Readiness of Hybrid Learning Implementation at Nahdlatul Ulama Higher Education

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ABSTRACT

The process of implementing hybrid learning doesn't run smoothly. Many obstacles were experienced in terms of the readiness of students, lecturers, and infrastructure. This study aims to analyze the readiness of implementing hybrid learning at Unisnu Jepara seen from 3 aspects, namely: student readiness, lecturer readiness, and infrastructure readiness. This research is mix-method research with concurrent triangulation model. Participants in this study were 180 undergraduate students from eighteen study programs at Unisnu Jepara. Participants were selected using purposive sampling technique. Data was collected through questionnaires and in-depth interviews. Data processing is done in a simple quantitative approach to determine the readiness of lecturers and students in implementing hybrid learning. Qualitative data analysis was carried out using interpretive descriptive techniques. The results showed that 76.08% of students and 81.87% of lecturers are ready to carry out hybrid learning, while from the aspect of infrastructure readiness it is not sufficient. Learning that combines face-to-face and online learning after the Covid-19 pandemic needs to be implemented in a planned manner by taking into account the needs of students, the readiness of supporting facilities, and a strong commitment from each responsible for implementing hybrid learning.

Keywords: Readiness; Hybrid Learning; Covid-19

1. INTRODUCTION

The Corona Virus Disease 2019, also known as COVID-19, which appeared in the first quarter of 2020 and is rapidly spreading around the world, has undoubtedly forced the global education community to shift from traditional classroom learning methods to online learning in a very short period of time. The COVID-19 pandemic has brought the world to a halt, with entire cities being shut down and people being confined to their homes in order to stop or slow the spread of the disease. Regardless of how dangerous the pandemic is, the government regulates that face-to-face teaching is prohibited and that the use of virtual teaching models is required [1].

Despite this difficult situation, most academic institutions around the world, including Unisnu Jepara, have attempted to maintain the learning process' continuity. They've switched to online learning, in which students and teachers communicate with one another using a variety of technology tools and techniques; this is also known as e-learning. Some people are combining e-learning with traditional face-to-face learning, resulting in hybrid learning, which combines traditional learning with web-based online approaches.

Additionally, Unisnu Jepara promulgates the national teaching and learning policy that prohibited the face-to-face learning and obliges Hybrid learning as the main policy. However, many obstacles were experienced in terms of the readiness of students, lecturers, and infrastructure in implementing hybrid learning. Based on the description, the writer wants to investigate how the readiness of Unisnu Jepara to implement hybrid learning.

2. LITERATURE REVIEW

2.1. Hybrid learning

The term "hybrid learning" has become widely used, especially in higher education. In general, hybrid learning refers to a mix of synchronous and asynchronous instructional modalities, delivery media, instructional methods, and web-based technologies. The combination of face-to-face and online teaching and learning methods The term itself is difficult to define because different people use it in different ways [2]. Overall, there are three

main definitions of hybrid learning [3]: 1) the integration of traditional learning with web-based online approaches; 2) the use of a variety of media and tools (e.g. textbooks) in e-learning environments; and 3) the use of a variety of teaching and learning approaches regardless of technology [4].

Consider hybrid learning to be the combination of face-to-face and online teaching and learning methods [5]. In general, hybrid learning refers to a mix of synchronous and asynchronous instructional modalities, delivery media, instructional methods, and web-based technologies. The nature of the course content and learning goals, student characteristics and learning preferences, teacher experience and teaching style, or online resources are all factors that influence the choice of a blend [6]. Hybrid learning combines the innovative and technological advancements of online learning with the interaction and participation of traditional learning [7].

Research conducted to know the effect of hybrid learning implementation in teaching mathematics of SMA students, concluded that hybrid learning assisted by Schoology has a positive effect on student achievement. This conclusion is supported by the fact that; (1) students are more active to solve the problems given, and (2) students are more daring to communicate opinions and questions[8]. The results of research done by Hendrayati, showed that the application of the Hybrid Learning method in teaching statistics was not suitable for application to statistical courses 2 which were more quantitative in nature[9]. This can be seen from the lower student test scores compared to the conventional method. The results of a study on the use of hybrid learning in teaching and learning English, which looked at digital literacy, evaluation, and how students felt about the use of hybrid learning, which they liked, showed that the use of hybrid learning helped both the lecturers and the students in some ways. For example, the students needed to improve their digital literacy skills, which hybrid learning helped them do [10].

2.2. Readiness

Warner, Christie, and Choy [11] came up with the first idea of online learning readiness. They defined it as 1) students' preference for classroom instruction over face-to-face learning, 2) students' confidence in using different kinds of technology, the internet, and especially computer-mediated tools for communication in online learning, and 3) students' interest in their own learning. Online learning readiness in general means that all of the people involved are mentally and physically ready for the online learning process. In line with this, online learning readiness is affected by a number of things, such as the technical, content, organizational, human, and financial resources [12]. Also, the process of adopting online learning depends on a number of important factors. These

success factors are: goals, leadership, empowering the learning aspect, technological infrastructure, blended instruction, careful design, evaluation and feedback, time and space to learn, motivation to learn, usability, and knowing everything about the learners [13].

According to Mustafa and Raside, Hung et al. conducted a readiness study involving 1.051 college learners' perceptions of online learning in Taiwan [12]. Hung et al. identified five factors influencing online learning readiness with their Online Learning Readiness Scale (OLRS). These factors included self-directed learning, motivation for learning, computer/Internet self-efficacy, learner control, and self-efficacy in online communication [14].

Meanwhile, Deveci Topal investigated the level of readiness and satisfaction of online courses in Turkey among 352 university students in Mustafa and Raside [12]. The researcher used the Hung et al., [14] scale for online learning readiness and an online course satisfaction scale with 35 items and 5 sub-dimensions such as course content, teaching process, materials and communication tools, attitude toward e-learning, environment design, and instructor-student interaction. According to the study's findings, overall satisfaction appeared to be moderate, with satisfaction levels higher in instruction-student interaction and environment design when compared to other dimensions.

Mustafa and Rasid reported that in their study with 84 English majoring students in Turkey, using the same online learning readiness scale as a data collection instrument, all the sub-dimensions of learner readiness in OLRS correlated significantly with the concept of student motivation, satisfaction, and student success [12]. Meanwhile, Naji et al. recently conducted a study on engineering students to determine the factors influencing their readiness to engage in online learning during the COVID-19 pandemic. They discovered that four factors influenced their level of readiness: 1) initial preparation and motivation for online learning, 2) self-efficacy beliefs about online learning, 3) self-directed online learning, and 4) support for online learning [15].

From the literature review and study of previous research done by some researchers the authors find that those research deal with the effect of hybrid learning implementation and how readiness give impacts in teaching and learning. There were not researches investigating the readiness of institution, lecturer and student in implementing hybrid learning. So, it is a gap that the authors want to fill, so that the finding of the current research will be the novelty.

3. METHOD

This research is mix-method research with concurrent triangulation model. Participants in this study were 171 undergraduate students and 49 lecturers of 18 study

programs at Unisnu Jepara. Participants were selected using purposive sampling technique. Data were collected through questionnaires to collect the data about the readiness of students and lectures in hybrid learning implementation. Table 1 provides information about the statements in the questionnaire. Statements are measured using five categories; very good, good, fair, bad and very bad.

Data is processed in a straightforward quantitative manner, using Microsoft Excel 2013, and is tabulated and calculated as a percentage. The percentage analysis of data is used to determine the readiness of lecturers and students to implement hybrid learning. In-depth interviews were conducted with university officials involved in the topic to gather information about the institution's support system for hybrid learning implementation.

Table 1 Summary of construction items

No	Construct	Item
1	Lecturer Readiness Factors	a. Syllabus and RPS (Lesson Plan) developing based on hybrid learning
		b. MODULE (and other teaching materials) developing based on hybrid learning
		c. Implementation of learning using e-learning platforms
		d. Implementation of learning using MOOCS media
		e. Implementation of hybrid learning-based learning evaluation
2	Student Readiness Factors	a. Supporting devices (smart phones, netbooks, etc.) to take part in hybrid learning
		b. Utilizing the e-learning platform specified by the lecturer
		c. Attending hybrid learning in campus or off campus
		d. Attending face-to-face learning in campus
		e. Attending on-line learning off campus

4. RESULT AND DISCUSSION

4.1. Results

4.1.1. Depth interview

The researcher had interview with the vice rector of academic affair dealing with the policy of the institution about e-learning, the vice rector explained that the institution policy of e-leaning regulates two points; 1) how to combine conventional practice of teaching and learning with e-learning, and 2) the function of e-learning among the face-to-face learning is to support conventional learning in order to strength rather than to substitute the conventional learning

Meanwhile from the interview with the Head of IT unit, the researcher found the data of IT support system that the unit of IT of university has successfully implemented and developed a learning platform based on a Modular object-oriented dynamic learning environment (Moodle). Moodle's learning platform uses the Computer Assisted Learning (CAL) and Computer Assisted Teaching (CAT) Models, which combined two models in Moodle, so it is called an LMS (Learning Management System). According to IT unit this platform was chosen because Moodle has an open-source license, which means that this platform can be developed independently according to the administrative and learning needs of universities. On the other hand, with the increase in internet network usage traffic for learning needs on the

network, the internet bandwidth at UNISNU has also been successfully increased with a dedicated 1:1 bandwidth of 250 Mbps from the previously shared 1:4 bandwidth of 160 Mbps

4.1.2. Document study

Based on the Rector's Decision number 90/PR/UNISNU/XII/2021 about Online Learning Guidelines, the researchers found that Unisnu Jepara already has a standard of online learning process, including: 1) learning designs, learning activities, delivery strategies, student and lecturer interactions, student interactions with teaching materials, collaboration, feedback systems, learning assessments, learning media, and learning assistance services, 2) the stages of online learning consist of the design stage, the implementation stage and the assessment stage. Online learning design is set forth into Semester Lesson Plans (SLP) which must developed before carrying out teaching and learning covering teaching materials, and 3) a code of ethics for the implementation of online learning, online learning interactions, and online learning monitoring and evaluation guidelines.

4.1.3. Survey data

The results of the questionnaire on the readiness of lecturers and students in implementing hybrid learning are shown in Table 2. The results of the questionnaire about the readiness factors of lecturers and students are shown in Table 3 and Table 4.

Table 2 Readiness of the lectures and student

No	Study Program	Lecturer		Student	
		Average (%)	Category	Average (%)	Category
1	Islamic Family Law	72.8	Good	71.5	Good
2	Syariah Banking	72.8	Good	71.5	Good
3	Islamic Education	86.4	Very good	78.75	Good
4	English Language Education	100	Very good	86	Very good
5	Teacher Education for Early Childhood Education	79.6	Good	71.5	Good
6	Primary Teacher Education	79.6	Good	82.25	Good
7	Islamic Broadcasting Communication	66	Fair	71.5	Good
8	Management	100	Very good	82.25	Good
9	Accounting	93.2	Very good	75	Good
10	Islamic Economics	79.6	Good	78.75	Good
11	Aquaculture	66	Fair	75	Good
12	Visual Communication Design	79.6	Good	82.25	Good
13	Product Design	79.6	Good	75	Good
14	Information Systems	100	Very good	82.25	Good
15	Electrical Engineering	72.8	Good	71.5	Good
16	Industrial Engineering	79.6	Good	71.5	Good
17	Informatics Engineering	86.4	Very good	71.5	Good
18	Civil Engineering	79.6	Good	71.5	Good
	Average	**81.87**	**Good**	**76.08**	**Good**

Table 3 Lecturer readiness factors

No	Factor	Average (%)	Category
1	Syllabus and RPS (Lesson Plan) developing based on hybrid learning	94.33	Very good
2	MODULE (and other teaching materials) developing based on hybrid learning	75.44	Good
3	Implementation of learning using e-learning platforms	92.44	Very good
4	Implementation of learning using MOOCS media.	75.44	Good
5	Implementation of hybrid learning evaluation.	71.67	Good
	Average	**81.87**	**Good**

Table 4 Student readiness factors

No	Factor	Average (%)	Category
1	Supporting devices (smart phones, netbooks, etc.) to take part in hybrid learning	89.89	Very good
2	Utilizing the e-learning platform determined by the lecturer	100	Very good
3	Attending hybrid learning in campus or off campus	66.67	Fair
4	Attending face-to-face learning in campus	87.56	Very good
5	Attending on-line learning off campus	60.22	Fair
	Average	**76.08**	**Good**

4.2. Discussion

4.2.1. Readiness of Support system

Institutional support provided by the university in this context is the management facilities provided by the institution to support hybrid learning implementation. The hybrid learning implementation at Unisnu Jepara has adequate support system because it is endorsed by software and hardware facilities (infra structure) by the management. Two institution regulations have been published to support hybrid learning implementation; (1) the institution policy related to the application of e-learning which serves as a complement to strengthen conventional learning face-to-face in the classroom, and (2) the rector's decision dealing with online learning regulation containing standard online learning process, the stages of online learning, and online learning monitoring and evaluation guidelines, and and other supporting tools, such as hardware and software. The policy is relevant with the idea of Twigg, that e-learning have three models; the supplemental, the replacement, and the emporium model. In supplemental model, technology is used to *support* learning with no change in the traditional teaching method [17].

Meanwhile, in order to support the implementation of hybrid learning, IT unit of Unisnu Jepara has also successfully implemented and developed a learning platform based on a Modular object-oriented dynamic learning environment (Moodle) what so called by LMS (Learning Management System). Since hybrid learning is based on web-based learning content, it relies on a learning management system (LMS) that supports content development and facilitates learning interactions. Hybrid learning implementation must be supported by an adequate system, management policies and technical implementation procedures, and supporting tools (infrastructure) as the support system that influence the success of hybrid learning [18]. It is linear with the idea of Mozelius. P and Heetiarachchi.E, that the virtual learning environment and media integration are one of the factors that influence the implementation of hybrid learning because technology is a basic material that is combined with traditional learning, so technology will be a very crucial factor in all learning activities using hybrid learning [19].

4.2.2. Readiness of lecturer

Based on the results of the questionnaire, it can be seen that of the eighteen study programs at Unisnu Jepara, that the average readiness of lecturers in 18 study programs in implementing hybrid learning is in good level **(**81.87%).

The highest readiness of lecturer in the aspect of preparing the Syllabus and Semester Lesson Plans based on hybrid learning is 94.33%. It means that one of the determinants of the success of the online learning process has been fulfilled, that is lecturers are able to make designs or plans carefully, as conveyed by Borotis, Zaharias and Poulymenakou, that there are some crucial success factors for online learning adoption process. Some of these success factors are objectives designing, technological infrastructure, and careful design of learning activities[13].

Almazova explained that the readiness of lecturers to carry out hybrid learning depends on digital literacy abilities [20]. The same thing was concluded from the results of a study conducted by Shaharanee, stated that it influenced by their poor abilities in using LMS [21]. Further, Giatman, Siswati, and Basri, found that the readiness of lecturers was highly dependent on the ability to access the internet even though they had used an LMS. The readiness of lecturers is also related to the level of self confidence in using e-learning tools [22]. This is in accordance with the results of research conducted by Suana, Riyanda, and Putri [23]. It also relevant with Mozelius.P and Heetiarachchi.E, stated that what they have in common is that mastery of computers, their pre-technical knowledge and personal innovation are important factors of readiness that must be owned by lecturer [19].

4.2.3. Readiness of Student

Based on the survey results, it can be seen that the reluctance of students to take part in hybrid learning shows the least readiness of the various factors of student readiness. In this context the motivation of students in participating in hybrid learning is a key factor so that they are not enthusiastic enough to participate in hybrid learning (60.22%). This is in line with the results of research by Almazova, et al., said that the high motivation of students determine the preference of students learning [20]. Intrinsic and extrinsic motivation plays an important role in determining student success in learning [24]. In eneral, Hung, et al, stated that students preference in learning is influenced by students' motivation, efficacy on computer/internet, and self-directed learning [14].

Borotis, Zaharias and Poulymenakou's stated that one of things that encourage students to have readiness is the motivation factor. It means that in this context the motivation of students in participating in hybrid learning is a key factor so that they are not enthusiastic enough to participate in hybrid learning[13]. Online learning readiness plays a significant role to trigger student to be involved in online learning activities; therefore it can be concluded that it is a crucial factor in creating online learning environment [25]. Further, Yukselturk & Bulut concluded that online learning readiness was one of the strongest predictors of satisfaction for students in online courses [26].

5. CONCLUSION

The institutional support for hybrid learning is quite adequate because of the availability of a support system; university policies that regulate implementation of e-learning and a set of rules regarding online learning.

In terms of IT support, universities have also facilitated the amount of bandwidth required to support hybrid learning. However, the amount of available bandwidth has not been sufficient yet to meet the ideal needs to support the implementation of hybrid learning. In addition, there is still hardware that has passed the tool's useful life (expired) which should be replaced with new hardware so that it can work optimally.

On the aspect of lecturer and student readiness, it can be concluded that both lecturers and students have good level of readiness, it means that Unisnu Jepara has one of key factors to implement hybrid learning successfully, because it supported by the good competence of lecturers and good motivation of students as active learning subjects who play significant role in succeeding hybrid learning.

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