

RESEARCH BASED CURRICULUM DEVELOPMENT MODEL AND ISLAMIC SCIENTIFIC TRADITION IN SENIOR HIGH EDUCATION

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<p>KEYWORDS: Research Based Curriculum, Islamic Scholarly Tradition, Curriculum Development</p>	<p>ABSTRACT</p> <p>Islamic education is faced with two dilemmas: the demands of modernism and the preservation of the Islamic scientific tradition. This dilemma requires Islamic educational institutions to accommodate both demands in the curriculum. SMA Negeri 1 Adiluwih seeks to develop a curriculum model that integrates modern research and Islamic tradition, which is the focus of this research, including the challenges faced. This research uses qualitative methods based on phenomenological studies with data collection techniques of observation, interviews, and documentation studies. The results reveal that efforts include improving teacher competence, integrating learning materials, and project based learning. This research based curriculum and Islamic tradition have positively contributed to the learning process by integrating Islamic values and encouraging students to think critically and reflectively. Development challenges include limited resources and external support, especially from parents. This research corroborates Fazlur Rahman's theory of reformulating Islamic education that integrates modern science with Islamic scientific traditions to answer the challenges of the times. Rahman emphasizes the importance of a research-based approach to building critical understanding, as applied in the curriculum model of SMA Negeri 1 Adiluwih.</p>
<p>KATA KUNCI: Inovasi Pembelajaran, Pembelajaran Berpusat pada Siswa, Pembelajaran Berbasis Pengalaman</p>	<p>ABSTRAK</p> <p>Pendidikan Islam dihadapkan pada dua dilema yakni tuntutan modernisme dan pelestarian tradisi keilmuan Islam. Dilema ini mengharuskan lembaga pendidikan Islam mengakomodir kedua tuntutan dalam kurikulum. SMA Negeri 1 Adiluwih berupaya mengembangkan model kurikulum yang mengintegrasikan riset modern dan tradisi Islam, yang menjadi fokus pada penelitian ini, termasuk juga tantangan yang dihadapi. Penelitian ini menggunakan metode kualitatif berbasis studi fenomenologi dengan teknik pengumpulan data observasi, wawancara, dan studi dokumentasi. Hasilnya mengungkapkan bahwa upaya meliputi peningkatan kompetensi guru, integrasi materi pembelajaran, dan pembelajaran berbasis proyek. Kurikulum berbasis riset dan tradisi Islam ini telah memberikan kontribusi positif terhadap proses pembelajaran dengan mengintegrasikan nilai-nilai Islam dan mendorong siswa berpikir kritis dan reflektif. Tantangan pengembangan meliputi keterbatasan sumber daya dan dukungan eksternal, terutama dari orang tua. Penelitian ini menguatkan teori Fazlur Rahman tentang reformulasi pendidikan Islam yang mengintegrasikan ilmu modern dengan tradisi keilmuan Islam untuk menjawab tantangan zaman. Rahman menekankan pentingnya pendekatan berbasis riset untuk membangun pemahaman kritis, sebagaimana diterapkan dalam model kurikulum SMA Negeri 1 Adiluwih</p>

INTRODUCTION

Education has a strategic role in building the civilization of a nation, including Indonesia. As the main pillar, education aims to produce a generation that is not only competent in the academic field, but also has noble character, ethics, and is based on Islamic values (Ilham, 2020; Zaqiah, 2022). The national curriculum serves to develop the potential of students to become individuals who are faithful, pious, noble, healthy, intelligent, creative, independent, and responsible (Mubarok et al., 2021; Muttaqin, 2018). At the secondary education level, as found in SMA Negeri 1 Adiluwih, the curriculum has a crucial role in achieving these goals. The curriculum is not only a learning framework, but also a reference for shaping students' mindsets, attitudes, and skills.

However, Islamic education faces a major dilemma in its curriculum development, namely how to accommodate modernism while preserving the Islamic scientific tradition. Research based curriculum development and the Islamic scientific tradition are the answers to this challenge. Research in education aims to create innovations, updates, and more effective strategies in the learning process (Lubis et al., 2023). On the other hand, the Islamic scientific tradition, which has developed over centuries, provides its own characteristics in the world of Islamic education, with methods such as murajaah, talaqi, and hiwar, which are the basis for the formation of Islamic knowledge. Thus, the Islamic scientific tradition can be integrated

with modern science to produce a curriculum that is relevant to the times and in accordance with Islamic principles (Fuadi & Suyatno, 2020; Siregar et al., 2019).

The development of a curriculum based on research and the Islamic scientific tradition at the secondary education level, especially at SMA Negeri 1 Adiluwih, faces major challenges. One of the main challenges is how to harmonize the two approaches within the framework of the existing curriculum. The existing curriculum at SMA Negeri 1 Adiluwih needs to combine the academic needs of students with the strengthening of Islamic values, through an in-depth planning, implementation and evaluation process. In addition, it is important to involve all stakeholders in this process, from teachers, students, to parents, so that the desired curriculum objectives can be achieved optimally and in accordance with the demands of the times (Sholeh et al., 2023).

In this era of globalization and digitalization, education faces various rapid and dynamic changes, which affect the way people view education (Qolbiyah et al., 2022). Therefore, a research based approach in curriculum development is essential to understand students' needs more deeply, while the Islamic scholarly tradition serves as a moral and spiritual guide in student character building (Aliska, 2022). In addition, a research-based approach also makes it possible to detect educational problems empirically. Research enables a more accurate understanding of the

needs of students, teachers, and the surrounding community (Lubis et al., 2023). In the context of SMA Negeri 1 Adiluwih, research can identify the needs of students who are diverse, both in terms of their academic and cultural and religious backgrounds. Therefore, this approach ensures that the curriculum developed is in line with the needs of the students and the times.

The development of a curriculum based on research and the Islamic scientific tradition at the secondary education level, especially at SMA Negeri 1 Adiluwih, faces major challenges. One of the main challenges is how to harmonize the two approaches within the existing curriculum framework (Hakim, 2021). The existing curriculum at SMA Negeri 1 Adiluwih needs to integrate students' academic needs with the strengthening of Islamic values, through an in-depth planning, implementation and evaluation process. In addition, it is important to involve all stakeholders in this process, from teachers, students, to parents, so that the desired curriculum goals can be achieved optimally and in accordance with the demands of the times. Strengthening collaboration between the school and the surrounding community is also an important factor, as active involvement from all parties will ensure that the curriculum developed is relevant to the local social and cultural context. Thus, the curriculum can function not only as a tool for academic education, but also as a means of character building and the application of Islamic values in everyday life (Sholeh et al., 2023).

The phenomenon at SMA Negeri 1 Adiluwih shows that research based curriculum development and the Islamic scientific tradition have great potential to improve the quality of education. The success of this approach depends on the commitment and cooperation of all parties involved. With the right approach, SMA Negeri 1 Adiluwih can become a model for other schools in developing a curriculum that is relevant to the needs of the times and Islamic values. In the long run, it is hoped that this approach will produce young people who excel academically and have high moral and spiritual integrity, who will become wise future leaders and maintain the noble values of the Islamic scientific tradition.

Based on the explanation of the problem above, this research aims to analyze the efforts to develop an Islamic education curriculum that accommodates the research base and Islamic scientific tradition, along with the challenges faced by SMA Negeri 1 Adiluwih in making these efforts. The results of this research certainly have a high degree of sophistication, especially in contributing a curriculum model that can be the basis for improving Islamic education learning at the upper secondary level. The results of this study are also the basis for proving that schools, which are often considered secular educational institutions, can produce curriculum development models that are able to meet the demands of the times. Thus the contribution boils down to teachers, students, principals who will receive the benefits.

To prove this distinction, the researchers explored relevant research using the Science and Technology Index (Sinta) page as an official scientific platform owned by the ministry of higher education, research and science and technology. The exploration results show that there are several relevant studies, but they have a different focus of study, including research on research based learning in higher education with a focus on the integration of research in the learning process (Lubis et al., 2017), 2023; Rangkuti, 2017), improving students' writing skills through research based learning, with a focus on scientific writing exercises through research activities (Cahyani, 2018), the resilience of pesantren in facing the challenges of modernization, with a focus on efforts to maintain classical Islamic traditions in the midst of modernism challenges (Solichin, 2014), innovation and development of Islamic education curriculum in junior high schools, with a focus on adaptation to the independent learning curriculum (Qolbiyah et al., 2022), integration of Islamic religious education materials with rational sciences, the focus of the study on efforts to integrate Islamic religious education materials based on the Qur'an and Hadith with rational science or science (Aliska, 2022; Qolbiyah et al., 2022; Siregar et al., 2019). Some of the research that has been stated shows that there is a very real distinction and it can even be said that this research has a high degree of sophistication, it is clearly evident from the gap in research focus, where this research

focuses on curriculum development models that seek to accommodate the demands of modernism and Islamic tradition. Research on this is usually carried out at the university level, but this research considers that the demand for learning based on the integration of research and Islamic tradition must begin at the secondary education level.

THEORY DESCRIPTION

In the context of Islamic education, the curriculum is not only interpreted as an academic framework, but also as a means of internalizing Islamic values that are integrated with scientific competence. The research based curriculum and Islamic scientific tradition emphasize the importance of combining modern empirical approaches and classical values in the Islamic tradition to answer the needs of contemporary society. The research based approach in curriculum development aims to ensure the relevance and sustainability of educational programs. By integrating research as a foundation, the curriculum is designed based on valid empirical data, both from analyzing student needs, trends in scientific development, and the demands of the world of work (Siregar et al., 2019). Research in Islamic education has unique characteristics because it is not only oriented towards developing cognitive competence but also spiritual based character building. For example, a classroom action research approach can be used to evaluate the effectiveness of Qur'anic verse teaching

methods, while quantitative research can help determine the relationship between students' understanding of the Islamic scholarly tradition and their academic performance.

In addition to research, the Islamic scholarly tradition is an important element in curriculum development in secondary education. This tradition refers to the rich intellectual and spiritual heritage that includes the teaching methods of classical scholars, the study of primary texts such as the yellow book, and the ethical values taught in the history of Islamic civilization. In this context, it is important to adapt traditional methods such as halaqah (group discussion) and sanad (chain of scholarship) into a modern learning framework. This integration allows students to not only understand the scholarly content but also inherit the critical thinking methods and scientific ethos from the Islamic tradition (Drake & Reid, 2020).

Research based curriculum development models and Islamic scholarly traditions can use various frameworks. One of them is the Tyler model, which focuses on goal setting, selection of learning experiences, organization of content, and evaluation of results. In its application, this model can be modified to include aspects of Islamic values, such as noble morals and understanding of sharia, as educational objectives. For example, learning objectives can be designed to develop students' ability to apply Islamic principles in daily life, such as honesty, responsibility and social care (Bhuttah et al., 2019). Another model is a constructivism-based

model that prioritizes the role of students as active subjects in the learning process. In the Islamic scientific tradition, this approach can be adapted by integrating project-based learning that raises Islamic themes, such as biographical studies of scholars or analysis of the historical impact of Islamic civilization. This approach is in line with Islamic principles that encourage *ijtihad*, an intellectual endeavor to understand and solve problems based on the Qur'an and Sunnah.

The successful development of a curriculum based on research and Islamic scholarly traditions also requires an implementation strategy that involves various stakeholders, including teachers, students, parents and the community. Teachers, as the main implementers of the curriculum, play an important role in transforming Islamic values into teaching practices. This requires continuous professional training to enable teachers to effectively use research approaches and Islamic traditions. Meanwhile, student engagement can be enhanced through co-curricular activities that integrate Islamic values, such as mosque based social activities or Islamic themed research projects (Akib et al., 2020; Fuadi & Suyatno, 2020).

Evaluation of a curriculum based on research and Islamic scholarly traditions must also be designed holistically. The evaluation approach should not only focus on students' academic achievements but also on the development of their character and spirituality.

One method that can be used is a portfolio, where students document their learning journey, including reflections on the Islamic values learned. This evaluation can provide a comprehensive picture of the impact of the curriculum on students and be the basis for further refinement (Taufik, 2020).

The context of secondary education demands special adaptations of the research-based curriculum and Islamic scholarly tradition. At this level, students are in a critical phase of development, where they begin to form their personal and intellectual identities. The curriculum should therefore be designed to support this development by providing academically relevant and spiritually meaningful material. For example, subjects such as the History of Islamic Civilization can be taught with an interdisciplinary approach that combines historical analysis with discussions of ethical values (Kartika & Arifudin, 2020).

Overall, approaches and models of curriculum development based on research and the Islamic scholarly tradition offer great potential for improving the quality of secondary education. By integrating Islamic values into a modern research framework, the curriculum can create a generation of students who are not only academically competent but also have a strong character and are committed to Islamic values. This approach is in line with the goal of Islamic education, which emphasizes the formation of complete human beings (*insan kamil*) who are

able to contribute positively to society and the ummah.

METHODS

The research method used in this study is a qualitative method with a phenomenological approach. The phenomenological approach was chosen because it aims to understand the experiences and perceptions of individuals or groups related to certain phenomena, namely the approach and model of curriculum development based on research and the Islamic scientific tradition in secondary education. This research was conducted at SMA Negeri 1 Adiluwih, which became a strategic location to study the implementation of the curriculum relevant to the research theme. The location was chosen on the grounds that the school has implemented the curriculum development model. Data sources in this study include primary data and secondary data. Primary data was obtained directly from informants who have knowledge, experience or involvement in curriculum development and implementation at SMA Negeri 1 Adiluwih. The selected informants include: (1) Principal: As the leader of the educational institution, the principal has deep insight into curriculum policy, the direction of school development, and the coordination of research-based programs and Islamic scholarly traditions; (2) Islamic Religious Studies Teacher: This teacher is a key informant as he/she has an important role in conveying Islamic values through the curriculum as well as experience in

integrating Islamic scholarly traditions into teaching; (3) Teachers of other subjects: Teachers from non-religious subjects, such as history, language, or science, can provide perspectives on how Islamic values are applied across subjects; (3) Students: As direct recipients of the curriculum, students provide a unique perspective on the effectiveness of the curriculum approaches and models implemented; (4) Parents/Guardians: Parents provide additional information on the impact of the curriculum on students' character and values outside the school environment; (5) Local Education Community: Community leaders or local scholars involved in education can also provide insights into the influence of Islamic scholarly traditions in the school environment. Secondary data were obtained from official documents, such as school curriculum documents, meeting notes, education policies, and relevant previous research results.

Data collection techniques are carried out using several methods, namely observation is carried out to directly understand how the curriculum approach and model are applied at SMA Negeri 1 Adiluwih. Researchers will conduct participatory observations of classroom learning activities, discussions between teachers, and co-curricular activities that reflect the integration of research and Islamic scientific traditions. This observation aims to document the real practices and dynamics that occur in the school environment. *In-depth* interviews were conducted with the informants mentioned

above. This interview technique was semi-structured, allowing the researcher to explore more deeply the answers of each informant. Documentation studies were used to complement the data obtained from observations and interviews

Data analysis was conducted using a qualitative descriptive approach. The analysis process included the following stages: Data reduction obtained from observations, interviews, and documentation were selected, summarized, and focused on aspects relevant to the research, namely the research based approach and the Islamic scientific tradition in curriculum development. Presentation of data that has been reduced is presented in the form of descriptive narratives, tables, or matrices to facilitate interpretation. This presentation aims to identify patterns, relationships, or main themes that emerge from the data. Drawing conclusions and verification researchers draw conclusions based on the data that has been analyzed and verify it by comparing the results of interviews, observations, and documents. This conclusion serves to answer research questions and achieve research objectives.

To ensure the validity of the data, this study used several triangulation techniques: Source triangulation: comparing information from various informants to ensure data consistency. Technique triangulation: using more than one data collection technique (observation, interview, and documentation) to validate the findings. Time triangulation:

collecting data at various times to see the consistency of the results. In the form of a

research scheme, the research method can be described as follows:

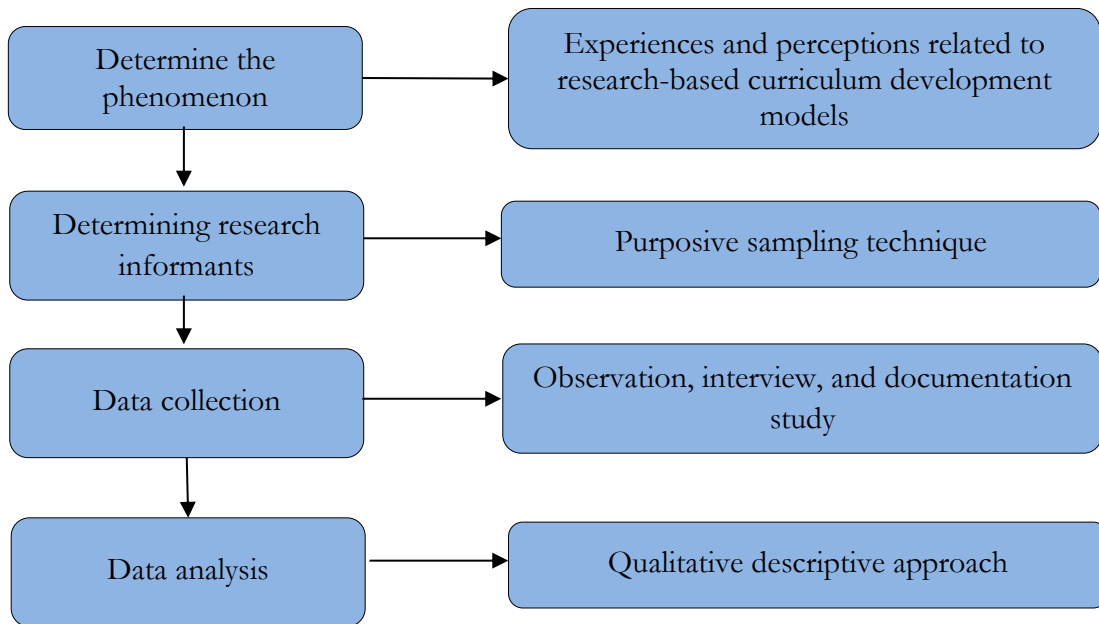


Figure 1. Research scheme

RESULTS AND DISCUSSION

An interview with the Principal of SMA Negeri 1 Adiluwih revealed that the development of a curriculum based on modern research and Islamic scientific traditions was driven by the need to answer the dilemma between the demands of modernism and the preservation of Islamic scientific traditions. The demands of modernism often emphasize rationality and technological development, while the Islamic scientific tradition is rooted in rich moral and ethical values. Therefore, the aim of developing this curriculum is to produce graduates who are not only competent in modern research, but also have a deep understanding of the Islamic scientific heritage. Thus, SMA Negeri 1 Adiluwih strives to have their graduates not only skilled in modern science but also have strong Islamic values. It

also aims to remove the stigma that secondary education graduates tend to be secular and only understand rational science without paying attention to spiritual and moral aspects.

Research shows that the implementation of this curriculum has had a positive impact on the learning process. By integrating Islamic values, students are encouraged to think critically and reflectively. This integration is in line with Al-Attas' opinion, which states that Islamic education must instill adab as a key element in shaping character and balanced thinking. In addition, this curriculum provides space for students to develop research skills that are not only based on scientific rationality, but also inspired by Islamic ethics and values (S. M. N. Al-Attas, 1979). According to Syed Naquib al-Attas, Islamic education ideally connects rational science and revelation science to create a holistic

individual. This is implemented at SMA Negeri 1 Adiluwih through the integration of Islamic values in every subject, such as science, math, and language, so that learning becomes more relevant to the spiritual and social context of students (M. N. Al-Attas, 1980).

To develop a curriculum based on research and Islamic scientific traditions, several strategic efforts were made, namely:

1. Improving teacher competencies plays a central role in the successful implementation of this curriculum. SMA Negeri 1 Adiluwih has organized regular training for teachers to improve their competence in integrating modern research with Islamic values. According to Kartika and Arifuddin, teachers who have higher order thinking skills will be able to encourage students to think critically and reflectively. Therefore, the training includes the development of pedagogical skills, research methodology, and a deep understanding of the Islamic scientific tradition (Kartika & Arifudin, 2020). The training not only aims to introduce innovative teaching techniques but also helps teachers understand the importance of integration between modern science and Islamic values. For example, teachers are trained to use a thematic approach in learning, where each subject matter is linked to a relevant Islamic context. With this approach, teachers not only

teach scientific facts but also invite students to reflect on the moral values contained in each discussion. In addition, the training also provides insight into how to use educational technology to support a more interactive and engaging learning process. According to Kartika and Arifuddin's research (Kartika & Arifudin, 2020), teachers who are competent in critical thinking can guide students to develop analytical and reflective abilities. In this context, the training at SMA Negeri 1 Adiluwih serves as a strategic first step to create a holistic and integrated learning ecosystem. With improved teacher competence, it is expected that the research-based curriculum and Islamic tradition can be implemented optimally and provide long-term benefits for students.

2. The integration of learning materials is designed to create a harmonious synergy between modern science and Islamic tradition. In biology lessons, for example, the topic of ecosystems is not only discussed from a scientific perspective but also linked to relevant Qur'anic verses, such as the importance of maintaining environmental balance as part of man's mandate on earth. This approach not only broadens students' horizons but also instills deep Islamic values. This concept is in accordance

with Fazlur Rahman's theory which emphasizes the importance of integrating modern science and Islamic values so that education is able to answer the challenges of the times. Rahman believes that education must form individuals who not only master science but also have a strong moral and spiritual perspective. In the context of SMA Negeri 1 Adiluwih, this integration is realized through a thematic approach that connects each subject with Islamic values. For example, in physics, the laws of nature are explained not only as scientific phenomena but also as signs of Allah greatness (*ayat kauniyah*). In addition, this integration includes cross-disciplinary learning, where students are invited to see the relationship between science and Islamic teachings in social, cultural and environmental contexts. This approach is in line with Al-Faruqi's opinion, which states that the Islamization of science is an effort to integrate Islamic values in all branches of science, thus creating harmony between modern science and Islamic scientific traditions (Rachman, 2020). With this approach, students not only understand the subject matter conceptually but can also reflect on moral and spiritual values that are relevant to everyday life.

3. Project Based Learning

A project-based approach is used to train students in conducting research that is relevant to their lives. For example, a research project on school waste management involves not only analysis of scientific data but also reflection on the importance of protecting the environment as part of moral responsibility in Islam. In this context, students are invited to understand that maintaining cleanliness and environmental sustainability is part of Islamic teachings that emphasize the concept of *khalifah* (guardian) on earth. Thus, this kind of project does not only focus on technical aspects but also instills deep spiritual values. John Dewey is opinion (Rohmah et al., 2023) supports this approach by emphasizing that experiential learning will provide deeper understanding for students. Dewey believed that students learn most effectively when they are directly involved in a contextualized and meaningful learning process. This principle is highly relevant to the values of Islamic education which prioritizes the link between science, practice and moral values. In addition, this project-based approach can encourage students to develop collaboration, problem-solving and decision-making skills, all of which are important aspects in shaping

individuals who are not only intellectually intelligent but also socially and spiritually responsible. By implementing projects that are relevant to real issues, students are invited to integrate various disciplines while practicing Islamic values, such as honesty, cooperation and responsibility. This process strengthens the connection between theory and practice and encourages students to become individuals who are useful to society.

Despite its positive impact, the development of this curriculum is not free from challenges, including:

1. Limited resources

Research-based curriculum development requires adequate resources, including laboratory facilities, teaching materials, funding for teacher training and access to modern technology. At SMA Negeri 1 Adiluwih, these limitations are a major challenge in the effort to implement a research-based curriculum. As a school located in a semi-urban area, supporting facilities such as science laboratories are limited. The available laboratories are incomplete, having only basic equipment that is often insufficient to support in-depth experiments or research by students. Research-based teaching materials are also an issue. Books and modules designed to support students' research projects are still minimal, so teachers have to be creative with existing

materials. This requires additional time for teachers, who on the other hand also face a considerable administrative workload. According to one teacher, relevant training on research-based learning methods is rarely provided, so teachers' skills in supporting student research are not maximized. Financial support is another important issue. Schools often rely solely on school operational funds, which must be allocated for various needs. Efforts to seek support from the private sector or alumni have not been optimal, while funding allocations from the local government are still limited. For example, a simple research program planned to develop organic waste management in the school environment was delayed due to limited funds to purchase composter equipment and other supporting materials. In Tilaar's opinion, limited resources are the main obstacle in educational innovation (Tilaar, 2000). This is strongly felt at SMA Negeri 1 Adiluwih, where the great potential of students is often unable to develop optimally due to limited facilities and infrastructure. As a result, students' motivation to engage in research projects is reduced, and the gap with schools that have better facilities is increasingly felt. To overcome this problem, SMA Negeri 1 Adiluwih can take several strategic steps. First, establish partnerships with the private sector, such

as local companies or alumni with extensive networks, to obtain additional funding. Second, optimizing digital technology as an alternative solution. For example, the use of simulations or virtual laboratories can help students understand research concepts without the need for expensive physical equipment. Third, strengthening teacher training through collaborative programs with universities or other educational institutions, so that their competence in guiding student research is improved. With these steps, SMA Negeri 1 Adiluwih can begin to overcome its limited resources and realize a research-based curriculum that provides great benefits for students, both in terms of academics and 21st century skills development.

2. Lack of external support Another challenge faced by SMA Negeri 1 Adiluwih in implementing a research-based curriculum is the lack of external support, both from parents and the community. Many parents do not understand the importance of integrating the Islamic scientific tradition with modern science. For most parents in Adiluwih, education is still seen as an effort to prepare their children for national exams and obtain diplomas, without realizing the long-term benefits of a more holistic curriculum approach, such as the integration of research and moral values

contained in Islamic teachings. This condition is more evident in SMA Negeri 1 Adiluwih, a school located in an area where the majority of the community has a limited educational background. Some parents still view education as something separate from religious values, so they are less supportive of research-based activities that integrate science with Islamic teachings. This leads to a lack of understanding of a research-based curriculum that emphasizes an in-depth understanding of topics such as environmental management or green technology from an Islamic perspective. For example, when the school organized a research project on waste management based on Islamic principles, some parents were hesitant and not very supportive, as they were more used to conventional educational approaches. They were worried that the project would distract students from the core subjects that are considered more important for graduation. Without parental support, such activities will be difficult to gain the trust and full participation of students. Sholeh et al. emphasize that parental involvement in education is critical to student success (Sholeh et al., 2023). In the context of SMA Negeri 1 Adiluwih, parents' involvement in supporting the research-based curriculum and the integration of Islamic values is crucial.

Therefore, the school should conduct intensive communication with parents to explain the long-term benefits of an education that not only prepares students for exams, but also for a more meaningful and socially responsible life. Schools can hold regular meetings with parents to discuss the research project and explain how it can enrich their children's understanding of religion and science simultaneously. In addition, schools could also invite religious leaders or Islamic education practitioners to provide insights to parents on the importance of integrating the Islamic scientific tradition in scientific learning. With this effort, it is hoped that parental support will grow and they will better understand the benefits of a research-based education approach that combines science and Islamic values. To strengthen community support, schools can collaborate with local religious institutions to organize social programs involving students, parents and the

community, which also educate about the importance of education based on religious and scientific values. With these efforts, SMA Negeri 1 Adiluwih can build better relationships with parents and the community and ensure that the education provided can provide maximum benefits for students.

This research strengthens Fazlur Rahman's theory of reformulating Islamic education. Rahman proposes an educational model that integrates modern science with Islamic scientific traditions to answer the challenges of the times. According to Rahman, Islamic education should be able to develop individuals who not only master rational knowledge but also have a worldview based on Islamic values (Rahman, 1970). This is in line with his view that education is not only about the mastery of science, but also the formation of solid character and morality, which makes individuals able to contribute to society in accordance with religious teachings.

If described, the research findings that strengthen Fazlur Rahman's theory are as follows:

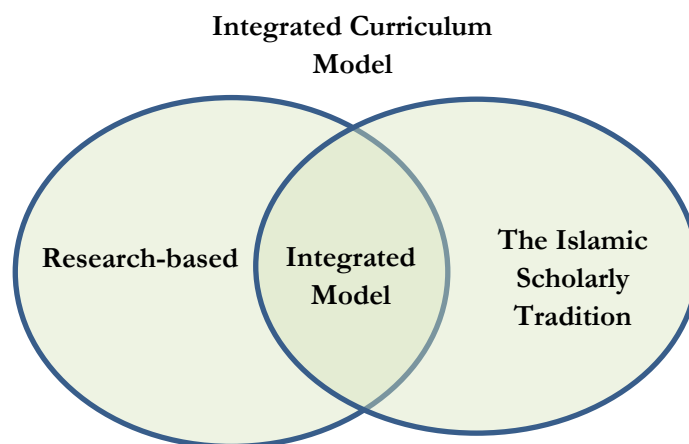


Figure 2. Schematic of the Curriculum Development Model

This research shows that SMA Negeri 1 Adiluwih has successfully implemented these principles through a research-based curriculum and Islamic tradition. The implemented curriculum not only equips students with the academic competencies needed in the modern world, but also strengthens their character building in accordance with Islamic values. For example, in every research project conducted, students at SMA Negeri 1 Adiluwih are not only required to master scientific methodology, but are also invited to reflect on how their research results can contribute to the welfare of the people and the sustainability of the earth, which is part of their moral responsibility as Muslims.

One example of concrete implementation is a research project on waste management conducted from an Islamic perspective. In this project, students are invited to not only learn scientific techniques in managing waste, but also connect them with Islamic principles, such as *khalifah* (responsibility as caretaker of the earth) and *tazkiyah* (cleansing and maintenance of the environment). Thus, students are invited to understand that science and Islamic morality can go hand in hand, and both should be integrated in their daily lives.

In addition, SMA Negeri 1 Adiluwih also invites students to understand that the modern science they learn at school must be adapted to the context of their lives as religious individuals who are responsible for society. In every subject, there is a reinforcement of Islamic values, such as honesty, hard work, and concern for others.

This not only teaches them to be intellectually intelligent individuals, but also to be wise and noble in accordance with Islamic teachings.

Thus, the implementation of the research based curriculum at SMA Negeri 1 Adiluwih shows that the principles of Islamic education reformulation proposed by Fazlur Rahman can be effectively applied in the context of modern education, especially in preparing young people who are not only competent in the academic field but also have a strong understanding and character in accordance with Islamic values. This is an example of how Islamic education can adapt to the times without losing the essence of the moral and spiritual values contained in it.

CONCLUSION

The conclusion of this study shows that the development of a research-based curriculum that integrates Islamic scientific traditions at SMA Negeri 1 Adiluwih has succeeded in creating a balance between modern science and Islamic values. The curriculum aims to produce graduates who are not only competent in scientific research, but also have a deep understanding of Islamic ethics and morality. Through continuous teacher training, integration of relevant learning materials and a project-based approach, students are encouraged to develop academic skills while embedding Islamic values in their lives. The implementation of this curriculum has had a positive impact in enhancing students' critical and reflective

thinking, as well as providing them with a more holistic understanding of the relationship between science and Islamic teachings. Such integration is in line with the theories of Islamic education espoused by figures such as Al-Attas, Fazlur Rahman and Al-Faruqi, who argued for the importance of linking rational and revealed sciences to create intellectually and spiritually balanced individuals. Nonetheless, challenges such as limited resources and lack of external support from parents and communities are major obstacles to the implementation of this curriculum. Therefore, more effort is needed to build partnerships with external parties and raise parents' awareness of the importance of education that combines modern science with Islamic values. Overall, SMA Negeri 1 Adiluwih has successfully implemented an educational concept that creates a young generation that is not only intelligent but also socially and spiritually responsible.

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