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Analysis of Learning Quality With Internet-Based Distance Learning During the COVID-19 Pandemic

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ABSTRACT

Analysis of the quality of learning is crucial in the teaching and learning process, to ensure the quality of learning is well maintained. Learning quality assurance instruments are one of the tools to improve quality in education through evaluations produced by studies of students. This research was conducted to test the quality of online learning during the COVID-19 pandemic. This research aims to evaluate Internet-Based Distance Learning which was carried out during the Work From Home (WFH) period. The learning analysis step is carried out through 1) Formulation of the need for quality analysis of learning, 2) Compiling quality analysis instruments, 3) Distribution of questionnaires, 4) Data processing, 5) Data analysis and 6) Compilation of results. The data analysis technique used descriptive qualitative analysis. The data that has been processed will then be analyzed using descriptive qualitative methods to find conclusions about the quality of learning in the Department of Electrical Engineering (JTE) during the 2020 pandemic. From the analysis, results obtained information that the Quality of Learning with Internet-Based Distance Learning during the COVID-19 Pandemic at JTE it can be said that it is good from a student's point of view, while from a lecturer's point of view, It can be concluded that online learning is very good. The implementation of this research is a consideration for JTE to improve the quality of Internet-Based Distance Learning

INTRODUCTION

COVID-19 has brought big changes in all sectors. One of the sectors most affected by this epidemic is education. With this epidemic, the learning process that was done face-to-face has turned online or Internet-Based Distance Learning. This has an impact not only on the teaching ability of teachers but also on the mastery of technology that must be qualified. The main advantage of e-learning is that it improves the engagement; attendance and courage of students which are re-up sites for learning (Mohammadi et al., 2011). Recent advances in deep learning techniques based on artificial neural networks retain led to breakthroughs in longstanding artificial intelligence tasks such as speech, image, and text distinction, language translation, etc (Shokri & Shmatikov, 2016).

To participate in the achievement of targets in the Millennium Goals Development, lecturers of the Department of Electrical Engineering (JTE), Universitas Negeri Surabaya (Unesa) are required to ensure the quality of their learning and always improve the quality of their education. To realize the quality assurance of learning, JTE Unesa lecturers must have the expertise and teaching skills that are qualified and IT

expertise. By distinguishing student performance measures and examinations of learning experience from both online and offline sections of a mandatory graduate public administration research methods course taught by a similar instructor (Ni, 2013).

As part of the learning development process, education on campus must remain high quality even though it is done by distance learning. Therefore, it is necessary to analyze the quality of learning to ensure good quality. In quality teaching, this knowledge is applied in a way that provides comparable access and opportunities to assemble and expand on what learners already know in facilitating their ability to attain, build, and establish new knowledge (Hollins, 2011).

Online learning is expected to remain as good as offline learning, or even better, by leveraging existing learning platforms. In this case, there needs to be a quality standard that is always maintained so that lecturers and students continue to carry out the teaching and learning process following the learning objectives. Teaching and learning intercourse activity model to show how the educator's course preparation and subsidy training affect different dimensions of learner engagement activities and the connection between these training (Ma et al., 2015).

The government demands universities to carry out learning that follows current technological developments. Through the Ministry of Education and Culture, the Indonesian government hopes that universities can implement a *Merdeka Belajar* curriculum (independent learning curriculum). In connection with online learning or Internet-Based Distance Learning, of course, it must be balanced with increasing competencies in digital literacy, both lecturers and students. Moreover, what lecturers are currently facing are millennial generation and generation Z students, this means that lecturers can improve scientific competence and innovate learning methods so as not to maintain outdated learning methods. Network security is a substantial necessity with the enormous use of the Internet (da Costa et al., 2019).

Unesa has provided online lecture program facilities by providing the Universitas Negeri Surabaya Learning Management System (LMS), namely vi-learning at SSO. However, the use of vi-learning is currently not fully implemented among lecturers and students. This is closely related to the challenges in operating the LMS which cannot be said to be simple, especially for practicum courses. This phenomenon is a challenge in itself for lecturers at JTE. With the current state of the COVID-19 pandemic, lecturers have to do Internet-Based Distance Learning because it is no longer possible for offline learning in the classroom. Mobile learning as learning media with android for the basis of using App Inventor 2 is very good for the conclusion and can be used in the Alternative Energy course learning process (Nugroho, 2018). Adversary evaluation implicates both training and testing (Li et al., 2017).

In the current pandemic of the COVID-19 outbreak, the IT skills of teachers are tested. Teachers must be able to present varied learning so that students remain enthusiastic about reaching their goals only from the front of the computer screen. This is what underlies the importance of quality assurance analysis of online learning amid a pandemic. Moreover, this situation forces the lecturers and students to prepare for an unpredictable learning period when it will end. There has been a considerable shift in thinking from assessment learning to assessment for learning. This has important meanings for the conceptual receptacle to be used for assessment difficulties but also relates to the research program (Schuwirth & Van Der Vleuten, 2011).

Despite the rapid advancement of online higher education, it is clear that educators and pupils face certain barriers that influence the overall quality of duration learning (Markova, 2017). There also appear to be differences in how each period is used from one mainland to another which could also indicate that there are differences in procedure from one region to another (Moore, 2011).

In some tertiary institutions, books that are following courses are rarely provided by lecturers, because the number of students taking certain courses tends to be limited so that careful economic calculations are needed to write and produce books for certain subjects with not many numbers (Nugroho et al., 2019). It was found from the literature that learning outcomes depend on self-efficacy, collaborative learning, team cohesion, technology suitability, learning engagement, self-regulation, interests, etc. (Panigrahi, 2018). High digital literacy abilities are desired so that one can strive with others in various areas of work (Nugroho & Paleologoudias, 2020).

Based on the research background above, the problem formulations posed in this research are:

1. How is the Quality of Learning with Internet-Based Distance Learning during the COVID-19 Pandemic from the perspective of students of the Electrical Engineering Department?
2. How is the Quality of Learning with Internet-Based Distance Learning during the COVID-19 Pandemic from the perspective of a lecturer in the Electrical Engineering Department?

RESEARCH METHOD

Research Objectives

Based on the formulation of the research problem, the main research objectives are regarding the analysis of the quality of online learning, including:

1. Analyzing the quality of learning with Internet-Based Distance Learning during the Covid-19 Pandemic from the point of view of JTE students.
2. Analyzing the quality of learning with Internet-Based Distance Learning during the COVID-19 Pandemic from the point of view of a JTE lecturer.

Sample and Population

The population in this study were all active students of the Department of Electrical Engineering, Faculty of Engineering, Unesa Surabaya. The samples in this study were students who filled out a questionnaire which was distributed randomly to all JTE students.

Research design

This type of research is quantitative. This research aims to analyze the quality of learning carried out remotely during the COVID-19 period. The quantitative approach is research based on the philosophy of positivism to examine a specific population or sample and random sampling by collecting data using instruments, data analysis is statistical (Sugiyono, 2015). This type of research used by researchers is descriptive qualitative. According to (Sugiyono, 2016), qualitative research methods are research methods used to examine the conditions of natural objects where the researcher is the key instrument. In this research, the steps taken were started from (1) the potential and problem stage, (2) objectives, (3) data collection techniques, (4) research instruments, (5)

data, (6) analysis. The place used to conduct this research is in the Department of Electrical Engineering, Faculty of Engineering, Unesa Surabaya. This research was conducted in the semester from April to December 2020 or the start of distance learning at Unesa.

Research Instruments

The instrument used in this research was an instrument developed by Uwes Anis Chaeruman. In the distance learning quality assessment instrument that was developed, at least 10 important points were assessed, including Eye Train Design, Accessibility, Learning Outcomes, Learning Content, Task Activities, Discussion Forum Activities, Evaluation of Learning Outcomes, Communication, Building Community, and Continuous Improvement. Validation of research instruments was carried out by involving learning experts. The reliability of the research data was seen by analyzing the research results descriptively qualitatively

Data Analysis

Data collection was carried out by distributing questionnaires to students of the Department of Electrical Engineering, Faculty of Engineering, Unesa Surabaya. The distribution is carried out randomly using an online form in the hope that as many respondents as possible will get so that the data obtained will be stronger. The data obtained from distributing questionnaires were then analyzed for data. The data analysis technique used is qualitative analysis techniques, and data in the form of numbers is converted into descriptive. for more details, see the research flowchart in Figure 1.

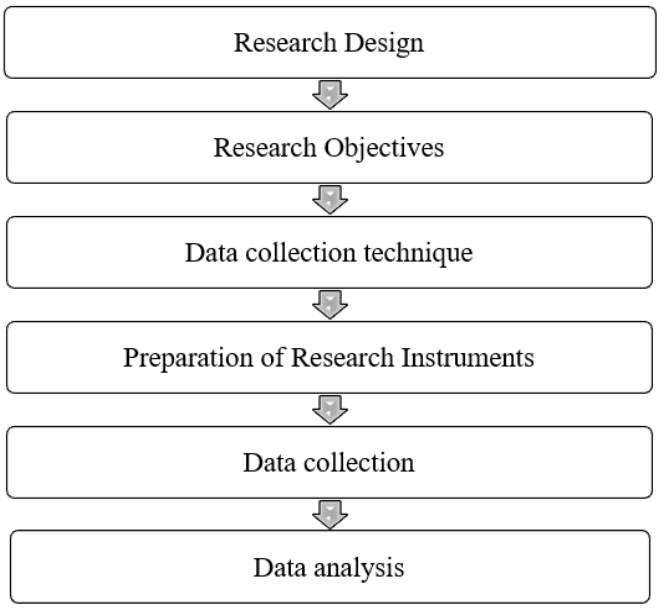

Figure 1. Research flowchart.

RESULTS AND DISCUSSION

Student Perspective

The results of the Quality Analysis of Learning with Internet-Based Distance Learning during the COVID-19 Pandemic were assessed from a variety of 10 research

instruments that had been randomly distributed to 86 students of the Electrical Engineering Department (JTE) as respondents, including Course Design, Accessibility, Learning Outcomes, Content Learning, Task Activities, Discussion Forum Activities, Evaluation of Learning Outcomes, Communication, Community Building, and Continuous Improvement. The instrument uses a 1-4 Likert scale, with the following conditions: 4 = Very Good; 3 = Good; 2 = Less; 1 = Very Less.

Eye Train Design

In the training eye design analysis, there are 3 assessments. The statement regarding "cohesive learning design (integrated) and aligned with the objectives, assessment and learning activities" obtained results that 48.8% of respondents answered agree, 41.9% answered strongly agree, and 9.3% answered less. More details can be seen in Figure 2.

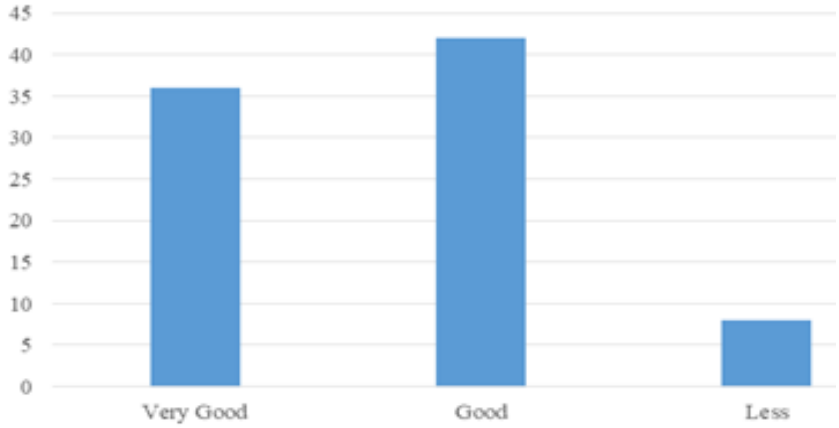

Figure 2. Eye train design responses.

The statement regarding "The learning load is logically designed and evenly distributed" obtained results that 50% of respondents answered agree, 31.4% answered strongly agree, 9.3% answered less, and 1.2% felt very lacking. The statement regarding "Applying student-centered learning principles and encouraging interesting and engaging interactions" obtained results that 51.2% of respondents answered agree, 29.1% answered strongly agree, 16.3% answered less, and 3.5% felt strongly less. Adequate instructional methods, support, course structure, and design can facilitate student performance and satisfaction (Kauffman, 2015).

Accessibility

The statement regarding "Ease of access anytime and anywhere by anyone" from 86 respondents, obtained the results that 42 respondents answered strongly agree, 30 respondents answered agreed, 11 respondents, answered less, and 3 respondents felt very lacking. Despite the pedagogical advantages of collaborative learning, online learners can perceive collaborative learning activities as frustrating experiences (Capdeferro & Romero, 2012). The statement regarding "Ease of access by any device (desktop, laptop, tablet, cellphone, etc.)" from 86 respondents, obtained the results that 48 respondents answered strongly agreed, 31 respondents answered agreed, 6 respondents, answered less, and 1 respondent felt very strongly less. The statement regarding "The ability to be massively accessed by students from anywhere and anytime" from 86 respondents, obtained results that 45 respondents answered agree, 30 respondents, answered strongly agreed, 8 respondents answered less, and 3 respondents felt very lacking. One major issue about ICT in education is how the

teachers who are adapt themselves, their teaching mastery, and exercises for carrying out ICT in education (Dubey, 2016).

Learning Outcomes

The statement about "learning outcomes according to critical thinking and solving relevant complex problems" obtained results that 61.6% of respondents answered agree, 24.4% answered strongly agree, 12.8% answered less, and 1.2% felt very lacking. Deep learning allows computational models that are composed of multiple processing layers to learn representations of data with multiple levels of abstraction (Lecun et al., 2015). The statement regarding "learning outcomes is clearly stated and can be measured" obtained results 51.2% of respondents answered agree, 31.4% answered strongly agree, 16.3% answered less, and 1.2% felt very lacking. The statement regarding "Learning achievement demands the achievement of excellent work from students" obtained results that 55.8% of respondents answered agree, 26.7% answered strongly agree, 16.3% answered less, and 1.2% felt very lacking.

Learning Content

The statement regarding "The learning content includes all predetermined learning outcomes" from 86 respondents, obtaining the results that 41 respondents answered agree, 34 respondents answered strongly agreed, and 11 respondents answered less. More details can be seen in Figure 3.

Figure 3. Learning content responses.

The statement regarding "learning content is in line with learning outcomes" from 86 respondents, obtained results that 38 respondents answered agreed, 34 respondents, answered strongly agreed, 13 respondents answered less, and 1 respondent felt very lacking. The statement regarding "learning content is in line with learning outcomes" from 86 respondents, obtained the results that 41 respondents answered agree, 37 respondents answered strongly agreed, 5 respondents answered less, and 3 respondents felt very lacking. Student feedback is a controversial and confusing issue through higher pedagogy organizations (Boud & Molloy, 2013).

Task Activities

The statement regarding "The task is given is following the predetermined learning outcomes" obtained results that 55.8% of respondents answered agree, 33.7% answered strongly agreed, 9.3% answered less, and 1.2% felt very lacking. The statement regarding "The task is given is logical, structured and allows it to be achieved well" obtained results that 50% of respondents answered agree, 33.7% answered strongly agree, 14% answered less, and 2.3% felt very lacking. The statement regarding "The task is given is challenging and demands excellent work results following the expected learning outcomes" obtained results that 48.8% of respondents answered agree, 29.1% answered strongly agree, 19.8% answered less, and 2.3% feel very lacking. ICT beliefs and practices are aligned with the reform agenda for digital pedagogies (Prestridge, 2012).

Discussion Forum Activities

The statement regarding "The discussion that was given was argumentative and based on cases / contextual problems" from 86 respondents, obtained results that 49 respondents answered agreed, 27 respondents, answered strongly agreed, 9 respondents answered less, and 1 respondent felt very lacking. The statement regarding "Explanation of discussion rules is presented clearly and encourages challenging interactions" from 86 respondents, obtaining results that 49 respondents answered agree, 26 respondents answered strongly agreed, 9 respondents answered less, and 2 respondents felt very lacking. The statement regarding "The discussion is given allows for critical thinking and problem-solving" from 86 respondents, obtained results that 49 respondents answered agree, 26 respondents answered strongly agreed, 9 respondents answered less, and 2 respondents felt very lacking. ICT affects the modification of external and internal information and that for reasonable accomplishments it is important to align ICT enterprises with internal capacities and organizational procedures (Tarutė & Gatautis, 2014).

Evaluation of Learning Outcomes

The statement regarding "Evaluation of learning outcomes that are given demands high-level thinking skills" obtained results that 58.1% of respondents answered agree, 32.6% answered strongly agree, 8.1% answered less, and 1.2% felt very lacking. More details can be seen in Figure 4.

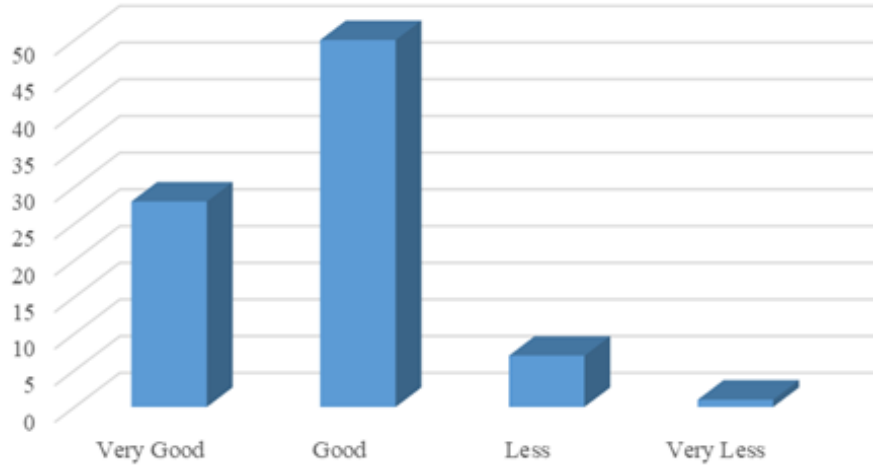

Figure 4. Evaluation of learning outcomes responses.

The statement regarding "Enabling self and formative evaluation and encouraging reflective and action learning" obtained results that 58.1% of respondents answered agree, 27.9% answered strongly agree, 11.6% answered less, and 2.3% felt very poor. The statement about "Using various types and forms of evaluation of learning outcomes that are in line with learning outcomes" obtained results that 58.1% of respondents answered agree, 27.9% answered strongly agree, 11.6% answered less, and 2.3% felt strongly less. Machine learning communicates the issue of how to create computers that enhance authority automatically through occasion (Jordan & Mitchell, 2015).

Communication

The statement regarding "the intensity of communication between the instructor and the learning participants" from 86 respondents, obtained the results that 42 respondents answered agree, 28 respondents, answered strongly agreed, 14 respondents answered less, and 2 respondents felt very lacking. Propounded constructs of Information Systems Success Model and Information Systems Expectation Confirmation Model (Daɨhan & Akkoyunlu, 2016). The statement regarding "The level of responsiveness in facilitating discussion responses in the forum" from 86 respondents, obtained results that 47 respondents answered agree, 27 respondents, answered strongly agreed, 10 respondents answered less, and 2 respondents felt very lacking. The statement regarding "The level of responsiveness in providing feedback on task activities" from 86 respondents, obtained the results that 51 respondents answered agreed, 26 respondents, answered strongly agreed, 8 respondents answered less, and 1 respondent felt very lacking.

Building Community

The statement regarding "Lecturers build spaces for open, friendly and constructive communication" obtained results that 45.5% of respondents answered agree, 44.2% answered strongly agree, 9.3% answered less, and 1.2% felt very lacking. The Internet of Things is a new paradigm that is revolutionizing computing (Gómez et al., 2013). The statement regarding "Lecturers build a climate of collaboration and cooperation that is open and pleasant" obtained results that 43% of respondents answered strongly agree, 43% answered agreed, 11% answered less, and 1.2% felt very lacking. The statement regarding "Lecturers build a positive environment, build and motivate each other" obtained results 46.5% of respondents answered strongly agree, 41.9% answered agree, 10.5% answered less, and 1.2% felt very less.

Continuous Improvement

The statement regarding "Lecturers always improve the quality of the content of the subject they are taught" obtained results 44.2% of respondents answered strongly agree, 41.9% answered agree, 12.8% answered less, and 1.2% felt very lacking. More details can be seen in Figure 5. The statement about "Lecturers always evaluate the effectiveness of learning and update it again" obtained results 46.5% of respondents answered strongly agree, 44.2% answered agree, 8.1% answered less, and 1.2% felt very lacking. The statement regarding "Providing an open survey to receive feedback from students" obtained results that 47.7% of respondents answered strongly agree, 41.9% answered agreed, 9.3% answered less, and 1.2% felt very lacking.

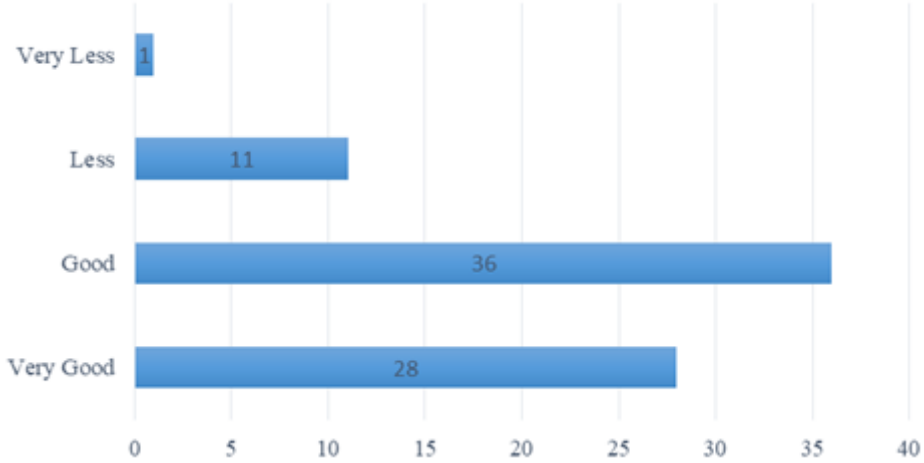

Figure 5. Continuous improvement responses.

From the results of the opinions of the JTE students above, it can be informed about the analysis of the quality of learning with Internet-Based Distance Learning during the COVID-19 Pandemic Period in the Electrical Engineering Department. In this case, overall can be said that the online learning that has been implemented can be said to be good in quality.

Lecturer Point of View

From the results of the opinion poll to the lecturers of the Unesa Electrical Engineering Department, in general, getting better results from the student's point of view regarding online learning. More details can be seen in Table 1 below

Table: 1 Lecturer Assessment Results

Numb.	Statement	Answer			
		Very less	**Less**	**Agree**	**Strongly agree**
	Eye Train Design				
1	A cohesive (integrated) learning design and aligned with goals, assessments, and learning activities	0.0%	4.5%	27.3%	68.2%
2	The learning load is logically designed and evenly distributed	0.0%	9.1%	36.4%	54.5%
3	Applying student-centered learning principles and encouraging interesting and engaging interactions	0.0%	9.1%	22.7%	68.2%
	Accessibility				
4	Ease of access anytime and anywhere by anyone	0.0%	0.0%	36.4%	63.6%
5	Easy to access by any device (desktop, laptop, Tablet, handphone, etc.)	0.0%	0.0%	36.4%	63.6%
6	The ability to be massively accessed by students from anywhere and anytime	0.0%	9.1%	36.4%	54.5%
	Learning Outcomes				

Numb.	Statement	Answer			
		Very less	Less	Agree	Strongly agree
7	Learning outcomes according to critical thinking and solving relevant complex problems	0.0%	4.5%	31.8%	63.6%
8	Learning outcomes are clearly stated and can be measured	0.0%	0.0%	36.4%	63.6%
9	Learning outcomes require the achievement of excellent work from students	0.0%	4.5%	54.5%	40.9%
	Learning Content				
10	Learning content includes all predetermined learning outcomes	0.0%	0.0%	36.4%	63.6%
11	Learning content is in line with learning outcomes	0.0%	0.0%	36.4%	63.6%
12	Learning content is packaged and presented in a variety of ways with a variety of relevant digital media	0.0%	0.0%	31.8%	68.2%
	Task Activities				
13	The assignment given is in accordance with the predetermined learning outcomes	0.0%	0.0%	31.8%	68.2%
14	The tasks given are logical, structured and can be achieved well	0.0%	0.0%	31.8%	68.2%
15	The assignment given is challenging and demands "excellent" work results by the expected learning outcomes	0.0%	0.0%	45.5%	54.4%
	Discussion Forum Activities				
16	The discussions are argumentative and based on contextual cases / problems	0.0%	9.1%	36.4%	54.4%
17	Explained discussion rules are clearly presented and encourage challenging interactions	0.0%	0.0%	45.5%	54.4%
18	The discussion given allows for critical thinking and "problem solving"	0.0%	4.5%	36.4%	59.1%
	Evaluation of Learning Outcomes				
19	The evaluation of learning outcomes that is given requires high-level thinking skills	0.0%	0.0%	31.8%	68.2%
20	Allows for self and formative evaluation and encourages reflective and action learning	0.0%	0.0%	50.0%	50.0%
21	Using various types and forms of evaluation of learning outcomes that are in line with learning outcomes	0.0%	4.5%	40.9%	54.4%
	Communication				
22	The intensity of communication between	0.0%	4.5%	31.8%	63.6%

Numb.	Statement	Answer			
		Very less	Less	Agree	Strongly agree
	instructors and learning participants				
23	Level of responsiveness in facilitating discussion responses in forums	0.0%	0.0%	40.9%	59.1%
24	The level of responsiveness in providing feedback on task activities	0.0%	0.0%	45.5%	54.5%
	Building Community				
25	Lecturers build spaces for open, friendly and constructive communication	0.0%	0.0%	36.4%	63.6%
26	Lecturers build a climate of collaboration and cooperation that is open and fun	0.0%	0.0%	40.9%	59.1%
27	Lecturers build a positive, constructive and motivating environment for each other	0.0%	0.0%	27.3%	72.7%
	Continuous Improvement				
28	Lecturers always improve the quality of the content of the courses they teach	0.0%	0.0%	31.8%	68.2%
29	Lecturers always evaluate the effectiveness of learning and update it again	0.0%	0.0%	31.8%	68.2%
30	Provides an open survey to receive feedback from students	0.0%	4.5%	45.5%	50.0%

From the lecturers' responses above, it can be seen that in terms of the training course design, all statements are dominated by strongly agreeing answers, this means that the quality of online learning based on the training course design is very good. The accessibility statement also obtained results that were almost the same as the training course design, so it could be said that the accessibility of internet-based learning at JTE was very good. Of the 3 points of assessment regarding learning outcomes, 2 of them were donated "strongly agree", so that in general the learning outcomes on Internet-Based Distance Learning at JTE can be said to be very good. For assessment of learning content, from all assessment points, it refers to the conclusion that the learning content applied is very good. Likewise, in the assessment of task activities, it is very clear that the activities of the assignments given are very good. In both schools and homes, information, and communication technologies (ICT) are widely seen as enhancing learning, this hope fuelling their rapid diffusion and adoption throughout developed societies (Livingstone, 2012).

Furthermore, the assessment by JTE lecturers regarding discussion forum activities can be said to have been very good. Whereas for the assessment of the quality of learning there is a reference to the evaluation of learning outcomes, there is a common opinion on the point "Enabling self and formative evaluation and encouraging reflective and action learning", however, overall, the evaluation of learning outcomes can be said to be very good. Collaborative web-based e-learning is used for vocational education and training to improve the learning experience of participants, and satisfaction adds meaning to the learning process (Inayat et al., 2013). The industry is currently

transforming full digitalization and intelligentization of manufacturing processes (Erol et al., 2016).

The results of the next assessment are about communication, where it is clear that the communication built on online learning can be said to be very good. Likewise, in the assessment of community building, from the opinion polls conducted, it was concluded that the lessons from JTE were already very good in terms of community building. The last assessment is an assessment that refers to continuous improvement, whereof the 3 assessment points given, all refer to the information that the Internet-Based Distance Learning that is carried out is very good in terms of continuous improvement. The success of Blended learning depends not only on the quality of the course and the virtual environment but also on the grade to which the students are prepared to work in their virtual study environment (Hubackova & Semradova, 2016).

Of the 10 things analyzed in the learning that Internet-Based Distance Learning conducted at JTE is based on the opinion of lecturers, it is clear that internet-based distance learning in the Department of Electrical Engineering can be said to be very good. Thus it is necessary to conduct research that compares student learning outcomes using online learning with conventional learning. The use of ICTs in the educational system could positively help in the teaching and learning process (Aggor et al., 2020).

E-learning system allows the teacher to manage two-tier diagnostic assessments, dynamic assessment (instructional assessment), and e-learning material content (Wang, 2014). Students' self-assessment of their ability to complete online courses is very important to their satisfaction with online courses (Shen et al., 2013). In online teaching, faculty should appropriately slow down their speech to allow students to capture key knowledge points (Bao, 2020). From the results of the research above and supported by the results of previous research, the quality of online learning can be said to be good. There are differences in learning methods between online and offline. Of course, it is necessary to adjust the learning method so that the quality of online learning can be equal to conventional learning.

CONCLUSIONS

From the results of research regarding the Quality Analysis of Learning with Internet-Based Distance Learning during the COVID-19 Pandemic Period in the Electrical Engineering Department, Faculty of Engineering, Universitas Negeri Surabaya, the following conclusions can be drawn that the COVID-19 pandemic forces all learning in JTE to change from offline to online, therefore, it is necessary to analyze the quality of learning assessed from the perspective of students and lecturers in the department. Furthermore, from the point of view of JTE students, the quality of learning with Internet-Based Distance Learning during the COVID-19 Pandemic Period in the Electrical Engineering Department can be said to be good. Moreover, From the point of view of a JTE lecturer, the quality of learning with Internet-Based Distance Learning during the COVID-19 Pandemic Period in the Electrical Engineering Department can be concluded as very good. Thus, from this research, it can be seen that the results of online learning evaluation can be concluded well. This research implies that it is important to make students more comfortable in online learning so that learning is not only quality but also sustainable. The results of this research can be implemented to

improve the quality of Internet-Based Distance Learning at JTE. This research is still limited in JTE. Future research can be carried out in a wider scope.

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