

Beyond the Boundaries of Tradition: A Design Thinking Approach in Modern Pesantren Curriculum Reformulation

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Abstract:

This study explores the implementation of the design thinking approach in the reformulation of the curriculum of modern pesantren in Indonesia, with a case study on the Nurul Jannah Islamic Boarding School in Banjarmasin, South Kalimantan. Facing the challenges of globalization and digitalization, pesantren, as the oldest Islamic educational institution in Indonesia, needs to transform the curriculum to remain relevant without losing its traditional identity. Through a qualitative approach with a single case study method, this study applies a design thinking framework that includes the stages of empathy, problem definition, ideation, prototyping, and testing. The results of the study show that the application of design thinking has succeeded in producing an integrative curriculum model with five main components: (1) Islamic Science Foundation; (2) Adaptive General Science; (3) Language Development and Digital Literacy; (4) Islamic Innovation Projects; and (5) Character Development and Soft Skills. This curriculum model shows an increase in students' motivation to learn and critical thinking skills, as well as its effectiveness in bridging the gap between the traditional values of pesantren and the needs of modern competencies. Although implementation faces challenges in the form of resistance to change, limited teaching capacity, limited infrastructure, and a balance between standardization and contextualization, the design thinking approach has proven to offer an effective framework for the sustainable transformation of the pesantren curriculum. This research makes a theoretical and practical contribution to the development of an adaptive and competitive pesantren education model in the modern era without abandoning the roots of Islamic tradition.

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INTRODUCTION

Pesantren, as the oldest Islamic educational institution in Indonesia, have played an important role in shaping the character and intellect of generations of Muslims over the centuries. The institution has undergone various phases of transformation since its inception, but it has retained its essence as a center for Islamic religious learning. Entering the era of

globalization and digitalization, pesantren face new challenges that require a reformulation of the curriculum to remain relevant to the demands of the times without losing the noble values that are the foundation of their identity (Dhofier, 2011; Lukens-Bull, 2010).

Design thinking, as an innovative human-centered approach, offers a new perspective on understanding and solving complex problems in the world of education. This approach emphasizes empathy, problem definition, ideation, prototyping, and testing as systematic stages to create creative solutions (Brown, 2009; Plattner et al., 2018). The integration of design thinking in the reformulation of the pesantren curriculum opens up a space for dialogue between tradition and modernity, allowing the pesantren to adapt to the times while maintaining its distinctive identity.

This research aims to explore the potential of the design thinking approach in the reformulation of the modern Islamic boarding school curriculum. By examining the interaction between the traditional values of pesantren and contemporary educational needs, this study seeks to identify innovative strategies that can bridge the gap between pesantren education and global demands. An in-depth understanding of these dynamics is expected to make a significant contribution to the development of an adaptive and competitive pesantren education model in the modern era.

As an educational institution with unique characteristics, pesantren has its own complexity in the process of transforming its curriculum. The main challenge lies in how to maintain the traditional values that are the strength of pesantren, such as mastery of the yellow book, moral deepening, and communal life, while at the same time integrating the elements of modern education necessary to prepare students to face an ever-changing world (Azra, 2020; Tan, 2014). The design thinking approach offers a methodology that allows pesantren stakeholders to empathize with the needs of students, define problems clearly, develop innovative ideas, prototype the curriculum, and test it iteratively to achieve optimal results.

This study is expected to fill the literature gap related to pesantren curriculum innovation by providing a practical framework based on the principles of design thinking. Through an approach that integrates traditional wisdom with innovative methodologies, this research aims to contribute to the development of a pesantren model that not only maintains its relevance in the contemporary Indonesian educational landscape, but also becomes a pioneer in Islamic education that is responsive to global developments without losing its cultural roots.

METHOD

The research, which was carried out at the Nurul Jannah Islamic Boarding School, Banjarmasin, South Kalimantan, was designed with a qualitative approach through a single case study method. This approach was deliberately chosen to gain a comprehensive and in-depth understanding of the process of implementing design thinking in an effort to reformulate the curriculum at the Islamic boarding school. According to Yin (2018) and Creswell & Poth (2018), a single case study allows researchers to conduct an intensive

exploration of phenomena in a real context by considering diverse perspectives from all pesantren stakeholders.

The Nurul Jannah Islamic Boarding School became the location of the research with selection based on purposive sampling criteria. The three main considerations for choosing this location are its long history as a traditional Islamic boarding school, its position in a transition period to a modern Islamic boarding school, and the strong desire of the Islamic boarding school to innovate the curriculum. The subject of the study covers a wide spectrum of pesantren ecosystems, ranging from pesantren leaders (kyai/nyai), teaching councils (ustadz/ustadzah), students of various levels, alumni, to pesantren administration managers.

To ascertain the depth and richness of the data, the researchers used several varied data collection techniques. Participatory observation was carried out for three full months with researchers directly involved in the daily activities of the pesantren to observe the learning process, dynamics of social interaction, and ongoing curriculum implementation. In-depth interviews with a semi-structured format were carried out involving one pesantren leader, ten teachers with various backgrounds, fifteen students from various levels, five alumni, and three administrative managers.

In addition, the researcher also held three Focus Group Discussion (FGD) sessions with different compositions of participants. The first FGD is devoted to the teaching council, the second FGD involves senior students, and the third FGD combines various stakeholders including teachers, students, and alumni. To complete the primary data, the researcher conducted a documentation study of various important documents of the pesantren such as the old and currently being developed curriculum, syllabus and learning materials, evaluation reports, strategic plans, and minutes of curriculum development meetings.

This research is designed in four main stages that are in line with the design thinking framework. The first stage is empathy, where the researcher conducts in-depth observations of students' educational needs, interviews to understand the perspectives of various stakeholders, and identifies gaps between the traditional curriculum and the demands of modern needs. The second stage is definition, which includes the analysis of empathy data to formulate core problems, mapping challenges and opportunities in curriculum reformulation, and formulating the "How Might We" question as a guide for the development of solutions.

In the third stage, namely ideation, the researcher held a workshop with pesantren stakeholders to develop various ideas, conducted brainstorming sessions to produce alternative curriculum models, and evaluated and selected the most promising ideas to be implemented. The fourth stage, which is the final stage of the research, is prototyping and testing, where researchers develop new curriculum prototypes based on selected ideas, test them on a limited scale, and gather feedback to make necessary adjustments.

In analyzing the collected data, the researcher used a thematic analysis method with an inductive-deductive approach. The analysis process is carried out through several systematic stages, starting with data familiarization through transcription and repeated reading, followed by initial coding of raw data, search for potential themes, review and refinement of themes, naming and defining the final theme, to writing reports with in-depth interpretation.

To ensure the validity of the research data, the researcher applied several strategies that complemented each other. Data source triangulation is carried out by involving various stakeholders, triangulation methods through the use of various data collection techniques, member checking to verify interpretation with participants, researcher reflexivity through reflection journals to record potential biases, and peer debriefing with other researchers who have expertise in the field of pesantren education.

RESULT

The Nurul Jannah Islamic Boarding School is located on Jalan Gerilya Gang Bambu, East Kelayan B Village, South Banjarmasin District. This Islamic educational institution has a long history that began in 1990, when KH. Basirun Ali pioneered the establishment of this Islamic boarding school. He devoted himself as a caregiver as well as the first leader of the pesantren until his death in January 2010. Currently, the leadership of the Nurul Jannah Islamic Boarding School is carried out by three people: Ustadz Edi Rahmadi, Ustadz H. Zaini, and Ustadz H. Syafii who are the sons of the late founder.

In the early days of its establishment, this pesantren managed to attract around 200 students. The development of the pesantren continues to increase until it reaches 1,600 students. However, after a major fire disaster that hit the Islamic boarding school complex in 2010 and almost destroyed the entire building, the number of students decreased significantly as many quit or moved to other schools. Currently, this pesantren has 1,010 students consisting of 600 students at the tsanawiyah level and 410 students at the aliyah level.

Prior to the curriculum development intervention, the Nurul Jannah Islamic Boarding School had a curriculum structure dominated by the teaching of the yellow book and religious sciences (70%), while the other 30% adopted the national curriculum from the Ministry of Religious Affairs. The learning method is still teacher-centered by relying on the *bandongan* and *sorogan* methods. The evaluation system emphasizes more on memorization and text mastery. This condition raises various challenges, especially related to the gap between students' abilities and the demands of the modern world of work, the lack of technological integration in learning, the development of soft skills that has not been structured, the lack of entrepreneurship development programs, and the absence of a curriculum quality assurance system.

Islamic boarding school leaders are aware of the importance of curriculum transformation to prepare students to face the global era. As stated by Ustad Edi Rahmadi, "We realize that pesantren cannot only survive in the old ways. Students will now face a very different world. They still have to master religious science well, but they also need skills to compete in the global era."

Efforts to transform the curriculum are carried out with a design thinking approach involving various pesantren stakeholders. The first stage is empathy, where participatory observation is carried out for three months to understand the needs and expectations of all stakeholders. From the perspective of students, it was revealed that they wanted to continue to study religious science but also master digital skills, the need for more interactive and

contextual learning methods, and concerns about the relevance of pesantren education to the world of work. From the perspective of teachers, it was found that there are difficulties in integrating traditional values with modern materials, limited competence in the use of learning technology, and the need for a more structured but flexible curriculum guide. Meanwhile, alumni highlighted the gap between the competence of graduates and the demands of the world of work, the importance of strengthening foreign languages and communication skills, and the need to introduce entrepreneurship from an early age in pesantren.

Based on these findings, the development team formulated several core problems, including how to integrate traditional values of pesantren with the needs of modern competencies, how to develop learning methods that respect tradition but are adaptive to the times, and how to prepare students for the global world without losing their Islamic identity. The key questions formulated are how to design a curriculum that bridges classical science with the competency needs of the 21st century, as well as how to create a learning experience that maintains the values of pesantren but adopts modern learning methodologies.

At the ideation stage, a series of workshops with pesantren stakeholders produced several ideas for curriculum reformulation. Emerging ideas include an Integrative Curriculum Model that integrates the content of the yellow book with contemporary issues, a Tahfidz-Technopreneur Program that combines Qur'an memorization with technology and entrepreneurial skills, a Digital Madrasah that develops digital infrastructure to support learning, Islamic Project-Based Learning, as well as a "Trilingual Plus" Language Program that emphasizes mastery of Arabic, English, and programming. Through the evaluation and voting process, the three ideas with the highest potential were selected for further development, namely the Integrative Curriculum Model, Islamic Project-Based Learning, and the "Trilingual Plus" Language Program.

At the prototyping and testing stage, the development team designed a prototype of the "Modern Islamic Boarding School Integrative Curriculum" with a composition of 40% yellow book recitation and Islamic science, 30% national curriculum, 20% language and technology development, and 10% project-based learning with integrative themes. This prototype also includes learning method innovations such as "Digital Halaqah" which is a discussion of the yellow book with the help of digital technology, "Fiqh of Technology" which examines contemporary Islamic law related to technology, and "Design Thinking for Islamic Innovation" which is a workshop on the development of solutions based on Islamic values.

This curriculum prototype was tested for one semester in a group of 10th grade MA students. The test results showed an increase in students' motivation to learn, an increase in critical thinking skills, and a strengthening of Islamic identity along with the mastery of modern skills. Based on feedback from the test, several adjustments were made in the form of adding the "Digital Ethics" module to the curriculum, strengthening character development aspects in project-based learning, and developing more detailed implementation guidelines for teachers.

The final model of the resulting design-based curriculum has five main components. First, the Islamic Scientific Foundation (40%) which includes the recitation of the yellow book with contextual discussion methods, tahfidz of the Qur'an with an understanding of contemporary interpretation, as well as dialogue and synthesis between classical and modern Islamic thought. Second, Adaptive General Science (25%) which includes a national curriculum with an enrichment of Islamic perspectives, an integrative approach between science and Islamic values, and simple research-based learning. Third, Language Development and Digital Literacy (15%) which emphasizes strengthening Arabic and English with communicative approaches, digital literacy and computational thinking, as well as basic introduction to digital programming and design. Fourth, Islamic Innovation Projects (10%) which include project-based learning with socio-religious themes, designing innovative solutions to community problems, and application of design thinking in the context of Islam. Fifth, Character Development and Soft Skills (10%) which includes leadership based on pesantren values, Islamic social entrepreneurship, and public speaking and effective communication.

This comprehensive curriculum model is equipped with a quality assurance system and a continuous evaluation mechanism involving all pesantren stakeholders, so that it is expected to be a sustainable solution to bridge the tradition of pesantren with the demands of modern skills.

DISCUSSION

Transformation of the Islamic Boarding School Curriculum through a Design Thinking Approach

This research reveals that the design thinking approach offers an effective framework for reformulating the pesantren curriculum. In contrast to conventional approaches that are often top-down and lack attention to user needs, design thinking allows pesantren to develop a curriculum that is truly centered on the needs of students and the demands of the times without sacrificing traditional values.

The empathy stage in design thinking allows the identification of the deep needs of various stakeholders, not only based on the assumptions of pesantren leaders or policymakers. As stated by Plattner et al. (2018), empathy is an important cornerstone in the human-centered innovation process. In the context of pesantren, this empathy helps bridge the gap between tradition and modernity in a more organic way.

The results of the study show that the reformulation of the pesantren curriculum does not have to be a binary choice between maintaining tradition or adopting modernity. As revealed by Lukens-Bull (2010), pesantren have proven their ability to adapt without losing identity. The design thinking approach strengthens this adaptive capacity by providing a systematic methodology for integrating traditional values with contemporary needs.

“The design thinking approach helps us see that maintaining tradition and adopting innovation are not two contradictory things. The two can go in harmony if we are able to identify the essence of pesantren values and contextualize them with the needs of the times.” (Ustadz Farid, Curriculum Coordinator)

This finding is in line with Azra's (2020) argument about the need for pesantren to carry out a "selective transformation" of modernity, where pesantren actively chooses modern elements that are in harmony with the fundamental values of pesantren

Scientific Integration as a Solution to the Curriculum Gap

The integrative curriculum model developed through the design thinking process shows the potential to overcome the dichotomy of knowledge that is often a challenge in pesantren education. This integrative approach allows students to see the relationship between religious science and general science, as well as its application in the real-world context.

The development of the "Fiqh of Technology" module in the new curriculum, for example, demonstrates how the Islamic fiqh tradition can be used as a framework to understand and respond to contemporary technological issues. This approach is in line with the concept of "tajdid" (renewal) in Islam which emphasizes the reinterpretation of teachings for new contexts without abandoning basic principles (Dhofier, 2011).

The results of observations on the implementation of the integrative curriculum show an increase in students' motivation to learn, especially in subjects that were previously considered less interesting. As expressed by one of the students:

"I used to feel that general lessons and the yellow book were like two separate things. Now, when we learn about economics, we also discuss it from the perspective of fiqh muamalah. This makes learning more meaningful and relevant to our lives." (11th grade students)

These findings support the argument of Tan (2014) that pesantren have the potential to develop an integrative education model that can bridge the gap between Islamic traditions and the demands of modernity.

Project-Based Learning as an Implementation of Design Thinking in Learning

The "Islamic Innovation Projects" component in the new curriculum represents the adaptation of design thinking principles into learning methods in pesantren. Through this approach, students not only become passive recipients of knowledge, but also problem-solvers who actively apply Islamic knowledge to solve real problems.

Observations of the implementation of project-based learning show an increase in critical and collaborative thinking skills among students. One of the projects developed by the students is the mobile application "QuranConnect" that connects Qur'an memorizers with remote mentors, demonstrating how traditional values (memorizing the Qur'an) can be integrated with modern technology.

"Project-based learning helps students see how the knowledge they learn in pesantren can contribute to solving real problems. It provides context and relevance that is often lost in conventional learning approaches." (Ustadzah Laila, Teacher)

These findings are in line with Brown's (2009) research which emphasizes the importance of experiential learning in developing innovative thinking. In the context of pesantren, this approach allows students to develop their identity as "innovative Muslims" who are able to contribute to modern society without abandoning Islamic values.

Implementation Challenges and Strategies

The implementation of a design thinking-based curriculum at the Nurul Jannah Islamic Boarding School has shown positive results, but this transformation journey is not spared from the various challenges that must be faced. Behind this success lies the story of the struggle to face resistance, limitations, and dilemmas that color the process of change.

Resistance to change arises, especially from senior ustadz who harbor deep concerns. They fear that this new approach will erode the emphasis on teaching the yellow book which has been the backbone of pesantren education. To bridge these concerns, the curriculum development team chose a path of gradual and inclusive change. They patiently invited senior ustadz to be directly involved in the development process, giving them space to voice concerns and demonstrating that traditional values remain an irreplaceable solid foundation in the updated curriculum.

Another challenge that is no less complicated is the limited capacity of teachers in adopting contemporary learning methodologies. Many teachers who have been teaching with conventional methods for a long time feel unfamiliar with the project-based learning approach. Realizing this gap, the pesantren initiated a continuous professional development program and built a mentoring system that allows for knowledge transfer between teachers. This step helps build the confidence and skills needed to implement the new curriculum effectively.

Limited infrastructure is also a significant obstacle, especially when pesantren try to integrate digital components in learning. Faced with this situation, pesantren develop a smart gradual strategy by optimizing existing resources while slowly building the necessary new infrastructure. This pragmatic approach allows for a smoother transition without sacrificing the quality of teaching.

The last challenge that is no less complex is finding a balance between standardization and contextualization of the curriculum. On the one hand, the curriculum must meet national standards; On the other hand, it must remain relevant to the local context and the typical values of the pesantren. Faced with this dilemma, the curriculum team developed creative solutions in the form of a “core curriculum” that is flexible and adaptable according to specific needs and contexts, ensuring that the essence of pesantren education is maintained in a more modern learning framework.

CONCLUSION

This research shows that the design thinking approach offers an effective framework for reformulating the pesantren curriculum in facing the demands of the modern era. Through a human-centered and iterative process, pesantren can develop an educational model that maintains traditional values while adopting the innovative elements necessary to prepare students to face global challenges.

The integrative curriculum model developed at the Nurul Jannah Islamic Boarding School proves that the dichotomy between tradition and modernity can be bridged through a systematic and inclusive approach. The development of curriculum components such as

“Islamic Innovation Projects” and “Fiqh of Technology” demonstrates how classical Islamic values can be revitalized and contextualized to respond to contemporary challenges.

Nonetheless, the implementation of this model requires a long-term commitment and a continuous adaptation process. Pesantren need to develop internal capacity, both in terms of human resources and infrastructure, to support the effective implementation of the curriculum. The involvement of all pesantren stakeholders in the curriculum development and evaluation process is the key to the success of sustainable curriculum reformulation.

The design thinking approach in the reformulation of the pesantren curriculum offers a model that can be adapted by other pesantren in facing similar challenges. By maintaining the principle of “al-muhafadzah ‘ala al-qadim al-shalih wa al-akhdzu bi al-jadid al-ashlah” (nurturing good old traditions and adopting new and better things), pesantren can remain relevant as Islamic educational institutions that contribute significantly to the formation of a generation of Muslims who are adaptive, innovative, and rooted in Islamic values

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