

Trensains: The New *Pesantren* and Shifting Orientation of Islamic Education in Indonesia

Azaki Khoirudin^{1✉}, Abdul Munip², Imam Machali², Hamzah Fansuri³

¹Post-Graduate Program UIN Sunan Kalijaga Yogyakarta, Indonesia

²Universitas Islam Negeri Sunan Kalijaga Yogyakarta, Indonesia

³Heidelberg University, Germany

Corresponding author: azakikhoirudin@gmail.com

ABSTRACT

Purpose – This study aims to explain the factors of the emergence of “*Pesantren sains/science Pesantren*” (*Trensains*) and their implications for the shift in the orientation of Islamic education in Indonesia. Existing *Pesantren* studies have looked more at practical aspects, such as curriculum development and learning, but not yet at philosophical aspects, which have implications for a shift in the orientation of Islamic education.

Design/methods/approach – Data was collected using interviews and documentation. The research, which utilized a phenomenological approach, was conducted at Sragen Muhammadiyah *Trensains* Senior High School in Central Java and Tebuireng *Trensains* Senior High School in East Java. The primary respondent was Agus Purwanto, the initiator, founder, and developer of a science boarding school, who had first-hand experience with the events that took place while he was a student at the *Pesantren*.

Findings – The findings of this study suggest that *Trensains* is a new *Pesantren* genre that was developed as a reaction to the lack of science and technology in the Islamic world due to the heavy jurisprudential emphasis on Islamic education. In the history of the curricula at *Pesantren*, including philosophy as a topic is a novelty.

Research implications/limitations – The emergence of *Trensains* has implications for a shift in the orientation of *Pesantren* in Indonesia from a Sufistic-fiqh orientation to a scientific-philosophical orientation which is marked by the following changes: (1) in the function of transmission and transfer of Islamic knowledge (tafaquh fī al-dīn) to the study of Islamic sciences general science; (2) from maintaining the Islamic tradition to cultivating the scientific tradition; and (3) from a reproduction of religionists to producers of scientists. However, some drawbacks need to be acknowledged. This study has not discussed *Trensains* as a whole, and its effectiveness in shaping the character of *Pesantren* is unknown. Therefore, further research is needed to understand the impact and role of *Trensains* in the development of Islamic education in Indonesia.

ARTICLE HISTORY

Received 5 August 2022

Revised 24 November 2022

Accepted 29 December 2022

KEYWORD:

New *Pesantren*, *Trensains*, Science *Pesantren*, Islamic education.



Jurnal Pendidikan Islam

1. Introduction

The study of *Pesantren* has developed rapidly. Recent research on *Pesantren* shows that this institution has a unique approach to education, integrating religion, science, and technology in learning (Nudin, 2020; Zulfikar et al., 2023). Two *Pesantren* in a study were found to have good policies and strong academic and religious outcomes for students. The strong attitudes of *Pesantren* leaders become role models for students (Hidayat, 2017; Komariah, 2017; Yusuf et al., 2021). Students' low



This is an open access article under the CC BY-NC license

How to Cite: Khoirudin, A., Munip, A., Machali, I., Fansuri, H. (2022) *Trensains*: The New *Pesantren* and Shifting Orientation of Islamic Education in Indonesia. *Jurnal Pendidikan Islam*, 11(2), 121-135.
https://doi.org/10.14421/jpi.2022.112.121-135

socioeconomic status at school is not an obstacle to success thanks to the support system and the role of *kiyai* (Liriwati et al., 2020; Roqib, 2021). Historically, *Pesantren* has been the foundation of culture and agents of change in society and has developed into institutions that offer competitive knowledge rooted in Islamic values. The thinking and practice of modernizing the system also help the success of *Pesantren*. It integrates the *Pesantren* and *madrasah* systems and emphasizes formal, non-formal and informal education. The sustainability of *Pesantren* is guaranteed by changing the institution's status from private ownership to public property through waqf (Zarkasyi, 2020; Imari & Syamsuri, 2017).

In Indonesia's development of modern *Pesantren*, an innovation emerged, namely "Science *Pesantren*", also called *Trensains*. *Trensains* is a project that aims to develop Islamic science in *Pesantren* and is initiated by Agus Purwanto, a professor of theoretical physics from the Sepuluh Nopember Institute of Technology (ITS) Surabaya. *Trensains* was born to answer the low development of science and technology in the Islamic world. The *Trensains* project is thoughtfully implemented in two schools in the Java region, namely Sragen Muhammadiyah *Trensains* Senior High School in Central Java and Tebuireng *Trensains* Senior High School Jombang in East Java. The emergence of these *Trensains* schools is an essential phenomenon because the development of science, technology, and scientific culture is still low in most Muslim countries (McClendon et al., 2018; Sarkissian, 2012).

Meanwhile, in the West and other countries, science continues to develop rapidly, even more advanced, following the pace of the industrial revolution (Azra, 2013; Li et al., 2017). Most countries with high levels of religiosity are low in science and technology (Bentzen, 2021; Liu et al., 2018). Less religious countries, on the other hand, actually have more educated and prosperous people (Krause, 2003). It is supported by Stoet and Geary (2017) that students in countries with high religiosity have low achievements in science and mathematics (Geary, 2017).

According to Agus Purwanto, the initiator of science trends, the low development of science in several Muslim countries is due to the strong fiqh reasoning in Islamic education, which is considered to be still spending time on fiqh issues so that it pays less attention to scientific reasoning and natural science (Khoirudin, 2017). Islamic religious education is considered not to have given impetus to the development of science and technology (Edis, 2009) and not to be the primary strategy for realizing progress in a civilization like during the Abbasid era (Aljunied & Hussin, 2005). It causes many Muslim countries to have few research institutions and budgets that are not considered necessary (Azra, 2013).

The emergence of Sragen Muhammadiyah *Trensains* Senior High School and Tebuireng *Trensains* Senior High School Jombang as "the new *Pesantren*" aiming to produce Muslim scientists is necessary for further research, considering that the development of science in *Pesantren* is still relatively small (Hamdan et al., 2018). Integrating the school into the *Pesantren* eliminates the image of the *Pesantren*, which is lagging in science and technology (Asifudin, 2016, pp. 11-18). It shows that the dichotomy between "Islamic" religious knowledge and "secular" general science is increasingly untenable, and *Trensains* is born, showing a new paradigm of Islamic education (Azra, 2013).

Several scholars have examined this *Trensains* project from several perspectives. The Universal Curriculum is based on the Qur'an and applies the Semester Credit System (SKS). It is supported by studies showing that implementing a unified curriculum between Islamic Education and Science makes students more interactive and productive and increases intellectual and spiritual understanding (Shalihin et al., 2019). Furthermore, Yusuf found that *Trensains* Senior High School prepared activity programs, and instructors, implemented programs and supervised program implementation (Sholiquil Hadi et al., 2018). Fahrudin stated that Trens Sains Tebuireng High School implements science-based Islamic education that aligns with Ismail Raji Al-Faruqi's Islamization of Science (Fahrudin & Hanip, 2020). Azalia explained that the learning method at *Trensains* Senior High School Sragen is a mixture of lectures and discussions and uses visual aids depending on experiments. One of the unique things

is *Tahajjud* Physics, a weekend activity for students to study physics and is the application of the Science of the Qur'an (Khusna & Sari, 2018).

Several studies have been conducted to discuss the *Trensains* project from various perspectives. One study explained that Senior High School *Trensains* combine the National Curriculum, the International Curriculum (Cambridge) and *Kurikulum Kearifan Pesantren Sains* into a *Kurikulum Semesta/Universal Curriculum* (A'yun et al., 2018). Another study shows that implementing a unified curriculum between Islamic Education and Science makes students more interactive and productive and increases intellectual and spiritual understanding (Shalihin et al., 2019). Regarding program planning and implementation, *Trensains* Senior High School prepares program activities and instructors and performs supervisory activities (Sholiquil Hadi et al., 2018). *Trensains* Senior High School implements Science-based Islamic education that aligns with the Islamization of Science (Fahrudin & Hanip, 2020). The learning method at *Trensains* Senior High School combines lectures and discussions and uses visual aids depending on experimentation. One of the unique activities carried out is *Tahajjud* Physics, a weekend activity for students to study physics and is an application of the Science of the Qur'an (Khusna & Sari, 2018).

This study discusses things that have never been discussed before regarding the *Trensains* of Senior High School, namely the factors that drive its birth and its impact on changes in the orientation of *Pesantren* in Indonesia. This study aims to explain the implications of the emergence of 'trends of science' for reading *Pesantren* in Indonesia based on a philosophical orientation. Therefore, this study discusses 3 points, namely the main factors in the birth of *Trensains*, the concept of *Trensains* as a new *Pesantren*, and the shift in the orientation of *Pesantren* in Indonesia.

2. Methods

It is a qualitative study (Creswell, 2018). In McMillan's (2001) terms, this study uses a non-interactive inquiry method, namely research referring to document analysis and informants (McMillan, 2001). Data collection was carried out using interview techniques and document studies. The interview technique was conducted using unstructured interviews (unstructured interviews) to obtain in-depth information from Agus Purwanto, the initiator of *Trensains*. In the documentation study, the author examines the book *Ayat-Ayat Semesta* [Verses of the Universe] (Purwanto, 2008) and *Nalar Ayat-Ayat Semesta* [Reasoning of the Verses of the Universe] [Reasoning Verses of the Universe] (Purwanto, 2015), papers, and PowerPoint slides by Agus Purwanto. In addition, documentation was also obtained and issued by the two institutions Sragen Muhammadiyah *Trensains* Senior High School and Tebuireng *Trensains* Senior High School Jombang, such as academic manuals and lesson plans (RPP). Next, the data analysis process begins by examining all available data. Data analysis is done through inventory, categorization, interpretation, critical evaluation, and synthesis to generate new understanding (Booth et al., 2016).

3. Results

3.1. *The Strength of Fiqh Reason: Problems of Islamic Education Orientation in Indonesia*

Issuing the Joint Decree of the Three Ministers (SKB3M) No. 6 of 1975 by the Minister of Religion A. Mukti Ali laid out a vital policy to end the dichotomy between *Pesantren* and schools (Amir Syah, 2007). Previously, *Pesantren* performed their primary functions of transmitting Islamic religious knowledge, maintaining Islamic traditions, and reproducing Islamic scholars (Martin van Bruinessen, 2012). In its development, *Pesantren* can negotiate with the development of science. Even public schools, as a representation of science, are integrated with the *Pesantren* system (Hanafie Das et al., 2016). Several high schools in *Pesantren* have opened science majors (Natural

Sciences), but student awareness to continue to tertiary institutions such as the Bogor Agricultural Institute (IPB) and Gadjah Mada University (UGM) is still low. Thus, studying science in *Pesantren* is a side effect, not spiritual encouragement.

In Agus Purwanto's view, the lack of science in Islam is due to Islamic education's strong "fiqh reasoning" and the neglect of science. Religion is considered only a matter of fiqh. As a result, it ignores the scientific phenomena of the universe. In this regard, Purwanto (2008) stated,

"Even though the legal verses are only one-fifth of the kauniah verses, they have absorbed almost all the energy of the clergy and Muslims. On the other hand, the Kauniah verses, although they are numerous, are neglected. Science as a normative embodiment of the Kauniah verses seems unrelated and does not lead Muslims to heaven or hell, so it is never discussed in scientific areas or religious studies." (p. 28)

This argument received legitimacy at a seminar discussing the problem of backwardness of the ummah at the University of Jember, East Java, on 4 May 2003 with the theme "Paradigm of Fiqh Causes Indonesia's Deterioration". Purwanto assessed that the seminar's theme seemed to justify Sheikh Jauhari Thanthawi's proposition that the holy Qur'an contained more than 750 verses of *kauniah*, while verses of fiqh were only 150 (Purwanto, 2008).

Purwanto's anxiety is similar to Muhammad Syahrur, an engineer who studies the Qur'an. In science, science and technology, Muslims have been unable to keep up with the West. Muslim scientists' access to knowledge is minimal, so they have not become pioneers of science. The Muslim community's creative ability in fiqh should be appreciated in terms of quantity. However, when actualized in practice, fiqh does not lead to the glory of superior civilizations, respected and respected by other civilizations, but rather backwardness (Muhammad Syahrur, 2007).

In line with that, Islamic education, which emphasizes fiqh and sharia in teaching, can trigger the problem of low science in the Islamic world. The existence of a classification of knowledge that differentiates and does not merely show differences, and the establishment of madrasas only to develop Islamic sciences without the support of scientific development, exacerbates this problem. The disharmonious interaction between philosophy, theology, and science and the disapproving and suspicious attitudes of theologians towards science are also contributing factors (Fazlur Rahman, 2000).

In Indonesia, the *Pesantren* education system is known for its fiqh-Sufistic inculturation patterns, traditional-conservative attitudes, codified science, madhabi reasoning, and charismatic leadership. This culture's impact is fiqh's strong influence on individual and societal behavior, thinking, and intellect. The role of fiqh in Islamic education is considered vital. It is a view that places sharia and religious sciences higher. Experts in religious knowledge control Islamic educational institutions, and most of the madrasas or al-jamiahs were founded with waqf funds from benefactors or Muslim political rulers.

Based on the description, it can be seen that two main factors influence the lack of progress in science in Islamic education in Indonesia, namely mystical reasoning, which places more emphasis on charity than thinking and fiqh reasoning, which has a normative approach. However, it cannot be ruled out that other influencing factors exist, such as the state's role. Fiqh and Sufism blend into *Pesantren's* intellectual culture creating a "normative-mystical" pattern of thought and behavior. It impacts the learning process in *Pesantren*, which is more dominated by deductive-dogmatic thinking (Bayani) and a lack of scientific-rational thinking (Arif, 2008).

Thus, the dilemma between fiqh reasoning (religious, subjective) and scientific reasoning (scientific, objective) in Islamic education is still experiencing tension. Islamic educational reasoning is still dominated by centripetal reasoning (mindset towards the center point of the text of revelation), while scientific reasoning is centrifugal (away from the center point/the text continues to develop through scientific research) (Hanafi, 2000). Because Islamic civilization is a textual

civilization, efforts to make revelation the basis for developing science and research are increasingly relevant, as is done by *Trensains*.

3.2. *Trensains: Science Development Project in Pesantren*

Trensains (*Pesantren* sains) is a natural science development project in *Pesantren* initiated by Agus Purwanto, professor of theoretical physics at the Ten November Institute of Technology (ITS) Surabaya. Besides being a theoretical physicist, Purwanto also has Arabic language skills, as evidenced by his book *Smart Reading Bald Arabic Using the Hikari Method* (Purwanto, 2010). With the intellectual capital of theoretical physics and the rules of the Arabic language, he wrote two books: *Ayat-Ayat Semesta [Verses of the Universe]* (Purwanto, 2008) and *Nalar Ayat-Ayat Semesta [Reasoning of the Verses of the Universe]* (Purwanto, 2015). The books explain how the Qur'an forms the basis of the epistemology of science in Islam, leading to the development of science as a formal organization trend.

This study found that Agus Purwanto has played an essential role in developing two science boarding schools, namely Sragen Muhammadiyah *Trensains* Senior High School since 5 November 2013 and Tebuireng *Trensains* Senior High School Jombang since 23 August 2014. In addition, a "Class of *Trensains*" at the Muallimin Muhammadiyah Yogyakarta Madrasah began operating on 21 September 2015. The term "*Trensains*" is an abbreviation of the words "*Pesantren*" and "science" and means efforts to introduce science among *Pesantren*. Purwanto substantially invented the idea of *Trensains*, but this term came from Prof. Umar Fauzi (ITB), who often communicates with him (Purwanto, 2020).

According to Agus Purwanto, *Trensains* as a "new genre" of *Pesantren* differs from modern *Pesantren*, which emerged as a response to epistemological colonialism from discourses between science and religion. In an article, Agus Purwanto said,

"*Trensains* is a combination of two shortened words for *Pesantren* and science. *Trensains* is a new synthesis of *Pesantren* and public schools in science after modern *Pesantren*. *Trensains* does not combine *Pesantren* and general science material as modern *Pesantren* but specializes in studying the Qur'an and hadith, natural science and their interactions" (Purwanto, 2020, p. 8).

The vision of "*Trensains*" integrates text culture (Al-Qur'an and Sunnah), scientific culture (science), and ethical culture (philosophy) (Amin Abdullah, 2014). It aims to produce a generation that adheres to the Qur'an and Sunnah, loves and develops science, and has deep philosophical understanding and noble moral habits. To realize this vision, *Trensains* has three missions, namely (1) to organize an educational process that instills students' understanding and love for the holy book of the Qur'an and the Sunnah of the Prophet; (2) to provide an environment for the development of a scientific attitude, logical-philosophical thinking and responsiveness as well as exploring the material and immaterial realms with their various phenomena; and (3) to escort students to pursue a higher level of education in the natural field.

The vision and mission of *Trensains* are to become an Islamic educational institution that gives birth to generations who love the Qur'an and science. The desired generation of *Trensains* are scientists with adequate understanding and perspective on the Qur'an and its dialectic with science. *Trensains* has a jargon as a "scientist cadre institution", which focuses on the love of the Qur'an and science. In this case, loving the Qur'an is not limited to memorizing but must be based on scientific knowledge and observation (Interview with Purwanto, 2021).

The future projection of *Trensains* alums is the birth of natural science scientists with a solid Al-Qur'an basis. In contrast to modern *Pesantren*, which have given birth to figures such as Nurcholish Madjid, Abdurrahman Wachid, Ahmad Syafi'i Ma'arif, and Hidayat Nur Wahid, *Trensains* aspires to give birth to Muslim scientists, such as Ibn Sina and Ibn Rushd. The alums

are expected to enter prestigious public universities in the field of science, such as ITB (Bandung Institute of Technology), ITS (Nopember Institute of Technology), IPB (Bogor Agricultural Institute), UGM (Gadjah Mada University), UI (Indonesian University), to be the Ibn Sina of the 21st century.

Trensains is a form of educational institution innovation that tries to answer the problem of the Islamic education dichotomy (Shiraz Thobani, 2007). Muslims must strengthen their science and technology capabilities during a changing world through *Trensains*. So far, Muslim society has only been a nation of science and technology development users. A fundamental change is needed, namely as khalifah fi al-arḍ, bearers of the mandate on earth to realize Islam raḥmatan lil ‘ālamīn (Purwanto, 2008).

Trensains has several unique characteristics distinguishing it from other educational institutions, such as modern *Pesantren*. First, there is material on the interaction between religion and science so that students can learn about the relationship between the two things. Second, through the AAS laboratory, students are invited to conduct experiments and apply revelation in research. This laboratory offers various materials related to natural observations, such as the moon's phases and Qibla's direction. With these characteristics, *Trensains* seeks to answer the problem of the Islamic education dichotomy and provide solutions to strengthen Muslim communities' science and technology capabilities in line with the changing world. Therefore, *Trensains* alums are expected to be able to enter leading universities in the field of science and bring about changes in the world of science.

3.3. Development of the *Trensains* Curriculum

The concept of *Trensains* is an institutionalization of the idea of Agus Purwanto (Professor of Theoretical Physics ITS Surabaya), which is contained in his books *Ayat-Ayat Semesta* [Verses of the Universe] and *Nalar Ayat-Ayat Semesta* [Reasoning of the Verses of the Universe]. *Trensains* was developed at two different institutions. This was done geographically, and Apart from Sragen and Jombang, there is *Trensains* with the format “class of *Trensains*” at Madrasah Muallimin Muhammadiyah Yogyakarta. In Sragen Muhammadiyah *Trensains* Senior High School, the curriculum was developed with the concept of “Kurikulum Unifikasi/Unification Curriculum”, while in Tebuireng *Trensains* Senior High School Jombang developed the “Kurikulum *Semesta*/Universal Curriculum”.

In the “unification curriculum”, the term unification means “integration”, “integrated”, and “interconnection”, as well as “comprehensive”. In the Academic Handbook of Sragen Muhammadiyah *Trensains* Senior High School, it is explained that the word “unification” or “unification” means unification, merger, or “integration”. Technically, the “unification curriculum” is a curriculum that collaborates the national curriculum and the typical science *Pesantren* curriculum. As for philosophy and content, the *Trensains* curriculum unifies three domains, namely Qur'an material, science material, and language material, integrated into *Pesantren* activities for 24 hours.

The curriculum of Tebuireng *Trensains* Senior High School Jombang is referred to as the “universal curriculum”. The mention of universal curriculum because it is the result of adaptation and adoption from the three national, international, and local curricula, which focus on understanding the Qur'an and science and the interaction between the two in each learning activity. The composition of the subjects in the universal curriculum at *Trensains* Senior High School consists of the leading subject group (as in the national curriculum) and the Science *Pesantren* Wisdom Subject Group (MPKPS) or what is known as the tool of *Trensains*.

If the “unification curriculum” of Sragen Muhammadiyah *Trensains* Senior High School adapts the national curriculum and the typical *Trensains* curriculum, then the “universal curriculum” Tebuireng *Trensains* Senior High School Jombang consists of 3 (three) parts, namely the 2013

Curriculum, Cambridge content, and *Trensains* unique content, from now on referred to as MPKPS (Science *Pesantren* Wisdom Subject). Thus, it can be said that the *Trensains* Senior High School Jombang has implemented three universal curricula which adopt and adapt between the international, national, and *Pesantren* wisdom curricula. Both the universal and unified curriculum, the particular subjects of *Trensains* are oriented towards deepening the Qur'an and science.

There are at least 7 (seven) competency graduates of Sragen Muhammadiyah *Trensains* Senior High School, which are implemented consciously and planned as follows: (1) speaking and reading Arabic fluently with a target of graduates having a TOAFL score of 450; (2) speaking English fluently with a target of graduates having a TOEFL score of 450; (3) scientific experts: Mathematics, Physics, Biology, and Chemistry; (4) understanding the concept of interaction between Religion and Science with the target of being able to write scientific papers that integrate religion and science; (5) memorizing and understanding Kauniah verses, especially those related to fundamental scientific issues; (6) having memorized Al-Qur'an Juz 30; and (7) *Trensains* graduates are encouraged and strived to enter well-known domestic and foreign PTs in natural sciences majors.

In contrast to Sragen Muhammadiyah *Trensains* Senior High School, there are only 4 (four) profiles of graduates from Tebuireng *Trensains* Senior High School Jombang, including: (1) fluent in reading the Qur'an and memorizing selected verses (kauniah), (2) fluent in speaking English and having a TOEFL score, (3) fluent in speaking and reading Arabic texts, (4) mastering science and understanding the interaction between religion and science. In addition, Tebuireng *Trensains* Senior High School Jombang also projects its graduates to continue at various universities both at home and abroad in the fields of science so that in the future, they will become scientists in natural sciences, technology, and doctors who have strong Qur'an bases.

In essence, both at *Trensains* Senior High School Sragen and Jombang, the graduate profiles of *Trensains* students are oriented towards enrolling in tertiary institutions in science. Therefore, the development of the *Trensains* curriculum has the following characteristics: First, *Trensains* does not combine the material of *Pesantren* and general science as in modern *Pesantren*, but takes specificity by making the interaction of the Qur'an and natural science a characteristic. Second, speaking Arabic and English is an essential ability for students. Apart from being a communication tool, Arabic is used as an initial analytical tool in reasoning with the verses of the Qur'an, especially the verses of the Qur'an. Third, *Trensains* guides its students to have adequate mathematical and philosophical reasoning abilities. Mastery of students in mathematics, physics, biology and chemistry is the main characteristic of *Trensains*. As is known so far, philosophy has been avoided by *Pesantren*, so the inclusion of philosophy in *Trensains* can be a sign of a new chapter for *Pesantren*. Fourth, suppose *Pesantren* generally expect their alums to become sharia scholars (Islamic law). In that case, the *Trensains* alum project is the birth of scientific scholars (natural law) who specialize in natural sciences, technology, and doctors who have the basis of the Qur'an, philosophical depth, and moral nobility.

4. Discussion

"Science *Pesantren* (*Trensains*)" is a continuation of the renewal of Indonesian Islamic education (Maksudin, 2018). In the last decade, new *Pesantren* models have continued to emerge in Indonesia (Jamhari, 2009), even with an increasingly massive tendency to provide general education (Afrianty et al., 2007), as well as paradigmatic changes (Ma'arif, 2018). This transformation cannot be separated from efforts to "integrate" religious knowledge and secular science in systems, institutions, and the curriculum realm. The accommodative nature of *Pesantren* is the main strength of Islamic education in Indonesia (Jackson and Parker, 2008).

These forms of adaptation include responses to the modern school system, incorporation of non-religious subjects into the curriculum, and integration into the national education system (Isbah, 2020).

4.1. *Santrinization of Langgar: From Sufism to Fiqh*

For over a century, Islamic education in Indonesia has had three institutional models: Al-Qur'an recitation, *Pesantren* or *Pondok*, and madrasah or Islamic schools (Hefner (Ed.), 2009). Therefore, the development of Indonesian Islamic education can be described as an evolution from langgar to *Pesantren* in Java, then to madrasah (religious schools with a "Western" teaching methodology with a more significant percentage of religious subjects than "secular" knowledge), and finally to schools with "Western" teaching methodologies. Only offers limited religious lessons (Nurlena Rifai, 2006).

The *Pesantren* system started from "langgar" as the basis of Sufi teachings that dominated the early Islam period in Java. Historically, "langgar" was known in Javanese rural Muslim communities rather than the word "mosque" or "musala" (Arifin, 2013). Learning about Islamic religious knowledge in this breach is usually called recitation (Hefner (Ed.), 2009). Recitations are carried out using the traditional method of sorogan (individuals) to study the Qur'an and bandongan (groups) to learn the procedures for praying, fasting, zakat, and pilgrimage (Arifin, 2013).

In most cases, transforming a langgar into a *Pesantren* is based on the needs of the community interested in reciting the langgar. To accommodate the congregation, they built simple rooms called "Pondok" around the langgar. *Pesantren*'s development comprises five main elements: kiai, santri, mosques, Pondok, and classic books. Before the 1960s, *Pesantren* in Indonesia were popularly known as 'Pondok'. The term Pondok comes from the Arabic word, fundūq which means dormitory (Arifin, 2013). This transformation of langgar to *Pesantren* impacts a shift in the orientation of Islamic education. Arifin explained that there was a shift in the dominance of Sufism (Islamic spiritualism) to fiqh (Islamic jurisprudence) at the end of the 19th century.

The domination of fiqh books and books on science tools (Arabic grammar books) significantly influences the paradigm and orientation of Islamic education. According to Bruinessen, at least four arguments exist for why fiqh replaces Sufism as the main subject taught in *Pesantren*. First, fiqh is a subject in Islamic science that regulates the daily life of Muslim society, both in ritual worship and muamalah (social relations). Second, the purification movement, initiated by Muhammad bin Abdul Wahhab (d. 1792) in the Arabian Peninsula and brought to the Indonesian archipelago at the end of the 18th century, banned Sufi practices on the grounds of purifying Islam from local cultural elements. Third, *Pesantren* were influenced by the Naqshabandiyah, which emphasized fiqh or shari'a as the essential basis of Sufi purification. Fourth, prominent traditional Muslim scholars, such as Imam Nawawi Al-Bantani (d. 1897), Sheikh Achmad Khatib (d. 1915), Kiai Mahfuz Termas (d. 1919), and Kiai Kholil Bangkalan (d. 1923), returned from Mecca establishing a *Pesantren* that emphasizes fiqh and Syariah studies (Martin van Bruinessen, 2012).

There are at least two factors that cause science in Indonesian Islamic education to be less developed, namely (1) mystical reasoning (prioritizing charity rather than thought); (2) fiqh reasoning (normative approach). The potent blend of fiqh and Sufism in *Pesantren*'s intellectual culture has led to a "normative-mystical" mindset and behavior within the *Pesantren* community. (Arif, 2008). The implication is that the teaching-learning process in *Pesantren* appears to be more dominated by deductive-dogmatic (Bayani) thinking than rational-scientific reasoning.

4.2. *Modernization of Pesantren: From Fiqh to Scientific*

The background for the emergence of *Pesantren* is closely related to Sufistic Islam and has shifted to a fiqh style. However, in subsequent developments, many *Pesantren* adopted the madrasah system and included secular subjects in the curriculum (Hamid Fahmy Zarkasyi, 2020). Since the end of the 19th century, various kinds of new types of *Pesantren* innovations have been called madrasahs. At first, teaching in *Pesantren* was still limited to religious subjects and oriented towards Mecca. Then, many *Pesantren* combines traditional Islamic education with modern or Western educational models (Nurlena Rifai, 2006).

In Indonesia's long history, madrasahs and *Pesantren* are the histories of underdevelopment. However, since the 1970s, the Minister of Religion A. Mukti Ali issued a Joint Ministerial Decree (SKB3M) No. 6 of 1975 and No. 37/U/1975 which was signed by the Minister of Religion (Menag), the Minister of Education and Culture (Mendikbud), and the Minister of Home Affairs (Mendagri) on 24 March 1975 (Hefner (Ed.), 2009). The policy ends the dichotomy of "general education" and "religious education". In the practical realm, madrasah students can move their studies to public schools and vice versa. Furthermore, graduates of religious madrasahs can enter state universities. In contrast, public high school graduates can be accepted at IAIN (State Islamic Religious Institute) or private Islamic tertiary institutions (Jabali, 2003).

In Hefner's (2009) observation, SKB3M has three substantial impacts on Islamic education holistically. The first is strengthening the trend of *Pesantren* opening madrasahs to provide general education. The second is encouraging madrasahs to align their curricula with those of public schools, thereby increasing opportunities for madrasah students in the entrance exams to tertiary institutions. The third is encouraging the most prestigious *Pesantren*, such as the Darul Ulum and Tebuireng *Pesantren* in Jombang, East Java, to add senior high schools (SMA).

A. Mukti Ali is considered successful in modernizing Indonesian Islamic education, especially in reorienting classical Islamic education, which is "legalistic" from a "scientific" approach. The orientation of fiqh is considered the cause of the emergence of "narrow-minded" scholars in an increasingly rational urban society (Nurlena Rifai, 2006). Nonetheless, there are several notes that since the initiation of the modernization program in the 1970s, traditional society is still in its status quo (does not want to change itself) (Savran Billahi & Idris Thaha, 2018). Despite these difficulties, *Pesantren* continues to be encouraged to accommodate general subjects in the *Pesantren* curriculum (Hefner (Ed.), 2009).

4.3. *School Santrization: From Science to Fiqh*

Islamic schools in Indonesia and other Southeast Asian countries have played a significant role in Muslim responses to modernization and globalization (Hefner (Ed.), 2009). During the trend of modernizing *Pesantren*, which combines with the madrasah system, there are signs of schools providing more portions of Islamic religious education with a full-day school system, and some have even established a boarding school system supported by the new Muslim middle class. Azra referred to the emergence of Islamic schools as a new santrization of Indonesian society (Azra, 1999).

Islamic schools offer a unique formula for integrating religion into modern education (Hasan, 2012). Among these schools are Al-Azhar, Insan Scholar, Madania, Bina Insani, Dwiwarna, Lazuardi, Fajar Hidayah, Nurul Fikri, Salman al-Farisi, Budi Mulia Dua, Bumi Cendekia, and Afkaruna Islamic School. Two schools that adopted the *Pesantren* system, for example, SMA Dwiwarna and Madrasah International Standard (MBI) Amanatul Ummah. The hallmark of SMA Dwiwarna (boarding school) is that students participate in national science competitions as well as

Japanese and German. MBI Amanatul Ummah Pacet succeeded in delivering all of its graduates (95%) to be accepted at famous universities, both domestically (UI, ITB, UGM, IPB, UNDIP, UNAIR, ITS, and others) and abroad (China, Germany, Malaysia, United Kingdom, Australia, Russia, Japan, Egypt, Morocco, Yemen, Turkey, Tunisia, Sudan and Taiwan). MAN Insan Cendekia, established in 1996 upon the initiative of B.J. Habibie, aimed to enhance *Pesantren's* education. With the jargon of *imtak* and science and technology, this school conveys a message to Muslims not to ignore science and technology and to focus only on religious knowledge (Azra, 1999).

The growth of such Islamic schools has inspired the Islamization of formal education and the spread of integrated Islamic schools (IT) with a full-day school (FDS) system as part of the santrization and continuation of the reislamization process of urban Muslim communities (Suyatno, 2013, p. 355). The IT school responds to the *Pesantren* curriculum, which is too fiqh oriented and lacks general knowledge. Therefore, the IT School does not deny the importance of mathematics, natural sciences, humanities, languages, vocational skills, and the arts as a provision for careers in the modern world, such as engineers, doctors, economists, doctors, and social scientists. IT schools and various elite Islamic schools above have strengthened the trend of integrating religion and modernity in the national education system (Hasan, 2012).

4.4. *School of Trensains: Science Oriented*

Trensains is a continuation and meeting point between the modernization of *Pesantren* and the santrization of schools. If the growth of madrasas in Indonesia results from a tug-of-war between (traditional) *Pesantren* and (Western) schools, the *Trensains* is a meeting point between modern *Pesantren* and Islamic schools, both of which are arenas of science integration education. As is known, during the last decade, discussions about Islamic educational thought have become popular, especially those concerning the interaction between Islam and the West (Sayeh Meisami, 2012). *Trensains* was born as an integration of science education, considered a way to understand Islam rationally, which generally has a solid urge to revive the “golden age of Islam” as an ideal period.

In the world of *Pesantren*, there has been a significant change in its function and management. Science trends have significant implications for changes in the orientation of *Pesantren* in Indonesia. *Pesantren*, which used to aim to teach Islamic sciences, has now turned into an arena for the study of natural sciences and social sciences and humanities. The shift from maintaining the Islamic tradition to cultivating the scientific tradition also occurred, in line with the change in the reproduction of clergy members into scholarly scholars. Philosophy taught to students is something new in the history of the curriculum in the world of *Pesantren*. *Trensains* creates a new habitus outside the standard, which considers that the keys to scientific progress are in mathematics and philosophy.

Choosing *Pesantren* as an arena for forming scientific-scientific reasoning habits is the right strategy in an educational environment with religious solid, dogmatic, and Bayani reasoning. Three important reasons make *Pesantren* the best choice: first, the boarding and dormitory environment facilitates educators as agents of science habitus to provide direct guidance and assistance to students; second, the close personal relationship between students and teachers is very conducive to acquiring knowledge about the habitus of scientific reasoning; and third, at the *Pesantren*, students can learn about the independence and simplicity of lifestyle which are essential for instilling the value of scientific asceticism (Arif, 2008).

The development of *Trensains* education has implications for the orientation of *Pesantren* in general. According to the Law of the Republic of Indonesia Number 18 of 2019 regarding

Pesantren, the primary function of *Pesantren* is to produce individuals with expertise in religious knowledge. Article 3, paragraph (1) states that *Pesantren* aims to develop “superior individuals in various fields who understand and practice the values of religious teachings or become religious scholars who are faithful, pious, have a noble character, are knowledgeable, independent, help each other, are balanced, and are moderate.” The existence of *Trensains* has shifted the orientation of *Pesantren* education from giving birth to experts in religion to experts in general sciences.

Referring to the Law of the Republic of Indonesia Number 18 of 2019 concerning *Pesantren* Article 5 paragraph (1), *Pesantren* is divided into three typologies: (1) *Pesantren*, which provides education in the form of yellow book study; (2) *Pesantren* that organize education in the form of Islamic education with a muallimin education pattern; and (3) *Pesantren* that organize education in other forms that are integrated with general education. The first type is called *Pesantren Salafiyah*, the second is modern *Pesantren*, and the third is *Pesantren* integrative. Based on this typology, *Pesantren* is included in the third typology, “integrative *Pesantren*”.

Based on the distribution, there are three models of madrasah integration into *Pesantren*. The first model is full integration, in which the *Pesantren Salafiyah* education system and madrasah education are equally run. The second model is selective integration, namely maintaining the *Salafiyah* education system and adopting the madrasah education system, but only as an instrument. The third model is instrumental integration, namely the *Pesantren Salafiyah* education system, which was changed with an emphasis on foreign languages (Arabic and English) and using the madrasah system in the learning process and pursuit of achievement (Mochtar, 2001).

Based on the three existing categorizations, *Trensains* has a different typology and is richer regarding integration. In addition to institutional and curriculum integration, *Trensains* carries out philosophical integration. It is a revision of the old pattern of modern *Pesantren* and Islamic schools, which both advocate the integration of religious education and general science, but with a focus on philosophical integration. Therefore, *Trensains* shows a clear difference in methodology and goals in providing quality education.

5. Conclusion

This study discusses the concept of Islamic education in *Trensains*, an encounter between the modernization trend of *Pesantren* and the santrization of schools, and the trend of Islamic science discourse. Due to the “Islamic decline” due to several factors, *Trensains* was conceived as a solution to the problem. In *Trensains*, science is seen as a form of *ijtihad* that can foster an understanding of nature from a religious perspective. Although this is a valuable study to understand trends in Islamic education in Indonesia, some limitations must be noted. This study has not thoroughly discussed the process of implementing *Trensains* in society, so further research is still needed to understand the effectiveness of *Trensains* in shaping the character of *Pesantren*. In addition, future research also needs to consider the perspectives of various groups, such as the community, government, and other stakeholders, to obtain a more comprehensive picture. Further research is needed to understand the impact and role of *Trensains* in the development of Islamic education in Indonesia. Research must also be conducted to understand how *Trensains* can build a science culture with character and morality and form a generation of competent Muslims in science and technology.

Declarations

Author contribution statement

Azaki Khoirudin conceived the presented idea. Hamzah Fansuri was the data taker. Abdul Munip and Imam Machali developed the Shifting the Orientation of Islamic Education theory. All authors discussed the results and contributed to the final manuscript.

Funding statement

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Data availability statement

The datasets generated during and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Declaration of interest's statement

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

Additional information

Correspondence and requests for materials should be addressed to azakikhoirudin@gmail.com

ORCID

Azaki Khoirudin  <https://orcid.org/0000-0003-3728-381X>

Abdul Munip  <https://orcid.org/0000-0002-5152-5195>

Imam Machali  <https://orcid.org/0000-0003-1331-3252>

Hamzah Fansuri  <https://orcid.org/0000-0001-5785-9033>

References

- Affandi Mochtar. (2001). *Membedah Diskursus Pendidikan Islam*. Kalimah.
- Afrianty, D., Hefner, R., & Azra, A. (2007). *Pesantren and Madrasa: Muslim Schools and National Ideals in Indonesia*. Princeton University Press. <https://acuresearchbank.acu.edu.au/item/86y72/pesantren-and-madrasa-muslim-schools-and-national-ideals-in-indonesia>
- Ahmad Janan Asifudin. (2016). Integration – Interconnection Paradigm of Islamic Education Management Science. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 21(12), 11–18. <https://doi.org/10.9790/0837-2112041118>
- Aljunied, S. M. K., & Hussin, D. I. (2005). Estranged from the ideal past: Historical evolution of madrassahs in Singapore. *Journal of Muslim Minority Affairs*, 25(2), 249–260. <https://doi.org/10.1080/13602000500350694>
- Amin Abdullah, M. (2014). Religion, Science and Culture: An Integrated, Interconnected Paradigm of Science. *Al-Jami'ah*, 52(1), 175–203. <https://doi.org/10.14421/ajis.2014.521.175-203>
- Amir Syah. (2007). Kontribusi Pemikiran A. Mukti Ali Terhadap Modernisasi Kebijakan Keagamaan di Indonesia. UIN Jakarta.
- Anton Bakker dan Achmad Charris Zubair. (1994). *Metodologi Penelitian Filsafat*. Kanisius.
- Arif, M. (2008). Pendidikan Islam Transformatif. LKIS.
- Arifin, A. Z. (2013). Charisma and rationalization in a modernizing Pesantren: Changing values in traditional Islamic education in Java. <https://researchdirect.westernsydney.edu.au/islandora/object/uws%3A17130/>

- Asrori S. Karni. (2009). *Etos Studi Kaum Santri: Wajah Baru Pendidikan Islam*. Mizan.
- A'yun, K., Fajri, W., & Sunardi, S. (2018). Aktualisasi Kurikulum Terintegrasi di Tebuireng Trensains Senior High School Jombang. *Al-Idaroh: Jurnal Studi Manajemen Pendidikan Islam*, 2(2), Article 2. <https://doi.org/10.54437/alidaroh.v2i2.51>
- Azyumardi Azra. (1999). The Rise of Muslim Elite Schools: A New Pattern of "Santrization" in Indonesia. *Al-Jami'ah*, 64(12).
- Azyumardi Azra. (2013). Islamic Education and Reintegration of Sciences: Improving Islamic Higher Education. *Media Syariah*, 15(2).
- Bentzen, J. S. (2021). Religiosity and Development. In J. S. Bentzen, *Oxford Research Encyclopedia of Economics and Finance*. Oxford University Press. <https://doi.org/10.1093/acrefore/9780190625979.013.688>
- Booth, W. C., Colomb, G. G., Williams, J. M., Bizup, J., & FitzGerald, W. T. (2016). *The Craft of Research, Fourth Edition* (Fourth edition). University of Chicago Press.
- Creswell, J. W. (2018). Penelitian Kualitatif & Desain Riset: Memilih di antara Lima Pendekatan. Pustaka Pelajar.
- Edis, T. (2009). Modern Science and Conservative Islam: An Uneasy Relationship. *Science and Education*, 18(6–7), 885–903. <https://doi.org/10.1007/s11191-008-9165-3>
- Elisabeth Jackson and Lyn Parker. (2008). Enriched with knowledge': Modernisation, Islamisation and the Future of Islamic Education in Indonesia. *Review of Indonesian and Malaysian Affairs*, 42(1), 21–53.
- Fahrina Yustiasari Liriwati, D., Syukri, A., & Us, K. A. (2020). *Manajemen Kewirausahaan Pondok Pesantren Dalam Pemberdayaan Ekonomi Masyarakat Di Provinsi Riau* [Doctoral, UIN Sulthan Thaha Saifuddin Jambi]. <http://repository.uinjambi.ac.id/4144/>
- Fahrudin, F., & Hanip, S. P. N. (2020). Interkoneksi Paradigma Pendidikan Islam di Sekolah Menengah Atas Tren Sains Tebuireng Jombang. *Belajea: Jurnal Pendidikan Islam*, 5(2), Article 2. <https://doi.org/10.29240/belajea.v5i2.1858>
- Fazlur Rahman. (2000). *Islam dan Modernitas: Tentang Transformasi Intelektual*. Pustaka.
- Geary, G. S. dan D. C. (2017). Students in Countries with Higher Levels of Religiosity Perform Lower in Science and Mathematics. *Intelligence*, 62, 71–78.
- Hamdan, N. A., Samian, A. L., & Muslim, N. (2018). Islamic Science Paradigm is a Science and Religious Integration. *International Journal of Civil Engineering and Technology*, 9(10), 1298–1303.
- Hamid Fahmy Zarkasyi. (2020). Imam Zarkasyi's Modernization of Pesantren in Indonesia (A Case Study of Darussalam Gontor). *Qudus International Journal of Islamic Studies (QIJIS)*, 8(1), 161–200.
- Hanafi, H. (2000). *Oksidentalisme*. Paramadina.
- Hanafie Das, S. W., Halik, A., & Amaluddin, A. (2016). Paradigm of Islamic Education in the Future: The Integration of pesantren and Favorite School. *Information Management and Business Review*, 8(4), Article 4.
- Hasan, N. (2012). Education, Young Islamists and Integrated Islamic Schools in Indonesia. *Studia Islamika*, 19(1). <https://doi.org/10.15408/sdi.v19i1.370>
- Hidayat, M. (2017). Model Komunikasi Kyai Dengan Santri di Pesantren. *Jurnal ASPIKOM*, 2(6), Article 6. <https://doi.org/10.24329/aspikom.v2i6.89>

- Imari, I., & Syamsuri, S. (2017). Pemberdayaan Waqf Produktif sebagai Media Pembangunan Ekonomi Pesantren: Satu Analisa Mekanisme Pelaksanaanya di Pesantren Wali Songo Ngabar. *Islamic Economics Journal*, 3(1). <https://doi.org/10.21111/iej.v3i1.1381>
- Jabali, F. (2003). *IAIN dan modernisasi Islam di Indonesia* (Jamhari, Ed.). UIN Jakarta Press.
- James H. McMillan. (2001). *Research in Education: A Conceptual Introduction*. Longman.
- Jamhari. (2009). New Trend of Islamic Education in Indonesia. *Studia Islamika*, 16(2).
- Khoirudin, A. (2017). Sains Islam Berbasis Nalar Ayat-ayat Semesta. *At-Ta'dib*, 12(1), 195. <https://doi.org/10.21111/at-tadib.v12i1.883>
- Khusna, A. M., & Sari, A. I. (2018). Pembelajaran Integratif Sains dan Al-Quran Revitalisasi Nilai Ajaran Islam dan Pembentukan Karakter di Trensains Senior High School Sragen. *Jurnal Iqra': Kajian Ilmu Pendidikan*, 3(1), 56–84. <https://doi.org/10.25217/ji.v3i1.202>
- Komariah, N. (2017). Pondok Pesantren Sebagai Role Model Pendidikan Berbasis Full Day School. *HIKMAH: Jurnal Pendidikan Islam*, 5(2), Article 2. <https://doi.org/10.55403/hikmah.v5i2.30>
- Krause, N. (2003). Religious Meaning and Subjective Well-Being in Late Life. *The Journals of Gerontology: Series B*, 58(3), S160–S170. <https://doi.org/10.1093/geronb/58.3.S160>
- Li, G., Hou, Y., & Wu, A. (2017). Fourth Industrial Revolution: Technological drivers, impacts and coping methods. *Chinese Geographical Science*, 27(4), 626–637. <https://doi.org/10.1007/s11769-017-0890-x>
- Liu, Z., Guo, Q., Sun, P., Wang, Z., & Wu, R. (2018). Does Religion Hinder Creativity? A National Level Study on the Roles of Religiosity and Different Denominations. *Frontiers in Psychology*, 9. <https://www.frontiersin.org/articles/10.3389/fpsyg.2018.01912>
- M. Falikul Isbah. (2020). Pesantren in the Changing Indonesian Context: History and Current Developments. *Qudus International Journal of Islamic Studies (QIJIS)*, 8(1).
- Ma'arif, S. (2018). Education as a Foundation of Humanity: Learning from the Pedagogy of Pesantren in Indonesia. *Journal of Social Studies Education Research*, 9(2), 104–123.
- Maksudin. (2018). Integration of School and Pesantren Educational System as a Model of Character Education: Perspective of Educational Transformation. *Sunan Kalijaga International Journal on Islamic Educational Research (SKIJIER)*, 2(2).
- Martin van Bruinessen. (2012). *Kitab Kuning, Pesantren dan Tarekat* (Cetakan I). Gading Publishing.
- McClendon, D., Hackett, C., Potančoková, M., Stonawski, M., & Skirbekk, V. (2018). Women's Education in the Muslim World. *Population and Development Review*, 44(2), 311–342.
- Muhammad Syahrur. (2007). *Rasia Umur, Rizki, dan Amal: Sebuah Kajian Epistemologi Islam*. Penerbit Nuansa.
- Nudin, B. (2020). Konsep Pendidikan Islam Pada Remaja di Era Disrupsi Dalam Mengatasi Krisis Moral. *LITERASI (Jurnal Ilmu Pendidikan)*, 11(1), Article 1. [https://doi.org/10.21927/literasi.2020.11\(1\).63-74](https://doi.org/10.21927/literasi.2020.11(1).63-74)
- Nurlena Rifai. (2006). *The Emergence of Elite Islamic Schools in Contemporary Indonesia: A Case Study of Al Azhar Islamic School*. McGill University.
- Purwanto, A. (2008). *Ayat-ayat Semesta*. PT Mizan Publika.
- Purwanto, A. (2010). *Pintar Membaca Arab Gundul Dengan Metode Hikari*. Mizan Pustaka.

- Purwanto, A. (2015). Nalar Ayat-Ayat Semesta [Reasoning of the Verses of the Universe]: Menjadikan Al-Quran sebagai Basis Konstruksi Ilmu Pengetahuan. Mizan.
- Reuben Bihu. (2020). Using Unstructured Interviews in Educational and Social Science Research: The Process, Opportunity and Difficulty. *Global Scientific Journals*, 8(10), 712–721.
- Robert W. Hefner dan Muhammad Qosim Zaman (Ed.). (2007). *Schooling Islam: Culture and Politics of Modern Muslim Education*. Princeton University Press.
- Robert W. Hefner (Ed.). (2009). Making modern Muslims: The politics of Islamic education in Southeast Asia. University of Hawai'i Press.
- Roqib, M. (2021). Increasing social class through Islamic boarding schools in Indonesia. *Journal of Social Studies Education Research*, 12(2), 305–329. Scopus.
- Sarkissian, A. (2012). Religion and Civic Engagement in Muslim Countries. *Journal for the Scientific Study of Religion*, 51(4), 607–622. <https://doi.org/10.1111/j.1468-5906.2012.01677.x>
- Savran Billahi & Idris Thaha. (2018). Bangkitnya Kelas Menengah Santri: Modernisasi Pesantren di Indonesia. Prenadamedia Group.
- Sayeh Meisami. (2012). Classical Foundations of Islamic Educational Thought: A Compendium of English-Arabic Texts. *American Journal of Islam and Society*, 29(1), 140–142. <https://doi.org/10.35632/ajis.v29i1.1217>
- Shalihin, R. R., Bahriya, F., & Wantini, W. (2019). The Implementation of Qauniyah Verses Based on Unification Curriculum in Trensains Senior High School. *J-MPI (Jurnal Manajemen Pendidikan Islam)*, 4(2), Article 2. <https://doi.org/10.18860/jmpi.v4i2.8274>
- Shiraz Thobani. (2007). The Dilemma of Islam as School Knowledge in Muslim Education. *Asia Pacific Journal of Education*, 27(1), 11–25.
- Sholihul Hadi, Y., Dr. Tjipto Subadi, M. S., & Dr. Maryadi, M. A. (2018). *Manajemen Program Kegiatan Santri Dalam Rangka Penanaman Nilai-Nilai Karakter Di Sragen Muhammadiyah Trensains Senior High School* [S2, Universitas Muhammadiyah Surakarta]. <http://eprints.ums.ac.id/59411/>
- Suyatno. (2013). SEKOLAH ISLAM TERPADU; Filsafat, Ideologi, dan Tren Baru Pendidikan Islam di Indonesia. *Jurnal Pendidikan Islam*, 2(2), 355–378.
- Syed Muhd Khairudin Aljunied & Dayang Istiaisyah Hussin. (2005). Estranged from the Ideal Past: Historical Evolution of Madrassahs in Singapore. *Journal of Muslim Minority Affairs*, 5(2).
- Yusuf, M., Naro, W., & Wekke, I. S. (2021). Pesantren Darul Huffadh Tuju-Tuju Indonesia: Model of Teaching and Learning in Social Environment. 684–693. Scopus.
- Zulfikar, A. S., Roesminingsih, M. V., & Soedjarwo. (2023). Policies Implementation By Pesantren Effective Schools To Achieve Excellence In Morality And General Sciences: A Case From Indonesia. *Res Militaris*, 13(1), 191–203. Scopus.