The Integrated Pathway: A Novel Educational Model for Islamic Boarding Schools in Indonesia

Maisyatus Suadaa Irfana[1], Indrianawati Usman[2], Nuri Herachwati[3]

Abstract

This study aims to investigate Islamic boarding school or pesantren education in Indonesia comprehensively. The dataset was generated from the Scopus database and Google Scholar using the keywords "Pesantren" and "education". There were 24 papers reviewed in the research. The research findings show that the character values instilled in Islamic boarding school education in Indonesia include promoting tolerance and egalitarianism, sharing mutual respect, mutual love, hard work, politeness, and nobility, and many more. Another finding discovers many pesantren education approaches clustered into excellent approaches, human approach, environmentally based education, culturally based learning, technology-based, Modern-traditional approach, Self-regulated learning, school education, pesantren education, and role modelling. Furthermore, the critical finding is a proposed new model of pesantren education, namely the pesantren education transformation model, that combines all education approaches. The transformation model integrates local wisdom, global, knowledge and skills. The theoretical contribution of this research is that a new model has been produced and is a refinement of the existing Islamic boarding school education model. This educational transformation model can provide a new discourse regarding Islamic boarding school education development. The practical contribution of this research is that the Islamic boarding school education model can be implemented in various Islamic boarding schools by considering local wisdom and the values held by each Islamic boarding school.

Keywords: *Pesantren, Islamic boarding school, Pesantren education, Developing countries, Pesantren education model.*

Introduction

Pesantren education in Indonesia, emerged in the 1600s and is Indonesia's oldest indigenous educational institution. Until now, Islamic boarding schools have been recorded as having produced national figures who have contributed to Indonesia. Even though educational institutions are still considered very simple, Islamic boarding school leaders are appreciated by both community and community around the pesantren exist, due to the Islamic boarding school leaders have knowledge with the value of essential truth. According to 2022 data, the number of pesantren in Indonesia is 30,494, and more than 3.6 million students (Satudata www.kemenag.go.id, 2023). Until now, pesantren education is still an exciting topic to discuss. This is because Islamic boarding schools have a relatively old educational history, prioritize traditional values, and can survive in

---

[1] Fakultas Ekonomi dan Bisnis, Universitas Airlangga, fanamoet@gmail.com
[2] Fakultas Ekonomi dan Bisnis, Universitas Airlangga, indrianawati-u@feb.unair.ac.id
[3] Fakultas Ekonomi dan Bisnis, Universitas Airlangga, nuri-h@feb.unair.ac.id

the era of globalisation. Many educational changes in Islamic boarding schools have been implemented by various Islamic boarding schools in Indonesia for various reasons, one of which is so that they can contribute to the modern world.

One of the characteristics of an Islamic boarding school is its strong religious values, the presence of a kyai, the company of a mosque, explicit scientific references, and boarding facilities (Ramadhani, 2022). The education system in Islamic boarding schools is also unique, emphasizing close relationships between teachers and students, lecture methods, discussions, memorization, and demonstrations. Islamic boarding schools help color the nation's education with an education system under the Directorate General of Islamic Education. However, many Islamic boarding schools have begun to package their education into Islamic boarding schools, where the leadership of the Islamic boarding school is held by many people (waqaf), incorporating the curriculum of national schools and madrasas and adopting e-learning technology to support the learning process.

Several studies have been conducted regarding Islamic boarding school education, namely Islamic boarding school education with a kyai perspective (Umayah et al., 2021), the Heutagogy approach in Salaf Islamic boarding schools (Khoeriyah, 2019), the application of Islamic law in Islamic boarding schools (Yaqin et al., 2021), the role of Islamic boarding schools in maintaining good character (Islam & Aziz, 2020), management strategies in Islamic boarding school education (Ritonga, 2020), education system in Salaf Islamic boarding schools (Azizah, 2020), character education in Islamic boarding schools (Putro & Suryono, 2019). From the results of this research, Islamic boarding school education is very complex because it combines the breadth of religious knowledge and social values. So, Islamic boarding school education must be able to present this in its educational process. From these results, there are also research results that show negative things about Islamic boarding schools; for example, Islamic boarding schools spread radicalism and terrorism (Akbar et al, 2018; Hanifah et al, 2023; Fahmi & Aswina, 2022). The stigma and negative views given by some people show that they do not fully understand the philosophy of learning in Islamic boarding schools.

Furthermore, several systematic review studies on Islamic boarding schools were also carried out by several researchers, including regarding the happiness of Islamic boarding school students (Muliadi & Hidayat, 2022), character education in Islamic boarding schools (Hadi & Muhid, 2022), leadership models in Islamic boarding schools (Kurniawan & Muslihah, 2022), humanistic Islamic boarding school (Puspitarini & Degeng, 2023), the adaptation process in the Islamic boarding school environment (Sakinah, 2021), and the method of learning to read the yellow book (Arif et al., 2022). The literature review studies mostly took partial aspects of Islamic boarding schools. There still needs to be a literature review that discusses Islamic boarding school education holistically. Looking at the complexity of Islamic boarding school education will provide a complete picture of the educational process in Islamic boarding schools, starting from the curriculum used, learning strategies, and the outcomes produced. In this way, the contribution to the education results carried out by Islamic boarding schools will be seen. It can be used as best practice for similar educational institutions that want to combine religious values, knowledge, and social character. Considering the background above, the researcher wants to investigate Islamic boarding school education in Indonesia comprehensively.

Literature review

Pesantren or Islamic boarding schools

Islamic boarding schools or Pesantren are one type of Islamic educational institution in Indonesia, as explained in Law of the Republic of Indonesia Number 18 of 2019 concerning Islamic Boarding Schools. Islamic boarding schools are institutions founded

by foundations, individuals, Islamic social organizations, or communities, with a focus on building devotion and faith in Allah SWT, emphasizing good morals, and respect for high morals. The concept of Rahmatan Lil'alamin's Islamic religious teachings is reflected in the attitude, balance, tolerance, moderation and noble values of the Indonesian nation, which are conveyed through example, Islamic preaching, education and community empowerment, all of this is carried out within the framework of the Unitary State of the Republic of Indonesia. Pesantren is a place where educational values and role models always undergo transformation from a Kyai to his students, according to research by Fauzi (2020). There are three main roles attached to Pesantren, namely maintaining Islamic traditions, training prospective ulama, and functioning as educational institutions that teach Islamic religious teachings, as revealed in research by Zulmuqim et al. (2020). Islamic education in Pesantren to guide students so they can live a life in accordance with Islamic teachings and provide learning materials that are rooted in Islamic religious studies, as summarized in research by Fatimah (2019).

Pesantren have special characteristics that differentiate them from traditional Islamic educational institutions, thereby separating them from modern education which later developed into Madrasas or Islamic schools (Rohman, 2022). There are five main elements in the education system in Pesantren, namely a) There is a cleric who acts as a central figure, caregiver and teacher known as "Kyai", b) The place to pursue knowledge is the mosque, c) The educational curriculum is based on the books the classical Islamic book which is often referred to as the Yellow Book, d) There are dormitory facilities for students, and e) In Pesantren, students are generally referred to as Santri (Pribadi, 2013).

Types of boarding schools

There are three variants of Islamic boarding school or Pesantren that can be identified, namely Pesantren Salafiyah (traditional Islamic boarding school), Pesantren Khalafiyah Islamic (modern Islamic boarding school), and Pesantren semi-modern which is a combination of Pesantren Salafiyah and Pesantren Khalafiyah (Illaihi, 2019). Pesantren Salafiyah are a type of Pesantren that follows the traditional Islamic boarding school education pattern. In its curriculum, Pesantren Salafiyah only teach classical books and still maintain the old traditions of Pesantren (Kamirullah et al., 2023). On the other hand, the Pesantren Khalafiyah is an Islamic boarding school that has adopted a modern approach in their education by using a curriculum that combines elements of school and Islamic boarding school curricula (Ekaningrum et al., 2018). In the Khalafiyah Islamic boarding school curriculum, the development process begins with brainstorming with stakeholders, determining competency material, determining competencies for each meeting, and the results of the integrated learning curriculum. Meanwhile, Pesantren semi-modern are Islamic boarding schools that combine elements from traditional Islamic boarding schools and modern Islamic boarding schools. This type of Pesantren is sought after by the community because it is able to adapt to current developments without sacrificing Islamic values (Mashuri et al., 2023).

Education / educational material at Pesantren

Islamic boarding schools or Pesantren have three main characteristics, which include curriculum, institutional structure, and learning systems and models (Zulmuqim et al., 2020). From an institutional structure perspective, Pesantren are under the auspices of a foundation. However, the process of forming cadres and leadership is still closely related to the founding family of the Pesantren. The learning system and curriculum are the result of an integration of the classical Islamic boarding school curriculum, state school curriculum, and modern Islamic school curriculum. This curriculum has a very important role in achieving the goals of Islamic education because it functions as a guide in implementing the Islamic education process (Wargadinata et al., 2019). One of the educational figures who is trying to modernize the education system in Pesantren is Imam Zarkasyi. In his efforts to modernize the Pesantren curriculum, Imam Zarkasyi integrated

various types of education, including non-formal, formal and informal education, by utilizing the resources available at the Islamic boarding school. This means that students are not only given knowledge about religion and general knowledge, but also receive education in terms of mental aspects, morality, work skills and other values (Zarkasyi, 2020).

The learning system in Indonesian Pesantren recognizes two approaches, namely Sorongan and Bandongan (Rohman, 2022). Sorongan is a learning method that uses a traditional Islamic approach by studying classical Arabic books which are often referred to as the Yellow Book. On the other hand, Bandongan is a learning approach where the teacher reads text from the yellow book, translates the words, and then explains the meaning to students. After that, students record the explanation in their notebooks (Nurtawab, 2019). The philosophical foundation underlying these two approaches is the constructivism approach, which emphasizes that learning does not only involve memorization but also involves the process of constructing and building new knowledge through experiences and experienced phenomena (Jailani & Perawironegoro, 2022).

Method

Search Strategy and String

This study uses the systematic literature review (SLR) with the PRISMA 2019 protocol. The dataset was obtained from the Scopus and Google Scholar databases. Scopus was chosen because Scopus is a leading indexing database covering various fields of study, such as religion, Islam, and Islamic education (pesantren) that are published in many journals. The supporting data was gathered from the Google Scholar search engine. We use hand-picking techniques to identify the suitable articles for this study. Not many studies related to pesantren education are available or indexed by Scopus. Some scholars published their works in national journals or international non-Scopus-indexed journals. The search was in September 2023, using the keywords 'pesantren education' and 'Islamic boarding school'. The paper timeframe was from 2016 to 2023-, or 8-year period. The search results obtained 152 documents from the Scopus database and 14 from Google Scholar, so there were 166 titles (Figure 1). Using keywords is straightforward because pesantren is a unique term used to describe Islamic boarding schools. So, in many papers that discuss Islamic boarding school education, they also use pesantren. This term is well known in Indonesia since pesantren is one of oldest Islamic education institutions in Indonesia that emerged since the 16 centuries.
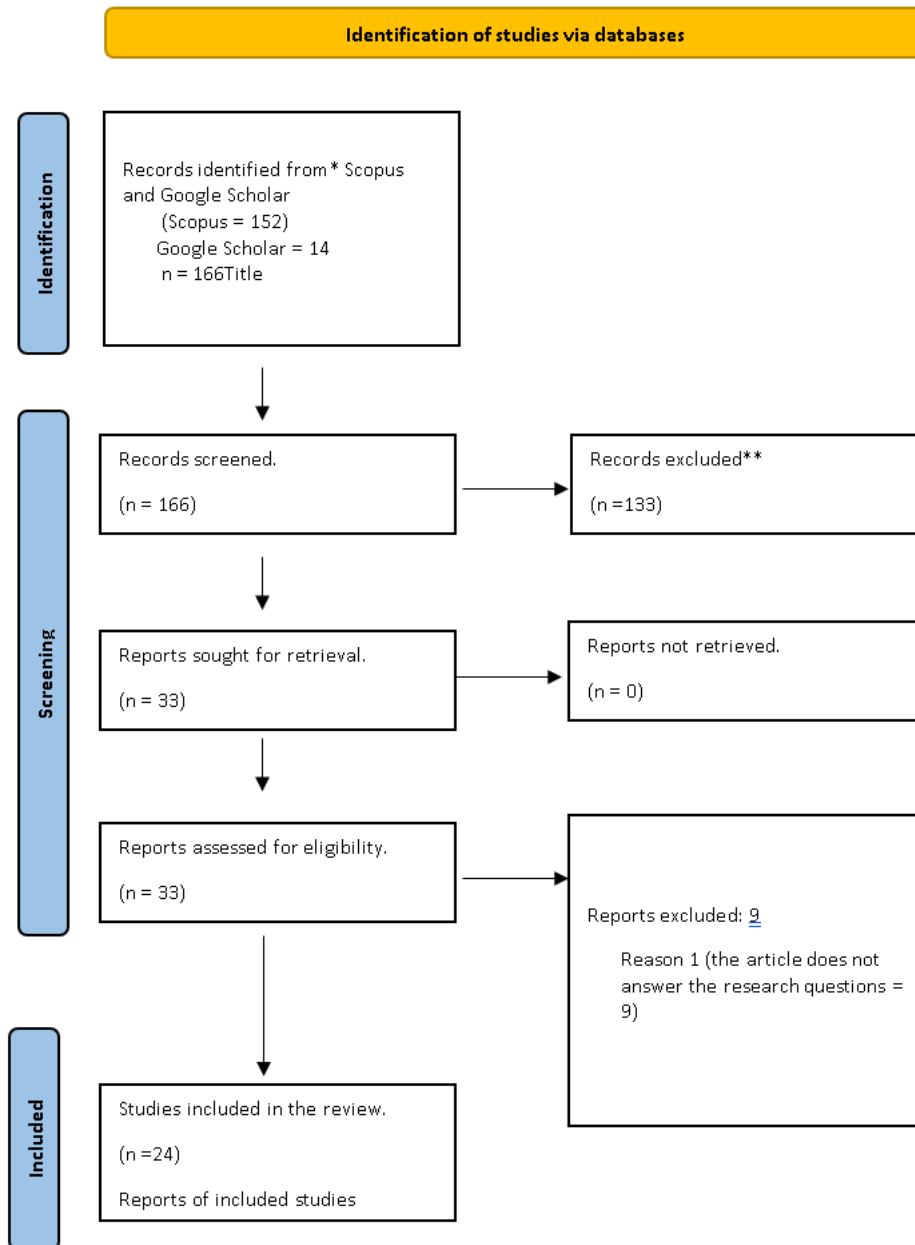
Figure 1. Manuscript Search Flow using PRISMA protocol.

Source: Page MJ, et al. (2020)
Scopus search string
TITLE-ABS-KEY (education AND pesantren). The article is limited to 'article' within time period 2016 to 2023, limited to subject area on 'social sciences', limited to language 'English language'

Google Scholar Keywords

"pesantren education" Time constrain 2016-2023

Figure 2. Search String on Scopus and Google Scholar

Data Extracting, Inclusion and exclusion, and Processing

The data extraction obtained a total of 166 titles. Furthermore, the researchers screened a title and abstract related to pesantren education, curriculum, and the value they taught. Thirty-three article titles are eligible to get the full text. The full-text search found 33 titles. The results of the inspection article left 24 titles, and nine titles were dropped because they did not meet or did not answer all the research questions. (Figure 1).

Then, the data inclusion criteria are limited to only document types of articles and use English language and original articles in the time range from 2016 to 2023. The subject limitation is from social science and management. We exclude article reviews and book chapters, articles in the press stage, and education subjects because we only focus on real case studies, research, and the experience of pesantren education systems.

In addition, the full-text papers are analyzed using MS Excel in the sharing document mode. In this process, a review of the article is carried out. First, apply codes to all papers based on the research questions, such as what the type of pesantren are, what educational approach they use, and the challenges. After coding, the codes are analyzed by grouping by category to get a theme or topic.

Risk of Bias

To minimize bias, researchers use document sharing to inspect all the titles and abstracts. Furthermore, the review process is done gradually, starting with reviewing the title, abstract, and article contents. All are done independently in the shared document format, so all researchers will access the same document and can see other's progress. The researcher has a background in pesantren education systems, management, and human resource management. The multi-background researcher will enhance the analysis on pesantren education.

Data Finding & Analysis

The results of a review of 24 papers with the theme of pesantren education in Indonesia show that there are many research was carried out from 2018 to 2023, and the papers were generally written collaboratively. Much research on Islamic boarding school education is conducted qualitatively using case study designs. The papers detail starting from the author, title, journal name, findings and method are represented in Table 1.

Table 1. List of papers on Pesantren Education

Author, year	Title	Journal	Finding	Method
(Zulfikar, et al., 2023)	Policies Implementation By *Pesantren* Effective Schools to Achieve Excellence in Morality and General Sciences: A Case From Indonesia	Res Militaris	*Pesantren* implement integrated education systems that combine religion, science, and technology in the learning process.	Qualitative
(Tubagus, et al., 2023)	The Impact of Technology on Islamic *Pesantren* Education and the Learning Outcomes of Santri: New Trends and Possibilities	Indonesian Journal of Education	The use of technology in the *pesantren* bring positive impact to student's motivation and academic performance.	Mix Methods
(Subaidi, et al., 2023)	Eco-pesantren: Islamic Education in Forest Conservation Landscapes	Fudan Journal of the Humanities and Social Sciences	The Eco-*pesantren* model integrate religious and ecological concept, this model is influenced by strongly community involvement.	N/A
(Rohman,	Problem-Based Learning	Global Journal	*Pesantren* implement problem-based	Case Study

2022)	in Islamic Religious Education: The Case of the Indonesian Pesantren	Al-Thaqafah	learning that embedded in all learning activities	
(As'ad & Hakim, 2022)	Nurturing Life Skill Education in an Environment-Based Pesantren	Jurnal Pendidikan Islam	*Pesantren* use integrated life skills education, by combining theology teaching and the spirit of local wisdom.	Qualitative
(Burga & Damopolii, 2022)	Reinforcing Religious Moderation Through Local Culture-based Pesantren	Jurnal Pendidikan Islam	*Pesantren* is welcome to diversity and implement multicultural education to show the diversity of society and build networks.	Qualitative - phenomeno logical
(Sadiah, 2022)	Developing Pesantren Education Quality Through Radicalsm Prevention Program for Santri	Jurnal Pendidikan Islam	Some education dimensions that is used by pesantren, such as intellectual, skills, and character education.	Qualitative
(Zainal, et al., 2022)	Adopting Pesantren-Based Junior High School Programs: The Pesantren Change its Educational Systems without Conflict	Jurnal Ilmiah Islam Futura	The use of problem analysis and strategic management on the integrated pesantren in junior high school level.	Qualitative - survey
(Warsah, 2021)	Jihad and Radicalism: Epistemology of Islamic Education At Pesantren Al-Furqan in Musi Rawas District	Ilmiah Islam Futura	*Pesantren Al-Furqon* education systems use Islamic education such as teach student to behave nobly and promote peaceful life to avoid radicalism.	Qualitative
(Anggadwita, et al., 2021)	Empowering Islamic boarding schools by applying the humane entrepreneurship approach: the case of Indonesia	International Journal of Entrepreneurs Behaviour and Research	The use of humane entrepreneurship education to promote entrepreneurship that implemented on the learning process.	Qualitative.
(Kholili & Yusroful, 2021)	Challenges for Pesantren in the Revolution Era of Society 5.0	Amca Journal of Religion & Society	*Pesantren* challenges the 5.0 era in which science and technology are changing rapidly. *Pesantren* should follow those changes by the use of technology-based education system.	Qualitative
(Baharun, 2021)	Total Moral Quality: A New Approach for Character Education in Pesantren	Journal of Islamic Studies Published	The character education uses Total Moral Quality (TMQ) is adopted by *pesantren*. The concepts are moral feeling, moral knowing, and moral habituation.	Qualitative - case study
(Zulmuqim, 2020)	The Characteristics of Pesantren in the Development of Islamic Education in West Sumatra	Ulumuna	Three main characteristics of the Islamic boarding schools: institutional system, curriculum, learning system, and typology.	Qualitative
(Abidin, 2020)	Educational Management of Pesantren in Digital Era 4.0	Jurnal Pendidikan Agama Islam	The use of e-learning to support students' skills, use Yadan-Biyadin method.	Qualitative - case study
(Manshur, 2020)	Typical literary works of pesantren on righteousness teaching within cultural transformation	Journal of Social Studies Education Research	*Pesantren* use many methods to build students good characters, especially on the changing culture.	N/A
(Kawakip, 2020)	Globalization, and Islamic educational challenges: Views from east Javanese pesantren	Ulumuna	P*esantren* in East Java use technology-based learning to support their students facing the globalization.	Ethnograph ic study

(Zarkasyi, 2020)	Imam Zarkasyi's modernization of pesantren in Indonesia: (A case study of Darussalam Gontor)	Qudus International Journal of Islamic Studies	The combination of *pesantren* curriculum and *madrasyah* system in the modern *pesantren*.	The study is descriptive and explanatory research.
(Anam, et al., 2019)	The Moral Education and Internalization of Humanitarian Values in Pesantren	Journal for the Education of Gifted Young Scientists	*Pesantren* uses human approach to build humanitarian values on student by applying islamic, human right, plurarism, and tolerant.	Qualitative
(Khoeriyah, 2019)	Heutagogy in the Course of Pesantren Education (Case Study At Pesantren Salaf Al-Luqmaniyyah)	International Journal on Islamic Educational Research (SKIJIER)	The *Al-Luqmaniyyah Salaf Boarding School* implements heutagogy or self-directed learning, which means that's western oriented education systems.	Qualitative
Putro, et al., 2019)	New Tradition of Pesantren in Character Education	Journal of Physics: Conference Series	The use of pesantren based education for character building at *Baiquniyyah* Elementary School.	Qualitative
(Ritonga, et al., 2019)	Practice to the theory of learning: A lesson learned from Islamic boarding school in South Tapanuli of Indonesia	Humanities and Social Sciences Reviews	*Sorongan* and *Halaqoh* techniques is effective to build solidarity and control the student at classroom.	Qualitative
(Wargadinat, et al., 2019)	Alternative Education in the Global Era: Study of Alternative Models of Islamic Education in Tazkia International Islamic Boarding School Malang	Library Philosophy and Practice	The Islamic education model of Tazkia IIBS Malang used alternative education system, which combine school and *pesantren* education.	Qualitative
(Fauzi, et al., 2018)	E-Learning in Pesantren: Learning Transformation based on the Value of Pesantren	Journal of Physics: Conference Series	Pesantren can implement to enhance as part of transformation for learning activities.	Phenomeno logical,
Haryani, et al., 2018)	Islamic Education in Supporting De-radicalization: A Review of Islamic Education in Pondok Pesantren	Jurnal Pendidikan Islam	*Pesantren* reduce radicalism through curriculum that supports peace and tolerance.	Qualitative

Pesantren Education Approach

The research results show that many Islamic boarding school education models have been adopted. However, in general, the essence of Islamic boarding school education is character formation, such as doing good, respecting each other, working together, and loving each other. Apart from that, it also increases tolerance and avoids radicalism. Islamic boarding school education contains many morals based on Islamic values. It also teaches simple living and always being grateful, egalitarian, and with integrity.

Human Approach Education

Islamic boarding school education uses a human approach or prioritizing relationships with humans. Humanizing humans has been adopted by several Islamic boarding schools. The learning activities carried out focus on building the character and behavior of students. One of them is to behave honorably (Warsah, 2021). In this humanist learning, Islamic boarding schools also teach a lot about loving peace towards fellow humans and staying away from radical things. Get closer to the surrounding community and actively

participate in community activities so that many school activities are carried out outside (outbound). Another humanist approach is human entrepreneurship, where pesantren teach students to boost their entrepreneurial skills (Anggadwita et al., 2021). Pesantren equip students with entrepreneurial skills to empower themselves when they graduate. This humanist approach is also considered capable of providing value to students' character, including being caring towards others, friendly, affectionate, responsible, self-controlled, self-knowledgeable, and emotional in a positive way (Anam et al, 2019). Apart from that, this humane approach also often holds activities to help poor people regularly, helps the local community, and practices the values of filling life with good things, helping others, working together, and loving fellow human beings. So with this approach, it will distance students from radical and intolerant things and interpret jihad by living peacefully side by side with society. This humane approach is also very effective in building students' character to have a sense of empathy towards others.

Environmental-based education

The environmental approach is also widely adopted by pesantren in Indonesia. Paying attention to the environment, forests, agriculture, and other local wisdom is one method of education in Islamic boarding schools. The pesantren education curriculum, that based on local wisdom and the environment, always brings or combines it with education in pesantren. Such as providing agricultural-related projects, discussing agrarian and ecological issues, synergizing with local residents to build environmental conservation areas, and other agroecology-supporting activities (As'Ad & Hakim, 2022). Apart from that, environmental-based education is also carried out in forest conservation and building eco-Islamic boarding schools (Subaidi et al., 2023). Environmental-based education aims to encourage students to be aware of the environment, contribute to the development of agribusiness, and play an active role in forest and environmental conservation (Subaidi et al., 2023). Islamic boarding schools have a strong sense of attachment because one of the goals of Islamic boarding schools is to benefit the surrounding environment. Islamic boarding schools also live side by side with society and the environment. Islamic boarding schools also play an active role in environmental preservation by instilling environmental awareness at the level of education (Diavano, 2022). Apart from that, many Islamic boarding schools are built in beautiful environments such as mountains and close to village communities. So, environmental-based education is excellent if implemented by Islamic boarding schools to educate environmentally conscious students.

Cultural Approach

Cultural and ethnic diversity in Indonesia has become a common sight due to the many campaigns for pluralism and respect for freedom. Islamic boarding schools often have the image of being radical or exclusive to certain groups of society. It is proven by many Islamic boarding schools, which provide educational programs with a multicultural approach and instil in the students from an early age that when they live in society, they can meet and interact with various types of ethnicities, races, thought patterns, etc. Multicultural-based education is applied in the form of involving local culture by instilling mutual respect, mutual love, reminding each other, mutual glorification, and accepting differences openly (Burga & Damopolii, 2022). The goal that want to achieved in multicultural education is to increase tolerance and equality (egalitarianism).

Modern-Traditional Approach

It is common knowledge that currently, many pesantren still apply the traditional education system. Now, some pesantrens try to modernize the educational curriculum. Such as integrating pesantren with formal education. That could be said that the pesantren adopted the Islamic madrasah or school system and integrated it with the traditional pesantren system (Zarkasyi, 2020). Where students are not only taught general knowledge and knowledge related to religious teachings but also receive teaching related to mental moral education and work skills. Apart from that, students can live in a dormitory as their

home and also carry out the learning process in the classroom by adopting modern the teaching and learning (based on the Islamic school or madrasa system). Apart from that, Imam Zarkasyi also helped modernize institutions by converting Islamic boarding schools from private property to public property.

Furthermore, modernizing the pesantren education system so the students not only have noble morals but also have high academic abilities can be done by implementing the seven effective school correlations by Lezotte. Those are developing leadership, a clear goal or mission, a safe and well-structured environment, environment that support success, regularly support students' progress, positives home-school relationship (Zulfikar et al., 2023). These seven correlations are implemented well, involving technology. This application will balance the learning of religion-based morality with general knowledge. In transforming its traditional system, Islamic boarding schools are also influenced by global challenges, namely by developing their curriculum and leadership (Kawakip, 2020). The educational curriculum is not only limited to classic books but has also been expanded to general knowledge, such as that in the school education system. In leadership, Islamic boarding schools no longer depend only on the Kyai as leaders with full authority but also on the Kyai's family and stakeholders, namely the students' parents and alums. Modernization of the education system in Islamic boarding schools can also be done by implementing modern and traditional or Salaf strategies by following the Al-Qur'an, relevant national and international curricula (Wargadinata et al., 2019). It can be realized by holding several superior programs, such as teaching the Al-Qur'an using the Al-Muyassar method. This international curriculum is guided by the educational curriculum at Al-Azhar Egypt and Cambridge and outreach and enrichment programs used for self-development, forming self-confidence, building self-awareness, and social and social health. By modernizing the education system in Islamic boarding schools, students have good morals and high academic abilities.

Technology-Based Learning

There are several transformations in traditional Islamic boarding school education, including the use of ICT (Kholili, 2021). Technology has become an important part of the modern education as technology develops. Pesantren are no exception, where e-learning-based is transformed by delivering learning through online (Fauzi et al., 2018). Integrating technology into the education system in pesantren helps modernize the education, which previously used the traditional education system. So, learning by utilizing technology becomes a relevant medium when used especially on the information age. E-learning-based system can be form of web courses, web-centric courses, and web enhancement courses, which can increase student knowledge and quality (Fauzi et al., 2018). Utilizing technology in the education system at pesantren, such as Sanad and Matan, which includes hadith and asbabun nuzul, as well as the the science of tafsir, will help solve problems based on the rules of law and help in studying Istidlal (exploring the science of propositions) (Kholil, 2021). Another method of e-learning is Yadan-Biyadin, namely the process of knowledge transfer through e-learning with guidance, where teachers or educators in Islamic boarding schools select several students who can understand quickly and accurately, then students who have received intensive guidance. It can convey knowledge that has been understood by other students (Abidin et al., 2020). It can improve students' skills, where with information and communication technology skills, students from Islamic boarding school graduates will be able to compete in facing challenges in the modern era. Apart from that, utilizing technology will provide an interactive and exciting learning experience and can also increase the teaching and learning quality (Tubagus et al., 2023).

Self-Regulated Learning

The Heutagogy learning method is interpreted as a learning method that involves discussion and creativity learning, or also called self-regulated learning. One Islamic

boarding school has implemented this learning method, namely the Al-Luqmaniyyah Salaf Islamic Boarding School (Khoeriyah, 2019). Students' learning resources are not only limited to the Yellow Book but can also be accessed via the internet, online books, and applications with trusted sources; however, with the Yellow Book, students can determine study materials and find solutions to their problems. Islamic boarding school managers have the responsibility to manage the interests and talents of the students, as well as train the students' skills by making recordings of films, making advertisements, writing, and creating exciting content on social media. Using the Heutagogy learning method, it will produce a mutualistic symbiosis between students and the community as a form of trust from the community towards the Islamic boarding school. This learning system has also transformed into technological developments, where students participate in calling for Nahi Munkar and Amar Ma'ruf via the internet.

School education

The application of problem-based learning in pesantren can be done through discussion of problems, where the problems to be discussed are not prepared by the teacher so that students can choose the problems to be discussed and understand classical Islamic texts. Apart from that, problem-based learning at Islamic boarding schools can also give autonomy and responsibility to students to carry out the learning process independently (Rohman, Fathur, 2022). The learning system at Pesantren also refers to the concept of complete learning, where pesantren that use the concept of complete learning requires students to complete their studies in stages starting from the lowest, medium and high levels, then for each topic that is completed, the next session will hold discussions, QnA, consolidation. and the enlightenment of Zulmuqim; Zainimal; Kustati M.; Besral; Refinaldi, 2020).

Pesantren Education

Education in Islamic boarding schools or pesantren is an education system focusing on Islamic religious education. There are many models and methods used to develop education for students in pesantren, such as the Salaf education model, which is implemented to develop teaching and education in Islamic boarding schools. Apart from that, the application of this model also aims to create a generation of Islamic preachers and teachers to the curriculum will prioritize politeness and stay away from radicalism (Haryani, Tiyas, et a. 2018). Apart from that, education in pesantren also uses the Sorongan method, which is a circle forum technique, and the halaqah method, which is a group discussion technique. According to Ritonga, Tamin, et al. 2019), The Sorongan method is applied in Islamic boarding schools because it is considered effective in educating students to be more active. This is because, in this method, students interact directly with individual Kyai and teachers. So that teachers and Kyai can understand students' understanding well. This method can also be applied in formal schools, where teachers can supervise, assess and guide students more intensely in understanding learning material. Apart from the Sorongan method, the Halaqah Method is also used in pesantren, where this method is based on group work with guidance from the instructor. The halaqah technique requires the teacher to sit before the students while discussing the taught books. The students sat around the kyai and listened to explanations about the books. This method is applied to expand students' knowledge and provide a theoretical basis for democratic learning models that can be applied in formal schools' learning contexts.

Role Modeling Approach

According to Sadiah, Dewi (2022), the habituation method is carried out by presenting a series of good examples from the kiai to the students through transactional communication that occurs both inside and outside the classroom. This modeling approach does not only include conveying ideas but also internalizing these values in everyday life. The material and ideas presented are not only intended to be informed but

also to be applied in practice. This exemplary approach emphasizes the role of the kiai as the main figure for the students, who make them role models in developing noble morals. This starts from their daily behaviour, words, attitudes and worship. Apart from that, another approach applied in Pesantren is the Kyai-based approach. In this approach, kiai or leaders at Pesantren not only teach religion but also encourage students to contribute to advancing the world through various skills, both academic and non-academic, acquired during the education process. Apart from that, the role of kiai is very important as unique leaders in carrying out education because they often tell unique stories and provide life examples taken from the yellow book, nahwu, and sharaf. The contents of these stories describe how humans should live their lives according to God's teachings and stay away from His prohibitions (Manshur, Fadlil M. 2020).

Islamic boarding school education transformation model

From the results of data findings and analysis of Islamic boarding school education in Indonesia, the researchers then proposed a transformation model for Islamic boarding school education that combines three aspects, namely local wisdom, knowledge and skills, and global (Figure 3). The essence of Islamic boarding school education remains the main goal in this transformation, namely building character values such as politeness, mutual respect, mutual love, reminding each other, tolerance, recognizing differences, working hard, and living simply. These are some examples of values that want to be built through Islamic boarding school education. However, this character still upholds local wisdom, has broad knowledge and skills, has a global vision and is literate in information technology. The use of the model cannot be applied directly to all. However, Islamic boarding schools can combine many learning methods according to the abilities and values held by the Islamic boarding school.

Figure 3. Model of Pesantren Education Transformation

Discussion

Pesantren is very varied. Judging from the trend of Islamic boarding school education, many of them combine Islamic boarding school (salaf) education, with madrasah, and schools. Pesantren receive information technology-based learning such as e-learning and heutagogy. Islamic boarding school with cultural, environmental, and humanist-based education. These educational approaches are very good, and each Islamic boarding school has a different strategy for developing its education to achieve the desired output. The research results provide a new alternative to Islamic boarding school education that combines local wisdom with global values and still has useful knowledge and skills for students.

Local wisdom

Pesantren is based on local wisdom using several approaches such as the human approach, environmental learning, and culture. These three approaches emphasize humanism or humanizing humans, interaction with local communities, and upholding the values of mutual respect, love and peace. Likewise with the environment, where Islamic boarding schools have a close connection with the environment in which they are located, together with the community they participate in preserving the environment and have a sense of awareness of environmental sustainability and sustainability. Coupled with a high sense of tolerance towards different cultures of society.

Knowledge & Skills

Students who study at Islamic boarding schools not only learn religious and social knowledge but master all the knowledge and skills that can be used to support life after leaving Islamic boarding school. This knowledge can be about entrepreneurship, the Yellow Book, the Koran, Islamic religion, science, technology, etc. In building skills, you can combine Islamic boarding school education and school education, as well as look for strong role models, for example, Kyai.

Global

Lastly, Islamic boarding schools do not only live for the moment but are also able to make an active contribution to the global world. Islamic boarding schools can provide learning using information technology and build international connections. The use of e-learning to support learning, the use of artificial intelligence, and useful applications, can increase students' self-confidence. Likewise, using a foreign language in the learning process. In the global era, independent learning is also essential, where students must be able to search for learning media and apply learning results independently.

Conclusion

The research findings are a model of transformation of Islamic boarding school education in Indonesia, which aims to build character values. The model offered is a visualization of many Islamic boarding school education methods in Indonesia which combine local wisdom (multicultural learning, human approach, and environmental-based education), combined with a global approach (modern traditional approach, technology-based learning, and self-regulated learning), as well as mastery of knowledge and skills (school education, Islamic boarding school education, and role modelling). Transformation of Islamic boarding school education is a new educational method that can be implemented in Islamic boarding schools. The theoretical contribution of this research is that a new model has been produced and is a refinement of the existing Islamic boarding school education model. This educational transformation model can provide a new discourse regarding Islamic boarding school education development. The practical contribution of this research is that the Islamic boarding school education model can be implemented in various Islamic boarding schools by considering local wisdom and the values held by each Islamic boarding school. Limitation of the study, this study uses the Scopus and Google Scholar databases to find research articles about Islamic boarding school education. In contrast, many articles about Islamic boarding school education are published in national journals, conferences, or books. So, the results obtained are also limited. In the future, comprehensive research can be carried out involving many sources of information to obtain comprehensive data.

References

Abidin, Z. (2020). Educational Management of Pesantren in Digital Era 4.0. Jurnal Pendidikan Agama Islam, 17(2),

Akbar, M. H., Hasbullah, M., Jaenudin, J., & Sulasman, S. (2018). The Reaction of Pesantren Al Mukmin to Radicalism and Terrorism.

Anam, S., Degeng, I., Murtadho, N., & Kuswandi, D. (2019). The Moral Education and Internalization of Humanitarian Values in" Pesantren". Online Submission, 7(4), 815-834.

Anggadwita, G., Dana, L. P., Ramadani, V., & Ramadan, R. Y. (2021). Empowering Islamic boarding schools by applying the humane entrepreneurship approach: the case of Indonesia. International Journal of Entrepreneurial Behavior & Research, 27(6), 1580-1604.

Arif, M., Harun, M., & bin Abd Aziz, M. K. N. (2022). A Systematic Review Trend of Learning Methods for Reading the Kitab Kuning at Pesantren (2000-2022). Journal of Islamic Civilization, 4(2), 146-164.

As' ad, M., & Hakim, L. (2022). Nurturing life skill education in an environment-based pesantren. Jurnal Pendidikan Islam, 8(1), 15-24.

Azizah, L. (2020). Portraits of Religious Moderation in the Salaf Pesantren Education System in Indonesia. Jurnal Pendidikan Islam, 10(1), 19-33.

Baharun, H. (2021). Total moral quality: a new approach for character education in pesantren. Ulumuna, 21(1), 57-80.

Burga, M. A., & Damopolii, M. (2022). Reinforcing religious moderation through local culture-based Pesantren. Jurnal Pendidikan Islam, 8(2), 145-162.

Diavano, A. (2022). Program Eco-Pesantren Berbasis Kemitraan Sebagai Upaya Memasyarakatkan Isu-Isu Lingkungan Melalui Pendidikan. Jurnal Litbang Sukowati: Media Penelitian dan Pengembangan, 5(2), 113-125.

Ekaningrum, I. R., Widodo, J., Wasino, W., & Sugiyo, S. (2018). Development of Curriculum Management Model Based on Multicultural Character in Pesantren Khalafiyah. The Journal of Educational Development, 6(1), 123-131.

Fachmi, T., Latifa, R., Syahid, A. H., & Rachmadtullah, R. (2019). School engagement predictors for Indonesian Islamic students. Universal Journal of Educational Research.

Fahmi, R., Aswirna, P., Fahmi, F. A., & Fahmi, D. M. (2022). STIGMATIZATION RADICAL OF PESANTREN AND PUBLIC ACCEPTANCE OF ISLAMIC BOARDING SCHOOLS IN WEST SUMATRA. In Proceedings of International Conference on Islamic Education (ICIED) (pp. 659-668).

Fatimah, M. (2019). Concept of Islamic education curriculum: A study on moral education in Muhammadiyah Boarding School, Klaten. Didaktika Religia, 6(2), 191-208.

Fauzi, A., Baharun, H., Mundiri, A., & Manshur, U. (2018, November). E-Learning in pesantren: Learning transformation based on the value of pesantren. In Journal of Physics: Conference Series (Vol. 1114, No. 1, p. 012062). IOP Publishing.

Fauzi, M. (2020). An Islamic Boarding Schools as Means of Regeneration In The Development of Da'wah. Ilomata International Journal of Social Science, 1(3), 149-157.

Habibi, A., Mukminin, A., Najwan, J., Sofwan, M., Haswindy, S., Marzulina, L., ... & Harto, K. (2018). Investigating EFL classroom management in pesantren: A case study. The Qualitative Report, 23(9), 2105-2123.

Hadi, M. S., & Muhid, A. (2022). VALUE OF CHARACTER EDUCATION IN THE LEARNING OF THE BALAGHAH BOOK IN ISLAMIC BOARDING SCHOOL: LITERATURE REVIEW. Risalah, Jurnal Pendidikan Dan Studi Islam, 8(1), 35–51. https://doi.org/10.31943/jurnal_risalah.v8i1.215

Hanifah, F., Subando, J., & Fatchurrohman, M. (2023). Dampak Stereotip pada Alumni Pondok Pesantren Islam Al Mukmin Ngruki terhadap Isu-isu Terorisme. Pawarta: Journal of Communication and Da'wah, 1(1), 24-32.

Haryani, T. N., Amin, M. I., Arifah, N. H., & Husna, A. M. (2018). Islamic education in supporting de-radicalization: A review of Islamic education in pondok pesantren. Nadwa: Jurnal Pendidikan Islam, 12(2), 259-272.

Indonesia. 2019. Undang - Undang Nomor 18 Tahun 2019 tentang Pesantren. Jakarta: Sekretariat Negara.

Islam, M. H., & Aziz, A. (2020). Transformation of pesantren in maintaining good character. HUMANISTIKA: Jurnal Keislaman, 6(1), 35-48.

Jailani, M., Perawironegoro, D., & Yoyo, Y. (2022). The Reality of Arabic Language Learning at the SMA/SMK and Pondok Pesantren Level: Implications on Arabic Language Education in the Era of Covid-19.. Jurnal Shaut Al-Arabiyah, 10(2).

Kawakip, A. N. (2020). Globalization and Islamic Educational Challenges: Views from East Javanese Pesantren. Ulumuna, 24(1), 105-131.

Kementerian Agama. (2022). Jumlah Pondok Pesantren, Guru, dan Santri Menurut Provinsi. Diakses pada tanggal 29 September 2023, pukul 16.30 melalui website Satu Data Kementerian Agama Republik Indonesia.https://satudata.kemenag.go.id/dataset/detail/jumlah-pondok-pesantren,-guru,-dan-santri-menurut-provinsi

Khoeriyah, M. (2019). Heutagogy in the Course of Pesantren Education (Case Study At Pesantren Salaf Al-Luqmaniyyah). Sunan Kalijaga International Journal on Islamic Educational Research, 3(1), 66-79.

Kholili, Y. (2021). Challenges for pesantren in the revolution era of society 5.0. AMCA Journal of Religion and Society, 1(1), 8-12.

Kurniawan, I., Muslihah, E., Syarifudin, E., & Supardi, S. (2022). Kyai's leadership model in Islamic educational institutions Pondok Pesantren: A literature study. International Journal of Graduate of Islamic Education, 3(2), 302-314.

Manshur, F. (2020). Typical literary works of pesantren on righteousness teaching within cultural transformation. Journal of Social Studies Education Research, 11(4), 114-148.

Mashuri, I., Faishol, R., Nasrodin, N., & Fauzi, A. (2023). Gaya Kepemimpinan Kiai dalam Membangun Sinergitas Pesantren. ABDI KAMI: Jurnal Pengabdian Kepada Masyarakat, 6(1), 126-139.

Muliadi, R., & Hidayat, B. (2022). A SYSTEMATIC LITERATURE REVIEW: HAPPINESS OF SANTRI IN PESANTREN. Psikis: Jurnal Psikologi Islami, 8(1), 63-76.

Nurtawab, E. (2019). The Decline of Traditional Learning Methods in Changing Indonesia: Trends of Bandongan-Kitāb Readings in Pesantrens. Studia Islamika, 26(3).

Pribadi, Y. (2013). Religious networks in Madura: pesantren, Nahdlatul Ulama, and kiai as the core of santri culture. Al-Jami'ah: Journal of Islamic Studies, 51(1), 1-32.

Puspitarini, D., Degeng, I., Praherdhiono, H., & Suryati, N. (2023). Humanistic Pesantren: Systematic Literature Review and Bibliometric Visualization Analysis on Character, Moral, and Ethical Values. Pertanika Journal of Social Sciences & Humanities, 31(2).

Putro, A. A. Y., & Suryono, Y. (2019, November). New tradition of pesantren in character education. In Journal of Physics: Conference Series (Vol. 1254, No. 1, p. 012002). IOP Publishing.

Ramadhani. (2022). Pesantren: Dulu, Kini, dan Mendatang. Diakses pada tanggal tanggal 29 September 2023, pukul 16.45 melalui website Kementerian Agama Republik Indonesia https://kemenag.go.id/opini/pesantren-dulu-kini-dan-mendatang-ft7l9d

Ritonga, M. (2020). Internet, pesantren and management strategies educational building. Pesantren and Management Strategies Educational Building (April 1, 2020).

Ritonga, T., Ananda, A., Lanin, D., & Hasan, H. (2019). Practice to theory of learning: A lesson learned from islamic boarding school in South Tapanuli of Indonesia. Humanities & Social Sciences Reviews, 7(5), 1304-1310.

Rohman, F. (2022). Problem Based Learning in Islamic Religious Education: The Case of the Indonesian Pesantren. Global Journal Al-Thaqafah, 12(1), 82-97.

Sadiah, D. (2022). Developing pesantren education quality through radicalism prevention program for santri. Jurnal Pendidikan Islam, 8(1).

Sakinah, S. (2021). Literature Review: Proses Adaptasi Pada Lingkungan Pondok Pesantren.

Tantowi, A., Cholid, N., Junaedi, M., & Nursikin, M. (2023). Eco-pesantren: Islamic Education in Forest Conservation Landscapes. Fudan Journal of the Humanities and Social Sciences, 16(4), 541-567.

Tubagus, M., Haerudin, H., Fathurohman, A., Adiyono, A., & Aslan, A. (2023). THE IMPACT OF TECHNOLOGY ON ISLAMIC PESANTREN EDUCATION AND THE LEARNING OUTCOMES OF SANTRI: NEW TRENDS AND POSSIBILITIES. Indonesian Journal of Education (INJOE), 3(3), 443-450.

Umayah, S., & Junanah, J. (2021). Study On The Pesantren Education In The Perspective Of Kiai Sahal Mahfudh And Its Relevance With The Development Of Contemporary Pesantren. AZKA International Journal of Zakat & Social Finance, 1(2), 23-43. https://doi.org/10.51377/azjaf.vol1no2.28

Wargadinata, W., Wahidmurni, W., Abdussakir, A., Wahyuni, E. N., & Maimunah, I. (2019). Alternative education in the global era: Study of alternative models of islamic education in tazkia international islamic boarding school Malang. Library Philosophy and Practice, 2019(3748), 1-12.

Warsah, I. (2021). Jihad and radicalism: Epistemology of Islamic education at Pesantren Al-furqan in Musi rawas district. Jurnal Ilmiah Islam Futura, 21(2), 152-169.

Yaqin, A., Rozi, S., & Sham, F. M. (2020). The Paradox of Pesantren Education in the Implementation of Islamic Law: Study of Pesantren Kyai Notion in Mojokerto. Jurnal Pendidikan Islam, 9(1), 129-148.

Zainal, S., Prasetyo, M. A. M., Yaacob, C. M. A., & Jamali, Y. (2022). ADOPTING PESANTREN-BASED JUNIOR HIGH SCHOOL PROGRAMS THE PESANTREN CHANGE ITS EDUCATIONAL SYSTEM WITHOUT CONFLICT. Jurnal Ilmiah Islam Futura (JIIF), 22(2), 260-276.

Zarkasyi, H. F. (2020). Imam Zarkasyi'S Modernization of Pesantren in Indonesia. Qudus International Journal of Islamic Studies (QIJIS), 8(1), 161-200.

Zulfikar, A. S., & Roesminingsih, M. V. (2023). Policies Implementation by Pesantren Effective Schools to Achieve Excellence in Morality and General Sciences: A Case From Indonesia. resmilitaris, 13(1), 191-203.

Zulmuqim, Z., Zainimal, Z., Kustati, M., Besral, B., Refinaldi, R., & Adriantoni, A. (2020). The Characteristics of Pesantren in the Development of Islamic Education in West Sumatra. Ulumuna, 24(1), 132-154.