

PESANTREN CURRICULUM DEVELOPMENT STRATEGIES IN IMPROVING STUDENTS' DIGITAL LITERACY (Case Study of Pesantren Teknologi Majapahit, Mojokerto)

Henny Widya Astuti

Universitas KH. Abdul Chalim, Indonesia

hennywidya189@gmail.com

Abstract

This study examines the pesantren curriculum development strategy in improving students' digital literacy. The objectives of this study include: first, to analyze the pesantren curriculum development strategy in improving digital literacy; second, to analyze the implications of the pesantren curriculum development strategy in improving students' digital literacy. This research uses a qualitative approach with a case study method conducted at Pesantren Teknologi Majapahit (PTM) Mojokerto. Data were collected through in-depth interviews with pesantren managers or leaders, curriculum development team, technology teachers at PTM and students, as well as direct observation of teaching and learning activities. This study found seven main strategies implemented by Islamic boarding schools in the context of curriculum development to improve digital literacy. First, conducting research based on needs analysis. Second, the determination of curriculum development goals that are in line with the vision and mission of the Majapahit Technology Islamic Boarding School. Third, the procurement of training and workshops for Islamic boarding school educators and administrators. Fourth, the development of digital literacy subjects that aim to improve students' skills and understanding related to the use of technology critically and ethically. Fifth, the integration of technology in classroom learning activities. Sixth, the procurement of additional classes (co-curricular). Seventh, online and offline monitoring the implications of this strategy are the improvement of the quality of learning in Islamic boarding schools, better digital competence of students, and the creation of a learning environment that supports students to master technology wisely and ethically.

Keywords Strategy, Curriculum Development, Digital Literacy.

مستخلص البحث

بحث هذا البحث في استراتيجية تطوير منهج المعهد في تحسين محو الأمية الرقمية لدى الطلاب. تشمل أهداف هذا البحث ما يلي: أولاً، تحليل استراتيجية تطوير منهج المعهد في تحسين محو الأمية الرقمية لدى الطلاب؛ ثانياً، تحليل الآثار المترتبة على استراتيجية تطوير منهج المعهد في تحسين محو الأمية الرقمية لدى الطلاب. استخدم هذا البحث منهجاً نوعياً باستخدام طريقة دراسة الحالة التي أجريت في معهد التكنولوجيا ماجاباهيت موجود كرتا. وقد جمعت البيانات من خلال مقابلة متعمقة مع مديري أو قادة المعهد، وفريق تطوير المناهج، ومعلمي التكنولوجيا في معهد التكنولوجيا ماجاباهيت والطلاب، بالإضافة إلى الملاحظة المباشرة لأنشطة التعليم والتعلم. توصل هذا البحث إلى سبع استراتيجيات رئيسية تنفذها المعاهد في سياق تطوير المناهج الدراسية لتحسين محو الأمية الرقمية. أولاً، إجراء البحوث القائمة على تحليل الاحتياجات. ثانياً، تحديد أهداف تطوير المناهج الدراسية التي تتماشى مع رؤية ورسالة معهد التكنولوجيا ماجاباهيت.



ثالثاً، توفير التدريب وورش العمل لمعلمي وإداري المعاهد. رابعاً، تطوير مواد محو الأمية الرقمية التي تهدف إلى تحسين مهارات الطلاب وفهمهم المتعلق باستخدام التكنولوجيا بشكل نقدي وأخلاقي. خامساً، دمج التكنولوجيا في أنشطة التعلم داخل الفصول الدراسية. سادساً، شراء حصص إضافية (المناهج الدراسية المشتركة). سابعاً، المراقبة عبر الإنترنت وخارجها لتمثل الآثار المترتبة على هذه الاستراتيجية هي تحسين جودة التعلم في المعاهد، وتحسين الكفاءة الرقمية للطلاب، وخلق بيئة تعليمية تدعم الطلاب لإتقان التكنولوجيا بحكمة وأخلاق.

الكلمات المفتاحية: الاستراتيجية وتطوير المناهج ومحو الأمية الرقمية.

INTRODUCTION

The development of science and technology in the world is always growing and it can be seen that the spread of this technology takes place rapidly and quickly. until without realizing that information technology has begun to dominate all aspects of human life, the influence of technology is felt to make a considerable contribution both positive and negative for certain aspects including aspects of education. This shows that digital information media has increased significantly.

This problem becomes a big homework for pesantren. Pesantren use this problem as a significant means of promotion. Pesantren, which functions as a means to acquire Islamic knowledge, must remain and compete with other information media. Therefore, the ability of pesantren to use digital literacy is very important. Modern education requires pesantren not to stand still and continue to develop. They must make changes and innovations to stay alive, compete, and be able to adapt to the demands of society. In the midst of many pesantren that continue to improve the soft skills and interests of students, Majapahit Technology Islamic Boarding School, began to create creations and innovations in curriculum development through technology, which makes digital literacy a gateway to acquiring knowledge. This is one of the methods used by pesantren to counteract and straighten out some knowledge and information from the outside world as well as inside.

A curriculum development approach that relies on digital literacy is expected to be able to answer the problems and challenges that arise in the world of education in the era of revolution 4.0 and society 5.0. Islamic education is no longer just about learning and sharing knowledge. Now it also needs to be able to overcome the challenges of the times by using technology. Islamic education must balance inputs and outputs to match and harmonize with general education, especially in terms of technology. However, it must still maintain Islamic values in the use of technology.

Curriculum development is a procedure or activity designed and considered to create a curriculum as a foundation for learning procedures and implementation.¹ Curriculum development has the meaning of facilitating the current curriculum to the educational goals set and expected because with various positive impacts that come from outside or from within itself has the hope that students can meet their future well and directed.² According to Hamalik, curriculum development is the process of planning the curriculum in order to produce a broad and specific curriculum plan.³

Curriculum development Curriculum development is carried out continuously in order to respond or anticipate the demands of changing times. Because we all know that today has entered the global era both in the fields of science and technology, economy, social, politics and even culture. This condition causes educational problems to be addressed immediately without having to wait for decisions from the center. Institutional policies and curriculum development are also needed to support the process of preparing, implementing and developing the curriculum at the Majapahit Technology Islamic Boarding School.

One of the things expected for *santri* is the mastery of digital literacy as an effort to face the demands of the times. According to Paul Gilster in his book entitled Digital Literacy, digital literacy is defined as the ability to understand and use information in various forms from a very wide range of sources accessed through computer devices. Bawden offers a new understanding of digital literacy that is rooted in computer literacy and information literacy. Computer literacy developed in the 1980s, when microcomputers became more widely used, not only in business but also in society. However, information literacy only became widespread in the 1990s when information became easier to organize, access and disseminate through networked information technology. Thus, referring to Bawden's opinion, digital literacy is more associated with the technical skills of accessing, assembling, understanding and disseminating information.⁴

This study aims to explain how the curriculum development strategy of Majapahit Technology Islamic Boarding School in Improving Digital Literacy of students. And analyze the implications of curriculum development strategies in improving students' digital literacy so that it becomes a reference media that is valued and growing rapidly. Some of the previous studies discussed are interconnected, but each study must have various differences. Among them is

¹ Wina Sanjaya, *Kurikulum Dan Pembelajaran (Teori Dan Praktik KTSP)* (Jakarta: Kencana, 2008).

² Dakir, *Perencanaan Dan Pengembangan Kurikulum* (Jakarta: Rineka Cipta, 2010).

³ Oemar Hamalik, *Dasar-Dasar Pengembangan Kurikulum*, 7th ed. (Bandung: Remaja Rosdakarya, 2017).

⁴ Arifin, Alvin. 2014. *Pengaruh pemberdayaan dan motivasi terhadap kinerja karyawan*. Jurusan administrasi Bisnis. Jurnal Administrasi Bisnis. 8(2). pp. 125-132.

research that focuses on strategies to build digital literacy. The results of Beti and Anisa's research see a concept that discusses the Strategy for Developing Digital Literacy of *Santri* through the Mahrusy Press at the Lirboyo Islamic Boarding School. The pesantren clearly has unique characteristics, namely through the Mahrusy Press starting to build creations and innovations in developing knowledge through a culture of literacy, where literacy is used as a gateway in obtaining knowledge. This is one way for pesantren to counteract and straighten out some information and knowledge from the outside world and some contradictory understandings from the corridor of *ablussunah wal jama'ah al-nahdliyyah*.⁵

This research focuses on the pesantren curriculum development strategy in an effort to improve *santri* digital literacy. Along with the rapid development of technology, digital literacy is a very important skill for the younger generation, including students in the pesantren environment. In addition, this study also analyzes the implications found in the pesantren curriculum development strategy in improving students' digital literacy. In addition, there are still challenges in integrating digital education with the traditional pesantren curriculum. By understanding the process and impact of this curriculum development strategy, it is hoped that a more effective approach can be found in preparing *santri* to face the growing demands of the digital world.

METHOD

In this study, researchers used a case study approach, while the type of research was qualitative. In general, this case study approach places an object to be studied which will later become a case in research.⁶ In his book, Samsu argues that case study research is a comprehensive study that covers the physical and psychological aspects of an individual/person, with the aim of gaining an in-depth understanding of the case under study.⁷

Qualitative type research is research based on the philosophy of post positivism or also called the interpretive method because the results of the data found are more related and more directed to natural conditions that exist in the field.⁸ Qualitative research aims to understand social phenomena in depth and is presented descriptively.⁹ Therefore, this research uses a case study

⁵ Beti Malia, Rahma Hidayati, and Annisa Miftahurrohmah, "Strategi Pengembangan Literasi Digital Santri Melalui Pers Mahrusy di Pondok Pesantren Lirboyo" 05, no. 02 (2023): pp. 146–60.

⁶ Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, ed. Suharsimi Arikunto, kedua (Yogyakarta: Rineka Cipta, 2016).

⁷ Samsu, *Metode Penelitian (Teori Dan Aplikasi Penelitian Kualitatif, Kuantitatif, Mixed, Method, Serta Research & Development)*. (Jambi: Pusaka, 2017).

⁸ Sugiyono, *Merode Penelitian Kuantitatif, Kualitatif & RND*, ed. Sugiyono, kedua (Bandung: Alfabeta, 2018).

⁹ Sugiyono.

approach that will be carried out carefully and in depth on a case found in a school or related institution.

Data is collected through observation and interviews. Researchers intentionally inform data sources that they are conducting research during the observation process at Majapahit Technology Islamic Boarding School. This method is used to see the strategies used to develop the pesantren curriculum in improving students' digital literacy. In addition to observation, interviews are a method for collecting data or information through oral question and answer. Its main characteristic is direct contact between the individual seeking information and the source of information. According to Sudijono, interviews are also a method of extracting in-depth data by asking informants or respondents. The type of interview used is a free guided interview, which means that the interviewer has prepared the interview topic. During the interview, they follow the situation. Leaders of Majapahit Technology Islamic Boarding School, and the Majapahit Technology Islamic Boarding School curriculum development team.

RESULTS AND DISCUSSION

Digital literacy is increasingly important in the face of rapid technological advances, and pesantren as Islamic educational institutions are expected to play an important role in preparing students to have adequate digital skills. This research will discuss two main aspects, namely: *first*, how the pesantren curriculum development strategy is applied to improve the digital literacy of *santri*, and *second*, how the implications of the strategy on the learning process and the development of *santri's* digital skills.

The pesantren curriculum that integrates digital literacy needs to be carefully designed, not only to teach technical skills in using technology, but also to shape the character of *santri* in utilizing technology positively. With the right approach, the curriculum can create changes in the way *santri* learn and interact with the digital world, and support their personal and professional development. Based on interviews conducted by researchers with pesantren managers, teachers, and *santri*, as well as observations of the implementation of the digital-based curriculum, in order to explore in-depth information about the challenges and opportunities that exist in its implementation.

Pesantren Curriculum Development Strategy in Improving Digital Literacy

This study explores the curriculum development strategy at Majapahit Technology Islamic Boarding School to improve the digital literacy of *santri*. This pesantren, which was founded by Gontor alumni, adopts the KMI (*Kuliyatul Mualimin al-Islamiyah*) curriculum which is the hallmark of Gontor Islamic Boarding School. Where this KMI curriculum is a curriculum that is applied to

PTM students for 24 hours, from waking up to sleeping again. This curriculum regulates all *santri* activities in PTM, up to family activities that take place in their respective dormitories or rooms, classroom activities or education, which regulates all activities in the classroom, to the community curriculum where activities take place outside the dormitory and classroom. However, over time, Majapahit Technology Islamic Boarding School began to integrate technological elements in its curriculum, thus creating a curriculum that not only focuses on religious and moral knowledge, but also on technological capabilities.

In curriculum development, this pesantren prioritizes two main aspects: first, in-depth religious learning with an emphasis on *akhlakul karimah*, and second, mastery of technology that can support the lives of students in the digital era. In the process of achieving these aspects, technological pesantren go through several strategies including:

1. Research based on analysis of student needs

The first step in curriculum development is to conduct research to identify the needs of students related to digital literacy. Researchers and pesantren managers must dig deeper into the extent of the current students' technological capabilities, as well as what challenges they face in utilizing technology for learning. This research includes an analysis of the level of students' understanding of digital devices, social media, and applications that support learning. Based on the results of this research, the curriculum will be prepared by considering the real needs and conditions faced by students, so that the development of digital literacy can be right on target

2. Determination of curriculum development objectives based on the vision and mission of Islamic boarding schools

After conducting a needs analysis, the next step is to formulate curriculum development goals. This goal must be in line with the vision and mission of the Majapahit Technology Islamic Boarding School. For example, if the pesantren has a vision to produce students who are not only proficient in religious knowledge but also skilled in technology, then the curriculum developed must support the achievement of these goals. By aligning the curriculum with the vision and mission of the pesantren, it is hoped that the learning process will be more directed, so that it can produce students who have a balance between religious understanding and adequate digital literacy skills.

3. Procurement of training and workshops for educators and administrators of *ustadz-ustadzah*

One of the key aspects in the development of digital literacy is the readiness of educators to use technology as a learning tool. Therefore, the Majapahit Islamic Boarding School of

Technology held training and workshops for educators (*ustadz* and *ustadzah*) and pesantren administrators. This training aims to improve their understanding and skills in integrating technology in teaching. Through this training, educators not only learn about the use of digital tools, but also about how to teach material with methods that utilize technology so that learning is more effective and interesting for students.

4. Development of subjects related to digital literacy

To improve the digital literacy of students, pesantren need to develop subjects that focus on mastering technology and information. These subjects can include basic computer introduction, the use of educational software, digital security, and the use of the internet to find relevant information. The development of this subject will provide a strong foundation for students to understand and utilize technology wisely. In addition, teaching digital literacy will help students to be better prepared to face challenges in a world that increasingly relies on technology

5. Integrating technology in classroom learning

Integrating technology in the classroom is not only about providing digital devices to students, but rather about how technology can be used to improve the quality of learning. This includes the use of learning software, educational applications, and other digital media to deliver teaching materials in a more engaging and interactive way. With technology, teaching can become more flexible, allowing students to learn independently, access educational resources from the internet, and even collaborate with other students outside the classroom.

6. Procurement of additional classes (co-curricular) to support formal classes (in-curricular)

In addition to the main curriculum, the Majapahit Technology Islamic Boarding School also provides additional classes or co-curricular classes that can support the development of students' digital literacy. This class serves as a space for students to explore more materials related to technology and digital. For example, students can take coding classes, graphic design, or app development, all of which are skills that are highly relevant to the times. With this additional class, students can get more opportunities to hone their skills outside of formal learning, which will strengthen their digital literacy skills in a practical way.

7. Online monitoring and direct monitoring

To ensure that this digital literacy development program runs effectively, the pesantren conducts periodic monitoring. This monitoring is carried out both online and offline. Online monitoring can be done by utilizing an online learning platform that allows pesantren to

supervise the development of students in accessing materials or participating in learning activities. Meanwhile, offline monitoring is carried out by direct observation in the classroom or in other activities, to assess students' interaction with technology in the learning process. This monitoring is important to find out whether the goals of digital literacy development are being achieved and to identify if there are any problems that need to be fixed in the curriculum or teaching methods.

With this strategies, Majapahit Technology Islamic Boarding School has succeeded in creating an environment that supports the development of students' digital skills, without neglecting the religious values that are the basis of education in the pesantren. Students in this pesantren are trained to become individuals who are not only smart in religious knowledge, but also have the ability to utilize technology positively.

Implications of Pesantren Curriculum Development Strategies in Improving Digital Literacy

This study shows that the development of pesantren curriculum in improving digital literacy at Majapahit Technology Islamic Boarding School has a number of significant implications for improving the digital literacy of *santri*. By adopting the KMI Gontor curriculum which is well known for its religious and moral education approach, this pesantren succeeds in integrating technological elements without overriding the religious values contained in the curriculum.

1. Research based on student needs analysis

Conducting research based on student needs analysis has very important implications in creating a relevant and effective curriculum. With this research, pesantren can find out more precisely the technology needs that must be mastered by students. The results of this research will produce a curriculum that is more focused, adequate, and in accordance with the times. Thus, the resulting curriculum can improve the quality of learning and make it easier for students to absorb the knowledge taught, making them better prepared to face technological challenges in the real world.

2. Determination of objectives for the development of the Islamic boarding school curriculum

The determination of clear and directed curriculum development goals has implications for increasing the effectiveness of curriculum implementation in improving the quality of education. With goals that are in accordance with the vision and mission of the pesantren, the pesantren can better manage human resources, facilities and infrastructure, as well as technology-based learning methods. A curriculum that has a clear goal allows for more structured and efficient management in optimizing the use of technology to improve the

quality of teaching, both in terms of the use of digital tools and the development of innovative methods.

3. Procurement of training or workshop for teachers and *ustadz-ustadzah*

The procurement of training or workshops for teachers, *ustadz*, and *ustadzah* has direct implications for improving their teaching competence, especially in the field of technology. This training not only introduces new technologies, but also provides practical skills that can be directly applied in teaching and learning activities. Thus, educators become more prepared and confident in teaching technology-based materials, and are able to assist students in developing their digital skills in a more effective and efficient way.

4. The development of digital literacy subjects

In Islamic boarding schools has significant implications for improving students' skills and understanding related to technology and information. Through this subject, students not only learn how to use digital devices, but also develop a critical and ethical attitude in using technology. This is important so that students can distinguish between useful and useless information, and can use technology wisely, avoiding negative impacts such as information misuse or social media addiction.

5. Integrating technology in learning activities

The integration of technology in learning activities has major implications for the effectiveness and accessibility of learning itself. With technology, students can access a wider range of learning resources, such as digital books, books, journals, articles, and learning videos. This opens up opportunities for students to delve deeper into the material independently, in various ways that are more interesting and interactive. In addition, technology also allows students to learn at their own pace, which can improve overall understanding and learning outcomes. This is especially important in the fast-paced and changing digital era.

6. Procurement of co-curricular (additional classes) that all students must participate

The procurement of additional classes (co-curricular) that must be attended by all students has implications for the development of more comprehensive student skills. This additional class serves to explore certain aspects that are not covered in the formal curriculum, such as practical skills training in the use of technology. This class also helps students to develop their talents and interests in specific fields, such as coding, graphic design, or application development. With this additional class, students have more opportunities to explore and increase their potential outside of formal academic learning.

7. Online and offline monitoring

Monitoring both online and offline has a huge implication on increasing the effectiveness of supervision in the formation of student discipline. Online monitoring allows pesantren to monitor and evaluate students' progress in technology-based learning in real-time, while offline monitoring helps to directly assess students' behavior and involvement in the classroom or in other pesantren activities. With an effective monitoring system, pesantren can ensure that students not only master the subject matter, but also have good discipline in using technology wisely and responsibly.

The implications of the pesantren curriculum development strategy in improving the digital literacy of students at the Majapahit Technology Islamic Boarding School, Mojokerto, show that the implementation of these steps has a very positive impact on both education management and student competency development. With needs analysis-based research, clear curriculum development goals, training for educators, development of digital literacy subjects, and the integration of technology in learning, this pesantren is able to create an environment that supports students in mastering digital skills that are relevant and useful for their lives. The procurement of additional classes and intensive monitoring also ensure that the development of students can continue to be monitored and encouraged to the maximum.

CONCLUSION

The strategy for developing the pesantren curriculum at the Majapahit Technology Islamic Boarding School, Mojokerto, to improve the digital literacy of students has been implemented with several strategies. The first step is to conduct research based on student needs analysis to produce a relevant and effective curriculum. Determining curriculum development goals based on the vision and mission of pesantren allows for more targeted implementation and more efficient resource management. The procurement of training and workshops for educators, as well as the development of digital literacy subjects, are integral in improving teaching competence and student skills in technology. Furthermore, integrating technology in the learning process in the classroom, as well as providing additional classes (co-curricular), expanding access and deepening students' digital literacy more deeply. Online and offline monitoring

The implication of this strategy is the creation of a curriculum that is more relevant to the needs of the times, improving the quality of learning, and preparing students to become skilled individuals in the field of technology without forgetting religious values. With the development of digital literacy, students not only have enough digital skills to compete in the global world, but also

have a critical, ethical, and wise attitude in using technology. Other implications are increasing the competence of educators, more effective resource management, and the creation of a more modern and adaptive learning ecosystem to technological developments. Overall, this pesantren curriculum development strategy has made a significant contribution in creating a learning environment that harmonizes between religious education and technological capabilities, which is very relevant to future challenges.

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