Educational Innovation of Islamic Boarding Schools in Indonesia and Malaysia in Facing the 21st Century Challenges

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ABSTRACT

The problem of 21st Century education is in facing the challenges to produce generations with ability to think critically and skills in solving life problems. The challenges can be responded through educational innovation in Islamic boarding schools. The purpose of the research is to analyze the forms of educational innovation made by Islamic boarding schools in Indonesia and Malaysia in facing the 21st Century. This research uses systematic literature review (SLR) type of qualitative approach. The tools used to codify the literatures are Publish and Perish, ERIC, and Google Scholar. The codification result finds 64 articles on Islamic boarding schools innovation in Malaysia and 207 articles on it in Indonesia. The articles codified are limited from 2013 - 2023. The result of the research shows that there are differences between educational innovations in Indonesia and Malaysia in the period of 2013 to 2023 in the aspects of the use of technology, community involvement, collaboration with other educational institutions, combination of religious and general education, and in the aspect of project-base education. The similarities between the two are in increasing the faith of Muslims through religious education and creating generations of noble character. To face the challenges of the 21st century requires the role of a transformational and distributive leader who can form unity, partnership, cooperation, democracy, tolerance, and involvement in leadership practices.

Keywords: Educational Innovation; Islamic Boarding Schools; 21st Century

ABSTRAK

keterlibatan masyarakat, kerjasama dengan lembaga pendidikan lain, perpaduan antara pendidikan agama dan umum, dan dalam aspek pendidikan berbasis proyek. Persamaan keduanya adalah dalam meningkatkan keimanan umat Islam melalui pendidikan agama dan menciptakan generasi yang berakhhlak mulia. Untuk menghadapi tantangan abad 21 diperlukan peran pemimpin yang transformasional dan distributif yang dapat membentuk persatuan, kemitraan, kerjasama, demokrasi, toleransi, dan keterlibatan dalam praktik kepemimpinan.

**Kata-kata Kunci**: Inovasi Pendidikan; Pesantren; abad ke 21

1. **INTRODUCTION**

The problems of 21st Century that have to be solved is the growth of science and technology that makes the world feels small (Munastiwi & Marfuah, 2019). The rapid growth has resulted in the formation of a global society including people who have changed to become dependent on one another.

Islamic boarding schools are challenged to follow the social changes of this era (Fatmawati, 2019b; Halil, 2015; S. Ismail & Abdul Rahman, 2014), no exception in the world of Islamic education in Indonesia and Malaysia. The scope of Islamic education in Indonesia and Malaysia consists of formal education such as schools and non-formal such as pesantren (Islamic boarding schools) (Saputra, Az, Mughni, & Zohkarnain, 2022). The problem faced by Islamic boarding schools is a tradition that is difficult to change, from salafiyah (traditional) to khalafiyah (modern) (Putri, 2020). In addition, pesantrens have the problem of knowledge dichotomy which restrains Islamic education, especially in Indonesia and Malaysia (Bahri, 2019; Hasan, 2015; Kadir, 2019; Muhammad Khoirul Lutfi, 2019).

Those problems occur because pesantrens still adhere to traditions that have been passed down from generation to generation since the establishment of the pesantren until now. The pesantrens feel comfortable with the conditions that have been going on so far so that there is no concern for improvement (Mochtar, 2019). The pesantren traditions include: based on charismatic kyai as a leadership model (Krisdiyanto, Muflikha, Sahara, & Mahfud, 2019), making the Kitab Kuning a curriculum (Hashim, CN, 2008), the learning method used is syawir (muzakarah) (Muliati & Rahman, 2019), and the final process of scientific recognition in the form of awarding ijazah (Munir, 2021). In fact, in the world of Islamic boarding schools, innovation and modernization are needed in dealing with changes (Damanhuri, 2013), in this case, concerning curriculum, learning, leadership, management, media, and others.

At the end of the 20th century, Indonesia experienced a period of reform which led to the reorganization of social, political and economic structures (Budijarto, 2018). As a result of the democratization process, Indonesia in the eyes of the world has become a country with the largest democratic system in the world. This is happening in
the world of education which follows the wishes of the people to further develop in order to create a democratic atmosphere for the implementation of the national education system. This balanced power is manifested not only in strengthening the DPR, but also in increasing efforts to develop quality national education. Currently, Malaysia is experiencing rapid progress, especially in the field of education. Democratization of the education sector is an effort to implement effective, efficient, accountable and transparent education. Therefore, the role and support of the community and government are highly expected to achieve the quality of education in accordance with the expected goals.

Factors such as globalization, new technologies, migration, international competition, changing markets, and environmental and political challenges are motivating new educational models that are more suited to the challenges of the 21st century (Barbosa & Souza, 2021) In the 21st century, Islamic boarding schools have played their role as a moral protection for the younger generation (Fauzi et al., 2018). The era of globalization of Islamic education has problems including (1) orientation of Islamic education and power relations (Budijarto, 2018), (2) skills and quality of human resources (Muhammad Makinuddin, 2019), and (3) curriculum issues (M. U. dan F. Ismail, 2017). The benchmark for implementing education comes from pragmatic needs or market needs, and work.

The challenge in the 21st century is the existence of a dichotomy between western secular education and Islamic education which is formed in a rigid dogma (Damanhuri, 2013; Zainal Arifin, 2014). The result is an understanding of all science that unites Islamic knowledge and science which makes insight into Islamic values in science (Muhammad Sofwan dan Akhmad Habibi, 2016). Islamic boarding schools are developed by the government and the private sector as part of community participation along with the government in organizing national education, including Islamic education (Simatupang & Syukri, 2022).

To solve these various problems, Islamic boarding schools currently need a touch of modernity values such as modern technology, globalization, and pluralism and multiculturalism values in order to keep up-to-date and improve the quality of the education they provide (Hasan, 2015; Siregar, A. Q., & Pardede, 2019). Islamic boarding schools can survive if they renew and reform their institutions (Chotimah, 2018; Hayati, 2015). Thus, more insights can be gained so that the boarding schools can improve and develop (Damanhuri, 2013; Krisdiyanto et al., 2019). From the perspective of institutional innovation, the forms of innovation can be described in two terms; changes in the alignment of the vision, mission and goals of educational institutions as a whole, and aspects of management (educational management) from the perspective of leaders and educators (Damanhuri, 2013; Rahman, 2019).
Pesantrens have social icons that have social regulation in the society. This is because they have following unique characteristics: 1) figures of Kyai, 2) santri (students), 3) independence, and 4) strong social networks among alumni (Ali Maksum, 2015). In addition, pesantren usually have classrooms and other school buildings and provide teaching on Islamic texts which are held after congregational prayers (Falikul Isbah, 2020). In improving education in a country, it is necessary to compare it with education in other countries, find out the similarities and differences, strengths and weaknesses, then consider the positive elements and adapt to local conditions. The innovative power of education is manifested in processes and products that significantly improve teaching and learning and promote student development. Digital technology, especially software, is a tool that, if used properly, can enable, transform, or support innovation in education (Barbosa & Souza, 2021).

The development of information and communication technology is one of the causes of a new paradigm shift in education in the 21st century. The use of information and communication technology in the world of education both in madrasas and pesantren seems to be narrowing and converging (Aisyiah, 2016). Space and time determine the speed and success of mastering science. As a result, the development of information and communication technology has replaced most of the human workforce with machines that perform more routine tasks, while humans are more involved in intellectual and creative tasks (Kurniawan, 2019). This is what makes researchers interested in examining the extent of innovation made by pesantren, both salaf and modern pesantren, in facing the challenges of social change in Indonesian and Malaysian society.

An essential understanding of the progress of Islamic education is an important reason to look for quality and trusted Islamic boarding schools in providing education. Educational innovation aims to develop constructive educational concepts, translate them into concrete forms, and then transfer them to teachers in the hope that they can respond to educational or learning problems.

This study analyzes innovations made by Islamic boarding schools in facing the challenges of social change in the 21st century in Indonesia and Malaysia. Referring to a research conducted by Pendi Susanto stating that Islamic education in Indonesia has experienced rapid progress because Islamic religious education is a compulsory subject in schools, as in Malaysia which also makes Islamic education a compulsory subject in national schools (Pendi Susanto, 2015). Educational innovation in Islamic boarding schools has never been discussed before, so it is an interesting matter in this study.

According to (Abd Rahman, Saodah and Nurullah, 2015), who writes an article entitled "Development of Islamic Religious Education in Malaysia", Islamic boarding schools in Malaysia have developed into a madrasah education system, and Islamic universities are the latest development of religious schools that provide a
comprehensive learning system which includes religious and conventional subjects. Islamic boarding schools in Indonesia and Malaysia have several things in common, but have also developed in their own unique ways, as stated by Ali Mas'ud in his article "The Evolution and Orientation of Islamic Education in Indonesia and Malaysia" (Mas'ud, Fuad, & Zaini, 2019). Ishak and Abdullah state in “Islamic education in Malaysia: A study of History and Development” (Ishak & Abdullah, 2013) that the evolution of Islamic education in Malaysia has taken several forms. Falikul Isbah (2020) writes in “Pesantren Dalam Konteks Indonesia yang Bergeser”: history and current developments that Islamic boarding schools in Indonesia have changed over time. The growth of Indonesian Islamic boarding school over time can be attributed to their capacity to adapt to new circumstances. Evidence of this transformation can be seen in the dynamic assimilation of schools into the national education system and the inclusion of non-religious subjects in their curricula.

Furthermore, pesantrens as local wisdom are able to survive the expansion of educational modernization (Bahri, 2019). This is supported by reasons for the transformation of pesantren towards social change which includes demands for a free market economy, the politicization of the education system, the orientation of building a community and the increasingly widespread modernization of Islamic boarding schools, the social role and function of Islamic boarding schools, and the inclusion of modern figures in Islamic boarding schools (Fatmawati, 2019a). Islamic boarding schools can create qualified and professional national leadership cadres (Miswanto, 2020).

This research is expected to contribute in the form of in-depth knowledge about the discussion of innovation in Islamic education, especially Islamic boarding schools, in updating concepts that involve methods and steps that are arranged according to Islamic sources to achieve the goals of Islamic education effectively and consistently. The concept of pesantren education innovation must always be developed and improved in practice to respond to global challenges. The educational innovations are implemented through stages, and they have unique characteristics from one Islamic boarding school to another, especially Islamic boarding schools in Indonesia and Malaysia which have different histories. This is the uniqueness of Islamic boarding schools in developing the quality of education in Islamic boarding schools. The purpose of this research is to analyze more deeply the development of Islamic education innovations in Islamic boarding schools in Indonesia and Malaysia, as well as examine the challenges and opportunities of developing Islamic education innovations in these two countries.

2. METHOD

This research is a qualitative research with a systematic literature review type of research. The aim of this research is to analyze and compare education innovations of
Islamic boarding schools in two Southeast Asian countries (Indonesia and Malaysia) in facing the 21st century. This article is prepared based on a critical and comprehensive literature review. The two reference sources examined by the authors are primary reference sources in the form of previous scientific works and scientific articles published with a high credibility index through publish and perish, ERIC, and Google Scholar in the period of 2013-2023, and secondary reference sources in the form of textbooks.

The steps of data analysis in this study are: 1). Determining the formulation of the problem regarding Islamic boarding school education innovation in Indonesia and Malaysia, 2). Searching for literature on relevant articles, 3). Literature screening with research topics, 3). Categorizing and coding instruments, 4). Analyzing and evaluating the collected data, and 5). Drawing conclusions (Xiao & Watson, 2019). The results of identifying journal articles with PRISMA (Page et al., 2021) are shown in figure 1.

![Figure 1. PRISMA Flow Chart of Publication Result of Educational Innovation of Islamic Boarding Schools in Indonesia and Malaysia in Year 2013-2023](image_url)

In figure 1, the chart is followed by all PRISMA statement steps and guidelines. Initially 274 documents were reported in the published and perish database (207 in Indonesia and 64 in Malaysia). Next, a screening is done to find journals that are
eligible for the research as shown in figure 1, after which the researcher analyzes the existing journal articles with content analysis and the results of the analysis will be interpreted and linked to the existing Research Questions.

3. RESULTS AND DISCUSSIONS

a. Innovations of Islamic Boarding Schools in Indonesia

Islamic boarding school education is a unique and distinctive system. In addition to the learning approach, the views on life and values, the adopted lifestyle, the structure of the distribution of power, and all other educational and social aspects are also unique (Styaningsih, 2016). Islamic boarding schools were not established only to pursue power or material things, but the first thing that was built in the tradition of Islamic boarding schools was to instill religious values in their students and a commitment to learning as God's commands. In addition, the existence of pesantren inspires the current models and systems (Pendi Susanto, 2015). Thus, there is no one definition that accurately represents all existing pesantren. Each Islamic boarding school has its own unique features that others may not have.

The Islamic boarding school education system is a combination of various teaching elements used to achieve its educational goals. In salafi (traditional) boarding school, religious subjects such as Al-Quran, Hadith, Fiqh, Tauhid, Tafsir, Sufism, and Arabic are very dominant, while general studies are completely neglected. The nature of Islamic boarding school is that it is Theocentric, not anthropocentric (Sangkot Nasution, 2019). In contrast, modern pesantren try to combine traditional and modern education. Modern Islamic boarding schools do not provide in-depth knowledge of classic books but instead discuss modern books that are considered relevant to the demands of the era. This can be seen in Islamic boarding schools that implement the madrasah system. The dichotomy between religion and general knowledge is also abolished. Both subjects are taught equally, but the dominant one is religious education. The education system used in modern boarding schools is called the mu'allimin system (Abdul Tolib, 2015; Damanhuri, 2013).

In addition, modern Islamic boarding school educational programs cover the following departments: 1). Department of curriculum teaching, which is the main activity for students to receive various information, 2). The governing body that acts as the leader and leader of all business fields of the Islamic boarding school (person in charge), 3). Student training branch that acts as a provider of assistance or services to students (Abdul Tolib, 2015). Islamic boarding schools can be called Islamic boarding schools if they have at least 5 elements, namely: kiai, students, recitation, dormitories and mosques with all their religious and social educational functions. The five elements of the Islamic boarding school become a single unit which is a tradition in the pesantren. The existence of the kiai figure as the leader of the Islamic boarding school
is part of the treasure of knowledge that has magical properties that need to be explored repeatedly from various angles and perspectives. The position of the *kiai* is the most important element of the pawn as the designer (architecture), founder and developer (developer), as well as the leader and leader of the pieces (director and leader) (Mardiyah, 2022).

Even though the leadership system is *kiai*-centric, *pesantren* have developed a lot into an open democratic leadership system along with the times (Krisdiyanto et al., 2019), but the position of leader has an important role that leads to the success of *pesantren*. This is also in accordance with the views of the figure of pesantren modernization, KH. Imam Zarkasyi who states that *kiai*-centric leadership could bring progress if the caregiver or *kiai* is competent, superior, fair, visionary, democratic, smart, and has willing to work. On the other hand, this management will cause a decline if the *pesantren* administrators do not have this ability and are authoritarian and dictatorial. He then strengthened this view with the motto "unorganized goodness can be defeated by organized evil" (Prastowo & Mulyanto, 2021).

Islamic boarding school innovation is also inseparable from the role of caregivers or leaders as policy makers because Islamic boarding schools are institutions that have policy authority to determine their management systems. Leadership itself is always related to the social system of groups and individuals. Effective management must be practiced according to its mission. The administrative posts that exist are as follows; (1) creating visions, (2) developing culture of organization, (3) creating synergy, (4) creating changes, (5) motivating the followers, (6) empowering the followers, (7) representing social system, (8) leading a conflict, and (9) organization learning (Mawati, 2020). Currently there are five styles of leadership that are recognized. They are: (1) autocratic style; (2) pateristic style; (3) the charismatic style, which is divided into laissez-faire and democratic styles; (4) transformational leadership styles developed by Bernard M. Bass; and (5) the transactional management style, which is pioneered by James MacGregor Burns (Rizkita & Supriyanto, 2020).

Conceptually, transformational leadership refers to the leader's ability to change the work environment, motivation and work habits, as well as work values experienced by subordinates so that they can further optimize their performance to achieve the goals of the organization. Leaders can change their view points on the success value of their institution in order to achieve the goals of the organization. The hope of transformational leadership change is that the followers are able to achieve performance beyond expectation. The characters of leaders of change are: 1) Idealistic influence -the quality that impresses followers on their leadership. They demonstrate exemplary character including behaving when serving others, especially when serving peers such as colleagues, 2) Intellectual stimulation or processes that encourage creative thinking and innovative ideas in followers, 3) Individual interest is a character, 4) Inspirational
motivation is a characteristic of a leader who supports enthusiasm for work, invites employees to achieve common goals, which is giving meaning to life and work (Pramitha, 2020).

Islamic boarding schools which currently exist and are growing rapidly are very aware that in order to survive pesantren are required to be able to survive in facing the current development. Several large Islamic boarding schools, for example Pondok Modern Darussalam Gontor, Sidogiri, Lirboyo, Tebuireng Jombang have now implemented various innovations in responding to the current development so that they are able to prepare graduates who are ready to face the challenges of the 21st century. Various strategic steps have been taken, especially in the field of management which is the center of the system for all life in pesantren (Damanhuri, 2013; Shulhan, 2021). One of them is by changing the leadership system from individual authority to team building. This team building system is in line with what is stated by Fitria Nita Witanti that institutional development has several characteristics, including: planned and long term, problem oriented, system oriented, and action oriented, concerning change and learning principles (Witanti, 2016).

From the leadership system of Islamic boarding school which uses team building, transformational leadership plays the roles and gives room to all members led to grow with each task so that they can optimize their performances to achieve the goals of the organization which are oriented to the current development (Fatmawati, 2019).

b. Innovation of Islamic Boarding Schools Malaysia

In general, education in Malaysia began with the emergence of "Pondok" (boarding school) learning institutions and Arabic and religious schools at the end of the 19th century. Since the 20th century, educational institutions were established, and secular knowledge was included in the curriculum of religious schools (Hashim, CN, 2008). The educational structure from the early era of Islam until the arrival of the British was carried out as usual in the form of boarding school institutions and Islamic curricula. Educational institutions are run privately, and are still based in homes, mosques and langgar (house of worship). The curriculum is based on the study of Al-Quran as well as other subjects (Abd Rahman, Saodah and Nurullah, 2015).

Before the independence, the British promoted Malay language education with some form of Islamic education. This resulted what is known as the dichotomy of education into secular and religious schools. The Malaysian government then made efforts to reintroduce Islamic education, and in the 1970s they implemented the New Economic Policy. Under this policy, the government realized the importance of Islamic education in strengthening Malay hegemony (Ishak & Abdullah, 2013). The education system in Malaysia is highly centralized, especially for primary and secondary schools, with state and local governments not having a lot of roles in the curriculum or other key aspects of education (Hashim, CN, 2008). The history of Islamic education in Malaysia
can be divided into four stages: (a) schools centered around the teacher's house (teacher's houses); (b) education centered around mosques and *surau*; (c) the boarding school system; and (d) the *madrasah* system (Abd Rahman, Saodah and Nurullah, 2015).

In Malaysia, or Islamic boarding schools is identified with the term ‘pondok’ to refer to traditional Javanese Islamic schools, which are boarding schools for male students. Students in these schools "live and study under the direction of a teacher who in this case is known as guru or Tuan Guru". The school consisted of a building located in the center of town, which is usually the teacher's house or a mosque, which is surrounded by rows of small huts or dwellings. ‘Pondok’ is defined as small huts around the teacher's residence, usually built by students so that they can live around their residence and the *surau* (house of worship), so that they can always be close to it (Hashim, Rufai, Roslan, & Nor, 2011).

It can be seen that although the *pondok* education system looks traditional, this system is simply a better version of the religious education known to Muslims in the early era of Malacca. Therefore, the *pondok* system can be described as a continuation of Islamic learning at the mosque or at home including a specific area where the teacher guides the students who study and live with him. According to (Abd Rahman, Saodah and Nurullah, 2015) *pondok* is considered as an institution by a teacher who has in-depth knowledge, who is charismatic and respected by people in society. The reputation of the *kiai* and their area is a factor that can attract many students to join *pondok* institutions. Therefore, many schools are named after the regions and main *kyais*. These schools provide learning of Islamic texts, both in Arabic and in Malay translations. In traditional *pondok* institutions, a *guru* sit cross-legged in front of his students while an open book is placed on a small board or table called a *rihal*. The students will sit cross-legged in front of the book, study and take notes of the explanation of the book by the teacher.

Historically, the *pondok* system began during the reign of Sultan Malik al-Zahir in the 14th century (1345-1346) in Pasai and became known in Aceh during the time of Sultan Iskandar Thani in the 16th and 17th centuries (1636-1641) , spread to Patani after the collapse of Aceh and developed simultaneously in Patahi and Trengganu from the late 18th to the 19th and 20th centuries, at which time Kelantan, which had been exposed to religious education since the 16th century, also witnessed the establishment of *pondok* in the 19th century (Hashim et al., 2011).

Since the 15th century Malacca has been known as an empire and at the same time a famous center of Islamic studies. But with the rise of Aceh, its fame began to fade (Abdullah, 1997). Furthermore, Abdullah added, the development of traditional Islamic studies and Islamic scholars in Malaysia has certain characteristics. In terms of progress, the Eastern and Northern coastal areas of Peninsular Malaysia were
developing faster than other regions. The progress of this region was greatly influenced by the development of other countries, especially Pattan. Meanwhile, Perak and other southern regions were heavily influenced by Javanese religious figures.

Education in Malaysia aims at the improvement of the quality of life of individuals and society as a whole. Education in Malaysia pays attention to aspects of intelligence, spiritual, emotional and physical, so that the resulting individual has balance and maturity in all respects. Education in Malaysia also pays attention to the formation of character and responsibility, so that the resulting individual is able to contribute positively to the family, nation and state. Thus, education in Malaysia aims to prepare citizens who have maximum potential and are able to achieve personal well-being and advance the harmony and welfare of society and the state (Abdullah, Zaini Bin, 2020).

However, according to Bilgram and Ashraf, in the 19th and early 20th centuries, modern education in the tradition of Islamic education had spread to Islamic countries due to cultural and political domination and caused a total change in the Western system. Thus, the next step is to influence the way of thinking of the Malaysian people so that they become convinced that the Islamic boarding school program is no longer needed in modern life (Haryanto, 2015). In the period following the arrival of the Japanese to the Malay Archipelago, the pondok institutions in Kedah declined until the 1960s and early 1970s (Abd Rahman, Saodah and Nurullah, 2015). There were no pondok in operation anymore except for a few and most of them were Pondok Kelamin (a pondok institution for married couples and for parents).

Islamic boarding schools in Malaysia that do not integrate Islamic knowledge with conventional knowledge have difficulty in ensuring their graduates work in the government or private sector (Abd Rahman, Saodah and Nurullah, 2015). As a result, traditional institutions are no longer accepted by the majority of society, especially youth and urban communities. They find it very difficult to accept this institution. In addition, the development of modern, government-sponsored institutions that provide various facilities and guaranteed jobs has made many people leave the pondok institutions. They consider Islamic boarding schools unproductive and even old-fashioned. Such viewpoints cause this institution decline.

After that, Pondok in Malaysia experienced a renewal of the idea of Islamic education which entered the renewal in Egypt in the early 20th century. Innovations regarding Islamic thought were born by improving the quality of educational institutions that have adapted to this new vision. The establishment of a madrasa in Bukit Mertajam in Malaysia is a sign of this renewal. It is the Iqbal and Al-Hadi Madrasas (Haryanto, 2015).

In addition, efforts have been made to eliminate dualism which leads to a separation between the two sub-scientific areas, Islamic education and general
education, in the education system. The concept of the ideal education of the two countries is the integration of general education and religious education into a unified education system, where secular general education cannot be separated from Islamic religious education. This strategy is realized through the formulation of new regulations that allow the integration of the two education systems.

Due to this background, the innovations implemented by Islamic boarding schools in Malaysia focus on updating the curriculum which pays attention to aspects of intelligence, spiritual, emotional and physical, so that the resulting individuals have balance and maturity in all respects, so that the graduates produced have quality accordance with the goals of the institution and are ready to face the challenges and developments of the times.

c. Educational Innovation of Islamic Boarding Schools in Indonesia and Malaysia in Facing 21st Century Challenges

Educational innovations implemented in Islamic boarding schools must be simple and goal oriented. An innovation starts from small things that are initiated for the problems to be solved. It can be interpreted that innovation does not have to come from big ideas, but it can have a very big impact on human life in the future. Innovation always aims to be a pioneer of change (Arif, 2019). Educational innovation is viewed as a new idea that can be realized by some parties or seen as a new thing that did not previously exist, for some parties, both individuals and groups (society) in the form of invention (new) or discovery (change from before) which is intended to achieve problem solving related to education and to achieve the expected educational goals (Mawati, 2020).

Islamic boarding schools are currently experiencing development and innovation in order to keep up with the changing times. Several new trends emerged in Islamic boarding schools, including: first, familiarity with modern methodologies in which Islamic boarding schools began to use more modern and sophisticated learning methods, such as information and communication technology, to facilitate the learning process. Second, they are oriented to functional education. Islamic boarding schools aim more at functional education with openness to self-development from external factors and focusing on the real needs of the society. Third, the diversification of programs and activities in which pesantren are no longer dependent on the kiai in absolute terms, but have programs and activities that are more diverse and open to meet the needs of santri (student), both in terms of religious knowledge and general knowledge, and to suit the skills needed in the workforce. Fourth, its function is intended as a forum for community quality development. Islamic boarding schools can act as centers of community development by providing education and training that helps improve the quality of life of the surrounding community.
Islamic boarding schools have a perspective regarding the urgency of educational innovation in Islamic boarding schools while maintaining old traditions that are still relevant, as is done by kiai and pesantren caretakers who maintain and continue the tradition of *al-muhafadhah ala al-qadim as-salih wal akhdzu bil Jadid al-aslah*, while updating the pesantren education system and curriculum so that it can compete in the global world. In this case, Islamic boarding schools also pay attention to technological developments, social change, and increasingly complex demands of society, so they try to adjust the curriculum and learning methods so that they can provide education that is more comprehensive and meets the needs of the times (Soebahar, 2013).

Innovation and improvement must always exist in the education system in Indonesia and must be supported by professional teachers, and the most important thing is that teacher professionalism must follow the welfare of teachers (Abdul Wahab Syakhrani; Fathiyah; Fathul Janah; Fauziyyah, 2022). Islamic religious teachers are an important milestone in the development of the nation as the next generation in the country (Halim Tamuri, 2013). This role is expected to be played by a *kiai* as a leader in Islamic boarding schools. Leadership can be interpreted as an effort to influence the members to change in a more positive direction (Rizkita & Supriyanto, 2020). Leaders must also be able to influence other people to carry out the tasks assigned by management to achieve the goals of the institution or organization. *Kiai* as leaders of educational institutions, in improving quality, not only focus on optimizing students but also being able to utilize and optimize all parties such as students, ustazd, and all elements of Islamic boarding schools. All educational innovation strategies are inseparable from the important role of pesantren leaders. Kiai must monitor, build and support the *pondok* program as caretakers (Nurhadi & Atiqullah, 2020). The introduction of innovative educational methods designed to improve learning outcomes (Zhuravlova et al., 2022). In line with that, an education system that is in harmony with current demands must ensure that students acquire skills that are considered important for their personal and professional lives (Barbosa & Souza, 2021).

In the context of 21st century education, students are expected to be able to use digital technology to communicate, interact and collaborate and contribute in society. In addition, students must be able to use specific digital tools to assess and evaluate digital information and context in specific areas to suit the 21st century digital world of work (Khan, Sarwar, Chen, & Khan, 2022). It is a must for Islamic boarding schools to provide digital technology-based education for students. Learning digital technology is a form of soft skills in preparing for the future life (Houtman, 2017). In addition, the use of online media in the study of books in Islamic boarding schools in Indonesia is also
increasingly being carried out by using the media (Janawi, Ghozali, Habibi, & Afifulloh, 2022).

The 21st century is also called the information era. In this era, ways to meet the needs are getting more information-based. The researcher provides an overview of several indicators which are the focus of the challenges of the 21st century, as listed in table 1.

**Table 1. 21st Century Competency Criteria**

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<th>21st Century Competency Criteria</th>
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<td>Cognitive Skills</td>
<td>Analytical and Synthetic Skills</td>
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<td>Reasoning and problem solving skills</td>
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<td>Creative and innovative</td>
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<td>Critical thinking and reflective skills</td>
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<td>Ability to respect diversity</td>
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<td>Self-control and self-reliance skills</td>
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<td></td>
<td>Self-awareness and self-reflection skills</td>
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<td></td>
<td>Ability of self-motivating and life-goal-understanding</td>
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<td></td>
<td>Adapting skills and flexibility</td>
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<tr>
<td>Technological Skills</td>
<td>Digital literacy skills</td>
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<tr>
<td></td>
<td>Ability to understand technology and its utilization</td>
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<tr>
<td></td>
<td>Ability to develop application and system</td>
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<tr>
<td></td>
<td>Ability dealing with data and information management</td>
</tr>
<tr>
<td></td>
<td>Ability dealing with data security and privacy</td>
</tr>
</tbody>
</table>

It can be seen from table 1 that Islamic boarding schools make education a challenge to develop following the era, where there is a need to improve 21st century skills with various indicators of achievement. Islamic boarding school education innovation is the starting point for Islamic boarding schools to create quality graduates in accordance with the demands of the era.

Therefore, institutional leaders, in this case kiai, are required to be innovative and have openness regarding innovation in accordance with the criteria that are demanded by the 21st century competence (Rahim, Humaidi, Aziz, & Zain, 2022). The use of multimedia and prioritizing the concept of visualization are two elements that can be improved in the future for better and more interesting learning. With innovative
ideas, such as applying visualization and multimedia concepts in learning modules, it helps improve the quality of education (Abdul Rahman, Zakaria, & Din, 2021; Janawi et al., 2022). Moreover, a leader of educational institution can play the roles as transformational and distributive leader. Transformational leadership is a leadership practice that can form a unity, partnership, collaboration, democracy, tolerance, and involvement (Rumeli, Rami, Wahat, & Samsudin, 2022).

Effective leadership must be able to put the foundation for new breakthroughs in learning programs; increase the productivity of all parties involved together; and develop innovations to improve school quality (Rizkita & Supriyanto, 2020). In Malaysia, as stated by Abdul Rahman, the success and progress of a pondok institution usually depends on the personality of the principal in terms of piety, integrity and charisma (Abd Rahman, Saodah and Nurullah, 2015). A good principal who has these qualities can influence society to ensure the continuation or maintenance of the umumi system.

In this case, leaders of educational institutions share responsibility and authority with staff and students to have equal opportunities to participate and give ideas and solutions in determining the direction and vision of the institution. It also helps build a trusting and motivating environment, which is a strong foundation for effective learning. Thus, leaders of educational institutions who practice transformational leadership will help to make sure that the Islamic education provided is of good quality and meets the needs of the students and the environment and is also adaptive in responding to the changes. The similarities in the role of the kiai as leaders of Islamic boarding schools in Indonesia and Malaysia in implementing educational innovations can be seen in figure 2 below:

Figure 2. Similarities of the Roles of Kiai in the Educational Innovation di Indonesia dan Malaysia
From figure 2, it can be concluded that the kiai have an important role in implementing educational innovations, especially in Islamic education. Kiai have great influence and can lead by introducing new approaches and strategies in teaching and learning process. Making teachers, students and parents of students as partners in work, so that the kiai can also help foster a culture of innovation and motivate teachers and students to be involved in efforts to improve education in accordance with the vision and mission of Islamic boarding schools. Therefore, the kiai play a central role in ensuring that the Islamic education that students receive has high quality and meets the highest standards, in this case by conducting educational innovations that are oriented to modernity, creativity, technology development, and by forming soft skills & hard skills for improving the quality of Islamic boarding school graduates. This is in line with what Rumeli stated, that a good leader is a leader who can form unity, partnership, cooperation, democracy, tolerance, and the involvement of supporting components in running an institution (Rumeli et al., 2022). In addition, leaders of Islamic boarding schools can provide scholarships for their students to increase motivation to study at Islamic boarding schools (Kholifah, 2019).

The forms of pesantren education innovation that can be implemented by leaders of Islamic boarding schools can be understood as concepts that can be implemented in Islamic boarding schools to respond to the challenges of globalization. This can be understood through figure 3 as follows:

Figure 3. Concept Map of Islamic Boarding School Education Innovations in Indonesia and Malaysia
Figure 3 can be understood as a concept of Islamic boarding school education innovation in Indonesia and Malaysia to respond to the challenges of the 21st century by prioritizing the use of technology, media, management development, and improvement of the quality competence of graduates. This is in accordance with Chen's opinion which states that in the implementation of educational innovation there is integration with the use of technology. There are eight new trends in the integration of smart technology and information in education: 1) cross-media learning in which educational resources, services, and individual learning are available across multiple media; (2) Education plus Internet, an innovative Internet-supported approach to integrate online and offline learning to meet the needs of future learners; (3) increasing use of big data to improve educational performance including education governance; (4) the inclusion of Artificial Intelligence (AI) in the learning process; (5) Virtual Reality (VR) and Augmented Reality (AR) which are used to diversify knowledge expression, genuine knowledge interaction, and knowledge sharing in education; (6) Internet of Things to change the current perception of knowledge application and to enable manipulation of things via the Internet in education; (7) universal computing to increase the adaptability of education services and support personalized learning; and (8) social networks to facilitate collaboration and promote lifelong learning (Chen, Wang, & Zhang, 2018).

Islamic boarding schools in Indonesia and Malaysia must overcome several challenges in adapting to the 21st century world. To overcome these challenges, Islamic boarding schools must change the paradigm in the management system which was originally kiai-centric to management with a team building system to develop all components in the boarding schools, to increase teacher spirituality, to integrate technology in learning, to equip students with 21st century skills, and to reform the curriculum to adapt to the needs of the era. It takes a collaboration of teachers, students, and the community to make sure that the boarding school can compete and provide quality education that is relevant to the students.

From the several studies analyzed, there are several differences in Islamic boarding school education innovations in Indonesia and Malaysia in facing the challenges of the 21st century. The following are some differences in Islamic boarding school education innovations in Indonesia and Malaysia in the form of table 2:

Table 2. Differences of Educational Innovation in Islamic Boarding School in Indonesia and Malaysia

<table>
<thead>
<tr>
<th>Differences</th>
<th>Indonesian Islamic Boarding Schools</th>
<th>Malaysian Islamic Boarding Schools</th>
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</thead>
<tbody>
<tr>
<td>Technology Utilization</td>
<td>Most of Islamic boarding schools still rely on traditional teaching methods, but a number of Islamic boarding schools are starting to utilize technology such as video conferencing to teach remotely</td>
<td>Islamic boarding schools in Malaysia tend to utilize technology in teaching such as using mobile applications to read Al Quran and teach online.</td>
</tr>
</tbody>
</table>
In general, these Islamic boarding schools contain the same educational goals, which are increasing faith and piety to Allah as well as producing generations of noble character. In the opinion of Ummah Karimah, Islamic boarding schools contribute and play an important role in advancing the Indonesian nation by educating and building the character of the students through education at Islamic boarding schools (Asman, Suyadi, & Huda, 2021; Karimah, 2018).

There are several differences in the educational innovations implemented in Islamic boarding schools in the two countries. One of the biggest differences is in the use of technology. Islamic boarding schools in Indonesia tend to still rely on traditional teaching methods, while Islamic boarding schools in Malaysia are more likely to utilize technology in teaching such as using mobile applications to read the Koran and online learning. Islamic boarding schools in Indonesia often involve the surrounding community in educational activities such as recitation and study of the *Kitab Kuning*, while Islamic boarding schools in Malaysia are more focused on social and humanitarian activities involving the community.

In addition, Islamic boarding schools in Indonesia and Malaysia also have differences in cooperation with other educational institutions. Several Islamic boarding schools in Indonesia have collaborated with Islamic universities and other educational institutions to improve the quality of education, while Islamic boarding schools in Malaysia collaborate with other educational institutions such as religious schools and Islamic universities to improve the quality of education.
Malaysia have also collaborated with other educational institutions such as religious schools and Islamic universities to improve the quality of education. Islamic boarding schools in Indonesia tend to focus more on religious education, but some Islamic boarding schools have begun to combine religious education with general education to improve the quality of education. On the other hand, Islamic boarding schools in Malaysia have long combined religious education and general education in their educational curriculum.

Last, project-based education has also become one of the innovations that have begun to be implemented in Islamic boarding schools in Indonesia and Malaysia. Several Islamic boarding schools in Indonesia have started implementing project-based education in their curriculum to provide students with practical experience. This is also realized in Islamic boarding schools in Malaysia.

From the analysis conducted by the researchers, there are findings regarding the similarities of Islamic boarding school education innovations in Indonesia and Malaysia in facing the challenges of the 21st century. Table 3 illustrates the similarities of Islamic boarding school education innovations in Indonesia and Malaysia in facing the challenges of the 21st century in terms of indicators of technology use, multiculturalism, life skills, character education and readiness to enter the world of work.

Table 3 explains that in facing the challenges of the 21st century, Islamic boarding schools in Indonesia and Malaysia both recognize the importance of preparing students to face changes and challenges that are constantly growing. For this reason, the
two countries focus on developing students' practical skills and character, as well as utilizing technology in teaching and promoting activities and teaching through social media. In addition, Islamic boarding schools in both countries also encourage students to be involved in social and humanitarian activities, as well as improve the quality of education and student competence so that they are ready to face the world of work. This is in line with Muhammad Makinuddin regarding the quality assurance of pesantren graduates (Muhammad Makinuddin, 2019), and making pesantren graduates the answer to the challenges of globalization (Aisyiah, 2016).

4. CONCLUSION

In the educational innovation of Islamic boarding schools in Indonesia and Malaysia from 2013-2023 there are differences in the aspects of technology use, community involvement, collaboration with other educational institutions, combination of religious and general education, and in the aspect of project-based education. The similarities between the two are increasing the faith of Muslims through religious education and creating generations of noble character. To face the challenges of the 21st century, it requires the role of a transformational and distributive leader who can form unity, partnerships, cooperation, democracy, tolerance and involvement in leadership practices. Therefore, Islamic boarding schools realize the importance of preparing students to face changes and challenges that are constantly evolving. For this reason, the two countries focus on developing students' practical skills and character, as well as utilizing technology in teaching and promoting activities and teaching through social media. In addition, Islamic boarding schools in both countries also encourage students to take part in social and humanitarian activities, as well as improve the quality of education and student competence so that they are ready to face the world of work.

The innovations that become the focus of Islamic boarding schools, according to researchers, are management systems and institutional leaders who have openness and new innovations, especially those related to innovation according to the criteria that become competency demands in the 21st century. An educational institution leader plays a role of transformational and distributive leadership that forms unity, partnership, cooperation, democracy, tolerance, and engaging in leadership practices. The leadership will form a management and learning system in the pesantren that is in accordance with its goals. Research on educational innovation will continue and be an interesting matter to be studied more deeply by other researchers, because educational innovation in the context of improving the quality of educational institutions will never stop.
5. REFERENCES


Militaris, 12(2), 2955–2964.


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