

Sustainable Islamic Education Learning With Connectivism Approach

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Article History	Abstract
<p>Received : 21 Oktober 2023 Revised : 17 Maret 2024 Accepted : 10 April 2024</p>	<p><i>Education institutions can adopt various pedagogical approaches, principles and methods used by other training institutions in continuous learning. These methods may include utilizing digital technology and online communication to facilitate distance learning and quick access to relevant information. This research empirically explores the principles of connectivism implemented in the learning and teaching conducted online at Ma'had Aly Integrated Pesantren Serambi Mekkah Padangpanjang, West Sumatra Province. Types of research is qualitative, and narrative descriptive as research analysis techniques. The research findings show that connectivism approach can be a suitable conceptual framework and motivate mahasantri to develop knowledge through digital, discussion and social networking with the concept of sustainability. The principles of connectivism can help musyriif to develop a learning environment where mahasantri can add to their understanding and prior knowledge through online interaction and by accessing digital knowledge sources.</i></p>
	<p>Keywords: Sustainable PAI Learning, Connectivisme Approach</p>

INTRODUCTION

Technology has become an inevitable part of the learning process in Pondok Pesantren. Since the post-Covid-19 pandemic, the utilization of digital technology has continued to increase, making educational institutions switch to online teaching models (Rumahuru, Y. Z., Siahaya, A., Th, M., & Ambarita, J,2021; Sanjaya, R,2020).The same thing also happened in PAI learning (Hidayati, D. A.,2020) especially in Ma'had Aly, the higher education of Islamic boarding schools. Continuous Islamic religious learning in Ma'had Aly is often based on several theories, such as constructivism learning theory (Widyati, W, 2014), cognitivism learning theory (Basir, N. K, 2019), transformative learning theory (Seatter & Ceulemans, 2017) and others. Similarly, the approaches used such as experiential learning (Anastasiadis, 2020) and active learning (Reule, J., & Leonard, R., 2019). However, integrating digital technology into the learning process of

PAI in Ma'had Aly requires a revision of the learning theory that has been applied so far. The digital era demands new approaches to facilitate students' learning, including new ontological and epistemological approaches to organize the learning environment with the help of information and communication technology.

The utilization of digital technology to manage the learning environment in Mahad Aly will be more widely used in the future to bridge the sustainability of learning both online and offline. As online learning continues to be further integrated into the higher education foundations of Islamic boarding schools, digital teaching skills and mahasantri support should be prioritized in online teaching pedagogy (Fauzi, A., Baharun, H., Mundiri, A., & Manshur, U., 2018, Siemens, 2005). Connectivism theory can be useful for the design of learning environments. This theory can be a suitable alternative in cases where mahasantri can develop knowledge by forming technology-based social networks (Basir, N. K, 2019). Connectivism is a theoretical framework for understanding learning, where learners can make connections between information and ideas throughout their learning network, which consists of various information sources and technologies (Dunaway, 2011). As such, connectivism helps identify factors that support learning, stemming from technological advances and the design of appropriate learning environments (Ramadhani & Setyowati, 2023).

Connectivism is a relatively new learning theory (Kop & Hill, 2008) that has been applied to the study of organizational management and leadership, medical studies of intercultural management and virtual teaching in educational studies (Kop, 2020). Although connectivism has received widespread attention, unlike other learning theories, it has not had a long history of testing and revision to arrive at a definitive framework for understanding how people learn differently in the digital world ((Kop & Hill, 2008) In addition, some studies have addressed connectivism in relation to sustainability learning in social studies (Ramdhan, I. F.at.al,2022,;Supriagi, N.,at.al,2020).Digital technologies are commonly applied in sustainability teaching in higher education (Ningrum,2021).

Knowledge and skills about continuous learning are continuously developed. Likewise, the ability of mahasantri to continue learning after graduating from Ma'had Aly and to understand the constant changes related to the development of Islamic science. This should have a special place in the strategic plan for the development of Islamic

educational institutions. The aim is to educate leaders of Mahad Aly colleges on the importance of continuous learning (Ningrum, 2021; Kop & Hill, 2008, ;Ramadhan, 2022). To improve the mahasantri's knowledge of continuous learning, educators need to challenge current teaching methodologies and rethink the learning process to suit modern realities (Filho et al., 2018).

Currently, continuous learning studies are often conducted online or in hybrid models that emphasize the role of technology in the learning process but raise questions about learning efficiency. Although digital technology as a learning enabler in Islamic subjects has received attention from some researchers (Bush et al., 2016; Rashid, 2019), conceptual approaches to framing digital learning environments are still rarely researched. In this context, connectivism can be a promising framework for Islamic religious learning in Ma'had Aly, where mahasantri can make mental connections between science concepts and become motivated to continuously seek relevant information (Basir, N. K, 2019).

This research makes several contributions especially to continuous Islamic religious learning in Ma'had Aly. This research adds to the literature on mahasantri learning by suggesting and exploring connectivism theory for continuous Islamic religious learning in an online environment, which is still rarely discussed. The empirical and conceptual contributions of this study aim to expand knowledge about connectivism theory, which is often criticized for its lack of boundaries and deeper conceptualization (Basir, N. K, 2019). This research illustrates the potential of developing teaching methodologies towards the utilization of digital technology, which, in addition to being convenient in organizing the learning process, also affects the mahasantri's perception of information. Despite the empirical focus on the learning context in Ma'had Aly of Serambi Mekkah Integrated Islamic Boarding School, this study may be of interest to educators in other Higher Education Institutions that facilitate learning and teaching with digital technology.

RESEACRH METHODOLOGY

Qualitative studies as the methodology used are based on textual data analysis in the form of reflections on courses written by female students participating in lectures.

During lectures, students are expected to develop knowledge about how Ma'had Aly can respond to demands for sustainable solutions found in people's lives. In addition, this continuous learning discusses how lectures can be proactive in responding to community problems through institutional sustainability and social responsibility.

Before, learning at the Ma'had Aly Serambi Mekkah Islamic boarding school was conducted in class using conventional teaching methods, such as lectures, seminars and homework. In addition, mahasantri also write essays on selected topics and analyze case studies. Besides that, there are also collaborative tasks carried out in groups. During the 2020 to 2021 pandemic, lectures will be held online. All interactions and learning processes between musyrif and female students occur via Zoom, the lecture web on the Moodle platform and email. Musyrif's role is to facilitate a distance learning environment and assess student performance. Lecture reading packages are available from the e-library, and individual learning also occurs through internet searches for relevant and up-to-date information. At the end of the lecture, the mahasantri must provide free-form feedback and answer the following questions: (1) What is the most important thing that has been learned, and how did it go about? related to previous knowledge and experience? (2) How can you benefit in the future from what you learn during your course? (3) When and how can you put the things you have learned into practice?

The number of evaluation essays for each subject collected is 30 (2020) and 35 (2021), a total of 65 essays. This essay is analyzed through a content analysis framework (Jackson & Bazeley, 2019). For structural data analysis, each student essay gets an index number according to the year it was written. For example, 2:2020—essay number 2, year 2020. The aim of the analysis is to identify how students make connections between the concepts they have learned and how they turn them into knowledge that follows the principles of connectivism. The essay was read and analyzed by the researcher. In the first step of the analysis, the essay is read to find expressions and statements that reflect the concepts learned about continuous learning, descriptions of the learning process, the relationship between the knowledge created and the knowledge of the student's main subject areas, descriptions of practical assignments as learning tools, group and individual work and assessment critical of digital learning. Relevant pieces of text are grouped according to textual codes based on the principles of connectivism. The main

code includes a sustainability perspective, namely students' understanding of sustainable learning concepts such as students' understanding of technology, reflection on digital technology, critical thinking, the ability to evaluate information, making connections, namely the ability to develop communication skills and facilitate individual learning, links, namely the ability to make inferences from the information provided. learned, new learning that is the ability to continue individual learning and decision making.

DISCUSSION AND RESULTS

Connectivism theory was conceptualized and proposed as a learning theory for the digital age in the 2000s (Kop & Hill, 2008). Connectivism is "a learning theory that explains how the internet has produced different and diverse opportunities for humans to learn from each other who are virtually connected" (Kop & Hill, 2008). The development of digital technology has triggered academics and educational practitioners to rethink the structure of the curriculum, the way of teaching and the interaction between students and teachers/lecturers and between students and students (Ramadhani, 2022). Connectivism emphasizes the role of digital technology in accessing various information sources and developing skills to assess information sources in a virtual network (Dunaway, 2011). Social media, online learning, educational games, online educational resources, and other digital innovations bring cultural changes in the value of education and learning (Saykili, 2019). The role of a teacher or lecturer shifts to that of a facilitator, to assist more autonomous student learning (Anastasiadis, 2020).

According to connectivism theory, knowledge develops when learners make mental connections between concepts, ideas and opinions accessible through digital technology and make information technology an integral part of learning (Dunaway, 2011). Connections between concepts, ideas and opinions that can be accessed through digital technology and make information technology an integral part of learning (Dunaway, 2011). Siemens (2005) suggests eight main principles of connectivism, namely: 1) Learning and knowledge rest on a diversity of opinions; 2) Learning is the process of connecting specialized nodes or sources of information; 3) Learning can reside in non-human equipment; 4) The capacity to know more is more important than what is currently known; 5) Maintaining and sustaining connections is necessary to facilitate

continuous learning; 6) The ability to see connections between fields, ideas and concepts is a core skill; 7) Accurate, up-to-date knowledge is the intent of all connectivism learning activities; And 8) Decision-making is a learning process in itself.

The main idea of the above principle is that learners can create new meaning from facts and knowledge, and relearn information and be able to apply knowledge in an ever-changing information environment (Goldie, 2016; Utecht & Keller, 2019). According to this principle, learning is an effort to discover new concepts, not merely a critical appraisal of previous information, but relearning new understandings and replacing old understandings or experiences due to new information (Utecht & Keller, 2019).

Thus, connectivism enables Ma'had Aly students to develop key competencies that exist and are needed in 21st century learning, namely, critical thinking, collaboration, communication, creativity and innovation, self-direction, making global and local connections and using technology as a tool for learning (Niu et al., 2021).

The results showed that female students were able to develop their knowledge and understanding by making connections between concepts and practical cases of sustainable initiatives and distinguishing the principles of each subject. They also relate the concepts learned about sustainability to their main studies, future careers, daily life and fiqhiyah issues in society. In addition, they have reflected in terms of new learning models, from conventional learning systems to digital-based continuous learning. This way of learning adds new previous knowledge and makes it possible to relearn problems that were previously understood as the only truth. The results are presented in accordance with the eight main principles of connectivity formulated by Siemens (2005). Connectivism theory provides a framework for understanding learning that focuses on students' learning experiences, the concepts they learn during lectures and the connections they make between concepts, opinions and various perspectives from the knowledge acquired.

Learning and knowledge are based on the diversity of opinions of the students emphasizing that lectures allow them to approach sustainability from different perspectives. It is out of date, in fact it is not. Given that lectures bring together students from different subjects. "This knowledge may be useful in the future for their careers and their focus on developing innovation, as expressed in a statement for example: "I am

studying to become a person who sits in the field of fatwa in Islamic religious institutions".

Diversity of opinion is the essence of connectivism and plays an important role in the development of knowledge during learning. Through discussion of assignments in groups, students can learn about other people's opinions by looking at problems from a broader perspective than just one perspective. For example, group assignments to develop a mass of various propositions. Various insights also came from mahasantri between regions and even between nations. From experience during the pandemic, all student discussions are conducted online, mostly via Zoom which allows female students to improve their digital communication skills.

Another diversity of opinion comes from online information access. Online sources offer new information in many forms. Mahasantri not only read articles and academic textbooks and turast books but can also access podcasts or videos of foreign scholars such as Syrian, Damascus and Yemeni scholars who are not used in the conventional learning version. However, the diversity of online information sources has weaknesses, because information can be easily manipulated on the internet. Therefore, a critical assessment of this information is something that students must learn (Niu et al., 2021). For example, mahasantri can explore information that deviates from the understanding of deviant understanding on behalf of the opinions of certain religious scholars or information that intends to mislead and accuse. In addition, instructional learning encourages students to use various sources of information but are prohibited from referring to Wikipedia.

Musyrif or lecturers also provide input on the diversity of opinions when leading and facilitating the learning process. The role of musyrif is to direct students to the right method and motivate them to continue learning. The presence of a musyrif during distance learning gives a feeling of community and belonging to a social group (Siemens, 2007). Information technology in this case is to support learning routines, regulate learning processes and manage learning assignments. The important task of technology is to facilitate communication between musyrif and mahasantri, especially when face-to-face interaction is not possible.



Picture 1. Sustainable Islamic Religious Learning at Ma'had Aly of Pesantren Terpadu Serambi Mekkah

CONCLUSION

Sustainable learning become an important part of Ma'had Aly's curriculum to educate future scholars. Continuous learning and teaching is related to building the capacity of students by developing their skills on continuous learning. Organizing such a learning process requires a modern and transformative approach, not only in terms of the use of technology, but also a new conceptual approach to facilitating learning. Connectivism learning theory provides an opportunity for musyrif or lecturers to develop sustainable learning plans in an efficient way at Ma'had Aly. This learning approach is constructed on the use of digital technology that connects students with the latest information and helps musyrif to structurally regulate the learning process. This study also emphasizes that knowledge is not a set of facts about a subject but the accuracy and speed with which one can learn, and relearn information. The connectivism theory approach, as a learning framework, can be considered for future Ma'had Aly curriculum development.

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