

Digital-based learning planning at Baiturrahman Islamic Boarding School in the academic year 2024/2025

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ABSTRACT

This research aims to describe digital-based learning planning in Islamic boarding schools. This research uses a qualitative method with a field study approach conducted at Baiturrahman Islamic Boarding School in Ciparay, Bandung Regency. Data collection techniques were carried out through observation, interviews, and documentary studies. Data analysis uses Miles and Huberman's model, namely data reduction, data display, and conclusion drawing. The advancement of information technology nowadays affects all fields, including education. Therefore, educational institutions, including Islamic boarding schools, need to transform towards digital-based learning. The research findings indicate that Baiturrahman Islamic Boarding School is undergoing a digital-based learning transformation in response to the demands of education in the rapid advancement of information technology era. This transformation will be fully implemented starting from July 2024. However, the planning and preparation have been conducted since 2023. The planning of this program begins with support from the policy stakeholders, namely the Yayasan Baiturrahman Indonesia, followed by the formation of a special team and benchmarking visits to schools that have implemented digital-based learning processes. The next steps involve the implementation of preparation stages as follows: (1) introduction and preparation stage; (2) platform selection; (3) implementation stage; and (4) preparation of financing estimates.

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Introduction

Along with the development of information technology, education has undergone a significant transformation in this digital era. An era where access to information is easier to obtain, and technology becomes an integral part of everyday life. In the realm of education, information technology has changed the world of education to have a new face that can penetrate the boundaries of space and time (Husna Nasihin, 2020). Digital-based education that relies on the use of digital devices and internet access has become the answer to the demands of the times, providing new opportunities and challenges in presenting relevant and effective learning.

In 2019, Taufiq Nur Aziz said that the emergence of information technology has had a significant impact on transformation in all areas of Indonesian society, including in the context of learning (Aziz, 2019). The COVID-19 pandemic has accelerated the pace of education transformation towards digital-based approaches around the world, including in Islamic boarding schools. During the pandemic, all educational institutions were forced to adopt distance learning as a response to physical restrictions imposed to control the spread of the virus, which has led educational institutions, including Islamic boarding schools, into the digital era rapidly. Some Islamic boarding schools organised their education online during the Covid-19 pandemic, albeit with great difficulty and limitations. The implementation of learning during this pandemic has led to a deeper awareness of the importance of technology integration in the learning process, while challenging established learning traditions (Ratnanenci, 2022). Thus, the COVID-19 pandemic is not only a driver, but also a catalyst for changes in the learning paradigm in Islamic boarding schools, which are now increasingly open to innovations in the use of technology to improve the quality and accessibility of education.

The challenge for education comes after the end of the Covid-19 pandemic, namely the demand to provide more creative and less monotonous learning, especially in Islamic boarding schools (Susanto, 2022). The pesantren learning tradition, which has been highly dependent on conventional methods and face-to-face interactions, is now faced with the need to adapt to the digital learning environment. Technology integration is not only a means to bridge the distance between teachers and learners, but also a tool to broaden horizons, improve digital skills, and enrich learning experiences (Susanto, 2022). With today's information technology, pesantren can offer greater access to learning resources, facilitate inter-santri collaboration, and enable the adoption of more interactive and adaptive learning models.

Indeed, in general, Islamic boarding schools still have more complex problems when implementing a digital learning system than public schools. Limited facilities and infrastructure, the ratio of the number of computers to students is too large a problem that is too heavy in procurement and maintenance. Even if it will be charged to students, so that they bring their own, there is also the potential for misuse, especially when used in dormitories or in a pesantren environment with minimal teacher supervision (Jajang, 2024).

On the other hand, if pesantren do not respond to this challenge, they will be increasingly abandoned by parents because they are worried that their children will not be able to adapt to technological advances if they are educated in pesantren. This is evident from the decline in the number of students after the pandemic that occurred in pesantren in West Java. For example, the Baiturrahman Ciparay Islamic Boarding School, Bandung Regency, had 600 students before the pandemic, but after the pandemic, only 370 students remained. Even at the moment of new student registration, where they usually select 250 prospective students to be

accepted by 100 students each year, currently even the registrants are very minimal, not reaching 100 people. Baiturrahman Islamic Boarding School usually accepts four rombel students every year, now for two years running it can only get two rombel new students (Jajang, 2024). Similarly, the Nurhasanat Quranic boarding school in Karawang, which before the pandemic had 800 students at the junior-high school level, now after the Covid-19 pandemic there are only 400 students left (Abdurahim, 2023).

From the description of the conditions above, it shows that the development of digital-based learning strategies in Islamic boarding schools is becoming increasingly urgent. Adaptation to the use of information technology devices with various supporting applications is needed for the running of the education process in pesantren while maintaining the characteristics of pesantren but also being able to answer the challenges of the times. To ensure that technology integration is carried out effectively and sustainably, careful and strategic planning is needed to overcome these challenges so that technology integration can run smoothly and provide optimal benefits for learning in pesantren.

Conceptually, education management involves planning, implementing, controlling, and supervising various aspects such as human resources, learning resources, curriculum, funds, and facilities to achieve educational goals effectively and efficiently. Educational planning has an important role and is the first step in the education management process, which is used as a guideline in the implementation, control and supervision of education (Somantri, 2014). Educational planning is a process of preparing a series of educational policies in controlling the future in the field of education in accordance with what has been determined (Ramadhani, 2021).

Learning planning in pesantren has its own characteristics, not the same as conventional educational institutions in general. The characteristics of pesantren, according to Prof Ahmad Tafsir, must fulfil five conditions, namely the existence of: (1) kyai; (2) cottage or dormitory; (3) mosque; (4) santri; and (5) yellowclassical book learning (Hartono, 2019). Pesantren not only functions as a place to gain religious knowledge, but also as a place of character building and integrated social life where teachers and students interact intensively in an educational environment. The santri live together in a well-organised community under the guidance of a kyai, who not only serves as a teacher but also as a parent, spiritual and social guide. This model of education is what the father of national education, Ki Hajar Dewantoro, once envisioned (Husaini, 2022). Therefore, digital-based learning planning in Islamic boarding schools must consider how the digital learning process can be applied while maintaining the distinctiveness, essence, and tradition of Islamic boarding school education itself.

In its implementation, it is important for pesantren managers to pay attention to the unique needs and characteristics of pesantren, so that technology integration can be carried out

responsibly and in accordance with the pesantren context. The position of kyai in Islamic boarding schools is a very sacred position, being the centre of knowledge and wisdom for the entire academic community of the boarding school (Fahham, 2020). Meanwhile, digital-based learning that uses internet access with IT devices is a student-centred learning model (Sholihah, 2012). This learning model requires students to be independent and responsible for their own learning process, because learning resources are very abundant to be sought, accessed and obtained easily. Therefore, the adaptation of information technology in the pesantren environment must still reflect the moral and spiritual values instilled by the kyai. The centre of knowledge and wisdom must still be in the kyai, but the enrichment of students and the deepening of knowledge independently can take advantage of this information technology to get learning resources both books of scholars and other references that are not limited.

Method

This research uses a qualitative method with a field study approach, because this research is more likely to explore the planning of digital-based learning programmes in one of the Islamic boarding schools (Darmalaksana, 2020). The location of the research was Pondok Pesantren Baiturrahman Ciparay, Bandung Regency, which has been established since 1994 on a land area of 3.5 ha (Baiturrahman, 2024). The object of this research is a digital-based learning preparation programme in the form of programme documents. The data in this study are data in the form of text documents, field notes, respondents' speech in the form of words, without emphasis on numbers (Sugiyono, 2022). Thus, the collection technique was carried out by means of observation, interviews, and documentation studies.

The data analysis technique uses the Miles and Huberman model, namely data reduction (data reduction), data presentation (data display), and conclusion drawing and verification (conclusion drawing/verification) which is carried out interactively and takes place continuously until it is complete or the data is saturated (Sugiyono, 2022). The primary source of this research is the person in charge of implementing digital-based learning programme planning at Baiturrahman Ciparay Islamic Boarding School, in this case the Deputy Head of Curriculum. The secondary data sources are the pesantren website, the pesantren profile, and the digital learning programme documents that have been prepared by the person in charge of the programme.

Result and Discussion

Baiturrahman Islamic Boarding School is planning a digital-based learning programme for its students that will begin on a massive scale in the 2024 academic year. This step is an effort to answer the challenges of education this century which has opened up space for every learner

to experience a richer learning experience and open access to any subject matter. On the other hand, many conventional schools are already using this digital platform in their learning. So the concern of being left behind by other schools is also a motivation to launch this programme.

The planning of this digital-based learning programme begins with several tasks, namely: (1) Foundation policy support, i.e. the committee requested that the foundation officially encourage the implementation of this programme; (2) Establishment of a programme preparation team, i.e. by having a special team that will carefully plan the stages of implementation; (3) Comparative study to a school that already conducts digital learning. This initial stage will be the key to the next stages, because the next stage requires moral and material support in its implementation. After this initial stage is conducted, it will be followed by the core stages, including: (1) introduction and preparation stage; (2) selection of platforms and devices; (3) implementation stage; and (4) preparation of financing estimates (Maesaroh, 2023).

Introduction and Initial Preparation Stage

In this first stage, the team that has been formed by the foundation develops a programme whose main target is the introduction and habituation of teachers/ustadz in the use of digital technology in learning. Why are teachers the initial target of this introduction? Because teachers will be the main driving force of the digital-based learning programme. To quote (Fullan, 2008): 'educational change depends on what teachers do and think,' that educational change is very dependent on what teachers do and think (Solehuddin, 2020). All sophisticated IT equipment becomes useless when teachers cannot maximise its use in the classroom. Therefore, the main target in this first stage is teachers/asatidz, both those who teach general subjects and religious/diniyah subjects.

The stages of this introduction are as follows:

1. **Google Workspace Training.** In September-November 2023, an intensive training on the use of Google Workspace for Educators will be organised for teachers. This training will provide the necessary skills in managing learning and collaborating online. Materials presented include the utilisation of Google Classroom, Google Drive, Jamboard, and everything that can be integrated with Google Workspace for Education.
2. **Introduction to Computational Learning in Computer Laboratory:** Teachers involved in the training above, will be scheduled to use the computer lab to practice their training outcomes as the main medium of learning. Teachers are assisted and directed by the team to integrate this technology in their learning process in the classroom, including teaching students about using the device.
3. **Implementation in Class XII:** Beginning November 2023, the committee will begin the gradual implementation of digital learning with a focus on class XII. Grade XII students

will be asked to bring their own laptops/tablets/chromebooks for learning. Teachers who have received training will use various online platforms and digital materials to support their learning process in the classroom (Maesaroh, 2023).

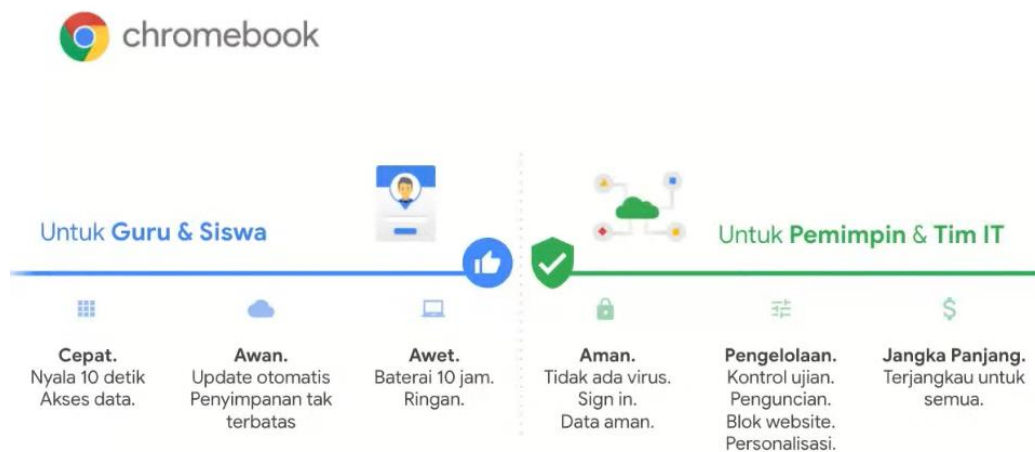
When the author made observations in the field, this stage was already well underway and was being continuously implemented with evaluation and supervision by a team appointed by the Baiturrahman Indonesia Foundation.

Platform and Device Selection

The programme preparation team chose Google Workspace for Education as the chosen platform using Chromebooks as the main device in this digital learning transformation (Maesaroh, 2023). The programme preparation team has a number of strong reasons, which are based on the advantages and benefits possessed by Chromebooks, including:

1. **Availability of Google Apps and Ecosystem:** Chromebooks are integrated with the well-established Google ecosystem, for educational purposes it already has a dedicated Google Workspace for Education platform. In addition, the government programme provides a belajar.id account for all educators and students since 2020 (Kemdikbud, 2020). This learning.id account can provide full access to various productivity applications such as Google Docs, Sheets, Slides, Jamboard, Google Sites and so on, which can be used in an integrated learning and collaboration process in one domain. Even when this programme is implemented, Canva has collaborated with the Ministry of Education and Culture through belajar.id to be used as a collaborative learning medium between students and teachers.
2. **Security and Easy Maintenance:** Chromebooks are designed with high security and an operating system centrally managed by Google. This reduces the risk of malware (computer viruses) and makes device maintenance and management easier for schools. School administrators can also manage student access.
3. **Affordable Price:** Chromebooks are generally more affordable than other laptops or tablets. This can help reduce the cost burden that students and parents have to bear in procuring the devices.
4. **Speed and Efficiency:** Chromebooks have a lightweight and fast operating system, allowing quick access to apps and online resources. This can improve efficiency in the learning process and increase productivity.
5. **Cloud Usage:** Chromebooks are designed to optimise the use of cloud computing. Teachers and students can easily store, access, and share files through online storage such as Google Drive, facilitating group work and collaboration.

6. **Flexibility and Mobility:** Chromebooks are lightweight, portable devices with long battery life. Students can easily take these devices to class, the library, or elsewhere, so learning can continue in a variety of environments.
7. **Simple User Experience:** The intuitive and simple interface of Chromebooks makes them suitable for students of different age levels. This minimises the time needed to adapt to the device.
8. **Supports Digital Learning:** With access to online education apps, e-books, and other digital resources, chromebooks can support more interactive, creative, and personalised learning as education demands in the digital age.



Gambar 1. Advantages of chromebooks for educational purposes

Considering these advantages, using chromebooks as the main device in the transformation programme towards digital schools is a smart and strategic step to improve the quality of learning and prepare students with future skills (Maesaroh, 2023).

Implementation Stage

The implementation of digital-based learning will be implemented at the beginning of the 2024/2025 academic year, starting in July 2024. However, a number of stages to arrive at the implementation in July 2024, there are a series of activities that must be carried out:

1. **Socialisation to Parents:**

Holding a meeting with parents to explain the vision, benefits, and steps of the pesantren transformation programme towards digital-based learning. In this socialisation, the main target is parents' understanding of the concept of digital transformation and the role of parents in supporting its implementation.

2. **Infrastructure Procurement:**

Allocate resources to build the necessary infrastructure, including: network security, device storage, and internet access speed that can be adequate for digital learning.

3. Procurement of Chromebooks for Students:

In the 2024-2025 academic year, students will be provided with chromebooks with funding allocated from the re-enrolment fee. This will ensure that all students have the necessary devices for digital learning.

4. Implementation and Evaluation:

Full implementation of the digital learning programme will be overseen by dedicated supervision. The team will continue to monitor, evaluate and make adjustments to the programme based on experience gained during implementation (Maesaroh, 2023).

Preparation of Financing Estimates

The team compiled an estimate of the financing that must be prepared by the Baiturrahman Indonesia Foundation. The estimated budget components required in the 'Pondok Pesantren Baiturrahman towards Digital School 2024' programme are as follows:

1. Teacher Training:

Intensive training for teachers in the use of educational technology and digital integration. In fact, if Baiturrahman Islamic Boarding School wants to become a Google reference boarding school, the teachers must have obtained a Google for Education Certified Educator level 1 and 2 licence. There is also a need for some teachers who are already at the Google for Education Certified Trainer level.



Gambar 2. Google Educator Certification Training Levels

2. Server Procurement:

Procurement and installation of a server to manage the hosting of the online learning platform and provide the required technical resources. This server can be utilised optimally for learning management system, digital library, etc.

3. Procurement of Storage Cabinets:

Procurement of storage cabinets for digital devices, including laptops/chromebooks of students. Given that the application of this digital-based learning programme is implemented in pesantren, where students do not return home after the learning process, this storage cabinet is used to secure the device when not in use..

4. Storage Security Device:

Procurement of security devices such as CCTV, security locks, and protection against theft. Because the digital equipment of a number of santri will be stored in the same place, if there is a theft, it will have a very big impact.

5. IT Expert:

Provision of IT experts who will assist in the development, maintenance, and management of technology in pesantren. These IT experts can be individuals who are recruited as employees by the foundation, or in collaboration with third parties who provide consulting services and IT experts.

6. Chromebook Procurement:

Procurement of chromebooks for each student.

7. Addition of internet bandwidth

The addition of internet-connected devices results in the need for additional bandwidth. With the number of high school students reaching 300 people, the internet bandwidth must be adjusted and regulated so that it can be used together.

8. Network security devices

Network security devices can assist in managing and restricting the use of certain applications on student and teacher devices. This can help prevent access to irrelevant or potentially harmful applications.

9. Purchase of licence from google

The standard use of chromebooks and Google applications using a belajar.id account is free. This licence is needed to optimise the security of devices that will be used by teachers and students in the learning process (Maesaroh, 2023)



Gambar 3. Keuntungan lisesnsi chrome

Conclusion

Pondok Pesantren Baiturrahman has planned a structured, comprehensive and strategic digital-based learning programme in response to the demands of education in today's digital era. This step was taken to address the need for a richer and more open learning experience for every santri along with the growing use of digital platforms in conventional schools. The planning of this programme puts forward several key aspects, including policy support from the foundation, the formation of a programme preparation team, and comparative studies to schools that have successfully adopted digital learning. By prioritising the introduction and initial preparation stage for teachers/asatidz, Pondok Pesantren Baiturrahman seeks to ensure that the use of technology in learning can be maximised. The use of Chromebook as the main device was chosen based on consideration of its advantages and benefits, such as the availability of Google applications and ecosystems, security and easy maintenance, affordable price, and high flexibility and mobility. In addition, a cost estimation has been prepared to ensure that all aspects of the programme can be implemented properly.

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