

Design For Development of PAI Curriculum in Madrasah Views from Science and Technology

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Abstract: The aim of this research is to analyze the views of science and technology in curriculum development design. The research method used is the library research method with books and journals as sources of information. The results of this research are: According to a review of the basis of science and technology, the design of PAI curriculum development in madrasah for each component must include science and technology in it, including objectives, materials, methods and evaluation. Then, in including science and technology in the development of the PAI curriculum in madrasah, there are several things that must be taken into account, including: a) must be effectively and dynamically balanced with human resource development, conducting research, and developing science and technology infrastructure; b) aimed at improving the nation's quality of life and prosperity; c) must be in harmony with religious values, socio-economic conditions and culture at a higher level of productivity and development; and d) must have the ability to solve specific problems.

Keywords: Curriculum Development Design, Islamic Religious Education, Science and Technology

A. Introduction

In the national education system, there are three main components: (1) students, (2) teachers, and (3) curriculum (Flores, 2016). These three components are related to each other during the teaching and learning process. The learning process cannot be carried out without students. Without students, students will not learn optimally. Without a curriculum, teachers will also not have teaching materials to teach their students (Baderiah 2018). Education in this country consists of curriculum and learning. To carry out their duties, professional teachers must understand the curriculum and learning, just as students who will become prospective professional educators have the ability to understand the concepts of curriculum and learning. Curriculum is a learning tool provided to students during their education. The curriculum is designed to achieve goals, and the success of the curriculum depends on the teacher's abilities. Teachers are people who are responsible for implementing the curriculum by the State

(Ayudia et al. 2023).

The importance of the curriculum in the education system in each country of course makes the curriculum a component that cannot be prepared and developed in the usual steps, there are many things that need to be paid attention to and considered, even in preparing the curriculum, the parties concerned must pay attention to various foundations and aspects. related to the country, among the foundations that must be considered when preparing and developing the curriculum, one of the foundations is the foundation of science and technology.

As time goes by and science and technology become more advanced and modern, the curriculum in Indonesia has undergone various changes to achieve excellence in education (Ananda & Fatonah, 2022). Over the years, science continues to develop, producing new objects, systems and ideas. This development leads to the development of technology that makes it easier for human performance to meet demands and needs. Most people think of advanced, contemporary, and futuristic tools when talking about technology. Actually, the phrase is not wrong because it is all part of technology. However, technology includes all the tools used to ensure human survival. The use of technology began with the use of simple natural resources in ancient times, such as stones, twigs, wood and soil (Sitika, et al., 2023).

With the increasing development of science and technology in the world, the development of the PAI curriculum in Islamic boarding schools needs to pay attention to the basis of science and technology, so that students not only learn about religious education, but also indirectly students are accustomed to and adapt to the sophistication of technology and can discover knowledge. more knowledge with the help of technology. Therefore, the aim of this research is to analyze the views of science and technology in curriculum development design.

B. Methods

The research method used in this research is a library method (Widemuth, 2016) that uses national journals and books on curriculum development as sources of information (Bronstein, 2007; George & Casey, 2020; Shao et al., 2021). The steps taken in this research include: 1) collecting sources of information originating from Google Scholar and libraries related to the development of the PAI curriculum in madrasah in light of the basis of science and technology, 2) separating and grouping the sources obtained into two groups, namely primary and secondary data sources, 3) reading and analyzing the sources that have been obtained then grouping the findings into appropriate sub-discussions, 4) re-checking the data that has been produced, 5) summarizing the data that has been found in the form of a journal article.

C. Results and Discussion

Design Concept for PAI Curriculum Development in Madrasah

Curriculum is all activities and experiences created and structured to achieve academic goals. Curriculum content is not just a collection of information or knowledge; it must be a combination of selected knowledge necessary for the knowledge itself, the student, and the environment (Miswar, et al. 2021). According to Law Number 20 of 2003 concerning the National Education System, the curriculum is a set of plans and arrangements regarding objectives, content and learning materials as well as methods used as guidelines for implementing learning activities to achieve certain educational goals. Based on this understanding, there are three dimensions of the curriculum, (1) plans and arrangements regarding objectives, content and learning materials used (2) methods for learning activities, and (3) measures of educational achievement. The madrasa curriculum is based on standards-based education theory. This theory says that the provision of education based on standards sets minimum standards for the quality of citizens. This standard consists of standards for content, processes, facilities and infrastructure, management, financing, educational assessment, and standards-based curriculum theory (Novriantoni & Dewi 2024).

Islamic religious education in schools and madrasah aims to grow and increase students' faith by providing knowledge, appreciation and practice of the Islamic religion. The goal is for students to become Muslims who continue to develop in their faith, devotion to their nation and country, and have the ability to continue their education (Wahyudin & Dewi 2024). Thus, the design for developing the PAI curriculum in madrasah is a series or concept of perfecting a set of plans and arrangements regarding the implementation of Islamic religious education in madrasah which aims to shape students into people who are faithful, devout and practice Islamic teachings well and correctly.

The curriculum is a system consisting of various interconnected parts, such as objectives, materials, methods, and evaluation. These components function as the basis for curriculum development and learning systems, and if one of these parts is disrupted or not connected to the others, the curriculum as a whole will also be disrupted. These components also function as the basis for developing a learning system, the components in question include (Mayasari 2023):

1. Goal component: Achieving national education goals must be part of the goal component. Curriculum in the narrow sense relates to the vision and mission of the madrasah or specifically includes the objectives of each subject and the learning process. On a broad scale, curriculum objectives are related to the values believed by society and describe the society they aspire to.
2. Curriculum Material: Basically, curriculum material is the content of the curriculum. Curriculum material covers all aspects, whether related to

knowledge or subject matter, and is usually described in the subject matter and activities carried out by students.

3. **Method Component:** Method is a very important part in achieving learning objectives. Method is the way lessons are delivered.
4. The evaluation component is the process of assessing the efficiency, effectiveness, benefits, impact and sustainability of a program or activity. In the curriculum context, curriculum evaluation is defined as a series of comparing the implementation of inputs, processes, outputs and outcomes against curriculum plans and standards.

Characteristics of the PAI Curriculum in Madrasah

According to Ashari, (2021), the Islamic religious education curriculum in madrasah has the following characteristics:

1. All of its goals are centered on religious interests and moral improvement. Here, the application is in all aspects including content and methods
2. Can reflect the spirit, religious teachings and thoughts that cover the entire range of aspects and content. The purpose of creating a curriculum is to achieve this goal. All material develops comprehensively and covers the development of every aspect of the student's personality, including psychological, cognitive, spiritual and social. This is not limited to students' religious beliefs.
3. Special attention must be paid to the balance of knowledge that is beneficial for individual development and also related to social aspects, without neglecting the balance of knowledge that is appropriate to the curriculum.
4. There needs to be a principle that regulates all subjects required by students, such as knowledge of arts, languages, and so on, to meet students' needs.
5. There needs to be a principle of good match between the knowledge that students need and the knowledge that is beneficial for their development.

Principles of PAI Curriculum Development in Madrasah

In making the PAI curriculum in madrasah, there are several general principles that must be considered, including (Paramansyah & Taukhid, 2023):

1. The goal-oriented principle, which means that curriculum development is designed to achieve certain goals, especially the goals of Islamic education. Curriculum objectives are also efforts to achieve specific goals for educational levels and individuals. Educational goals include elements of knowledge, skills, attitudes and values that contribute to changes in student behavior. It includes three components (cognitive, affective, and psychomotor) as well as elements found in Islamic education.
2. The principle of relevance (suitability), which means that PAI curriculum development must consider objectives, content, systems and delivery. This also means that the curriculum must be adapted to the needs of society, the level of

development, and needs of students, as well as to advances in science and technology.

3. The principle of efficiency and effectiveness, which means that PAI curriculum development must consider efficiency in the use of funds, time, energy and resources
4. The principle of flexibility, which means that the PAI curriculum must be arranged sequentially, meaning that the components, aspects, materials and materials must be connected to each other and appropriate to the student's level, so that they are not rigid and static.
5. The principle of continuity, which means that the PAI curriculum must be able to be adjusted and adjusted according to the demands and conditions of the local ecosystem and capabilities, so that it is not rigid and static. The goal-oriented principle, which means that curriculum development is designed to achieve certain goals, especially the goals of Islamic education. Curriculum objectives are also efforts to achieve specific goals for educational levels and individuals. Educational goals include elements of knowledge, skills, attitudes and values that contribute to changes in student behavior. It includes three components (cognitive, affective, and psychomotor) as well as elements found in Islamic education.
6. The principle of relevance (*suitability*), which means that PAI curriculum development must consider objectives, content, systems and delivery. This also means that the curriculum must be adapted to the needs of society, the level of development, and needs of students, as well as to advances in science and technology.
7. The principle of efficiency and effectiveness, which means that PAI curriculum development must consider efficiency in the use of funds, time, energy and resources
8. The principle of flexibility, which means that the PAI curriculum must be arranged sequentially, meaning that the components, aspects, materials and materials must be connected to each other and appropriate to the student's level, so that they are not rigid and static.
9. The principle of continuity, which means that the PAI curriculum must be able to be adjusted and adjusted according to the demands and conditions of the local ecosystem and capabilities, so that it is not rigid and static.

D. Conclusions

Science and technology have brought major changes to life in the world, including in education, therefore, in developing the curriculum, one of the foundations that must be considered is the foundation of science and technology (IPTEK), with the increasing development of science and technology, teachers must design the development of the PAI curriculum. in madrasah adapt to the science and technology that the world is facing. According to a review of the basis of science and technology, the design of PAI

curriculum development in madrasah in each component must include science and technology in it, including objectives, materials, methods and evaluation. Then, in including science and technology in the development of the PAI curriculum in madrasah, there are several things that must be taken into account, including: a) must be effectively and dynamically balanced with human resource development, conducting research, and developing science and technology infrastructure; b) aimed at improving the nation's quality of life and prosperity; c) must be in harmony with religious values, socio-economic conditions and culture at a higher level of productivity and development; and d) must have the ability to solve specific problems.

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References

- Ananda, R. R., & Fatonah, S. (2022). Historical and Sociological Review of the Development of Islamic Religious Education Curriculum in Indonesia. *Alsyst* 2(6):775-91. <https://doi.org/10.58578/alsys.v2i6.663>
- Ashari, N. A. (2021). Development of Islamic Religious Education Curriculum in Madrasah. *An-Nur: Jurnal Studi Islam* 13(2): 153-67. <https://doi.org/10.37252/annur.v13i2.104>
- Ayudia, I., Wilibaldus, B., Rici, O., Maria, C., Veronike, S., Majidah, K., Fitri, M., & Merika, S. (2023). *Curriculum Development*. Mifandi Mandiri Digital. <http://fkip.ummy.ac.id/wp-content/uploads/2023/06/Pengembangan-Kurikulum.pdf>
- Baderiah. (2018). *Curriculum Development Textbook*. <https://core.ac.uk/download/pdf/198238859.pdf>
- Bronstein, J. (2007). Current trends in library and information studies curricula around the world: Looking for the user-centred approach. *Journal of Information, Communication and Ethics in Society*, 5(2/3), 59-78. <https://doi.org/10.1108/14779960710837579>
- Flores, M. A. (2016). Teacher education curriculum. *International Handbook of Teacher Education: Volume 1*, 187-230. <https://repositorium.sdum.uminho.pt/bitstream/1822/52318/1/Flores.pdf>
- George, K. W., & Casey, A. M. (2020). Collaboration between library, faculty, and instructional design to increase all open educational resources for curriculum development and delivery. *The Reference Librarian*, 61(2), 97-112. <https://doi.org/10.1080/02763877.2020.1749753>
- Mayasari, A. (2023). Analysis of Curriculum Development and Islamic Religious Education Materials Through Religious Literacy Programs as an Effort to

- Improve the Quality of Madrasah Education. *Nusantara: Jurnal Pendidikan Indonesia* 3(2):209–30. <https://doi.org/10.14421/njpi.2023.v3i2-4>
- Miswar, S., Nazaruddin., Zaedun, N., Syahidin., Puspo, N., Ismatul, M., Yanry, B., Lila, P. H., Dasep, B. A., Khaidir., Makmur., & Dahniar. (2021). *Development of Islamic Religious Education Curriculum*. Yayasan Penerbitan Muhammad Zaini. <https://books.google.co.id/books?id=AaheEAAAQBAJ&printsec=copyright&hl=id#v=onepage&q&f=false>
- Novriantoni, F., & Dewi, D. E. C. (2024). Islamic Religious Education Curriculum Development Design at MI in Facing the Millennial Era. *Innovative: Journal of Social Science Research* 4(1): 15–28. <https://doi.org/10.31004/innovative.v4i1.8834>
- Paramansyah, A., & Taukhid, A. (2023). Development of Islamic Religious Education Curriculum in Islamic Higher Education Institutions in the Digital Era. *Jurnal Tahsinia* 4(2):146–55. <https://doi.org/10.57171/jt.v4i2.510>
- Shao, G., Quintana, J. P., Zakharov, W., Purzer, S., & Kim, E. (2021). Exploring potential roles of academic libraries in undergraduate data science education curriculum development. *The Journal of Academic Librarianship*, 47(2), 102320. <https://doi.org/10.1016/j.acalib.2021.102320>
- Sitika, A. J., Kartini, A., & Suryana, A. N. (2023). Analysis of the Utilization of Science and Technology in Curriculum Development Efforts. *Jurnal Pendidikan Tambusai* 7: 93–97. <https://doi.org/10.31004/jptam.v7i2.7830>
- Wahyudin, A., & Dewi, D. E. C. (2024). Management of Islamic Religious Education Curriculum Development at SDN 27 Bengkulu Selatan. *JPT: Jurnal Pendidikan Tematik* 5(1):166–82. <https://siducat.org/index.php/jpt/article/view/1166>
- Wildemuth, B. M. (Ed.). (2016). *Applications of social research methods to questions in information and library science*. Bloomsbury Publishing USA.