



Integration of Islamic Religious Education and General Science at SMA IT Nur Hidayah Sukoharjo

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Abstract. In its principle, education serves two main functions, namely as a transfer of value and a transfer of knowledge. Concerning the first function, education is expected to be able to teach values, norms, and noble character, while related to the knowledge transfer function, education is expected to be able to transfer science and technology to students. Over time, the function of education as the transfer of values and knowledge alone is inadequate, and it must be accompanied by the existence of religious values, particularly the value of Islamic religious education, even though these two distinct entities give rise to dichotomous thinking, especially in the field of education. There are, nevertheless, educational institutions that combine Islamic religious education with general science, particularly at the senior high school level. The purpose of this study is to examine the process of integrating Islamic religious education with general science at SMA IT Nur Hidayah Sukoharjo. This study employs qualitative field research. According to the findings of this study, the integration of Islamic religious education and general science can be found in the formulation of the school's vision and mission, material, particularly Islamic religious education material, which is integrated into general science such as mathematics and physics, as well as in learning strategies. The teacher integrates the elements of Islamic teaching by referring to the verses of the Qur'an and Hadith on every general subject. This integration also provides an understanding that Islam, as portrayed in the Qur'an and hadith, is a source of general information as well as a source of values, which instructs students to put their knowledge into practice through attitudes and behavior, both at school and in everyday life.

Keywords: Integration · Islamic Religious Education · General Science

1 Introduction

Education is a two-party activity that involves both educators and students and in this instance, many parties impact it, including both the family and school environments [1]. The family is the first educational institution for children, and therefore, they play a significant influence in developing children's character. As mentioned by Ningrum, Al-Ghazali said that parents hold the primary responsibility in educating children, and they

are responsible for their children's character [2]. Pratiwi also supported that the family environment is the first education center for children and that education in the family environment is highly important in providing education toward intelligence, character, and preparation for life in society [4]. As a result, the family is the primary educational institution for children in shaping their personalities. Aside from the family, educational institutions play a vital role in accomplishing educational goals, specifically in developing students' morale and character. This suggests that the home is the primary environment in which children's personalities are formed, followed by the surroundings, and learning conditions in educational institutions. Consequently, character education must encompass all educational interests, including the family, school, and larger community. Educational institutions should develop students' character so that they have strong personalities, but this has not been fully accomplished, as seen by the high number of students who have characters that contradict Islamic teachings [2].

One alternative is to implement a learning model that incorporates religious values into the general science in a learning process. This is referred to as the integration of science. It is acknowledged that infusing religious teachings into broad topics through the science integration learning methodology is difficult. Kaur remarked that, while incorporating it into the curriculum is difficult, it is extremely necessary [3].

A school is a place for students to pursue knowledge to provide future provisions for students. Apart from being a learner, there is also a deeper effort to identify students' learning outcomes, be they high achievers or low achievers [16]. Islamic schools are formal Islamic educational institutions that are suitable for conducting an integrated learning approach. It is critical that the integrated learning process is carried out, particularly in Islamic schools. This integrated learning process can produce a thorough comprehension of a subject by students in terms of scientific knowledge as well as Islamic Religion (Al-Qur'an) to create an Ulul Albab generation. As a result, every school with an Islamic base should be able to effectively implement an integrated learning process. Given the significance of the Quran in human existence, the ability to read the Quran properly and accurately (fluently) is the most significant aspect of Islamic education [14].

Based on this, the researchers believe there is a need to shape students' conduct in the form of Islamic character building at the high school level using the science-integrated learning approach. This is done for these schools to develop results (both output and outcome) with broad scientific understanding and good character. Discourses on the integration of general science and Islamic religious education have recently been discussed, with the understanding that general science and Islamic knowledge are both born from the same womb, namely the area of the "experience" of mankind. However, there is still a widespread belief in the general public that "religion" and "science" are incompatible concepts. Both have their own area, distinct in terms of formal material objects, study methodologies, truth criteria, and the role of scientists. The existence of these discrepancies is referred to as the dichotomy of science [13].

The educational process in Islamic-based educational institutions is understood as an institution that primarily focuses on teaching religious sciences, and forming good character and personality while providing very little expertise in technology. Meanwhile, the general schools commonly produce students who can grasp the field of technology but fail to develop a good personality.

There is no documented separation of educational goals and programs contained in the curriculum in Islam; rather, it is this program that reflects the desired direction and aims in the educational process. As a result, the curriculum is a critical component of the instructional process at a school. The curriculum must specify everything that students must know, comprehend, and internalize. Furthermore, everything that educators teach to their students must be clearly stated in the curriculum.

The curriculum developer must be concerned with the issue of subject integration in the curriculum. The planned integration is the integration of distinct knowledge into a single knowledge, in this case, the Islamic and the general science. So that, hopefully, future generations will be able to integrate the knowledge they have gained with the values of religious principles.

The emergence of public schools with Islamic characteristics or Integrated Islamic schools (SIT), which seek to integrate religious knowledge with general science in their curriculum content, is an attempt by these schools to overcome the knowledge dichotomy in public school education institutions. This is meant to ensure that the Quran and hadith as instructions for human existence are not only studied and read but also comprehended and associated with diverse sciences in an effort to deal with the increasingly complicated challenges that arise in everyday life.

Based on observations and preliminary interviews, it is known that the Integrated Islamic High School in Sukoharjo is an educational institution that has made efforts to reform Islamic education with a dichotomy by initiating the implementation of an integrated curriculum based on an integrated Islamic curriculum, namely in addition to using the most recent curriculum, the Merdeka or Independent curriculum and the 2013 curriculum, this school also uses an integrated curriculum. This type of curriculum has not been discovered in public schools. In principle, the integrated curriculum used in Islamic institutions incorporates both general and religious science within the curriculum. Particular attention is needed in its application to ensure the Al-Qur'an learning method's effectiveness and efficiency so that maximum benefits can be obtained [15].

Based on observations, SMA IT Nur Hidayah Sukoharjo is one of the educational institutions attempting to further the integration of Islamic Religious Education into general science. This school's curriculum combines Islamic religious education (PAI) with various other general science disciplines (secular-rational sciences) such as History, Geography, Social Sciences, Civics (PKn), Natural Sciences, and several more subjects. This is the significance of this research, which has yet to be implemented in many other public schools. According to Hasbi, by combining religious and general science, students will develop high-order thinking skills (HOTS), which will encourage them to think creatively [5]. This study discusses how to integrate PAI material into the curriculum with numerous general disciplines in the areas of philosophy, material, and strategy, as well as the impact on students' knowledge and character at SMA IT Nur Hidayah Sukoharjo.

2 Literature Review

Integration is synonymous with combining, unifying, or merging two or more items. This is consistent with Poerwadar Minta's belief that integration is a unity to create a cohesive whole. The relationship in question is founded on the notion that the main areas

of study, techniques, and aims of science and religion are the same and connected [9]. Bagir mentioned that integration is an attempt to bring together science and religion, or reason and revelation. Integration of religious and general science can be viewed as an integrated curriculum. Meanwhile, in terminology, it refers to the integration of curriculum by connecting it to other subjects. This integration can be accomplished using inter- and intra-disciplinary approaches [10].

An Integrated Islamic School is a school that uses an integrated approach, namely an appropriate combination of Islamic religious instruction with general science. The main goal of an integrated Islamic school model is to be able to create a scientific product that can provide welfare for human life, to realize the ideal human being who always thinks and recites remembrance, which is described as human beings who can integrate Islamic values into themselves. They love Allah and the Messenger beyond all else, and their mouths are wet with dhikr as they admire and contemplate the universe He has created.

3 Method

This current study is field research employing a qualitative method, which is a research procedure that provides descriptive data in the form of written or spoken words from the observable activity. In this study, the researchers extensively described Islamic education, the concept of integrating religious knowledge and general science at SMA IT Nur Hidayah Sukoharjo, and its challenges, as well as the methods used to overcome these problems. On the other hand, as the theoretical framework and tools for this research, data from the literature related to the subject being examined were also used [11].

The subject of this research is SMA IT Nur Hidayah. Data analysis is an effort to systematically search for and organize records of observations, interviews, and documentation to increase the researchers' understanding of the object to be studied. Data were collected through observation, interviews, and documentation. Data analysis was performed in stages, including data collection, data reduction, data presentation, data verification, data validity test, and conclusion drawing.

4 Results and Discussion

1. Integrated Islamic School

Integrated Islamic Schools are schools that use an integrated approach in their implementation. The integrated concept is to incorporate Islamic religious education sciences and general science into a curriculum. The subjects taught in the Islamic School curriculum are linked with Islamic religious education, so there is no dichotomous concept in this curriculum. Furthermore, the existing integration concept leads to the development of teaching styles, domains, and learning materials.

The enactment of an integrated curriculum aims to enhance Islamic education institutions holistically. Islam governs everything in life, which is interrelated. The integrated Islamic school seeks to show that education in an integrated Islamic school is not only dedicated to a certain aspect, but also as an endeavor to develop a superior education system, both in terms of religion and general science.

The Integrated Islamic School is broadly defined as an Islamic school established by integrating Islamic religious education and science in a curriculum framework, with effective learning including teachers, parents, and the community in promoting students' character and competency.

The results of the study show that SMA IT Nur Hidayah Sukoharjo is a school that applies the concept of an integrated Islamic school. This school's distinguishing feature is its high profile of Islamic religious instruction. The established foundation is that students have a major role in developing their skills in order to become human beings who fear God Almighty, have a noble character, are healthy, knowledgeable, capable, creative, autonomous, as well as democratic and responsible citizens.

2. Integration of Islamic education and general science

The concept of integrating Islamic education and general science is applied in the following procedures: (1) Islamization of the curriculum and syllabus, namely by embedding basic material with Islamic concepts; (2) Internalization of Islamic concepts into scientific disciplines, such as writing books or notes and then teaching them to students; (3) aiming for general science that is useful and in accordance with Islamic values; and (4) cultivating Islamic culture, such as practicing good etiquette in studying, and (5) maintaining consistency [12].

The integration of Islamic religious education into Indonesian language subject can be applied to reading activities. During reading activities, we should apply mutual respect by paying attention and listening to other students. Other activities include speech and presentation practice.

In the field of Mathematics, Islamic religious education is integrated through classroom learning activities in which the teacher matches learning indicators to relevant verses of the Quran and hadith. The teacher will frequently emphasize the importance of gratitude if the content is not directly related to the Quran or hadith. For example, when studying cubes, volumes, and trigonometry, students will be taught to be grateful for the chance to observe mountains that resemble triangles and the sun that resembles a circle. The teacher then emphasizes that these objects are a manifestation of God's might and that we, as humans, must be able to express gratitude for what was created on this planet Earth. Another activity is to participate in the Olympics held by the Integrated Islamic Network (JSIT) as the foundation for the Integrated Islamic School, as well as other institutions' activities.

The integration of Islamic religious education in the Sports subject is carried out by the teacher associating sports activities as an activity that the Prophet SAW loved since exercising produces a healthy body, and the Prophet liked his people who have a healthy lifestyle. Soccer and volleyball are two examples of sports. The teacher tells a story about an Islamic football figure who has some accomplishments. This activity is also included as part of an effort to introduce Islam to students.

In the subject of Physics, the integration of Islamic religious education is carried out by the teacher by associating an Islamic element with the material being taught. For example, the teacher uses the following narrative as an analogy: there is a car that transports the corpse and the people to the burial site. Students are then asked to calculate the car's speed. If tied to Islamic principles, this story will make students aware that everyone will die.

The integration of Islamic religious education in the subject of Sociology is done by demonstrating to students that in everyday life, from waking up until sleeping, there are manners or ethics that we must follow as members of society. In Islam, these manners have been regulated comprehensively. For example, there are manners in the shower, manners when we wake up in the morning, etiquette on the toilet, and so on. It all has rules to follow. This demonstrates that people were not formed for anything other than worshipping Allah SWT.

In Biology subject, there are natural phenomena concerned with living things. This is referenced in the Qur'an and hadith. The information for the reproductive system is found in the Qur'an Q.S Al-Mu'minuun verses 12–14. In this situation, students may be given assignments on the subject, which would then be discussed in class. One example of a Biology question is when students are asked to describe their role in environmental protection. This question is based on the Qur'an surah Al A'raf (7) Verses 56–58 on taking care of the environment, which read: "Do not spread mischief in the land after it has been set in order. And call upon Him with hope and fear. Indeed, Allah's mercy is always close to the good-doers [6]. He is the One Who sends the winds ushering in His mercy. When they bear heavy clouds, we drive them to a lifeless land and then cause rain to fall, producing every type of fruit. Similarly, we will bring the dead to life, so perhaps you will be mindful.

In the integration of Islamic religious education and general science, the teachers always include verses from the Quran, as can be seen in the mobility topic. Allah created humans ethnically diverse and united with each other. The teachers are required to convey the verses of Allah in their teaching material.

According to the findings of this study, this school incorporates Islamic religious education into every material and subject. The Islamic education that is integrated includes evidence of the truth contained in the Qur'an and hadith as well as character values. Accommodation to the scientific context in the study of the Quran is very important. This can reveal integrative values in the verses of the Quran itself, in addition to providing 'divine legality' from current scientific findings [6]. As a result, students will obtain a better understanding of Islam as a universal religion, as many verses of the Quran and hadith can be found in general science. This is consistent with the material's concept of integration and connectivity, which is a process of integrating universal truth values in general and Islam in particular into general science. Furthermore, it incorporates these fields into the study of science, specifically through epistemology and axiology (M. Hidayat, 2014).

Learning strategies are also used in the integration of Islamic religious education and general science in schools. The teacher is the key to success in the successful integration of Islamic religious education and general science, whether through an active learning model or through various types of learning methodologies. The teacher can then integrate Islamic religious education and general science by showing a short video about a married child whose parents are placed in a nursing facility. Following the presentation of the video, students instantly respond and express their ideas, and this is followed by other specific instances related to daily activities. Based on the aforementioned learning strategies related to how to teach students, or how to make students learn quickly and comprehend what it means so that they are motivated by their own will to learn what is actualized in the curriculum as students' needs

(Muhaimin, 2002). Although not without problems and obstacles, the teachers at SMA IT Nur Hidayah strive to integrate and relate Islamic knowledge to general knowledge content through effective and relevant learning methodologies.

3. Challenges and obstacles

Education is a program that includes vision, mission, goals, curriculum, learning process, teachers, students, facilities and infrastructure, tools, costs, management, environment, cooperation, information systems, and evaluation components. It has a functional interaction with one another as an educational component system [8].

The most important component of education is the human resource component, which in this case is the teacher. Teachers' present situations and working conditions are vastly different from those of the past. Teachers now live in a globalized world where they must deal with difficult, complex, and multi-effect challenges. The teacher must overcome various challenges in order for these challenges to become opportunities for advancement. Aside from challenges, educators at SMA IT Nur Hidayah sometimes struggle to discover the relevant verses to support their teachings, such as in Mathematics. The following are the challenges that teachers at SMA IT Nur Hidayah face while attempting to integrate Islamic religious education and general science.

The development of science and technology is one of the challenges in the integration of Islamic religious education or in the world of education in general. Islamic education is currently being challenged for its contribution to the creation of contemporary civilization and culture, which is relevant to the advancement of science, technology, and art. Islamic education's function in this dimension is declining since Islamic education is more directed toward spiritual aspects. There are many parties who consider that Islamic education does not place great emphasis on prioritizing practical and pragmatic aspects, such as mastery of technology. As a result, Islamic education is unable to compete on a global cultural level. On a macro level, the current condition of Islamic education is out of date. It is lagging behind because it is unable to keep up with developments and socio-cultural changes, and its graduates are unable to compete in the field of science and technology. Science and technology have made different types of advancements in human life. Advances in science and technology can have both positive and negative effects, in that they can bring us closer to Allah or cause us to remove ourselves from Him, even increasing denial and greed in order to get as much satisfaction and power as possible.

In addition to advances in science and technology, there are several challenges that must be addressed, such as the tension between tradition and modernity, how traditions can adapt to change without having to return to the past, and the noble task of education to encourage action based on traditions and beliefs and full acknowledgment of pluralism.

Based on the aforementioned description, it can be concluded that Islamic education considers the advancement of science and technology as a challenge that must be addressed and mastered in order for the Muslim generation not to be left behind. In this context, SMA IT Nur Hidayah Sukoharjo, with its full human resources and school facilities, is ready to give birth to a generation of Muslims who can understand and master growing technology, as well as a generation of Muslims who are ready

to contribute to the future development of science and technology, and to produce graduates who are well-informed global citizens.

5 Conclusion

In today's life, education function as a transfer of values and knowledge alone is not sufficient. It must be accompanied by the existence of religious values, particularly the value of Islamic religious education, even though these two different entities give rise to dichotomous thinking, especially in the field of education [7]. The establishment of Integrated Islamic-based educational institutions that blend Islamic religious education with general science is an attempt to overcome the knowledge dichotomy in public school education institutions. The integration of Islamic religious education and general science at SMA IT Nur Hidayah has proven to have a positive impact on students. This is achieved by incorporating Islamic values into all subjects so that they are applicable in daily life.

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Author's Contribution. This study recommends that adequate facilities and infrastructure, as well as teachers as educators, be provided to ensure the successful integration of Islamic religious education and general science. Apart from addressing students' needs, this integration can produce students with competency in the field of religion and general knowledge needed in the future, as well as students with a global vision.

References

1. Setiawati, R. (2015). Integritas Ilmu Dalam Perspektif Pendidikan. *Jurnal Penelitian*, 9(2), 295. <https://doi.org/10.21043/Jupe.v9i2.1323>
2. Ningrum, D. (2015). Kemrosotan Moral Di Kalangan Remaja: Sebuah Penelitian mengenai Parenting Styles Dan Pengajaran Adab. *Unisia*, 37(82), 18–30. <https://doi.org/10.20885/Unisia.Vol.37.Iss82.Art3>
3. Kaur, N. (2019). *Integrated Approach In Science Teaching*. <https://doi.org/10.13140/Rg.2.2.17945.67683>
4. Pratiwi, N. K. S. P. (2019). Pentingnya Peran Orang Tua Dalam Pendidikan Karakter. *Adi Widya: Jurnal pendidikan*, 3(1), 83. <https://doi.org/10.25078/Aw.V3i1.908>
5. M. Hasbi, "Pendekatan CTL dan Efektifitasnya dalam Pembelajaran PAI di SMA Negeri 1 Candimulyo Magelang", dalam *Jurnal Kependidikan Islam Jurusan Kependidikan Islam Fakultas Tarbiyah dan Keguruan UIN Sunan Kalijaga* vol.3 No.2 , Juli-Desember 2008.
6. Iskandar, Syahrullah. 2016. "Studi Al-Qur'an Dan Integrasi keilmuan: Studi kasus UIN Sunan Gunung Djati Bandung." *Wawasan: Jurnal Ilmiah Agama Dan Sosial Budaya*.
7. Muhaimin, *Paradigma Pendidikan Islam: Upaya Mengefektifkan PAI di Sekolah Bandung: Remaja Rosdakarya*, 2002.
8. St. Wardah Hanafie Das dan Abdul Halik, "Manajemen Pengendalian Mutu Sekolah: Implementasi Pada SMA Negeri di Kota Parepare." *Prosiding Seminar Nasional, Volume 02, Nomor 1*, 2016, h. 73.

9. Achmad Ramzy, *Mengintegritaskan Ilmu Pengetahuan Dan Ilmu Agama*, (Perta:2004)
10. Bagir, Zaenal Abidin. *Sains dan Agama-Agama: Perbandingan Beberapa Tipologi Mutakhir*, (Yogyakarta: CRCS UGM, 2006)
11. Sugiyono. (2008). *Metode Penelitian Pendidikan: (Pendekatan Kuantitatif, Kualitatif Dan R & D)*. Alfabeta
12. Rifai, N., Fauzan, F., & Bahrissalim, B.(2014). Integrasi Keilmuan Dalam Pengembangan Kurikulum Di Uin Se-Indonesia: Evaluasi Penerapan Integrasi Keilmuan Uin Dalam Kurikulum Dan Proses Pembelajaran. *Tarbiya: Journal Of Education In Muslim society*, 2(1), 13–34. <https://doi.org/10.15408/Tjems.V1i1.1108>
13. Mustaqin, M. (2015). Pengilmuan Islam Dan Problem Dikotomi Pendidikan. *Jurnal Penelitian*, 9(2), 255. <https://doi.org/10.21043/Jupe.V9i2.1321>
14. Muthoifin, Ari Anshori dan Suryono. (2016) *Metode Pembelajaran Tahfīz Al-Qur'an Di Madrasah Aliyah Tahfīz Nurul Iman Karanganyar Dan Madrasah Aliyah Al-Kahfi Surakarta*. *Profetika Jurnal Studi Islam*, Vol. 17, No 02, Desember 2016.
15. Bayu Mufti Sugianto, Ari Anshori dan Muthoifin. (2020) *Implementasi Pembelajaran Al-Qur'an Metode Littaqwa Di SD IT Nur Hidayah Surakarta Dan Metode Karimah Di MI Nurul Karim Karanganyar Tahun Ajaran 2019/2020*.
16. Jibran Muhammad dan Darajat Ariyanto. (2020) *Kinerja Guru Pendidikan Agama Islam Dalam Meningkatkan Prestasi Belajar Siswa Di Sekolah Menengah Pertama Darul Ihsan Muhammadiyah Sragen*. *ISEEDU*, Vol 1, No. 4, Mei 2020

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