The Use of Offline Internet as a Learning Media for Islamic Education at MA Alkhairaat Batusuya

Anas Anas*[1]

[1] *Islamic Religious Education Study Program State Islamic University Datokarama Palu, Indonesia*

*Corresponding Author: Anas, E-mail: lamaminganas@gmail.com

ARTICLE INFO	ABSTRACT
Volume: 3	This study aims to examine the use of offline internet as a learning medium in Islamic Education at MA Alkhairaat Batusuya. This research adopts a qualitative approach using a case study method. Data were collected through observations and in-depth interviews with teachers and students, as well as document analysis. The results of the study indicate that the use of offline internet as a learning medium is effective in providing rich and varied materials. Students can access the learning materials provided by the teachers on the system. The main challenges faced are the limitations of devices and the lack of technical understanding among some teachers and students. Nevertheless, offline internet proves to be a useful alternative, especially in areas with limited internet access. The conclusion of this study shows that the integration of technology in the form of offline internet can enhance the quality of Islamic Education learning and facilitate broader access to learning materials for students in remote areas.
KEYWORD	
Offline Internet,Islamic Education,Learning Media RaspberryPi3,Rural Schools MA Alkhairaat Batusuya, Digital Learning	

1. Introduction

The use of technology in education has become an essential need in today's digital era. However, access to technology and the availability of the Internet are not evenly distributed in Central Sulawesi, particularly in Donggala Regency, which is still classified as a 3T (underdeveloped, frontier, and outermost) area. For instance, data on the availability of cellular network signals, ranging from 5G, 4G, to 3G, as shown on the NPRIF website (NPRIF n.d.), indicates that the distribution is still uneven. MA Alkhairaat Batusuya, a high school focusing on religious education, faces significant challenges in accessing digital resources due to limited internet infrastructure. Despite these challenges, the need to provide rich and varied learning materials remains a top priority, especially in the subject of Islamic Education.

Dita (2022) states that Islamic Education is an essential component of the curriculum aimed at shaping students' character based on religious values. However, the limited access to internet-based educational resources hinders the provision of effective and engaging learning. Purbo (2020) suggests that the use of offline internet as a learning medium emerges as a potential solution to address this issue.

This study aims to explore the effectiveness of offline internet in supporting the Islamic Education learning process. By reviewing the latest literature and conducting a case study at MA Alkhairaat Batusuya, this research seeks to provide new insights into how offline internet can be used to enhance the quality of learning, as well as to understand the challenges and potential benefits. This background provides a foundation for understanding the importance of this research in the increasingly digital context of education, especially in areas with limited internet access.

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*Anas is a Student of Islamic Religious Education Program at Postgraduate School, State Islamic University Datokarama Palu, Indonesia. This paper was presented at the 3rd International Conference on Islamic and Interdisciplinary Studies (ICIIS) 2024, as a presenter, held by the Postgraduate School State Islamic University Datokarama Palu, Indonesia.

2. Literature Review

The use of offline internet in Islamic education is a solution for rural areas that still lack adequate technological infrastructure, particularly the internet. The integration of the two can bridge the existing digital divide (Patmanthara 2018). This review explores the existing literature on the use of offline internet for educational purposes, focusing on its application in Islamic education as well as its potential benefits and challenges.

Offline internet provides a solution by using a local server made with Raspberry Pi to provide access to Islamic education content in the form of e-learning, digital books, and websites without requiring a direct internet connection. Access to education in remote areas requires effective solutions, as highlighted by various studies. For example, Ginting et al. (2020) show that offline servers like Raspberry Pi can store and distribute a large amount of educational material, improving learning outcomes in schools without reliable internet access.

The use of technology in Islamic education has become a growing field of study. According to I. Suryatini, E. Mulyasa, and S. Yusuf (2019), integrating digital tools in Islamic studies enhances student engagement and facilitates a deeper understanding of religious texts. Offline internet solutions can play a crucial role in this integration by providing access to a wide range of Islamic educational resources.

Raspberry Pi, a small and very affordable computer, has been widely studied for its applications in education. Susilo and Purbo (2023) in their research tested four different systems used to provide educational content accessed by many users simultaneously. They noted that its affordability and ease of use make it an ideal solution for schools with limited resources.

3. Methodology

This study employs a classroom action research design using both qualitative and quantitative approaches. The qualitative approach is used to understand the responses of teachers and students to the use of offline internet at MA Alkhairaat Batusuya Go'o, while the quantitative approach is used to measure the improvement in student learning outcomes. This research involves 11th and 12th-grade students of MA Alkhairaat Batusuya, teachers, and IT technicians who assist in setting up and maintaining the Raspberry Pi server.there are three preparatory processes in setting up offline internet. Procuring hardware such as Raspberry Pi, power banks, and other supporting accessories. Installation and configuration, in which the IT team configures the server to provide web services and other necessary files. Collecting and uploading Islamic education learning materials to the server (Solahudin and Fakhruroji 2020). After all preparations are completed, training is conducted for teachers and students on how to use the system to access learning materials. Data is then collected through observations, interviews, questionnaires, pre-tests, and post-tests. Qualitative analysis is performed to identify themes and patterns related to participants' experiences and perceptions.

4. Results and Discussion

Berdasarkan hasil pre-test dan post-test, terdapat peningkatan signifikan dalam hasil belajar siswa setelah implementasi Offline internet using a Raspberry Pi 3 server. The results of the questionnaire also showed a satisfaction rate of 80% among students and teachers regarding the use of offline internet. Students found accessing learning materials easier, and teachers reported increased student engagement in the learning process.

These findings align with those of Susilo and Purbo (2023), who found that the use of a Raspberry Pi server is effective in providing access to learning materials in areas with limited internet infrastructure. The improvement in student learning outcomes is also consistent with Purbo (2020), who identified the benefits of offline internet solutions in rural schools.

One of the key findings of this study is the high satisfaction among students and teachers with the use of offline internet. This indicates that this solution is not only effective in improving learning outcomes but also well-received by users. Additionally, the ability of the Raspberry Pi 3 server to operate with a power bank demonstrates the flexibility and affordability of this technology for schools in remote areas.

The findings of this study suggest that the use of offline internet with a Raspberry Pi 3 server can be a practical and effective solution to address the limitations of internet access in rural schools. It is recommended to conduct further training for teachers to maximize the use of this technology and expand the range of learning materials available on the server. Additionally, ongoing technical support is needed to ensure smooth operation and maintenance of the server.

5. Conclusion

This study successfully demonstrates that the use of offline internet with a Raspberry Pi 3 server at MA Alkhairaat Batusuya has a positive impact on student learning outcomes and is well-received by users. These findings are relevant to previous literature and contemporary practices, offering a practical solution to address internet access challenges in rural schools. It is hoped that these findings will encourage further implementation in other schools and contribute to the improvement of education quality in Indonesia.

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