JMI Jurnal Multidisiplin Indonesia

Volume 3 Nomor 5 May 2022
E-ISSN: 2963-2900 | P-ISSN: 2964-9048
https://jmi.rivierapublishing.id/index.php/rp

Literature Review on The Use of Cloud-Based Learning for Islamic Religious Education

Desiana[1], Koderi[2], Agus Jatmiko[3], Ihsan Mustofa[4]
Pascasarjana UIN Raden Intan Lampung
Email : desiana.esdetiga@gmail.com, agusjatmiko@radenintan.ac.id, ihsanmustofa790@gmail.com

Abstract

Cloud-based learning shows a significant impact on Islamic religious education, especially in the use of Google Classroom. Several studies have examined the effectiveness of cloud-based learning programs in developing reflective thinking skills and increasing student learning motivation in Islamic religious education. In addition, the application of Google Classroom for distance learning has overcome problems related to the number of students in Islamic religious education subjects. The research also explores the use of cloud technology and ICT tools to improve the teaching of Islamic religious education and support personalized learning trajectories for students. Overall, the literature highlights the transformative potential of cloud-based learning and technology to revolutionize the learning experience in Islamic religious education. This research uses a systematic and comprehensive literature study method to analyze books, scientific articles and related sources that are relevant to the topic of cloud-based learning in the use of Google Classroom for Islamic religious education. The methodological framework includes the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines for the identification and selection of eligible studies, as well as the use of well-known research quality assessment tools. Analysis results are synthesized to produce reports that are informative, well-organized, and context-rich.

Keywords: *Cloud Based Learning, Google Classroom, Islamic Religious Education Learning*

Corresponding Author: Desiana
E-mail: desiana.esdetiga@gmail.com

Introduction

Technological advances offer new opportunities for teaching and learning. Technology allows individuals to customize their work or study environment with various tools that meet their needs and interests.(Masud & Huang, 2013). Today, education is fully connected with information technology in content delivery, communication, sharing, and collaboration. Universities, colleges, and schools require servers, storage, and software as key requirements.

Cloud-based learning uses virtualization technology and cloud computing extensively in the model *infrastructure* as the main service. This helps save energy, cost, and space in the data center. Virtualization is becoming the cornerstone focus for cloud-based learning.(Abdulsalam Suliman Al Arood et al., 2020) The development of critical thinking skills is an important educational goal for the younger generation. It aims to equip them to be wise thinkers and decision-makers personally and in society.

One emerging trend is cloud-based learning, where cloud platforms support teaching and learning activities. In this context, Google Classroom, one of the cloud-based productivity services, is becoming increasingly popular among educators and learners.(Chukusol &; Piriyasurawong, 2022) The application of cloud-based learning, especially through Google Classroom, is believed to provide significant benefits for Islamic religious education. This technology allows for greater flexibility and reach in material delivery and facilitates interaction and collaboration between teachers and students.

This becomes relevant given the characteristics of Islamic religious learning that require deep conceptual understanding and development of spiritual aspects.(Maghfiroh &; Yusuf, 2022) Therefore, this study aims to conduct a comprehensive literature review on using cloud-based learning, especially through Google Classroom, in the context of Islamic religious education. This study will explore the effectiveness, challenges, and transformative potential of using cloud technology to improve students' learning experiences and outcomes in Islamic religious education subjects.

The Islamic education curriculum is one of the main learning resources that emphasizes developing thinking skills. This is achieved through learning facts, concepts, principles, and values, as well as their application in solving life's problems.

Research Methods

This research was carried out using *a* systematic and comprehensive library research method. This method is used to analyze various relevant sources of information, such as books, scientific articles, and other related sources, on cloud-based learning topics using Google Classroom for Islamic religious education. The methodological framework used in this study includes the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to identify and select eligible studies. In addition, researchers also use well-known research quality assessment tools to ensure the quality and credibility of the information sources used. This study applies a comprehensive literature review approach to gain a deep understanding of the topics studied. Various relevant sources of information, such as books, scientific articles, and other related sources, are reviewed systematically and thoroughly to produce accurate and useful analyses.

.

Results and Discussion

The Effectiveness of Cloud-Based Learning Programs Using Google Classroom

Cloud is a virtual service technology that supports networks, software, hardware, data storage, basic structures, or other necessary services. It allows users to access and use them comfortably and quickly, providing several direct and indirect benefits. The real benefit is that it provides convenience to learners because there is no place limit so it helps learners who learn through Cloud-based Learning access information and content anytime, anywhere, increase flexibility in learning, access and understand content more easily, and increase knowledge, and develop potential and critical thinking skills.(Okai-Ugjabe et al., n.d.)

From the perspective of education in the digital age, problem-solving skills are often referred to as a counterpoint or a byproduct of critical thinking. This is mentioned in several studies related to mathematics learning and learner-engaging learning. According to guidelines for encouraging critical thinking, a tool often mentioned these days is the use of games as learning tools, which contribute to learner engagement and critical thinking skills. (Zhao, 2023)

Cloud-based learning using platforms such as Google Classroom has become an increasingly hot topic in education. Cloud technology can provide many benefits in teaching and learning, such as improving collaboration, making learning materials easier to access, and encouraging more active student engagement (Jumiatun, J. & Suryani, N., 2018). Understanding effectiveness is a measure that states how far the target (quantity, quality, and time) has been achieved. The greater the percentage of targets achieved, the higher the effectiveness (Mulyasa, 2003)

Education is one of the instruments used to measure the progress of a nation. Therefore, the educational aspect needs certain attention in terms of equity, facilities, quality, and results. In previous decades, the education gap was in the public spotlight. The concern is the lack of facilities, unqualified human resources, and an unintegrated education system. Control and management of physical and virtual cloud infrastructure, including networks, servers, types of operating systems, and storage systems used by cloud providers. Example users (system developers, administrators, IT managers).(Dadamuxamedov & Alimjon, I., n.d.) Goals set (Surahman, E. & Sujono, H. D, n.d.)

Effectiveness =	Abstract
	Goals set

In addition, according to Wijaya (2020), cloud-based learning can also increase student motivation and independence in learning. Students can easily access learning materials anytime and anywhere, encouraging them to be more actively involved in the learning process.(Wijaya, M. H., 2020)

To optimize the effectiveness of cloud-based learning from some of the opinions above, it can be emphasized the importance of training and mentoring teachers in using cloud technology and providing adequate technology infrastructure in schools. Thus, cloud-based learning using Google Classroom can be an effective solution to improve the quality of the teaching and learning process, especially during the COVID-19 pandemic, which demands distance learning.

Looking at the conditions in 2024 with post-pandemic conditions, it means that New *Normal* life is carried out as before the pandemic while still implementing health protocols in certain circumstances and situations. Then, with the current post-pandemic period, it does not leave the technology running but still optimizes with various technological advances, one of which is to use Google Classroom as a significant alternative, especially in implementing Islamic Religious Education learning.

Application of Google Classroom in Islamic Education Learning

Applying Google Classroom in Islamic Religious Education learning can provide many benefits. Google Classroom is an online learning platform that integrates with other Google applications, making it easier for teachers and students to collaborate, share learning resources, and conduct assessments efficiently.

Using Google Classroom in PAI learning can facilitate interaction and communication between teachers and students online. Teachers can easily share learning materials, assignments, and announcements with students.

Fajriana and Junaidi said, *"The implementation of Google Classroom in PAI learning can improve learning efficiency because teachers can easily organize classes, assignments, and assessments digitally."* This allows teachers to save time and resources that would normally be used for manual classroom administration.(Fajriana, F. &; Junaidi, J., 2020).

Then, increasing student collaboration and participation in learning through the use of Google Classroom can also increase student collaboration and participation in learning. Students can interact, discuss, and share thoughts through the comment feature and discussion forum available on this platform.

As Sudarman said, "*The application of Google Classroom in PAI learning can increase students' active involvement and participation in the learning process, thereby increasing their understanding of the material learned."* (Sudarman, S., 2021).

The learning system can be likened to the main driving engine to improve and optimize the teaching and learning process. By using the right methodologies, techniques, and strategies, teachers will have no difficulty in managing learning so that it can run effectively and smoothly for students. Teachers can apply the learning materials provided properly so that learning objectives can be achieved efficiently. In addition, teachers can also add applications or other methods that can support and improve the quality of learning in the classroom. With a good understanding of how to run an effective learning system, teachers can ensure the teaching and learning process runs smoothly and provides optimal results for students.

According to Bahri and Zain, the learning implementation process is an activity that will be an educative and interactive coloring between teachers and students in order to achieve the goals that have been formulated before starting the learning process (Bahri, D. & Zain, 2006)

Online learning methods can help students absorb learning material delivered by the teacher so that they can achieve the goals that have been formulated before starting the learning process. The application of Google Classroom as one of the methods in the network is one alternative to facilitate the learning of Islamic Religious Education by providing many benefits, such as increasing learning

efficiency, collaboration, and active student participation. Teachers can take advantage of the features available in Google Classroom to create engaging and effective learning experiences for students.

The Significant Impact of Cloud-Based Learning Programs in Using Google Classroom as an Islamic Learning Media

Cloud-based learning programs have shown a significant impact in using Google Classroom as a medium for learning Islam. Here is a discussion about it:

1. Increased Learning Effectiveness Research shows that the use of Google Classroom in Islamic learning has increased the effectiveness of the teaching-learning process. Students can easily access course materials, submit assignments, and interact with teachers anytime and anywhere. This allows for more flexible and focused learning.
2. Improved Collaboration and Interaction Google Classroom facilitates better collaboration and interaction between teachers and students in Islamic learning. Features such as class discussions, feedback, and document sharing allow for a deeper exchange of ideas and understanding.
3. Improved Classroom Management The use of Google Classroom in Islamic learning helps teachers manage classes effectively. Student assignment, assessment, and progress-tracking features make it easier for teachers to monitor and evaluate learning.
4. Increased Student Engagement Research shows that students tend to be more motivated and engaged in learning Islam using Google Classroom. Interactive features and the use of technology already familiar to students help increase their enthusiasm and participation.
5. Increased Access and Inclusivity Google Classroom enables broader and more inclusive access to Islamic learning. Students from a variety of backgrounds and abilities can participate equally, including students with special needs or who live in remote areas.

In addition, improving the efficiency of learning administration with the use of Google Classroom in Islamic learning also has an impact on increasing the efficiency of learning administration. Teachers can easily manage assignments, assessments, and communication with students through this platform, reducing administrative burden and giving more time to focus on the learning process more effectively.(Son, R. A. &; Syriac, N., 2021).

Then, it can provide increased ease of access and use. Google Classroom has an interface that is easy to use and accessible to teachers and students. Its intuitive features that integrate with other Google apps, such as Gmail and Drive, make it easy for users to adapt and use the platform effectively in learning Islam.(Wibowo, R. P. &; Handayani, S., 2020)

It can be concluded that cloud-based learning programs, especially the use of Google Classroom, have had a significant impact on Islamic learning. These impacts include increased effectiveness, collaboration, classroom management, student engagement, and access and inclusiveness of learning. In addition, the platform also improves the efficiency of learning administration and ease of access and use for teachers and students.

Cloud-based learning programs, especially Google Classroom, have had a significant impact on Islamic education. These impacts include increased effectiveness, collaboration, classroom management, student engagement, and access and inclusiveness of learning.

Conclusion

Cloud-based learning, particularly in the use of Google Classroom, shows a significant impact on Islamic religious education. Several studies have examined the effectiveness of cloud-based learning programs in developing reflective thinking skills and increasing students' motivation to learn in Islamic religious education. In addition, the implementation of Google Classroom for distance learning has addressed issues related to the number of learners in Islamic religious education subjects. The research also explores the use of cloud technology and ICT tools to improve the teaching of Islamic religious education and support personalized learning trajectories for students. Overall, the literature highlights the transformative potential of cloud-based learning and technology to revolutionize the learning experience in Islamic religious education. This report is prepared based on a systematic and comprehensive literature study method, analyzing books, scientific articles, and related sources relevant to cloud-based learning topics in the use of Google Classroom for Islamic religious education. The methodological framework includes Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines for the identification and selection of eligible studies, as well as the use

of renowned research quality assessment tools. The results of the analysis are synthesized to produce informative, well-organized, and context-rich reports.

Bibliography

Abdulsalam Suliman Al Arood, M., Zaki Aljallad, M., & Baioumy, N. (2020). The Effectiveness of a Cloud-Based Learning Program in Developing Reflective Thinking Skills in Islamic Education among Students in UAE. International Journal of Education and Practice, 8(1), 158–173. https://doi.org/10.18488/journal.61.2020.81.158.173

Bahri, D., S., &; Zain, A. (2006). Teaching and Learning Strategies. Rineka Cipta.

Chukusol, C., &; Piriyasurawong, P. (2022). Development of Flipped Classroom using Cloud-Based Learning and Board Games Model to Enhance Critical Thinking Skills. TEM Journal, 94–103. https://doi.org/10.18421/TEM111-11

Dadamuxamedov, & Alimjon, I. (n.d.). METHODS OF USING CLOUD TECHNOLOGIES IN ISLAMIC EDUCATION INSTITUTIONS. 7(5).

Fajriana, F., &; Junaidi, J. (2020). The use of Google Classroom in Islamic religious education learning. Al-Tadzkiyyah: Journal of Islamic Education, 11(1), 121–132.

Jumiatun, J., &; Suryani, N. (2018). Development of Cloud Computing-Based Learning Using Google Classroom on Computer Network Materials. Journal of Information and Communication Technology in Education, 5(1), 17–29.

Maghfiroh, A., &; Yusuf, A. (2022). Implementation Of Google Classroom Application In Islamic Religious Education Learning At SMK Raden Rahmat Mojosari Mojokerto. Fikroh: Journal of Islamic Thought and Education, 15(1), 73–85. https://doi.org/10.37812/fikroh.v15i1.380

Masud, & Huang. (2013). Cloud-based M-learning architecture for higher education. Des Sciences Archives, 66(1).

Mulyasa. (2003). School-Based Management: Concepts, Strategies, and Implementation. Juvenile Rosdakarya.

Okai-Ugjabe, Ardzejewska, K., Imran, A., Yakubu, A., &; Yakubu, M. (n.d.). Cloud-Based M-Learning: Pedagogical Tools for Managing Infrastructure Limitations and Improving Learning. International Journal of Education and Development Using Information and Communication Technology, 16(2), 48–67.

Son, R. A., & Syriac, N. (2021). The effectiveness of using Google Classroom in improving classroom management in Islamic Religious Education subjects. Journal of Educational Technology, 10(2), 78–90.

Sudarman, S. (2021). The Effectiveness of Using Google Classroom in Learning Islamic Religious Education during the COVID-19 Pandemic. Journal of Islamic Education, 12(2), 45–56.

Surahman, E., &; Sujono, H. D. (n.d.). Development of Adaptive Mobile Learning in High School Biology Subjects as an Effort to Support the Blended Learning Process. Journal of Educational Technology Innovation, 4(1), 26–37.

Wibowo, R. P., &; Handayani, S. (2020). Wibowo, R. P., &; Handayani, S. (2020). The effectiveness of online learning using Google Classroom in Islamic Religious Education subjects. Journal of Islamic Education, 9(1), 23-36. Journal of Islamic Education, 9(1), 23–36.

Wijaya, M. H. (2020). Implementation of Google Classroom in Online Learning during the COVID-19 Pandemic. Journal of Educational Sciences, 2(2), 49–54.

Zhao, Z. (2023). A New Cloud Computing-Based Assessment of Issues in Online Teaching Management in the Post-Epidemic Era of COVID-19. International Journal on Recent and Innovation Trends in Computing and Communication, 11(6s), 138–151. https://doi.org/10.17762/ijritcc.v11i6s.6817