

The Paradigm of Science Integration in the Palm of Knowledge Perspective for SD NU Banat-Banin Students Lamongan

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Abstract: *The birth of efforts to build the integration of science and religion at SD NU Banat-Banin Lamongan is inseparable from the phenomenon of general scientific and religious dichotomy. SD NU Banat Banin is a public educational institution with religious nuances. This research uses a qualitative approach with literature and field study. The results of this study, First; that there are 6 Morphology of palm Ilmu SD NU Banat Banin Lamongan, namely; Palm Roots (Aqidah/ideology), Palm Stems (Taqwa & Akhalakul Karimah), Palm Seeds (Students' Soul Burning), Palm Flowers (Character Education of Daily Attitudes), Palm Fruits (Achievements), and Palm Leaves (General et al.). Second, through the metaphor of the palm of knowledge, there are characteristics of the school, namely; 1). Planting Aqidah Ahlus sunnah wal jama'ah becomes the foundation of student character, 2) Apart from the Al-Qur'an and Hadith, the Yellow Book is a learning reference for students, 3) Formation of the character of the soul of students, 4) Expanding Islamic studies and avoiding dichotomies of knowledge. Learning the integration of knowledge, which in essence is to integrate the curriculum, so that the integration of general knowledge and religion as described in the 'palm Ilmu Banat-Banin' is also part of the school curriculum. This integration of knowledge has areas for improvement in its philosophy. In contrast, the curriculum conceptualized on the morphology of the palm of knowledge still needs to be categorized as the Islamisation of science.*

Abstrak: Upaya membangun integrasi ilmu dan agama di SD NU Banat-Banin Lamongan tidak terlepas dari fenomena dikotomi keilmuan umum dan agama. SD NU Banat Banin merupakan lembaga pendidikan umum bernuansa agama. Penelitian ini menggunakan pendekatan kualitatif dengan jenis studi pustaka dan studi lapangan. Hasil penelitian ini, Pertama; bahwa Morfologi palem Ilmu SD NU Banat Banin Lamongan ada enam yakni; Akar palem (Aqidah/ideologi), Batang palem (Taqwa & Akhalakul Karimah), Biji palem (Pembakalan Jiwa Santri), Bunga palem (Pendidikan Karakter Sikap Harian), Buah palem (Prestasi), dan Daun palem (Mapel Umum & Teknologi). Kedua, melalui metafora palem ilmu terdapat ciri khas sekolah yakni; 1). Penanaman Aqidah Ahlus sunnah wal jama'ah menjadi pondasi dari karakter siswa, 2) Selain Al-Qur'an dan Hadist, Kitab Kuning sebagai rujukan pembelajaran untuk siswa, 3) Pembentukan karakter jiwa santri, 4) Memperluas kajian Islam dan menghindari dikotomi ilmu. Pembelajaran integrasi ilmu yang pada intinya adalah dengan melakukan integrasi kurikulum, sehingga keterpaduan ilmu umum dan agama yang digambarkan dalam 'palm Ilmu Banat-Banin' juga bagian dari kurikulum sekolah. Integrasi keilmuan ini mempunyai kelemahan pada filosofinya, sementara kurikulum yang terkonsep pada morfologi palem ilmu masih dikategorikan Islamisasi ilmu pengetahuan.

INTRODUCTION

An effort to build the integration of science and religion at Banat-Banin Primary School or Sekolah Dasar Nahdlatul 'Ulama (SD NU) Banat-Banin Lamongan is inseparable from the phenomenon of the dichotomy of general and religious sciences, both in terms of the organizing agencies such as the Ministry of National Education and the Ministry of Religion, which both manage education independently, as well as in terms of the concept, where each educational institution under the auspices of both equally organizes its science.

Several factors cause the occurrence of the dichotomy of science in Islam; First, the development factor and the division of science that races that form various branches of science cause the relationship between science and its parent to be increasingly distant. Second, the historical factor of the decline of Muslims in the Middle Ages was 1250-1800 AD. At this time, the dominance of fuqoha in Islamic education was powerful, resulting in crystallization and the assumption that religious knowledge is classified as fardu'ain, while general knowledge is fardu kifayah. Third, the internal factors of Islamic education institutions that have not been able to deal with the complexity and development of the economic, political, legal, and socio-cultural fields, coupled with weak

management in Islamic education institutions.¹

The existence of the dichotomy of science also occurs a value crisis in human civilization that considers value-free science; people become trapped in a network of rationality systems of science and technology that are less humane. Thus, modern humans will experience a void in moral foundations and are less able to fulfill their basic needs in the aspect of divine values². Therefore, secular understanding between general science and religion cannot be united, so science stands alone without any religious values in general science. The emptying of religion from nature contradicts Islamic teachings about nature because nature manifests God's existence.

The discourse on integrating general science and religious science has become a trending topic in Indonesian Islamic universities. This topic is related to the conversion policy of several Islamic universities from the institute or high school form to the university form. In previous research, the difference lies in the addition of the type of research and the concept of integration of science in each educational institution. If the first research of Arbi, Imam Hanafi, and Munzir Hitami³ exploring the

¹ Istikomah Istikomah, *Integrasi Ilmu Sebuah Konsep Pendidikan Islam Ideal*, Jurnal Pemikiran Keislaman 28, no. 2 (2017): 408-433.

² Nurbaiti., H.M. Suparta, and Taufik Abdillah Syukur, *Integrasi Ilmu Dan Kontribusinya Terhadap Pembentukan Karakter Islami Mahasiswa* (Tangerang: CV Qalbun Salim, 2020). 19

³ Helmiati Arbi, Imam Hanafi, Munzir Hitami, *"Model Pengembangan Paradigma Integrasi Ilmu Di Universitas Islam Negeri Sunan Kalijaga Yogyakarta*

nature of the paradigm of science in the perspective of UIN Malang's tree of science. Meanwhile, at SD NU Banat Banin, scientific integration uses the 'Morphology of Science Palms' as a metaphor for the paradigm of scientific integration in elementary school educational institutions.

This research uses a qualitative approach with the type of literature study and field study. Moreover, this research will combine analytical studies and comparative studies related to the paradigm of science integration in the perspective of the Banat-Banin Science Palm. The data sources in this research are taken from research results, books, and other journals relevant to the title of this research.

Changes in the integration of knowledge in Islamic educational institutions in madrasas, which were initially only many religious subjects, have recently begun to shift to more general subjects; meanwhile, at SD NU Banat-Banin, a public education institution with religious nuances. Students educated with the spirit of Santri taught general and religious sciences with Ahlussunnah Wal Jama'ah ideology form the school's vision and mission by realizing through the 'Banat-Banin Science Palm Morphology'. The learning of science integration at its core is to integrate the curriculum so that the integration of general and religious sciences described in the 'palm of Banat-Banin Science' is also part of

the school curriculum. Therefore, researchers are interested in conducting research at Banat-Banin Lamongan NU Elementary School, titled "Paradigm of Science Integration Perspective of palm of Science for Students at Banat-Banin Lamongan Elementary School."

THEORETICAL SUPPORT Science Integration Paradigm

The term paradigm was first introduced by Thomas Kuhn (1962), and later popularised by Robert Friedrichs (1970). According to Kuhn, a paradigm is a way of knowing the social reality constructed by a particular mode of thought or inquiry, producing a specific mode of knowing. Another definition is put forward by Ritzer (1980), who states that the paradigm is a fundamental view of scientists about the subject matter that should be studied by one branch/discipline of science.⁴

Paradigm in the language of frameworks of thought; a list of all word formations showing the conjugation and declination of the word; in the theory of science.⁵ Moleong (2005) describes the definition of paradigm by quoting experts' opinions. According to Bogdan and Biklen (1982), a paradigm is a loose collection of several commonly held assumptions, concepts, or propositions that direct

Dan Universitas Islam Negeri Maulana Malik Ibrahim Malang," Profetika, Jurnal Studi Islam 20, no. 0274 (2018): 11-15.

⁴ Eko Murdiyanto, *Metode Penelitian Kualitatif (Sistematika Penelitian Kualitatif)*, Bandung: Rosda Karya, 1st ed. (Yogyakarta: Lembaga Penelitian dan Pengabdian Kepada Masyarakat (LP2M) Universitas Pembangunan Nasional "Veteran" Yogyakarta Press, 2020), 1

⁵ Tanti Yuniar, *Kamus Lengkap Bahasa Indonesia* (Surabaya: Agung Mulia Media, 2007). Hal. 455

ways of thinking and research. Harmon (1970) defines *paradigm* as a fundamental way of perceiving, thinking, assessing, and doing related to something in particular about the vision of reality.⁶

Integration of science is one typology of the relationship between science and religion, as well as three other typologies, namely conflict, independence, and dialogue typologies. Integration has two meanings. First, that integration implies reintegration, namely, reuniting science and religion after the two are separated. Second, integration implies unity, namely that science and religion are primordial unity.⁷

Scientific integration means an attempt to unite or combine sciences that give scope to the activities of human reason (secularism) and also provide flexibility to God and His Revelation⁸. Integration is also a process of combining specific science values with other concepts so that they become integrated and cannot be separated. The paradigm of science integration is a framework for thinking to make the concept of science integration.

The occurrence of efforts to build the integration of science and religion at SD NU Banat-Banin

Lamongan is inseparable from the phenomenon of the dichotomy of general and religious sciences, both in terms of the organizing agencies such as the Ministry of Education and Culture, which both manage education separately, as well as in terms of the concept, where each educational institution under the auspices of both organizes its science. The discourse on integrating general science and religious science has become a trending topic in Indonesian Islamic universities related to the conversion policy of several Islamic universities from the institute or high school form to the university form⁹. Integration of science is consistent with Islam's teachings because Islam is a religion that has a variety of knowledge, both religious and general knowledge. Knowledge is not differentiated; even Islam considers both knowledge like a coin with two sides that cannot be separated, so general science and religious science are present simultaneously in Islam.¹⁰

Changes in the integration of knowledge in Islamic educational institutions in madrasas, which were initially only many religious subjects, have recently begun to shift to more general subjects; meanwhile, at SD NU Banat-Banin, a general education institution with religious nuances. Students educated with the spirit of Santri taught general and religious sciences with the ideology of Ahlus

⁶ Murdiyanto, *Metode Penelitian Kualitatif (Sistematika Penelitian Kualitatif)*. 1

⁷ Abdul Muhyi et al., "Paradigma Integrasi Ilmu Pengetahuan UIN Maulana Malik Ibrahim Malang," *MUTSAQQAFIN: Jurnal Pendidikan Islam dan Bahasa Arab* 1, no. 01 (2018): 45-64, <https://mutsaqqafin.e-journal.id/Mutsaqqafin/article/view/24>. 46

⁸ Kuntowijoyo, *Islam Sebagai Ilmu Epistemologi, Metodologi Dan Etika* (Yogyakarta: Yogyakarta: Tiara Wacana, 2016). 55

⁹ Muhyi et al., "Paradigma Integrasi Ilmu Pengetahuan UIN Maulana Malik Ibrahim Malang." 47

¹⁰ Nurbaiti., Suparta, and Syukur, *Integrasi Ilmu Dan Kontribusinya Terhadap Pembentukan Karakter Islami Mahasiswa*. 5

Sunnah Wal Jama'ah form the school's vision and mission by realizing through the 'Banat-Banin Science Palm Morphology'. The curriculum at SD NU Banat-Banin is based on the 'palm of Knowledge', which has been conceptualized to be implemented with activities and learning. Kaur stated that although integration in the curriculum is not easy, it is very much needed¹¹.

Banat-Banin Science Palm Morphology

Etymologically, the word morphology comes from the word *morph*, which means form, and the word *logy*, which means science. So, the word morphology means the science of form. In linguistic studies, morphology is a branch of linguistics that studies the intricacies of word forms and their changes and the impact of these changes on meaning¹². Ramlan (1979), in his book, says that "Morphology is part of the science that studies the ins and outs of word structure and the effect of changes in word structure on the class of word meanings." Morphology or morphemics is the study of morphemes. Basically and most beneficial for us here, morphology can be divided into two types of analyses, namely: 1. Synchronic morphology 2. Diachronic morphology. Synchronic morphology analyses morphemes in one scope at a particular time, either past or present. *Synchronic*

morphology is a linear analysis that asks what constitutes words' lexical and syntactic components and how these components add, subtract, or rearrange themselves in various contexts. Synchronic morphology has little or no interest in the history or origin of words in our language. Diachronic morphology examines the history or origin of words and considers why, for example, word usage today differs from word usage in the past.¹³

It can be concluded that the morphology of the Banat-Banin Palms of Knowledge is part of the shape, which has six components/points. The morphology of the 'palm of Knowledge' is described below;

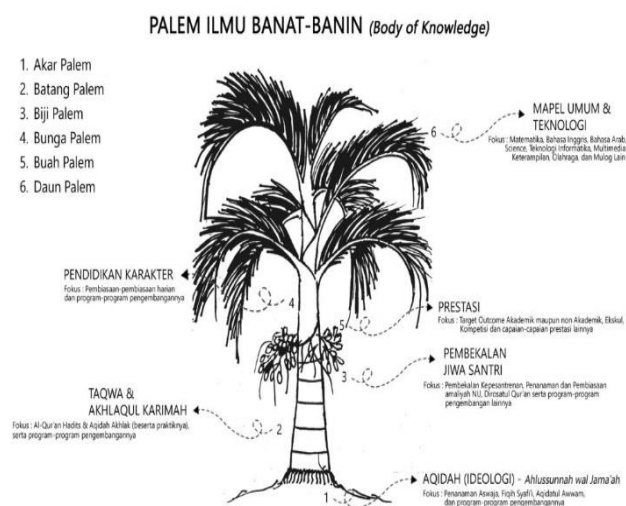


Figure 1.2. Palm of Knowledge Morphology (Body of Knowledge) SD NU Banat-Banin

Figure 1.2. above is the morphology of the Banat-Banin Science Palm, which is a new scientific paradigm at Banat Banin

¹¹ Nitu Kaur, "Integrated Approach in Science Teaching," *Journal of Emerging Technologies and Innovative Research* 6, no. 3 (2019): 396-410

¹² Saida Gani and Berti Arsyad, "A Jamiy," 07, no. 1 (n.d.): 1-20. 6

¹³ Siregar Junifer, *Morfologi* (Banyumas: Banyumas: CV: Pena Persada, 2021). 1-2

Lamongan NU Elementary School which has six morphologies, namely; Palm Roots (Aqidah/ideology), Palm Stems (Taqwa & Akhlakul Karimah), Palm Seeds (Santri Soul Cultivation), Palm Flowers (Daily Attitude Character Education), Palm Fruits (Achievement), and Palm Leaves (General & Technology Subjects).

METHOD

Researchers chose a qualitative approach because this approach can describe and understand the fundamental meaning of respondents' behavior, backgrounds, and interactions. While exploration is carried out to identify various types of information and phenomena.¹⁴ This research uses a qualitative approach with the type of literature study and field study, and this research will try to do a combination of analytical studies and comparative studies related to the paradigm of science integration in the perspective of palm Ilmu Banat-Banin. The data sources in this research are taken from research results, books, and other journals relevant to the title of this research.

The literature study is related to theoretical studies and several references that will not be separated from the scientific literature.¹⁵ In this research, the literature study went through the following procedures: 1)

exploring general ideas about research, 2) searching for information that supports the research topic, 3) emphasizing the research focus and organizing appropriate materials, 4) searching and finding data sources in the form of primary literature sources, namely books and scientific journal articles, 5) re-organizing materials and notes on conclusions obtained from data sources, 6) reviewing the information that has been analyzed and is suitable for discussing and answering the formulation of research problems, 7) enriching data sources to strengthen data analysis and 8) compiling research results.¹⁶

The data collection technique in this literature study is to find data about things or variables in notes, books, papers or articles, journals, etc. The research instruments used by researchers are a checklist of classification of research materials based on the focus of the study, writing schemes/maps, and research note formats. The data analysis technique used in this literature research is the content analysis method. To maintain the permanence of the review process and prevent and overcome misinformation (a human misunderstanding that can occur due to the lack of knowledge of the researcher or the lack of literature writers), interlibrary loans and re-reading of the literature were carried out. This research report is organized

¹⁴ Sanapiah Faisal, *Penelitian Kualitatif: Dasar-Dasar Dan Aplikasi* (Malang: Malang: Yayasan Asih Asah Asuh (YA3), 1990). 22

¹⁵ Arum Ekasari Putri, "Evaluasi Program Bimbingan Dan Konseling: Sebuah Studi Pustaka," *JBKI (Jurnal Bimbingan Konseling Indonesia)* 4, no. 2 (2019): 39-42. 40

¹⁶ Lilik Tahmidaten and Wawan Krismanto, "Permasalahan Budaya Membaca Di Indonesia (Studi Pustaka Tentang Problematika & Solusinya)," *Scholaria: Jurnal Pendidikan dan Kebudayaan* 10, no. 1 (2020): 22-33. 25

on the principles of simplicity and convenience.

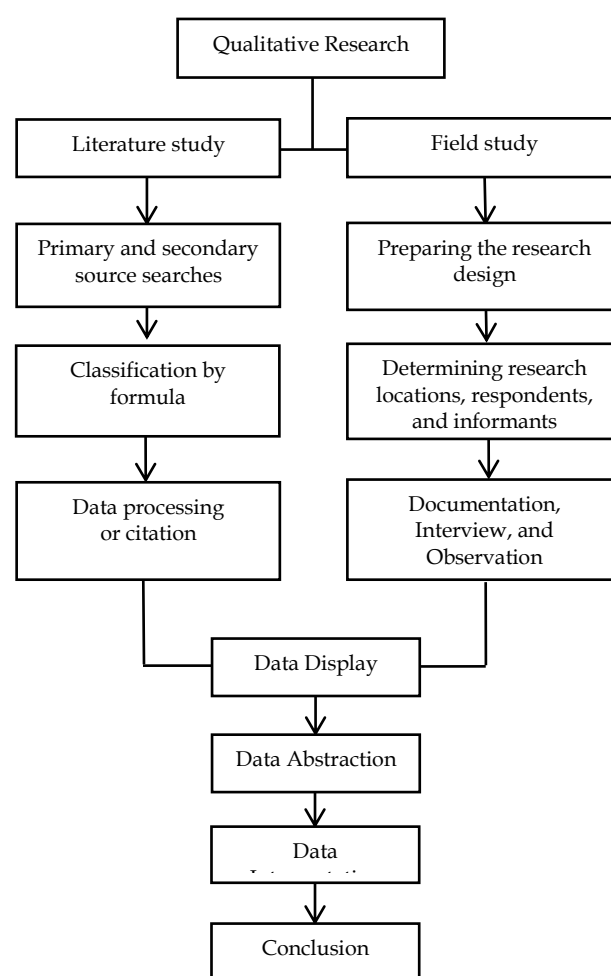
While field studies through data collection procedures in research are tailored to the research focus and research objectives,¹⁷ the data in this study were obtained through interview, observation, and documentation.

This stage is the process of organizing and sorting data into patterns, categories, and basic description units so that themes can be found and themes can be found and can be formulated by the data. Sugiono explained that the data analysis technique is the process of systematically searching and compiling data obtained from interviews, field notes, and documentation by organizing data into categories, breaking it down into units, synthesizing, compiling into patterns, choosing which ones are important and which ones will be studied, and making conclusions so that they are easily understood by themselves and others.¹⁸

Related to data analysis techniques, Miles and Huberman also announced that qualitative data analysis must be carried out continuously and interactively at each stage in the research process until it is entirely complete and finally saturated data is obtained.¹⁹ The analysis phase of this research includes; the study analysis phase,

the study data exploration phase, the study data coding phase, the data reduction phase, and the data presentation phase. From the data that has been collected, the researcher compiles it so that it can be concluded or verified.

The qualitative research scheme with the literature study and field study type is described as follows;



Scheme 1. The Flow of Qualitative Research, Literature and Field Study²⁰

¹⁷ Sugiyono, *Metode Penelitian Kuantitatif Kualitatif Dan R & D* (Bandung: Bandung: Alfabeta, 2009). 206

¹⁸ Ibid. Hal. 244

¹⁹ Sugiyono, *Metode Penelitian Pendidikan: (Pendekatan Kuantitatif, Kualitatif Dan R & D)* (Bandung: Bandung: Alfabeta, 2008). 207

²⁰ Wahyudin Darmalaksana, "Metode Penelitian Kualitatif Studi Pustaka Dan Studi Lapangan," *Pre-print Digital Library UIN Sunan Gunung Djati Bandung* (2020): 1-6. 4

This research is a qualitative type through literature and field studies. The research stage was carried out by collecting primary and secondary literature sources. In the next stage, data processing or reference quotation is carried out. In the second stage, the research was also conducted through field studies. At first, the research design and field tool testing were prepared. The next step was determining the research location, respondents, and informants. In implementing field research, observations, documentation, and interviews were conducted. The data from the literature study and the field study results are presented as research findings, abstracted to obtain complete information, and interpreted to produce knowledge for drawing conclusions.

RESULT AND DISCUSSION

Integrating knowledge through 'palm Ilmu' is expected to increase students' knowledge and piety to Allah SWT and characterize SD NU Banat-Banin. The santri, an integral part of the Indonesian nation, are thought to have a character similar to that of the Indonesian nation in general²¹. The character of the santri is also described as *Panca Jiwa* to run life.²² These souls, according to Imam Zarkasyi, can be simplified into five spirits, Panca Jiwa, namely: Sincerity (al-ikhlas), Simplicity (al-

basâtah), Independence (al-i'timad'ala-l-nafsi), Muslim Brotherhood (al-ukhuwah al-Islamiya), Freedom (alhurîyâh).^{23,24}

The paradigm of science integration from the perspective of 'palm Ilmu Banat-Banin' is a series of curricula that combines all the values that have been applied and general science and religion. Six concept points can be concluded from 'palm Ilmu Banat-Banin,' which are then applied with an activity program based on the value of the concept of each science palm as follows:



Figure 2. Six points of the palm of knowledge concept

Enam point konsep 'palm Ilmu Banat-Banin';

1. Aqidah (Palm Root)

The Aqidah instilled in students at SD NU Banat-Banin is guided by the teachings of Islam with the

²¹ Fuad Nashori, "Kekuatan Karakter Santri," *Millah* 11, no. 1 (2011): 203-219.

²² Lisda Nurul Romdoni and Elly Malihah, "Membangun Pendidikan Karakter Santri Melalui Panca Jiwa Pondok Pesantren," *Jurnal Pendidikan Agama Islam Al-Thariqah* 5, no. 2 (2020): 13-22.

²³ Muhammad Baihaqi Abd.Mukti, Syamsu Nahar, "Model Penanaman Akhlak Santri Melalui Panca Jiwa Di Pondok Pesantren Modern Sumatera Utara," *Edukasi* 11 (2022): 1183-1202.

²⁴ Shalahudin Ismail et al., "Pembentukan Karakter Santri Melalui Panca Jiwa Pondok Pesantren," *Dirasat: Jurnal Manajemen Dan Pendidikan Islam* 6, no. 2 (2020): 132-143.

ideology of Ahlusunnah wal jama'ah Nahdhiyyin. The root of education symbolized as the 'Root of the Palm of Knowledge', is the foundation of the curriculum. The root not only serves as a support for the tree but also absorbs the soil content for the growth and development of the tree. Therefore, in this scientific metaphor, the tree's roots are illustrated as the basic foundation of knowledge. In this case, someone who wants to learn science must start from the most essential components.

Aqidah Ahlusunnah wal jama'ah is the majority group of Muslims who consistently follow and practice the teachings and practices of the sunnah of the Prophet Muhammad SAW and his companions.²⁵ The Ahlusunnah wal jama'ah perception of NU is an understanding that seeks to return to Islam as practiced by the Prophet Muhammad, the companions of the Prophet, and the tabi'in-tabi'in.

NU's practices are essential to Banat-Banin NU Elementary School students. Activities include; Tahlilan, istighosah routine, prayer & recitation, which is usually done every night of Friday Legi, grave pilgrimage, a celebration of the Prophet's birthday, religious learning in addition to referring to the Qur'an and Hadith, commonly called Kitab Kuning or the classic Islamic book.

2. Bertakwa (Palm Trunk)

According to the Qur'an and Sunnah, Taqwa, or piety, is a servant of Allah SWT. The characteristics of

pious people are found in surah Al-Baqarah: 3-4;

الَّذِينَ يُؤْمِنُونَ بِالْغَيْبِ وَيُقِيمُونَ الصَّلَاةَ وَمِمَّا رَزَقْنَاهُمْ يُنْفِقُونَ وَالَّذِينَ يُؤْمِنُونَ بِمَا أُنزِلَ إِلَيْكَ وَمَا أُنزِلَ مِنْ قَبْلِكَ وَبِالْآخِرَةِ هُمْ يُوقِنُونَ

Meaning: "Who believe in the unseen, establish prayer, and spend out of what We have provided for them, And who believe in what has been revealed to you, [O Muhammad], and what was revealed before you, and of the Hereafter they are certain [in faith]."

From the verse, the characteristics of the pious are; (1) Believing in the supernatural. Faith is a firm belief accompanied by submission and surrender of the soul; the signs of faith are doing what faith wants. The unseen is that which the senses cannot grasp. Believing in the unseen is believing in the existence of something that cannot be grasped by the senses because there are proofs that indicate its existence, such as the existence of Allah, angels, and the hereafter; (2) Establish prayer. Prayer according to Arabic: prayer. According to *shara'* terms, a well-known worship begins with takbir and ends with salam, which is done to prove devotion and humility to Allah. Establishing prayer is to perform it regularly by fulfilling the conditions, pillars, and customs, both external and internal, such as *khusu'*, paying attention to what is read. (3) Spending part of the sustenance given by Allah on those to whom it is prescribed by religion to

²⁵ Mudzakkir Ali, *Pokok-Pokok Ajaran Ahlus Sunnah Wal Jama'ah* (Semarang: Wahid Hasyim University Press, 2014). 11

give it, such as the poor, the needy, the relatives, and the orphans; (4) Believing in His books. The Scriptures that were revealed before Muhammad (s.a.w.) are the Scriptures that were revealed before the Quran, such as Taurat, Zabur, Injil, and the Shuhufs mentioned in the Quran, which were revealed to the Messengers. Allah sent down the book to the apostle by giving revelation to Jibril a.s., then Jibril conveyed it to the apostle, and (5) belief in the afterlife. Conviction is a strong belief without the slightest doubt. The afterlife is the opposite of the world. The afterlife is the life after the world ends. To be sure of the afterlife is to honestly believe in the existence of life after the world ends.

In addition, it is found in surah Al-Baqoroh verse 177, which mentions five characteristics of the pious, namely: (1) believing in Allah, the next day, angels, books, and prophets; (2) giving his beloved property to his relatives, orphans, the poor, travelers (who need help) and those who ask for help and (freeing) enslaved people (3) establishing prayer, (4) paying zakat, (5) being patient in hardship, suffering, and war. Third, in QS Āli 'Imrân/3: 134-135, which mentions six characters of the pious; the first three (of which) are related to social piety, namely: (1) those who are willing to spend (their wealth) in good or bad times; (2) those who (can) restrain their anger; (3) those who (are willing to) forgive (the mistakes) of others; and the last three are related to individual piety, namely: (1) people who, when they commit an evil deed or mistreat

themselves, they always remember Allah; (2) people who are willing to always ask Allah's forgiveness for their sins, and (3) people who no longer want to continue their evil deeds, with full awareness (taubatan-nashûhâ).

The form of activities at school was carried out to increase students' piety as follows; dhuha prayer, dhuhur prayer in congregation, learning religious material, and so on.

3. The soul of santri as a hallmark of habituation and characterization of santri through NU practice. (Palm Seeds)

The activities include; reading the meaning of several *classic Islamic books entitled* Tasyirul Kholaq, Ayyuhul Walad, and others through pegon script²⁶; during the month of Ramadan the students are required to follow the 'Ramadhan Lil Awlad' program, where a series of activities are also one of the characteristics of studying the Tahsinul Fuad Book. These students are indeed very familiar with the yellow book. Pilgrimage to Wali Songo and Ulama's graves as a form of self-involvement in history, visiting pesantren to introduce early on the santri community.

In addition, the students can almost entirely memorize the muhafadhah aqidatul awwam, as a characteristic of the character of santri in pesantren. However, this context is carried out in formal primary school education

²⁶ Pegon script is a script that uses *hijaiyah* or Arabic letters that are modified by adjusting the sound or language of the Javanese people.

institutions. Kitab Aqidatul Awam is one of the books containing the basics of the ahlussunnah waljama'ah creed, which is the creed followed by most Muslims.²⁷. The book is by Shaykh AsSayid al-Marzuqiy Abu al-Fauzi. His real name is Ahmad bin Muhammad bin Sayyid Ramadhan alMarzuqiy al-Hasany wal Husainiy al Malikiy, al-Mishriy, al-Makkiy. He was born in Egypt and was later appointed mufti of the Maliki madhhab in Mecca to replace Sayyid Muhammad. He was also known as a poet and earned the nickname Abu al-Fauziy.²⁸

4. Character Education (Palm Flower)

Character education is part of the daily habituation applied at Banat-Banin NU Elementary School. This habit is related to character values that need to be applied to children, including religion, honesty, tolerance, discipline, hard work, creativity, independence, democracy, curiosity, national spirit, love for the country, respect, friendship, love, peace, love to read, environmental care, social care, and responsibility.^{29,30}

²⁷ Susi Silviana Sari dan Akhid Ilyas Alfatah, "Nilai-Nilai Pendidikan Tauhid Perspektif Syekh Ahmad Al-Marzuki Dalam Kitab Aqidatul Awam," *Jurnal Islam Nusantara* Vol. 5, no. No. 1 (2021): 102-116, <http://jurnalnu.com/index.php/as/index>.

²⁸ Hilda Rizqi Elzahra, "Metode Muhafadhoh Nadhom Aqidatul Awwam Sebagai Sarana Meningkatkan Minat Dan Hasil Belajar Akidah Akhlak," *AL-TARBIYAH: Jurnal Pendidikan (The Educational Journal)* 32, no. 2 (2022): 116-124.

²⁹ Sri Marwiyati, "Penanaman Pendidikan Karakter Melalui Pembiasaan," *ThufuLA: Jurnal Inovasi Pendidikan Guru Raudhatul Athfal* 8, no. 2 (2020): 152-163.

³⁰ Lailatus Shoimah, Sulthoni, and Yerry Soepriyanto, "Pendidikan Karakter Melalui

The implementation of character education in schools can be achieved through at least four alternative strategies in an integrated manner; First, integrating the character education content that has been formulated into all subjects, which includes the development of cultural education values and national character integrated into each subject matter of each subject. Second, character education is integrated into daily school activities that cover role modeling and routine habits. Third, integrating character education into programmed or planned activities. Fourth, building communication and cooperation between schools and parents of students.³¹

In line with the above, the application of character education at SD NU Banat-Banin is similar to these four alternatives. What characterizes the character that is built is the character of the santri.

5. Achievement (Palm Fruit)

The process from output to student outcomes is focused on two core things, namely academic and non-academic achievements. The activities carried out by students are internal-drill and extracurricular activities. Internal-drill activities are to train students continuously so that habits become good routines for students. Furthermore,

extracurricular activities train

Pembiasaan Di Sekolah Dasar," *JKTP - Jurnal Kajian Teknologi Pendidikan* 1, no. 2 (2018): 169-175.

³¹ Tatan Zenal Mutakin, Nurhayati, and Indra Martha Rusmana, "Penerapan Teori Pembiasaan Dalam Pembentukan Karakter Religi Siswa Di Tingkat Sekolah Dasar," *Edutech* 1, no. 3 (2014): 361-373.

students' abilities and talents to be developed so that some students win championships in various competitions.

There are several extracurricular activities at SD NU Banat-Banin that students can choose from with their respective grade levels, including;

- a. Grades 1 and 2: reading-writing, coloring-drawing, broadcasting, and tartil-tilawah
- b. Grades 3 to 6: painting/calligraphy, broadcasting, tartil-tilawah, gamelan, choir, acting, 3-language speech (Arabic, English, Indonesian), Olympic classes (maths and science, social science, English, Arabic, Islamic religious education)
- c. Compulsory extracurricular activities include scouts for grades 4, 5, and 6.
6. Science (Palm Leaves)

Each school's curriculum contains general and technological knowledge outcomes, including general, religious, and technological learning. All non-religious subjects are introduced (and flexibly adapted) to the school's vision. Religious learning also uses the yellow book to reference so that students can read *pegon* from an early age.

The research results in the field show that almost all students in grades 4 to 6 can read *pegon*. *Pegon* letters cannot be separated from the development of Islamic propagation in Indonesia, a characteristic of santri in pesantren. SD NU Banat-Banin presents learning with santri

character as its advantage compared to other schools.

The integration side of the metaphor above can be seen from the parts of the palm tree. However, each stands alone between various parts, for example, Palm Roots, Palm Stems, Palm Seeds, Palm Flowers, Palm Fruits, and Palm Leaves. One complements the other and moves to grow because these plants come from the same twigs and stem. On this basis, the conceptualized knowledge palm is expected that teachers and students do intensely and continue to realize the values in the palm tree metaphor.

Palm of Knowledge manifests the scientific integration paradigm developed by SD NU Banat-Banin Lamongan. This model of scientific integration departs from a conception that the dichotomy of knowledge so far is the influence of a mindset that places Islamic religious knowledge sourced from the Qur'an in line with other scientific clumps; the Qur'an and hadith should be positioned as a source of knowledge. If the Qur'an and hadith are used as a source of knowledge, the dichotomous view of science as it has been running will never exist. However, considering that the Qur'an and hadith are universal, it is necessary to have other sources of science that are more technical-practical, such as science obtained from observation, experimentation, and logical reasoning, to understand what the Qur'an discusses. In addition, kitab kuning is also part of a scientific family that is integrated with other sciences. Furthermore, it must be

relevant to the Qur'an to develop general knowledge.

Changes in the integration of knowledge in Islamic educational institutions in madrasas, which were initially only many religious subjects, have recently begun to shift to more general subjects; meanwhile, at SD NU Banat-Banin, which is a general education institution with religious nuances. Students educated with the spirit of santri taught general and religious sciences with Ahlus Sunnah Wal Jama'ah ideology form the school's vision and mission by realizing through the 'Banat-Banin Science Palm Morphology.'

Philosophically, the palm of Science still has many areas for improvement. Science will continue to develop with the results of human thought. From the novelty of this research, the development model of the paradigm of science integration in elementary school educational institutions through the metaphor of the palm of knowledge, several sources that can be a reference in other institutions, especially the elementary school level; 1). The cultivation of Aqidah is the foundation of student character; 2). In addition to the Qur'an and Hadith, the kitab kuning is a reference for student learning, 3). Character building of the Santri's soul, 4) Expanding Islamic studies and avoiding the dichotomy of knowledge.

CONCLUSION

The paradigm of scientific integration initially appeared at the university level; this study was carried out in elementary school education institutions. The integration of science is expected to be an alternative to ending the dichotomy of science, which allegedly caused the decline of Islamic scientific civilization. The concept of science integration is used to study general and religious sciences, where religious knowledge apart from the sources of the Qur'an and Hadith, namely kitab kuning learning, can make students have the character of santri who are qualified in the fields of religion, science, and technology. The morphology of the palm of Science of SD NU Banat Banin Lamongan is 6, namely; Palm Roots (Aqidah/ideology), Palm Stems (Taqwa & Akhalakul Karimah), Palm Seeds (Cultivation of Santri Souls), Palm Flowers (Daily Attitude Character Education), Palm Fruits (Achievement), and Palm Leaves (General Subjects & Technology). From the author's understanding, this scientific integration has weaknesses in its philosophy, while the curriculum conceptualized in the palm morphology of science is still categorized as the Islamisation of science.

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