Distance Learning and Independent Learning of Students in Higher Education

Fathor Rozi1*, Maghfur Ramdani1, Faizun Najah2, Noer Azizah3, Harisatun Niswa3, Moch Abdillah1, Fakhrur Rozi1

1 Nurul Jadid University, Paiton, Probolinggo, Indonesia
2 IDIA Al-Amien, Sumenep, Indonesia
3 UIN Maulana Malik Ibrahim, Malang, Indonesia

* fathorrozi330@gmail.com

Abstract. This study aims to determine the effect of distance learning on the learning independence of students at the Islamic Faculty of Nurul Jadid University. This study uses a quantitative approach with the type of exposure factor, the population taken in this study is the entire study program at the Islamic Faculty consisting of 100 students of each study program. The sampling technique uses simple random sampling and data collection techniques, done through questionnaires and tests. While the data analysis using linear regression analysis with t and F tests. The results showed that the partial test results (t) were obtained with a tcount of 4.666 with a significance value of 0.00 <0.05, so Ho was rejected and Ha was accepted. Thus obtained from the results of R Square shows that the conclusion of this study has an effect of 13.60% and the remaining 86.40% is influenced by other factors not examined in this study.

1. Introduction

Today science and technology are developing rapidly. This development has an impact on the increasing openness and distribution of information and knowledge from and to all over the world across the boundaries of distance, place, space, and time [1]. Its influence also extends to various lives, including the field of education [2]. Education is not antipathy or allergic to the development of science and technology, but instead becomes a subject or a pioneer in its development [3][4] [5]. Global demands require the world of education to always and always adapt technological developments to efforts to improve the quality of education [6], especially adjusting its use for the world of education, especially in the learning process [7]. Information communication technology is the development of information systems by combining computer technology with telecommunications [8] [9].

Information and communication technology has an important role in life now and in the future, including in the field of education [10] [11]. The development of information and communication technology in education has triggered a shift from conventional face-to-face learning towards distance learning that can be accessed using media [12].

Distance learning is the right solution to describe educational problems that are constrained by geographic location which makes conventional learning impossible [13]. Distance learning as an
alternative to choosing a learning model that is implemented to deal with problems that arise due to the distance between the educational institution/teaching and the student's location, with distance learning it is hoped that students can continue to take part in learning without being constrained by geographic location [14][15].

Holmberg's theory of distance learning is its emphasis on the individual learner and the freedom that should be given to him. Like Moore, it is said that real learning is an individual activity that can only be obtained through the internalization process. Like Moore, Holmberg argues that learner autonomy is an ideal condition, and states that one of the goals of distance learning is to help learners achieve full autonomy [14]. Holmberg offers an open enrollment system, freedom to start and end study units, no time limit for submitting assignments, and no seminars or other activities required [16].

Distance learning places great emphasis on independence for both teachers and students [17]. Teachers can deliver teaching materials to students without having to meet face to face in the same room. Distance learning can be done at the same time or differently [18]. Distance Learning is more effective and is considered to be the most realistic paradigm. This type of learning uses the media as a means of interaction between teachers and students [19].

Although it has several advantages in practice, it cannot be denied that distance learning also raises various problems that seem to reduce the implementation of the process and learning outcomes. The main problem in Distance Learning is related to technical problems, such as lack of support for access to support, the limitations of teachers in managing Distance Learning, and other problems. One of the factors that the implementation of Distance Learning is not optimal is the assumption that teachers are the only source of learning so that learning is centered on the teacher (teacher center). This situation then creates the impression that learning is limited to understanding and repeating what the teacher says and has an impact on the low independence of students. This independent learning demands a great responsibility on students. The role of teachers and parents greatly determines the continuation of their education. So that no student is neglected in their learning activities [20].

Learning independence is the main requirement in implementing Distance Learning [21]. Independent learning is only aimed at adults by paying attention to four basic concepts including self-concept, experience, readiness to learn, and a perspective on time and orientation to learning [22]. Students at the Madrasah Ibtidaiyah level are students with an age range of 7-12 years, where this age is also an age that still requires a lot of supervision and protection [23].

2. Research Methods

This research uses a quantitative approach with the type of exposure factor, namely data collection is carried out after the incident or after the event. This research was conducted at the Faculty of Islamic Studies, University of Nurul Jadid Paiton Probolinggo. Address Karanganyar Paiton Probolinggo, the population taken in this study were all study programs at the Faculty of Islamic Religion, Nurul Jadid University and the sample in this study was part of the population consisting of students from each study program with a total of 100 out of a total of 2,219 active students. The sampling technique used is the Simple Random Sampling technique, which is a random sampling technique from each study program. Simple Random Sampling is a sampling technique that provides equal opportunities to the population to be sampled, while the data collection techniques used in this study are questionnaires and tests. This study aims to determine the effect of distance learning on the learning independence of students at the Faculty of Islamic Studies, Nurul Jadid Paiton University, Probolinggo, East Java, Indonesia.

3. Results and Discussion

This study uses a linear regression analysis that describes the effect of distance learning on the learning independence of students of the Islamic religious faculty. In this study, 15 questions were made with a score of 1-3 for each question. This is by the alternative answers in this study. Data on the effect of distance learning on the learning independence of students of the Faculty of Islamic Religion, Nurul Jadid Paiton University in the academic year 2020-2021, which was collected from 100 students
of respondents, quantitatively show that the highest total score is 43 and the lowest total score is 30. The acquisition of student learning independence in this study was measured by an indicator, namely the written test score of student learning independence of the Faculty of Islam, Nurul Jadid Paiton University, Probolinggo. From this value, the highest value is 100 and the lowest value is 75.

3.1 Hypothesis Testing

3.1.1 Partial Test (t)

This partial hypothesis testing is intended to test the significance of the effect of the independent variable, namely distance learning (X) on the learning independence of students (Y) at the Faculty of Islamic Religion at Nurul Jadid Paiton University, Probolinggo.

| Table 1. Partial Test (t) |
|--------------------------|
| **Coefficients**         |
| Model  | Unstandardized Coefficients | Standardized Coefficients | t | Sig. |
|        | B   | Std. Error | Beta |       |
| 1      | (Constant) | 44.502 | 9.537 | 4.666 | .000 |
| Distance Learning | .969 | .247 | .368 | 3.921 | .000 |

Based on the results of the partial test for the variable influence of distance learning (Table 1), the t count was 4.666 with a significance value of 0.00 <0.05, so Ho was rejected and Ha was accepted, so H1 which reads "There is an effect of distance learning on the learning independence of students of the Faculty of Religion. Islam at the University of Nurul Jadid Paiton Probolinggo, East Java, Indonesia. " received.

3.2 Regression Analysis

In this study, there are 1 independent variable and 1 dependent variable, so the model used is a simple linear regression approach. Based on the results of the calculation of linear regression analysis using the SPSS 16 program, the results are as follows:

3.2.1 The conclusion from the Linear Regression Analysis Test the Effect of Variable X on Variable Y

Based on calculations with the help of the SPSS 16 computation program (Table 2), the coefficient of determination (R square) is 0.136, it can be concluded that Distance Learning (X) affects Learning Independence (Y) Students of the Faculty of Islamic Religion, Nurul Jadid University, Paiton Probolinggo, at 13.60% and the rest 86.40% influenced by other factors which were not examined in this study. This positive effect means that the increasing distance learning will affect the learning independence of students of the Faculty of Islamic Religion, Nurul Jadid Paiton University, Probolinggo.
Table 2. Result of Regression Analysis

| Model | R   | R Square | Adjusted R Square | Std. The error of the Estimate |
|-------|-----|----------|-------------------|-------------------------------|
| 1     | .368a | .136     | .127              | 8.31196                      |

a. Predictors: (Constant), Distance Learning
b. Dependent Variable: Independent Learning

4. Conclusion

Based on the results of research in the field regarding the effect of distance learning on the learning independence of students of the Faculty of Islamic Religion, Nurul Jadid Paiton University, Probolinggo, the researchers took the following conclusions:

From the Coefficients table, it can be obtained partial test results (t) with a tcount of 4.666 with a significance value of 0.00 <0.05, so Ho is rejected and Ha is accepted.

Based on calculations with the help of the SPSS 16 computation program, the value of the simultaneous determination coefficient R² (R square) is 0.136, thus indicating that distance learning affects the learning independence of students of the Faculty of Islamic Religion at Nurul Jadid University by 13.60% and the remaining 86.40%. from student learning independence is influenced by other factors not examined in this study such as the learning environment, tutoring, and others.

This study shows that distance learning affects students' learning independence, so that lecturers at the Faculty of Islamic Religion, Nurul Jadid University can carry out distance learning during the pandemic so that students can still carry out the learning process without meeting face to face.

References

[1] J. Kettunen, R. Vuorinen, and O. Ruusuvirta, “European Lifelong Guidance Policy Network representatives’ conceptions of the role of information and communication technologies related to national guidance policies,” Int. J. Educ. Vocat. Guid., vol. 16, no. 3, pp. 327–342, 2015.

[2] A. Fauzi, A. Mundiri, and U. Manshur, “E-Learning in Pesantren : Learning Transformation based on the Value of Pesantren E-Learning in Pesantren : Learning Transformation based on the Value of Pesantren,” Phys. Conf. Ser. Pap., vol. 1114, 2018.

[3] R. Andrews, A. Freeman, D. Hou, N. McGuinn, A. Robinson, and J. Zhu, “The effectiveness of information and communication technology on the learning of written English for 5- To 16-year-olds,” Br. J. Educ. Technol., vol. 38, no. 2, pp. 325–336, 2007.

[4] C. Muali et al., “Free Online Learning Based on Rich Internet Applications: The Experimentation of Critical Thinking about Student Learning Style,” J. Phys. Conf. Ser., vol. 1114, no. 1, 2018.

[5] Zamroni, M. Ilyasin, and M. Tohet, “Multicultural education in a religious life: Developing harmony among religions in southeast asia,” Proc. Int. Conf. Ind. Eng. Oper. Manag., no. August, pp. 3791–3801, 2020.
[6] S. Islam, C. Muali, and I. M. Ghufron, Moh Idil, “To Boost Students’ Motivation and Achievement through Blended Learning To Boost Students’ Motivation and Achievement through Blended Learning,” J. Phys. Conf. Ser., vol. 1114, pp. 1–11, 2018.

[7] S. Caird and A. Lane, “Conceptualising the role of information and communication technologies in the design of higher education teaching models used in the UK,” Br. J. Educ. Technol., vol. 46, no. 1, pp. 58–70, 2015.

[8] F. A. Aksal and Z. A. Gazi, “Examination on ICT integration into special education schools for developing countries,” Turkish Online J. Educ. Technol., vol. 14, no. 3, pp. 70–72, 2015.

[9] A. Syakroni, C. Muali, and H. Baharun, “Motivation And Learning Outcomes Through The Internet Of Things; Learning In Pesantren,” J. Phys. Conf. Ser., vol. 1363, pp. 1–5, 2019.

[10] H. Baharun, “Management information systems in education: the significance of e-public relation for enhancing competitiveness of higher education,” J. Phys. Conf. Ser., vol. 1175, no. 1, 2019.

[11] Hefniy, A. Fauzi, Faridy, and R. Fatmasari, “National assessment management based on information and communication technology and its effect on emotional intelligence learners,” J. Phys. Conf. Ser., vol. 1175, no. 1, pp. 9–13, 2019.

[12] K. Srijamdee and P. Pholphirul, “Does ICT familiarity always help promote educational outcomes? Empirical evidence from PISA-Thailand,” Educ. Inf. Technol., vol. 25, no. 4, pp. 2933–2970, 2020.

[13] M. Simonson, C. Schlosser, and A. Orellana, “Distance education research: A review of the literature,” J. Comput. High. Educ., vol. 23, no. 2–3, pp. 124–142, 2011.

[14] E. R. West, “Insights from research on distance education learners, learning, and learner support,” Am. J. Distance Educ., vol. 25, no. 3, pp. 135–151, 2011.

[15] A. F. Jafar, R. Rusli, M. Dinar, I. Irwan, and H. Hastuty, “The Effectiveness of Video-Assisted Flipped Classroom Learning Model Implementation in Integral Calculus,” J. Appl. Sci. Eng. Technol. Educ., vol. 2, no. 1, pp. 97–103, Jun. 2020.

[16] A. Owusu-Boampong and C. Holmberg, Impact of Distance Education on Adult Learning. 2014.

[17] C. Muali, S. Minarti, M. Taufik Qurohman, and Haimah, “Analysis of metacognitive capability and student learning achievement through edmodo social network,” J. Phys. Conf. Ser., vol. 1175, no. 1, 2019.

[18] R. Ustati and S. S. S. Hassan, “Distance learning students’ need: Evaluating interactions from Moore’s theory of transactional distance,” Turkish Online J. Distance Educ., vol. 14, no. 2, pp. 292–304, 2013.

[19] Y. Giossos, M. Koutsouba, A. Lionarakis, and K. Skavantzos, “Reconsidering Moore’s transactional distance theory,” Eur. J. Open, Distance E-Learning, vol. II, pp. 1–6, 2009.

[20] Prayekti, “The Influence of Cognitive Learning Style and Learning Independence on the Students’ Learning Outcomes,” High. Educ. Stud., vol. 8, no. 2, p. 37, 2018.

[21] S. K. Putri, H. Hasratuddin, and E. Syahputra, “Development of Learning Devices Based on Realistic Mathematics Education to Improve Students’ Spatial Ability and Motivation,” Int. Electron. J. Math. Educ., vol. 14, no. 2, pp. 243–252, 2019.

[22] D. Sulisworo and N. Sutadi, “Science Learning Cycle Method to Enhance the Conceptual Understanding and the Learning Independence on Physics Learning,” Int. J. Eval. Res. Educ., vol. 6, no. 1, p. 64, 2017.
[23] F. S. Arista and H. Kuswanto, “Virtual physics laboratory application based on the android smartphone to improve learning independence and conceptual understanding,” *Int. J. Instr.*, vol. 11, no. 1, pp. 1–16, 2018.