



INNOVATION IN PESANTREN DEVELOPMENT AS A PERSPECTIVE STUDY OF THE QUALITY DEVELOPMENT OF PESANTRENIN THE ERA OF DISRUPTION 4.0

Akhmad Muadin

UIN Sultan Aji Mubammad Idris Samarinda, Indonesia
Email: muadinahmad18@gmail.com

Mukhamad Ilyasin

UIN Sultan Aji Mubammad Idris Samarinda, Indonesia
Email: sinka.ilyasin2010@gmail.com

Prasart Saleah

Yala Rajabhat University, Thailand
Email: prasart.s@leah.ac.th

CMS (Full Note):

Akhmad Muadin, Mukhamad Ilyasin, Prasart Saleah, "Innovation in Pesantren Development as a Perspective Study of the Quality Development of Pesantren in the Era of Disruption 4.0," *SYAMIL: Jurnal Pendidikan Agama Islam (Journal of Islamic Education)* 11, no. 2 (December 2, 2023): 155–166, <https://doi.org/10.21093/sy.v10i1.8283>.

Abstract

Islamic boarding schools are faced with a situation of rapid change (disruption era 4.0), this has resulted in significant changes in various aspects of life, including Islamic education and Islamic boarding schools. These changes require Islamic boarding schools to innovate in order to improve the quality of their education. Innovation in developing the quality of Islamic boarding school education is important in order to face challenges in the era of disruption 4.0. This research uses a qualitative approach, data mining is carried out through observation, interviews and documentation, while data analysis uses interactive data analysis. The research results show that innovation in developing the quality of Islamic boarding school education can have a positive influence on various aspects, such as the quality of Islamic boarding school graduates, the competitiveness of Islamic boarding schools, and public trust in Islamic boarding schools. Innovation is carried out in certain fundamental aspects, namely; curriculum innovation, learning method innovation, facilities and infrastructure innovation as well as managerial innovation. This innovation is an effort to improve the quality of Islamic boarding school education so that it can answer the challenges in the era of disruption 4.0.

Keywords: *Quality development of pesantren, Pesantren in the era of disruption 4.0, Islamic education, Curriculum of pesantren*

1. Introduction

Islamic boarding schools are among the oldest and largest educational institutions in Indonesia.¹ These schools play a crucial role in the country's educational, economic, and social development.² Islamic boarding schools as Islamic educational institutions aim to provide life in this world and the afterlife.³ As Islamic educational institutions, they aim to provide education for life in this world and the hereafter. Islamic boarding schools have proven the importance of Islamic boarding schools and have enacted laws to produce the next generation of Indonesians with strong religious, moral, and intellectual values. The Indonesian government also recognizes the importance of Islamic boarding schools and has enacted laws and regulations to regulate their development. Laws such as Law No. 20 of 2003 and Law No. 18 of 2019 set the legal basis for the objectives, functions, and implementation of Islamic boarding school education in Indonesia.

The quality of education in Islamic boarding schools can be approached from various perspectives, one of which is innovation. In this context, innovation refers to the process of creating something new or different to improve the quality of education in Islamic boarding schools. Given the importance of innovation in this field, many studies and research have focused on identifying ways to enhance the quality of education through various innovative approaches.

According to research by Muhammad Heriyudanta on Azra's views, Islamic boarding schools are considered an integral part of national education and have acknowledged their role as agents of social change. Therefore, they are expected to continue to be proactive and dynamic in their role. It is hoped that their presence will continue to shine brightly, bring positive change, and make a meaningful contribution towards improving the lives of all people, especially Muslims.⁴

The research results indicate that innovation in Islamic boarding school education has had a beneficial impact on the quality of education. By introducing innovative methods, the quality of Islamic boarding school graduates has improved, making Islamic boarding schools more competitive and trusted by the public. These changes are necessary to ensure that Islamic boarding schools can adapt to the ongoing changes in the education landscape.

Islamic boarding schools are facing significant changes in various aspects of life, including Islamic education, due to the disruptive era of 4.0.⁵ These changes require Islamic boarding schools to innovate and improve the quality of their education.⁶ Islamic boarding schools are the oldest and largest form of special education in Indonesia. They have played a significant role in developing the country's next generation with religious,

¹ Nindi Aliska Nasution, "Lembaga Pendidikan Islam Pesantren," *Al-Muaddib: Jurnal Ilmu-Ilmu Sosial Dan Keislaman* 5, no. 1 (2020): 36–52.

² Muhammad Syaifudin dkk., "Pondok Pesantren: Its Contributions on the Indonesian Muslim Middle Class," *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 12, no. 2 (11 April 2021): 723–728.

³ Kamaluddin MH Pasi, Rasyidin Rasyidin, dan Radinal Mukhtar Harahap, "Education System of Modern Islamic Boarding School in The Postmodern Era," *Nazhruna: Jurnal Pendidikan Islam* 3, no. 3 (21 Oktober 2020): 311–23, <https://doi.org/10.31538/nzh.v3i3.805>.

⁴ Muhammad Heriyudanta, "Modernisasi Pendidikan Pesantren Perspektif Azyumardi Azra," *MUDARRISA: Jurnal Kajian Pendidikan Islam* 8, no. 1 (10 September 2016): 145–72, <https://doi.org/10.18326/mdr.v8i1.145-172>.

⁵ Ali Mufron, "Transformasi Pondok Pesantren (Upaya Merawat Tradisi Dan Modernisasi Sistem Pesantren Di Era Disrupsi)," *Tarbawi Ngabar: Jurnal of Education* 1, no. 02 (31 Juli 2020): 191–208, <https://doi.org/10.55380/tarbawi.v1i02.55>.

⁶ Khotimah Suryani, "Tantangan Dan Peluang Pendidikan Islam Di Pesantren Pada Era Disrupsi," *Journal Multicultural of Islamic Education* 6, no. 1 (13 Oktober 2022): 23–35, <https://doi.org/10.35891/ims.v6i1.3554>.

moral, and intellectual values. However, in the age of disruption 4.0, these schools are facing several challenges. Rapid technological advancements, changes in society's increasingly pragmatic mindset, and competition from other educational institutions are some of the major problems.⁷ Islamic boarding schools as Islamic educational institutions have become something that needs to be improved in various ways so that they can become an alternative education system in the future and can play a role in creating social support for the development of Islamic education.⁸

The challenges mentioned above require Islamic boarding schools to carry out some innovations and developments to improve the quality of their education, especially so they can adapt to an ever-changing environment and experience resilience.⁹ Innovation and development of the quality of Islamic boarding schools can be carried out in various aspects, for example: curriculum aspects, learning method aspects, facilities and infrastructure aspects, and managerial aspects.

First, Innovation in Islamic boarding school curriculum. The curriculum plays a crucial role in determining the quality of Islamic boarding school education. An innovative curriculum can efficiently and effectively facilitate the attainment of Islamic boarding school education goals. Implementing the Merdeka curriculum is one way to achieve this.¹⁰ Various ways to innovate Islamic boarding school curriculum include integrating Islamic and Indonesian values, adapting to community needs, using innovative learning approaches, and innovating Islamic boarding school learning methods.¹¹

Second, innovative learning methods are the methods used to convey lesson material to students. Innovative learning methods can increase students' learning motivation and encourage the achievement of learning goals.¹² Innovation in Islamic boarding school learning methods can be done in various ways, such as: using active, creative learning methods,¹³ and fun¹⁴, implementing technology-based learning, and developing learning methods that suit students' needs.¹⁵

Third, innovation in Islamic boarding school facilities and infrastructure.¹⁶ Facilities and infrastructure are important supporting factors in the education process. Adequate facilities and infrastructure can create a conducive learning environment and

⁷ Siswanto Siswanto, "Desain Mutu Pendidikan Pesantren," *KARSA Journal of Social and Islamic Culture* 23, no. 2 (1 Desember 2015): 259–75, <https://doi.org/10.19105/karsa.v23i2.726>.

⁸ Sadali Sadali, "Eksistensi Pesantren Sebagai Lembaga Pendidikan Islam," *Atta'dib Jurnal Pendidikan Agama Islam* 1, no. 2 (17 November 2020): 53–70, <https://doi.org/10.30863/attadib.v1i2.964>.

⁹ Muhamad Abdul Manan, "Daya Tahan Dan Eksistensi Pesantren Di Era 4.0," *Jurnal Pendidikan Islam Indonesia* 3, no. 2 (24 April 2019): 155–67, <https://doi.org/10.35316/jpii.v3i2.135>.

¹⁰ Wasehudin Wasehudin dkk., "Transforming Islamic Education through Merdeka Curriculum in Pesantren," *Jurnal Pendidikan Islam* 9, no. 2 (28 Desember 2023): 255–66, <https://doi.org/10.15575/jpi.v9i2.28918>.

¹¹ Siti Rohmatillah dan Munif Shaleh, "Manajemen Kurikulum Program Tahfidz Al-Qur'an di Pondok Pesantren Salafiyah Syafi'iyah Al-Azhar Mojosari Situbondo," *Jurnal Pendidikan Islam Indonesia* 3, no. 1 (2018): 107–21.

¹² Dedi Ardiansyah dan Basuki Basuki, "Implementasi Nilai-Nilai Kesalehan Sosial Di Pondok Pesantren Dalam Menghadapi Era Society 5.0," *Jurnal Inovasi Pendidikan* 1, no. 2 (2023): 64–81.

¹³ Idris Muhammad Usman, "Pesantren sebagai lembaga pendidikan islam," *Jurnal Al Hikmah* 14, no. 1 (2013): 101–19.

¹⁴ Astrid Savitri, *Revolusi industri 4.0: mengubah tantangan menjadi peluang di era disrupsi 4.0* (Penerbit Genesis, 2019).

¹⁵ Asep Machsus, "Inovasi Kurikulum Pesantren: Upaya Mewujudkan Tujuan Pendidikan Nasional (Studi Kasus pada Pondok Pesantren Bina Insan Mulia-Cirebon)," 2020.

¹⁶ Siti Julacha dkk., "Manajemen Inovasi Kurikulum: Karakteristik dan Prosedur Pengembangan Beberapa Inovasi Kurikulum," *MUNTAZAM* 2, no. 01 (2021).

encourage the achievement of educational goals. Innovation in Islamic boarding school facilities and infrastructure can be carried out in various ways, as follows: developing facilities and infrastructure that suit the needs of students, applying technology in learning facilities and infrastructure, and managing facilities and infrastructure effectively and efficiently.¹⁷

Fourth, Innovation in Islamic boarding school management. Management is a process that involves planning, organizing, implementing, and controlling the available resources to achieve predetermined goals. Innovative management techniques can improve the effectiveness and efficiency of managing Islamic boarding schools. There are several ways to innovate Islamic boarding school management, including developing an integrated management system, introducing technology to streamline management processes, and involving all stakeholders in the management process.¹⁸

Innovation is crucial for the development of the quality of Islamic boarding school education to cope with the challenges that arise in the 4.0 era of disruption. Innovation can enable Islamic boarding schools to remain relevant and produce the next generation of the nation, instilled with strong religious, moral, and intellectual values. This research aims to examine the innovative approaches to developing the quality of Islamic boarding school education from the perspective of enhancing educational quality. The research hopes to contribute to the improvement of the quality of Islamic boarding school education in the 4.0 era of disruption.

2. Research Method

This research was qualitative research with a descriptive approach. Qualitative research is research that produces descriptive data in the form of written or spoken words from people and observable behavior. The descriptive approach is an approach used to describe or analyze phenomena that occur. The locations of this research are several Islamic boarding schools in East Kalimantan. These Islamic boarding schools were chosen because the Islamic boarding schools have made innovations in developing the quality of their education, especially about adjusting human resource development policies in East Kalimantan Province. The subjects of this research were leaders, teachers, and students at the Islamic boarding schools that were the research locations. This research data was collected through interview techniques, observation, and literature study. This research data was analyzed qualitatively using interactive data analysis techniques and inductive data analysis techniques. Inductive data analysis technique is a data analysis technique that is carried out by concluding the data obtained.

3. Finding and Discussion

Islamic boarding schools are institutions that provide Islamic education and have played a significant role in shaping the values of the younger generation in terms of religion, morals, and intellect. However, in the age of the fourth industrial revolution, these schools are encountering various challenges such as rapid technological advancements, changes in people's mindset, and competition from other educational

¹⁷ Agus Salim Salabi, "Efektivitas Dalam Implementasi Kurikulum Sekolah," *Education Achievement: Journal of Science and Research*, 2020.

¹⁸ Ahmad Damanhuri, Endin Mujahidin, dan Didin Hafidhuddin, "Inovasi pengelolaan pesantren dalam menghadapi persaingan di era globalisasi," *Ta'dibuna: Jurnal Pendidikan Islam* 2, no. 1 (2013): 17–37.

institutions. Furthermore, these schools have a significant influence on the religious understanding of their community, and the extent to which they can impact the society around them in modern advancements.¹⁹

Islamic boarding schools face various challenges that require them to innovate and improve the quality of their education. There are several perspectives from which one can study the innovations in developing the quality of Islamic boarding school education, one of which is the perspective of Islamic education management. Islamic education management is a systematic and planned process of managing Islamic educational institutions, both macro and micro, to achieve the goals of Islamic education effectively and efficiently. To address the problems faced by Islamic boarding schools, educational programs must be repaired, updated, and rebuilt. This includes reformulating the vision, objectives, curriculum, institutional management, educational methods and strategies, infrastructure, administration, and so on.²⁰

From the perspective of Islamic education management, innovation in developing the quality of Islamic boarding school education can be interpreted as an effort to produce something new or different from before to improve the quality of Islamic boarding school education while remaining based on Islamic values. Innovation in developing the quality of Islamic boarding school education can be carried out in various aspects, such as curriculum, learning methods, facilities, infrastructure, and management.

1. Innovation in Islamic Boarding School Curriculum

The curriculum is one of the important factors that determines the quality of Islamic boarding school education. An innovative curriculum can encourage the achievement of Islamic boarding school education goals effectively and efficiently.²¹ Various approaches are used to innovate the Islamic boarding school curriculum, including integrating Islamic and Indonesian values, adapting to community needs, and using innovative learning methods.

First, integrating Islamic and Indonesian values; Islamic boarding schools are institutions that provide Islamic education and are based on Islamic values. However, these schools are also prevalent in Indonesia, which is a country with its own set of values. Therefore, Islamic boarding schools in Indonesia need to integrate both Islamic and Indonesian values into their education. Islamic values that should be integrated into their curriculum include faith and devotion to Allah SWT, knowledge, noble morals, and social responsibility. Similarly, Indonesian values that need to be incorporated into Islamic boarding school education include Pancasila, the 1945 Constitution, Bhinneka Tunggal Ika within the framework of the Republic of Indonesia, and the Archipelago Insight. To achieve this integration, Islamic boarding schools employ various methods

¹⁹ Abul Hasan Al Asyari, "Tantangan Sistem Pendidikan Pesantren Di Era Modern," *Risalatuna: Journal of Pesantren Studies* 2, no. 1 (15 Januari 2022): 127–143, <https://doi.org/10.54471/rjps.v2i1.1572>.

²⁰ Dafri Harweli dan Wedra Aprison, "Pesantren: Problematika Dan Solusi Pengembangannya," *Journal on Education* 6, no. 2 (11 Januari 2024): 12058–68, <https://doi.org/10.31004/joe.v6i2.5024>.

²¹ Machsus, "Inovasi Kurikulum Pesantren: Upaya Mewujudkan Tujuan Pendidikan Nasional (Studi Kasus pada Pondok Pesantren Bina Insan Mulia-Cirebon.)"

such as curriculum development, learning method development, extracurricular activity development, and the development of an Islamic boarding school environment.²²

The integration of Islamic and Indonesian values in Islamic boarding school education can result in numerous benefits, such as producing a generation of faithful, pious, and morally upright individuals who love their country. It can also increase the competitiveness of Islamic boarding schools, as well as strengthen national unity and integrity. Therefore, Islamic boarding schools need to incorporate Islamic and Indonesian values into their education system. This integration can help produce a superior generation that contributes to the progress of the nation.²³

Second, adapting the curriculum to community needs. The curriculum is one of the important factors that determines the quality of education. A curriculum that suits the needs of society will be able to produce quality graduates who can compete in the world of work and society.²⁴ The needs of society in the era of disruption 4.0 require Islamic boarding school graduates to have various competencies, including digital literacy, 21st-century skills, critical thinking skills, problem-solving skills, collaboration skills, and adaptability.²⁵

Therefore, the Islamic boarding school curriculum needs to be adapted to the needs of society in the era of disruption 4.0. Curriculum adjustments can be made by adding material related to the competencies needed in the era of disruption 4.0, using innovative learning approaches, and providing opportunities for students to develop themselves.²⁶

The following are several forms of adapting the Islamic boarding school curriculum to the needs of society in the era of disruption 4.0: adding material about digital literacy, such as the use of social media, cyber security, and digital ethics. Adding material about 21st-century skills, such as critical thinking, problem-solving, working together and collaborating, using project-based learning, problem-based learning, and technology-based learning approaches, and providing opportunities for students to take part in extracurricular activities related to the competencies needed in the era of disruption 4.0, such as journalism training, graphic design training, and coding training.

Adapting the curriculum to the needs of society has various benefits so that graduates are qualified and able to compete in the world of work and society, increasing the competitiveness of Islamic boarding schools and preparing students to face challenges in the era of disruption 4.0.²⁷ Therefore, Islamic boarding schools need to adapt their curriculum to the needs of society. Curriculum adjustments will produce superior graduates who can contribute to the nation's progress.²⁸

Third, using an innovative learning approach. Learning is an important process in education. Effective learning will be able to help students understand the subject matter

²² Sandi Kurniawan, "Integrasi Nilai-Nilai Keislaman Dan Kebangsaan Dalam Pendidikan Pesantren (Studi Kasus Pondok Pesantren Universitas Islam Indonesia)," 2021.

²³ Jijen Musfah, *Pendidikan Islam: memajukan umat dan memperkuat kesadaran Bela Negara* (Kencana, 2016).

²⁴ Gina Nurvina Darise, "Implementasi Kurikulum 2013 Revisi sebagai solusi alternatif pendidikan di Indonesia dalam menghadapi Revolusi Industri 4.0," *Jurnal Ilmiah Iqra'* 13, no. 2 (2019): 41–53.

²⁵ Irwan Sutiawan, *Madrasah Menghadapi Era Society 5.0* (GUEPEDIA, t.t.).

²⁶ Fiska Amelia Kusuma Wardani, "Dinamika Pembelajaran Di Pesantren Dalam Merespon Revolusi Industri 4.0 (Studi Pada Pondok Pesantren Salafiyah Hidayatul Qomariyah Kota Bengkulu)," 2022.

²⁷ Azhar Kholifah, "Strategi Pendidikan Pesantren Menjawab Tantangan Sosial di Era Digital," *Jurnal Basicedu* 6, no. 3 (2022): 4967–4978.

²⁸ Ahmad Sabri, *Pendidikan Islam Menyongsong Era Industri 4.0* (Deepublish, 2020).

and achieve learning goals.²⁹ An innovative learning approach is a learning approach that uses new methods that are different from traditional learning methods.³⁰ Innovative learning approaches can increase students' learning motivation and encourage the achievement of learning goals.

Innovative learning approaches are constantly being developed to enhance the learning experience of students. One such approach is project-based learning, where students are given a project to complete, which can be a research project, social project, or entrepreneurial project. Another approach is problem-based learning, where students are presented with a problem to solve, using their existing knowledge and skills. Technology-based learning is also becoming increasingly popular, where technology is used in the learning process to make it more effective and efficient. Finally, active, creative, and fun learning approaches are encouraged, where students are involved in the learning process more engagingly and interactively, encouraging critical thinking, problem-solving, and teamwork.

Using an innovative learning approach has various benefits, including: increasing students' learning motivation, encouraging the achievement of learning goals, developing 21st century skills, and increasing students' competitiveness. Therefore, Islamic boarding schools need to use innovative learning approaches. An innovative learning approach will produce superior graduates who can contribute to the nation's progress. The use of innovative learning approaches is an important effort to improve the quality of Islamic boarding school education. Innovative learning approaches can increase students' learning motivation and encourage the achievement of learning goals.

2. Innovation in Islamic Boarding School Learning Methods

Learning methods are the methods used to convey lesson material to students.³¹ Innovative learning methods can increase students' learning motivation and encourage the achievement of learning goals. Innovation in Islamic boarding school learning methods can be done in various ways, such as: Using active, creative, and fun learning methods, implementing technology-based learning, and developing learning methods that suit the needs of students.

Innovation in Islamic boarding school learning methods is an important effort to improve the quality of Islamic boarding school education. Innovative learning methods can increase students' learning motivation and encourage the achievement of learning goals. Several types of innovative learning methods can be applied in Islamic boarding schools, including:

Project-based learning is a learning approach that involves students in completing a project. The project can be a research project, social project, or entrepreneurial project. Project-based learning can increase students' learning motivation because students are encouraged to be active and creative in completing the project.

Problem-based learning is a learning approach that starts with a problem. Students are then encouraged to solve the problem using the knowledge and skills they have. Problem-based learning can improve students' critical thinking and problem-solving abilities. Active, creative, and fun learning is a learning approach that actively involves

²⁹ Fitriyah Samrotul Fuadah dan Hary Priatna Sanusi, "Manajemen Pembelajaran di Pondok Pesantren," *Jurnal Isema: Islamic Educational Management* 2, no. 2 (2017).

³⁰ Dewa Gede Purwitha, "Model pembelajaran flipped classroom sebagai pembelajaran inovatif abad 21," *Adi Widya: Jurnal Pendidikan Dasar* 5, no. 1 (2020): 49–55.

³¹ Fauza Djalal, "Optimalisasi pembelajaran melalui pendekatan, strategi, dan model pembelajaran," *SABILARRASYAD: Jurnal Pendidikan dan Ilmu Kependidikan* 2, no. 1 (2017).

students in the learning process. Students are encouraged to think critically, solve problems, and work together. Active, creative, and fun learning can increase students' learning motivation and encourage the achievement of learning goals.

3. Innovation in Islamic boarding school facilities and infrastructure

Facilities and infrastructure play a crucial role in supporting the education process. They can create a suitable learning environment and motivate students to achieve their educational objectives. To innovate in Islamic boarding school facilities and infrastructure, we can adopt various approaches, such as developing facilities that cater to the student's needs, integrating technology into learning facilities and infrastructure, and managing facilities and infrastructure effectively and efficiently.

Innovation in Islamic boarding school facilities and infrastructure is one effort to improve the quality of Islamic boarding school education. This innovation can be carried out in various aspects, starting from buildings, and facilities, to the technology used. First, the dormitory is where the students live while they are studying at the Islamic boarding school. Therefore, adequate dormitories are an important requirement for Islamic boarding schools. The innovation carried out in this case is to build dormitories that meet health and safety standards and provide adequate facilities, such as bathrooms, kitchens, study rooms, and prayer rooms. Second, adequate learning facilities can support an effective teaching and learning process. Some learning facilities that can be added to Islamic boarding schools include laboratories, libraries, music studios, and multimedia rooms. Third, information technology is an important tool to support learning in the digital era. The innovation carried out in this case is providing adequate internet access, as well as utilizing information technology for the learning process, such as e-learning, video conferencing, and virtual reality.

Innovations in the facilities and infrastructure of Islamic boarding schools can provide significant benefits. Improving these areas can lead to better quality education and the production of competitive graduates. Adequate facilities can enhance the teaching and learning process for students, increasing their motivation and academic success. Additionally, these improvements can benefit society as a whole by enhancing the quality of human resources and boosting the local economy.

Islamic boarding schools are educational institutions that have an important role in maintaining and developing Islamic values. Therefore, innovation in Islamic boarding school facilities and infrastructure needs to be carried out on an ongoing basis to improve the quality of Islamic boarding school education and prepare graduates who are ready to face challenges in the era of globalization.

4. Innovation in Islamic Boarding School Management

Management is the process of planning, organizing, implementing, and controlling existing resources to achieve predetermined goals. Innovative management can increase the effectiveness and efficiency of Islamic boarding school management. Innovation in Islamic boarding school management can be carried out in various ways as follows: developing an integrated management system, applying technology in Islamic boarding school management, and involving all elements of Islamic boarding school in the management process.

Innovations in developing the quality of Islamic boarding school education can improve the quality of Islamic boarding school graduates. Quality Islamic boarding school graduates will have the competencies needed in the world of work and society. Innovations in developing the quality of Islamic boarding school education can also

increase the competitiveness of Islamic boarding schools. Innovative Islamic boarding schools will be better able to compete with other educational institutions. Apart from that, innovation in developing the quality of Islamic boarding school education can increase public trust in Islamic boarding schools.³² Islamic boarding schools need to be innovative and produce quality graduates to gain the trust of the public. Nowadays, managerial activities play a crucial role in the functioning of Islamic boarding schools. These activities involve effectively utilizing the human resources within the community to create value for the organization, both in formal and non-formal settings.³³

Innovation in developing the quality of Islamic boarding school education is an important thing to do to face challenges in the era of disruption 4.0.³⁴ Innovation in developing the quality of Islamic boarding school education can be carried out in various aspects, such as curriculum, learning methods, facilities and infrastructure, and management. Innovations in developing the quality of Islamic boarding school education can have a positive influence on various aspects, such as the quality of Islamic boarding school graduates, the competitiveness of Islamic boarding schools, and public trust in Islamic boarding schools.³⁵

Based on our discussion above, it's important for Islamic boarding schools to innovate and adapt to the current developments. In order to improve the quality of education, Islamic boarding schools have implemented various innovations related to curriculum, learning methods, facilities, infrastructure, and management. These innovations have had a positive impact on the quality of education provided by Islamic boarding schools. They have improved the quality of graduates, increased the competitiveness of these schools, and enhanced public trust in them.

The research findings show that innovation in developing the quality of Islamic boarding school education is an important thing to do to face challenges in the era of disruption 4.0. Innovations in developing the quality of Islamic boarding school education are carried out in aspects of curriculum, learning methods, facilities and infrastructure, and management for the following logical reasons: Islamic boarding schools need to innovate their curriculum so that they remain relevant to the needs of society in the era of disruption 4.0. Islamic boarding schools also innovate learning methods so that the learning process becomes more effective and efficient. Adequate facilities and infrastructure can create a conducive learning environment and encourage the achievement of learning objectives. Good management can increase the effectiveness and efficiency of Islamic boarding school management.

4. Conclusion

Innovation in developing the quality of Islamic boarding school education is an important thing to do to face challenges in the era of disruption 4.0. Innovations in developing the quality of Islamic boarding school education can be carried out in various aspects, such as curriculum, learning methods, facilities and infrastructure, and management. Innovations in developing the quality of Islamic boarding school

³² Julaha dkk., "Manajemen Inovasi Kurikulum: Karakteristik dan Prosedur Pengembangan Beberapa Inovasi Kurikulum."

³³ Ahmad Saifudin, "Manajemen Pesantren Dalam Menghadapi Perubahan," *INTIZAM: Jurnal Manajemen Pendidikan Islam* 1, no. 1 (31 Oktober 2017): 97–121.

³⁴ Damanhuri, Mujahidin, dan Hafidhuddin, "Inovasi pengelolaan pesantren dalam menghadapi persaingan di era globalisasi."

³⁵ Damanhuri, Mujahidin, dan Hafidhuddin.

education can have a positive influence on various aspects, such as the quality of Islamic boarding school graduates, the competitiveness of Islamic boarding schools, and public trust in Islamic boarding schools. The innovation of developing Islamic boarding schools aims to enhance the quality of education provided and respond to the challenges posed by the era of disruption 4.0. This era is characterized by rapid technological advancements, which demand changes in various fields, including education. Despite these changes, Islamic boarding schools must continue to uphold Islamic values as the foundation of their education. Therefore, any innovation implemented must align with Islamic values to produce graduates with high spiritual intelligence. Such innovation is crucial for Islamic boarding schools to remain relevant and competitive in the era of disruption 4.0.

Bibliography

- Ardiansyah, Dedi, dan Basuki Basuki. "Implementasi Nilai-Nilai Kesalehan Sosial Di Pondok Pesantren Dalam Menghadapi Era Society 5.0." *Jurnal Inovasi Pendidikan* 1, no. 2 (2023): 64–81.
- Asyari, Abul Hasan Al. "Tantangan Sistem Pendidikan Pesantren Di Era Modern." *Risalatuna: Journal of Pesantren Studies* 2, no. 1 (15 Januari 2022): 127–43. <https://doi.org/10.54471/rjps.v2i1.1572>.
- Damanhuri, Ahmad, Endin Mujahidin, dan Didin Hafidhuddin. "Inovasi pengelolaan pesantren dalam menghadapi persaingan di era globalisasi." *Ta'dibuna: Jurnal Pendidikan Islam* 2, no. 1 (2013): 17–37.
- Darise, Gina Nurvina. "Implementasi Kurikulum 2013 Revisi sebagai solusi alternatif pendidikan di Indonesia dalam menghadapi Revolusi Industri 4.0." *Jurnal Ilmiah Iqra'* 13, no. 2 (2019): 41–53.
- Djalal, Fauza. "Optimalisasi pembelajaran melalui pendekatan, strategi, dan model pembelajaran." *SABILARRASYAD: Jurnal Pendidikan dan Ilmu Kependidikan* 2, no. 1 (2017).
- Fuadah, Fitriyah Samrotul, dan Hary Priatna Sanusi. "Manajemen Pembelajaran di Pondok Pesantren." *Jurnal Isema: Islamic Educational Management* 2, no. 2 (2017).
- Harweli, Dafri, dan Wedra Aprison. "Pesantren: Problematika Dan Solusi Pengembangannya." *Journal on Education* 6, no. 2 (11 Januari 2024): 12058–68. <https://doi.org/10.31004/joe.v6i2.5024>.
- Heriyudanta, Muhammad. "Modernisasi Pendidikan Pesantren Perspektif Azyumardi Azra." *MUDARRISA: Jurnal Kajian Pendidikan Islam* 8, no. 1 (10 September 2016): 145–72. <https://doi.org/10.18326/mdr.v8i1.145-172>.

- Julaeha, Siti, Erwin Muslimin, Eri Hadiana, dan Qiqi Yulianti Zaqiah. "Manajemen Inovasi Kurikulum: Karakteristik dan Prosedur Pengembangan Beberapa Inovasi Kurikulum." *MUNTAZAM* 2, no. 01 (2021).
- Kholifah, Azhar. "Strategi Pendidikan Pesantren Menjawab Tantangan Sosial di Era Digital." *Jurnal Basicedu* 6, no. 3 (2022): 4967–4978.
- Kurniawan, Sandi. "Integrasi Nilai-Nilai Keislaman Dan Kebangsaan Dalam Pendidikan Pesantren (Studi Kasus Pondok Pesantren Universitas Islam Indonesia)," 2021.
- Machsus, Asep. "Inovasi Kurikulum Pesantren: Upaya Mewujudkan Tujuan Pendidikan Nasional (Studi Kasus pada Pondok Pesantren Bina Insan Mulia-Cirebon," 2020.
- Manan, Muhamad Abdul. "Daya Tahan Dan Eksistensi Pesantren Di Era 4.0." *Jurnal Pendidikan Islam Indonesia* 3, no. 2 (24 April 2019): 155–67. <https://doi.org/10.35316/jpii.v3i2.135>.
- Mufron, Ali. "Transformasi Pondok Pesantren (Upaya Merawat Tradisi Dan Modernisasi Sistem Pesantren Di Era Disrupsi)." *Tarbawi Ngabar: Jurnal of Education* 1, no. 02 (31 Juli 2020): 191–208. <https://doi.org/10.55380/tarbawi.v1i02.55>.
- Musfah, Jejen. *Pendidikan Islam: memajukan umat dan memperkuat kesadaran Bela Negara*. Kencana, 2016.
- Nasution, Nindi Aliska. "Lembaga Pendidikan Islam Pesantren." *Al-Muaddib: Jurnal Ilmu-Ilmu Sosial Dan Keislaman* 5, no. 1 (2020): 36–52.
- Pasi, Kamaluddin MH, Rasyidin Rasyidin, dan Radinal Mukhtar Harahap. "Education System of Modern Islamic Boarding School in The Postmodern Era." *Nazhruna: Jurnal Pendidikan Islam* 3, no. 3 (21 Oktober 2020): 311–323. <https://doi.org/10.31538/nzh.v3i3.805>.
- Purwitha, Dewa Gede. "Model pembelajaran flipped classroom sebagai pembelajaran inovatif abad 21." *Adi Widya: Jurnal Pendidikan Dasar* 5, no. 1 (2020): 49–55.
- Rohmatillah, Siti, dan Munif Shaleh. "Manajemen Kurikulum Program Tahfidz Al-Qur'an di Pondok Pesantren Salafiyah Syafi'iyah Al-Azhar Mojosari Situbondo." *Jurnal Pendidikan Islam Indonesia* 3, no. 1 (2018): 107–121.
- Sabri, Ahmad. *Pendidikan Islam Menyongsong Era Industri 4.0*. Deepublish, 2020.
- Sadali, Sadali. "Eksistensi Pesantren Sebagai Lembaga Pendidikan Islam." *Atta'dib Jurnal Pendidikan Agama Islam* 1, no. 2 (17 November 2020): 53–70. <https://doi.org/10.30863/attadib.v1i2.964>.
- Saifudin, Ahmad. "Manajemen Pesantren Dalam Menghadapi Perubahan." *INTIZAM: Jurnal Manajemen Pendidikan Islam* 1, no. 1 (31 Oktober 2017): 97–121.
- Salabi, Agus Salim. "Efektivitas Dalam Implementasi Kurikulum Sekolah." *Education Achievement: Journal of Science and Research*, 2020.

- Savitri, Astrid. *Revolusi industri 4.0: mengubah tantangan menjadi peluang di era disrupsi 4.0*. Penerbit Genesis, 2019.
- Siswanto, Siswanto. "Desain Mutu Pendidikan Pesantren." *KARSA Journal of Social and Islamic Culture* 23, no. 2 (1 Desember 2015): 259–275. <https://doi.org/10.19105/karsa.v23i2.726>.
- Suryani, Khotimah. "Tantangan Dan Peluang Pendidikan Islam Di Pesantren Pada Era Disrupsi." *Journal Multicultural of Islamic Education* 6, no. 1 (13 Oktober 2022): 23–35. <https://doi.org/10.35891/ims.v6i1.3554>.
- Sutiawan, Irwan. *Madrasah Menghadapi Era Society 5.0*. GUEPEDIA, t.t.
- Syaifudin, Muhammad, Akhmad Mujahidin, Muhammad Fahli Zatrachadi, Zetri Rahmat, Habibis Saleh, dan Riki Rahman. "Pondok Pesantren: Its Contributions on the Indonesian Muslim Middle Class." *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 12, no. 2 (11 April 2021): 723–728.
- Usman, Idris Muhammad. "Pesantren sebagai lembaga pendidikan islam." *Jurnal Al Hikmah* 14, no. 1 (2013): 101–19.
- Wardani, Fiska Amelia Kusuma. "Dinamika Pembelajaran Di Pesantren Dalam Merespon Revolusi Industri 4.0 (Studi Pada Pondok Pesantren Salafiyah Hidayatul Qomariyah Kota Bengkulu)," 2022.
- Wasehudin, Wasehudin, Abdul Rohman, Muh Barid Nizarudin Wajdi, dan Marwan Marwan. "Transforming Islamic Education through Merdeka Curriculum in Pesantren." *Jurnal Pendidikan Islam* 9, no. 2 (28 Desember 2023): 255–266. <https://doi.org/10.15575/jpi.v9i2.28918>.