to them, science relies on the results of its knowledge based on data that has passed observations, discoveries, or experiments that have been carried out. So, the results obtained can be ascertained to be true because they have clear evidence. As for religious science, on the contrary, they are of the view that religious science accepts the results of its knowledge uncertainly or can be obtained occultly which is based on tangible variables of faith and belief.<sup>12</sup>

## 2. Methods

This research uses qualitative methods with a descriptive type of research. The approach used in this study is library research. In qualitative research, the theory is used as an explanation for certain behaviors and attitudes, this theory is perfect with the presence of variables and constellations. Therefore in qualitative theory, it is often used as the final point of research. By making theory the final point of research, it means that the researcher applies his research process inductively which takes place starting from the data, then to general themes then to a certain theory or model.<sup>13</sup> In this study, data sources and collection were carried out using literature relevant to the research, such as research books relevant to research topics or national and international journals. Meanwhile, the data analysis technique used is in the form of a content analysis method which is then carried out descriptively, so that that method can answer research problems that are described strictly with relevant narratives.

## 3. Result and Discussion

Linguistically, the integration of science is a phrasing that is incorporated from two syllables, namely integration and science. Where the two words if they are separate have different meanings or definitions. Integration comes from the English word "*integration*" which means perfection or whole.<sup>14</sup> The student dictionary (2008) Second Edition of the Language and Library Council Hafiz<sup>15</sup> gives a different understanding, that integration is a combination of content consisting of two or more consisting of components, parts, and others that blend into one solid and complete union. Meanwhile, science, according to the *KKBI* (Indonesia Dictionary), is everything that is known about a certain field that has

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<sup>11</sup> Muspiroh, Novianti. "Integrasi nilai Islam dalam pembelajaran IPA (perspektif pendidikan Islam)." *Jurnal Pendidikan Islam UIN Sunan Gunung Djati* 28.3 (2016): 484-498.

<sup>12</sup> A. Rusdiana, "Integrasi Pendidikan Agama Islam Dengan Sains Dan Teknologi," *Research Policy*, 2014.

<sup>13</sup> John W. Creswell, *Research Design*, Yogyakarta: Pustaka Pelajar, 2018, 86-87.

<sup>14</sup> D. S. L Al Hakim, "Integrasi Ilmu Dalam Pendidikan," *Ta'dibi: Jurnal Manajemen Pendidikan Islam*, no. Vol 6 No 12 (2018): 104–23.

<sup>15</sup> Mohd Aiman Shazlishah Rosli, Mohd Hafiez Abd Hamid, and Bushrah Basiron, "Integrasi Pendidikan Antara Islam Serta Sains Dan Teknologi" (Kertas kerja Dibentangkan di Seminar Tamadun Islam, 2018).

been arranged in order using certain methods or methods. According to Idris,<sup>16</sup> science is a kind of knowledge that has been well organized using certain methods obtained using study, observation, and experimentation.

However, the integration of science turned out to have its meaning, apart from the above two syllables. The integration of science according to Mahdi Ghulsyani, is to explain the meaning of the verses of the Qur'an and relate them to the latest science. Its main purpose is to show the truth that has been written in the Qur'an as the source of all knowledge and increase the pride of Muslims towards the book handed down to him.<sup>17</sup> At its core, the integration of sciences is a combination of two sciences, namely general science and religious science. Both sciences are useful to prove that the power that has been listed in the Qur'an is not merely frightening to man but wants to show the power of Allah through general science. Thus, with the power that God demonstrates through general knowledge, man can draw closer to Him and not just be indifferent to his truth.

Islam is known as a religion or belief embraced by humans. Islam is a religion that Allah passed down through the angel Gabriel. The angel Gabriel was commissioned by God to deliver revelation to certain human beings based on God's choice. One of Allah's chosen human beings is the Prophet Muhammad SAW as a being to convey Islam through his intermediary.<sup>18</sup> Islam is also the only religion that dares to declare itself to be the truest. Because Islam knows everything that races against its book, which is the Qur'an. Islam was handed down by Allah so that people know that the truth belongs only to Allah, not to humans or other living beings.

As a religion that Allah knows, Islam tells its followers not to entrust everything that lies to Allah. Because this trait is not by the teachings of Islam. Islam highly upholds the commands of Allah.<sup>19</sup> For non-followers of Islam, Islam is a religion that has many prohibitions. The prohibition is known to God ahead of man, neither the prohibition makes man negligent nor the prohibition has any benefit to life. Islam became the only religion that thought about the life of its people, even the entire human race. Starting from education, health, sex, and behavior. Islam is not only sourced from the Qur'an but also sourced to the Hadith.

Science is a lesson that is always present at every level of educational institutions, starting from elementary school, junior high school, high school/vocational school, and higher education.<sup>20</sup> Science can be summed up as a science that studies the natural sciences, the science of counting, as well as the science of energy and substances. Science with natural sciences, discusses all the nature that God has created, such as plants, animals, and so on. Meanwhile, science with the science of calculation discusses formulas in life that are integrated with nature, such as the fall of an apple from a tree called the law of

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<sup>16</sup> Saifullah Idris and Fuad Ramly, "Dimensi Filsafat Ilmu Dalam Diskursus Integrasi Ilmu," Yogyakarta: Darussalam Publishing, 2016.

<sup>17</sup> Akbarizan, *Integrasi Ilmu* (Pekanbaru: Suska Press, 2014).

<sup>18</sup> Firman Mansir, Halim Purnomo, and Tumin Tumin, "Penerapan Pembelajaran Pendidikan Agama Islam Berbasis Sains Budaya Lokal Di Sekolah Dan Madrasah," *TARBAWY: Indonesian Journal of Islamic Education* 7, no. 1 (2020): 70–79, <https://doi.org/10.17509/t.v7i1.23478>.

<sup>19</sup> M Yusuf Wibisono, "Definisi Agama Di Indonesia: Sebuah Dilema Agama Pribumi," *Modul Sosialisasi Toleransi Beragama* 65 (2020).

<sup>20</sup> Firman Mansir, "Analisis Model-Model Pembelajaran Fikih Yang Aktual Dalam Merespons Isu Sosial Di Sekolah Dan Madrasah," *Ta'dibuna: Jurnal Pendidikan Islam* 10, no. 1 (2021): 88–99.

gravity and then calculating it with predetermined formulas. For science with energy and substance science, it discusses molecules of active ingredients and food ingredients to be further studied whether their content is harmful or not when consumed or used.

Science is not only a subject for various levels of education. However, science is also able to help humans in controlling research or phenomenon. With this help, humans can know and explore the nature of this universe.<sup>21</sup> The emergence of science is of great benefit to human life. Because humans can discover and create a wide variety of technologies and transportation that ease human work. In addition, the benefits of creating technology and transportation have a bad impact on humans, for example, means of transportation. To run a means of transportation requires fuel such as gasoline which is not small. Gasoline used by cars and motorcycles produces steam (smoke) which is very dangerous when inhaled by humans and even the earth. However, over time and with the development of technology and science from time to time, humans began to gradually realize the dangers of such fuel and began to switch to using electricity, although not all means of transportation have switched to electric fuel.

### 3.1 Efforts to Internalize Religious Science to Sains Learning in Schools

The integration of science means science that combines two sciences, namely general science and religious science<sup>22</sup>. The general science in question is in the form of science or natural science and the religion to be referred to is Islam. In Islam, studying various sciences is a very priority, but if learning this knowledge is not accompanied by studying religious knowledge, it can be said that the knowledge gained is in vain. Because humans do not know what things will be obtained if the two sciences are studied together. In addition, if the general knowledge learned coincides with religious science, humans, especially Muslims, can know that there are advantages and truths in the Qur'an that Allah created. So, they can be grateful for what God has given them.

The Prophet saw in his hadith said: *"Whoever wants to embrace (achieve the interests of) the world, then with knowledge. Whoever wants to embrace the afterlife, then with knowledge, and whoever wants to embrace both then with knowledge"*. Based on the hadith above, it can be explained that humans can get happiness in the world and the hereafter with knowledge. Happiness is obtained not only with general knowledge but with religious knowledge. So that the knowledge can be practiced and benefit fellow humans.<sup>23</sup> However, today's education is already implementing western education. Where western education prioritizes knowledge that has benefits for daily life. Because western education has developed rapidly it affects the world of Indonesian education, thus education that smells of religion is slowly decreasing. Although not all schools forget religion in their learning.

The integration of religious science, especially Islam and science in schools, is still difficult to implement.<sup>24</sup> Because education in Indonesia still boxes that religion and science cannot be applied simultaneously. This is a common problem in the millennial era regarding the integration of religious and general

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<sup>21</sup> Mansir, Purnomo, and Tumin, "Penerapan Pembelajaran Pendidikan Agama Islam Berbasis Sains Budaya Lokal Di Sekolah Dan Madrasah."

<sup>22</sup> Chanifudin Chanifudin and Tuti Nuriyati, "Integrasi Sains Dan Islam Dalam Pembelajaran," *Asatiza* 1, no. 2 (2020): 212–29.

<sup>23</sup> Chanifudin and Nuriyati.

<sup>24</sup> Rosli, Abd Hamid, and Basiron, "Integrasi Pendidikan Antara Islam Serta Sains Dan Teknologi."

subjects that are still unrealized. The reality is that science and religion can be integrated and are sciences that can coexist. Religion without the support of science will not find reasoning and find no clear common ground. Meanwhile, science without being based on religion will develop into violence and have imperfect or devastating consequences. That's why there is an integration of Islamic science and science so that humans see that science, especially science, can be open and can be found in bright spots in the Qur'an.<sup>25</sup>

The integration of Islamic science and religion in schools needs to be carried out. So education in Indonesia is not only concerned with the intelligence of its students and forgetting the behavior that students should have.<sup>26</sup> Education that prioritizes general science characterizes that the education applied is on the verge of not being good. Because can be seen in the condition of Indonesian education before the pandemic, namely, the number of brawls between schools, skipping lessons, and actions that students should not do while studying. Furthermore, the behaviors mentioned above can lead learners to one of the behaviors that are not commendable, namely corruption. Thus, it is very necessary to apply that links general science with religious science. So that the moral values and manners of students do not disappear because of the absence of religious links in their person. As parents, it is also necessary to instill the attitudes advocated by religion. So that the children they care for and educate do not harm others.

In general, Indonesia has divided general and religious subjects separately, be it at the elementary, junior high, and high school/vocational levels. Thus, it is difficult to combine general and religious subjects. One of the obstacles to the difficulty of Indonesian education in applying religious science with science, namely the lack of understanding of teachers' understanding of the science contained in the Qur'an.<sup>27</sup> This needs to be addressed so that teachers are not only sourced to books. The school as a means and infrastructure for teachers in teaching can provide facilities for teachers so that teachers can know the prophetic nature of the earth which is not only sourced from books. Because the teacher learning the Qur'an related to the material, it can open up its understanding and not just race to one point of view. The Qur'an becomes a very clear guideline. Therefore, teachers, it is necessary to study the material related to science and the Qur'an.

Religion and science applied in schools can guide teachers and students to see the true power of God.<sup>28</sup> Generally, the science lessons taught by teachers do not relate to the Qur'an. Because it is quite difficult and needs to be studied more deeply. Another possibility is that the teacher is reluctant to associate it with the Qur'an, namely different interpretations. So, if it is conveyed to the students, there will be a misunderstanding. However, it is undeniable that teachers can associate science with the Qur'an. The goal with the integration of Islamic science and science in schools, so that education in Indonesia is not considered

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<sup>25</sup> Septiana Purwaningrum, "Elaborasi Ayat-Ayat Sains Dalam Al-Quran: Langkah Menuju Integrasi Agama Dan Sains Dalam Pendidikan," *Inovatif: Jurnal Penelitian Pendidikan, Agama, Dan Kebudayaan* 1, no. 1 (2015): 124–41.

<sup>26</sup> Firman Mansir, "Interconnection of Religious Education and Modern Science in Islamic Religious Learning," *EDUKASI: Jurnal Pendidikan Islam (e-Journal)* 9, no. 2 (2021): 229–37.

<sup>27</sup> Purwaningrum, "Elaborasi Ayat-Ayat Sains Dalam Al-Quran: Langkah Menuju Integrasi Agama Dan Sains Dalam Pendidikan."

<sup>28</sup> Firman Mansir, "The Problematic and Challenge of Fiqh Learning in School and Madrasah in the Covid-19 Pandemic Era," *MUDARRISA: Jurnal Kajian Pendidikan Islam* 12, no. 2 (2020): 169–84.

bad. In the above presentation, it has been explained that the lack of cultivation of moral values, especially those related to religion, will give birth to profane behavior. The lack of cultivation of religious values in life is like wearing shoes but not using socks. It looks trivial, but it needs to be considered. The few deeds done over time became addictive. The lack of religious value becomes a question mark for a person in behavior. Because it goes back to the principle that science that is not based on religion will be destroyed.

The integration of Islamic science and science in schools has usually been applied to schools with religious backgrounds, such as madrasahs and Islamic boarding schools.<sup>29</sup> Religious studies in madrasahs and pesantren are more profound<sup>30</sup>. Thus, the possibility of the teacher associating it with a general lesson is very large. However, it is undeniable that only teachers who teach PAI (Islamic Religious Education) subjects and science can relate them to the Qur'an. Speaking of PAI, for some schools, especially public schools, it is often found that the lessons are not running effectively. One of the obstacles that may be that PAI learning in these schools looks ineffective, is the learning method that looks less attractive. It is necessary for the teacher to look for what kind of methods are appropriate and not on the material to be taught. PAI subjects are also the main foundation for students to improve their religious values. With the PAI (Islamic Religious Education) subject, students can know the things that should be done and prohibited. Thus, PAI (Islamic Religious Education) subjects are expected to be able to form students who have faith, devotion, intelligence, and behavior by religious and state teachings.

Based on the explanation above, it should be noted that there are obstacles if the integration of Islamic science and science in education is applied, namely the need to design a curriculum that directs Islamic values.<sup>31</sup> It is not just studying Islamic materials and then associating them with science. However, the possibility of this not being done is quite large. Because, in studying general science, especially science and relating it to the Qur'an, not all of them are Muslims. Because to know which materials are related to the Qur'an by opening the book. This cannot be done by just anyone. Although it is likely that those who are non-muslims open it through electronic media. However, this application can be done for religious schools. Because the majority of students there must be Muslims. Thus, it can be explained that the integration of Islamic science and science can be concluded that its application has not been suitable to be applied to public schools and is only suitable for schools under the auspices of religion, such as madrasah's, pesantren, and schools with integrated Islamic information.

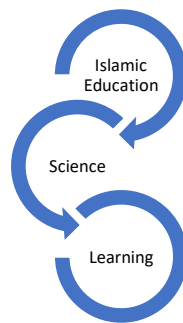
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<sup>29</sup> Abdul Halik, "Paradigm of Islamic Education in the Future: The Integration of Islamic Boarding School and Favorite School," *Information Management and Business Review* 8, no. 4 (2016): 24–32.

<sup>30</sup> Firman Mansir et al., "The Response of Islamic Education To The Advancement of Science In The Covid-19 Pandemic Era In The Islamic Boarding Schools" 8, no. 1 (2021): 20–27.

<sup>31</sup> Mansir, "The Problematic and Challenge of Fiqh Learning in School and Madrasah in the Covid-19 Pandemic Era."





The picture shows the integration process that occurs in the learning process

According to the picture above that, there is a significant linkage that occurs in the learning process in Islamic educational institutions, in this case, madrasas, islamic boarding schools and Islamic schools. The linkage and integration of Islamic education, science and learning as a whole and cannot be separated. So that the three relationship patterns can actually form a positive climate in learning for students. Therefore, the integration of learning in Islamic educational institutions can open up the thinking patterns of students more broadly and be able to see reality life more openly and well patterned.

### 3.2 Implementation of The Integration of Islamic Education and Science in Schools

As is well known that the combination of two sciences, namely Islamic education and science in schools, can make the main support for humans to know the truth in the holy book of the Qur'an<sup>32</sup>. However, implementing it needs a curriculum that is formed and leads to Islamic values<sup>33</sup>. So, in this discussion, it is contextualized on schools based on or under the auspices of religion. In addition to the curriculum that needs to lead to Islamic values, learning methods or designs are one that is chosen to help integrate Islamic science and science in schools. This is reinforced by Ian G. Barbour<sup>34</sup> in namely the important role of wishful thinking in the form of creativity which is used as another option rule outside of the two methods, namely the deductive and inductive methods because it is included in the summary of the scheme, the creative imagination goes through a process that is still easy to reach with a very logical sense.

In the presentation, it was also intended that the role of teachers in starting learning in it is necessary to create applicable methods, for example changing the layout by adding items or displays related to the material taught in the classroom. Thus, students' enthusiasm for learning becomes encouraged and motivated. In addition, the need for great and more teacher effort and creativity, so that the teaching and learning process can run effectively and not be boring. The assessment that has been formed, needs to be applied early so that students can get used to the new application. According to M. Sulaiman,<sup>35</sup> there are several ways in applying integrity between religion and science, including:

- 1) The rapid disappearance of the differences between the two groups that are opposed to the science of religion and science

<sup>32</sup> Firman Mansir, "The Urgency of Fiqh Siyasa In Islamic Education Learning At Madrasas And Schools," *POTENSIA: Jurnal Kependidikan Islam* 6, no. 2 (2020): 142–54.

<sup>33</sup> Rusdiana, "Integrasi Pendidikan Agama Islam Dengan Sains Dan Teknologi."

<sup>34</sup> (Chanifudin & Nuriyati, 2020)

<sup>35</sup> M Sulaiman, "Integrasi Agama Islam Dan Ilmu Sains Dalam Pembelajaran," *Jurnal Studi Islam: Pancawahana* 15, no. 1 (2020): 96–110.

- 2) The direction the learner between religion and science should have an attachment to each other
- 3) The existence of a person in charge of the teacher as a protector in providing knowledge that has direct contact with students
- 4) Have a relationship between general teachers and religious teachers
- 5) Involvement of teachers between schools based on Islamic boarding schools as a third party in the development of learning materials
- 6) Involvement of *stakeholders* in the development of education
- 7) The role of parents and the community as a *support system* in the development of education

Based on several ways of implementing the integration of Islamic science and science in education, it is appropriate to involve various parties<sup>36</sup>. Because in running everything, it cannot be just one-two person who is involved. Because the involvement of many people finds results that will run effectively. Because many inputs make a program a feasible and feasible program to run. In addition, it is necessary to eliminate differences that are contrary to the vision and mission that has been made. Because these differences can hinder the course of a program. Therefore, in implementing the integration of Islamic science and science in schools, there are at least two things that play an important role in it, such as the involvement of various parties and similarities in the vision and mission.

Technically, the curriculum that will lead to Islamic values, is formed with several integrative models<sup>37</sup>. The integrative model is a curriculum that is designed by prioritizing various points of view that have been summarized based on the learning experience that has been passed on to the understanding component so that the study has a purpose. In line with the goal of integration, namely the merger of two sciences, the curriculum design also unites the two components of religious science and general science which are made into one in a perfect and comprehensive curriculum structure. However, if the curriculum is used, it is necessary to pay attention to the following, including: <sup>38</sup>

- a) The merger of several topics combined into one study package
- b) Listing the categories of discipline in chapters as centers of expertise that have been assembled into a single whole
- c) Connecting topics into a single one with a variety of skills to be taught in a class that does not have interconnectedness
- d) Analysis of one discussion among others requires a variety of points of view
- e) Involves a single discussion by combining quantity, incidents, and actual news that is rampant in the community

The implementation of the integration of Islamic science and science in schools is indeed quite complicated<sup>39</sup>. Because it needs to be thought out

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<sup>36</sup> Firman Mansir and Syarnubi Syarnubi, "Guidance And Counseling: The Integration Of Religion And Science In 21st Century For Character Building," *At-Tarbiyat: Jurnal Pendidikan Islam* 4, no. 2 (2021).

<sup>37</sup> Mansir, "Implications of Teacher Certification on Professionalism and Welfare of 21th Century PAI Teachers."

<sup>38</sup> Ida Fiteriani, "Analisis Model Integrasi Ilmu Dan Agama Dalam Pelaksanaan Pendidikan Di Sekolah Dasar Islam Bandar Lampung," *TERAMPIL: Jurnal Pendidikan Dan Pembelajaran Dasar* 1, no. 2 (2014): 150–79.

<sup>39</sup> Akbarizan, "Integrasi Ilmu: Perbandingan Antara UIN Suska Riau Dan Universitas Ummu Al Quran Makkah (MA Almaktsur, Ed.)."

carefully and cannot be arbitrary when executing it. It is necessary to look from various points of view to fit plan.<sup>40</sup> With the implementation of the integration of Islamic science and science.<sup>41</sup> It can overcome the dichotomy or difference between two conflicting groups.<sup>42</sup> So, it can be said that there is a gap between Islamic religious education and general science which is a unit involved in the inner constancy and oneness of Allah and has a relationship with each other.

#### 4. Conclusion

Science and religion are inseparable though. Religious science was first developed so that science was proof from humans to the facts that have been written in the Qur'an. The integration of Islamic science and science can increase one's faith and devotion. For by studying both, man will get the truth from His scriptures. The integration of Islamic science and science in schools is less effective when applied to public schools. Even some people will think that the integration of Islamic science and science is more suitable for schools under the auspices of religion, such as madrasahs, Islamic boarding schools, and schools with integrated Islamic information. Because the information under the auspices of religion seems to understand everything about religion more deeply. The integration of religious science, especially Islam and science in schools, is still difficult to implement. Because education in Indonesia still boxes that religion and science cannot be applied simultaneously. The implementation of the integration of Islamic science and science in schools can be applied if, there is a change in applicable learning methods, requiring parental involvement and equal vision and mission, as well as an integrative model curriculum. Assessment that has been formed, it is necessary to apply from an early age, so that students can get used to the new application

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<sup>40</sup> Charlene Tan, "Educative Tradition and Islamic Schools in Indonesia," 2014.

<sup>41</sup> Suparjo Suparjo, Moh Hanif, and Dimas Indiana Senja, "Developing Islamic Science Based Integrated Teaching Materials for Islamic Religious Education in Islamic High Schools," *Pegem Journal of Education and Instruction* 11, no. 4 (2021): 282–89.

<sup>42</sup> Solehah Bt Yaacob, "The Concept of an Integrated Islamic Curriculum and Its Implications for Contemporary Islamic Schools," 2018.

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