

The effect of online learning quality on vocational students' learning achievement during the Covid-19 Pandemic

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ABSTRACT

This study aimed to analyze the effect of online learning quality on vocational students' learning achievement during the Covid-19 pandemic. This type of research uses a quantitative approach with ex post facto research, which aims to analyze exogenous variables (online learning quality) with endogenous variables (vocational students' learning achievement during the Covid-19 pandemic). The population of this study was 198 vocational students in the hotel management program Universitas Negeri Padang who took the front office operations two courses in the semester of January-June 2021. The sampling technique used in this study is total sampling. The number of successfully collected respondents was 174 people (87,9%). The data analysis technique used is simple linear regression analysis. The results showed that: (1) Online learning quality during the Covid-19 pandemic is a sufficient category, (2) Vocational students' learning achievements during the Covid-19 Pandemic are also in a good category, and (3) There is a significant influence on the online learning quality variable on the vocational students' learning Achievement during the Covid-19 Pandemic. The magnitude of the online learning quality variable's influence on the vocational students' learning achievement during the Covid-19 Pandemic is 2.7%, while other factors determine 97.3%. This finding also provides a basis for other researchers to look at and have a wider scope, especially those related to student learning achievement. Vocational programs in universities must design an attractive learning process development program for students while still paying attention to the quality of the learning process. This form of practical implication will encourage students to be more motivated to study well so that their learning achievement can be obtained as expected.



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INTRODUCTION

The Covid-19 pandemic began to spread to Indonesia in February 2020 (Astuti & Mahardhika, 2020; Djalante et al., 2020; Olivia et al., 2020). As a result of the coronavirus, the outbreak has significantly impacted developments in various sectors, namely the education sector, tourism, the accommodation and food/beverage service business sector, the transportation sector, and other sectors (Anas, 2021; Xiong et al., 2021). One of the sectors mentioned in the education sector is a transfer of the learning process from face-to-face to online from their respective places. Various efforts to optimize the achievement of competencies produced by students remain a concern for lecturers as professional educators (Nambiar, 2020; Nishimura et al., 2021).

Online learning emphasizes students process the information presented by lecturers online (Ayu, 2020; Syauqi et al., 2020). This online learning requires the internet to access the e-learning platform that has been provided (Ippakayala & El-Ocla, 2017; Mpungose, 2020). Online learning is a choice that helps deliver teaching materials to students (Rapanta et al., 2020). A study showed that e-learning is effective for students regardless of the student's background (Acosta et al., 2018). E-learning is the future of education because it is interactive, interesting, and entertaining and will soon replace paper books in the form of touch screen tablets (Leindarita, 2021; Shaaban, 2020).

E-learning facilitates student self-study by taking control over the content, managing the learning sequence, setting the pace of learning, improving timing, and selecting media to meet learning objectives (Miedany, 2019; Talosa et al., 2021). In the learning process, students can access teaching materials provided on the e-learning platform (Aziz et al., 2019; Mardiah, 2020). In e-learning, students will be required to play an active role during the learning process. Student activity during the learning process will improve student learning achievement (Kristanto, 2017). The selection of learning media that suits the needs of students will be able to increase student activity (Situmorang et al., 2019).

The application of the learning process through e-learning must pay attention to the quality of the online learning process (Ayu, 2020; Bylieva et al., 2019). Improving and ensuring the quality of e-learning is a demand and need for higher education institutions so that e-learning practices can be successful (Hadullo et al., 2017). The content provided by lecturers in the e-learning platform certainly pays attention to quality and is easily understood by students (Linh et al., 2021; Medio et al., 2020). So that by paying attention to learning techniques and interesting content in the learning process through online media, the quality of learning could still be maintained.

Quality in the context of learning is a service provided to students during teaching and learning activities which is the interaction of learning components so that learning activities run effectively and efficiently (Al-Fraihat et al., 2020). Quality learning is effective learning as measured by the level of student satisfaction (Pham et al., 2019; Razinkina et al., 2018). Good learning must evaluate the learning to find deficiencies in the quality of learning. The relevance of learning is the suitability of learning activities with the course syllabus. Relevance is seen in the suitability of the material and assignments given to students during online learning. Attractiveness is the interest of students to take part in the online learning process (Fajri et al., 2021).

The attractiveness is seen in the content and appearance of the e-learning itself and the student's interest in taking part in online learning. Effectiveness is the achievement of learning objectives that students can achieve during online learning (Gherheş et al., 2021). In this study, the effectiveness of the quality of learning is seen from the level of student understanding of the material. The material in question includes study material and assignments given to help students master the competency achievements of vocational learning media courses.

Efficiency is a measure of completion of learning activities following the time provided. The efficiency of online learning quality is seen in the time provided to study the material and complete the tasks given by the lecturer through e-learning (Ayu, 2020). Online learning productivity is an opportunity for students to participate actively in learning. Student productivity is seen from the active role of students in the online learning process. Productivity is also seen in the ability of students to complete the assigned tasks (Shirish et al., 2021).

Learning achievements are a measure or level of success that a student can achieve based on the experience gained after an evaluation in a test and is usually manifested by grades or numbers (Putri et al., 2017). Learning achievements are expected to have cognitive, affective, and psychomotor changes from the subjects taught (Budiyanti et al., 2020; Sönmez, 2017). The cognitive area includes educational goals related to the understanding of theoretical knowledge acquired by students. The effective area has changed in interests, attitudes, values, and the development of appreciation.

The psychomotor area includes learning achievement related to skills in carrying out practical activities. Thus, what is meant by learning achievement in this study is the level of success that a student can achieve based on the experience gained after an evaluation in the form of a test that causes changes that include remembering, understanding, applying, analyzing, evaluating, and creating. In addition, it is also seen with affective and practical assessments and

In particular, learning for the front office operations 2 course, efforts to organize practical lectures are still being carried out even though they cannot be carried out directly in the front office labor. Efforts have been made to carry out the practice by students independently in their respective places following the job sheet provided by the lecturer. However, the efforts that have been made have not fully assisted in producing competencies according to the students learning achievement. The learning achievement evidence this as many as 28.33% of students have not been able to meet the expected practical competency achievements in the front office operations course assigned to the author in the January-June 2021 semester.

This dissatisfaction with learning achievement may be caused by the quality of the learning process that has not been maximally realized. With the discovery of this phenomenon, the authors are interested in researching a form of evaluation of the learning process that has been carried out entitled the effect of online learning quality on vocational students' learning achievement during the Covid-19 pandemic.

RESEARCH METHOD

This research was conducted with a quantitative approach with ex post facto research, which is a study that aims to analyze the effect of exogenous variables (online learning quality) on endogenous variables (learning achievement during the Covid-19 pandemic). The population of this study was 198 vocational students in the hotel management program Universitas Negeri Padang who took the front office operations 2 course in Hotel Management Program, Universitas Negeri Padang in January-June 2021.

The sampling technique used in this study is total sampling. The number of successfully collected respondents was 174 people (87.9%). The types of data in this study use primary and secondary data. The data collection technique in this study was conducted through a questionnaire distributed online for the variable of learning quality and grade of students learning outcomes for the variable of learning achievement. Online learning quality is measured based on indicators of relevance, attractiveness, effectiveness, efficiency, and productivity of learning (Pham et al., 2019; Razinkina et al., 2018). The instrument in this study was to use a questionnaire with a Likert scale. Before the questionnaire is used, first, the validity and reliability tests are carried out. The data analysis technique in this study used simple linear regression analysis.

RESULT AND DISCUSSION

Result

Online Learning Quality During the Covid-19 pandemic

Based on the research results on the quality of online learning during the Covid-19 pandemic, which was collected through questionnaires or questionnaires distributed to research respondents, a score was given for each respondent's answer according to the Likert scale. The questionnaire provided has been validated by experts. The questions given are logical questions related to the purpose of this research and lead to the next point. Data analysis was carried out with the help of SPSS version 21 software. Based on the data analyzed using SPSS version 21, data were obtained, as can be seen in Table 1.

Based on Table 1, data regarding the quality of online learning during the Covid-19 pandemic taken through a questionnaire totaling 19 statements given to 174 students obtained a mean value of 62.77, median 61.00, mode 57, standard deviation 12, 18, a minimum score of 42, a maximum score of 90 and a total score of 10,922. The results of the descriptive analysis indicate that the quality of online learning during the Covid-19 pandemic is in the sufficient category. This is because the average value of the respondents' answers is 62.77/19 statement items obtained a value of 3.3. The average response of 3.3 using a Likert scale of 5 is sufficient.

Table 1. Data Calculation Results of Online Learning Quality Statistics During the Covid-19 Pandemic

| Online Learning Quality | | Statistics |
|-------------------------|---------|--------------------|
| N | Valid | 174 |
| | Missing | 0 |
| Mean | | 62.7701 |
| Median | | 61.0000 |
| Mode | | 57.00 ^a |
| Std. Deviation | | 12.17996 |
| Minimum | | 42.00 |
| Maximum | | 90.00 |
| Sum | | 10922.00 |

a. Multiple modes exist. The smallest value is shown

Student Learning Achievement

Based on the research results on the quality of online learning during the Covid-19 pandemic, which was collected through questionnaires or questionnaires distributed to research respondents, a score was given for each respondent's answer according to the Likert scale. By using the SPSS version 21.00 program, the following data is obtained in [Table 2](#).

Table 2. Data Calculation of Student Learning Achievement Statistics

| Learning Achievement | | Statistics |
|----------------------|---------|--------------------|
| N | Valid | 174 |
| | Missing | 0 |
| Mean | | 76.3966 |
| Median | | 83.0000 |
| Mode | | 83.00 ^a |
| Std. Deviation | | 15.44927 |
| Minimum | | 24.00 |
| Maximum | | 93.00 |
| Sum | | 13293.00 |

a. Multiple modes exist. The smallest value is shown

Based on [Table 2](#), it can be seen that data regarding student learning achievement in Front Office Operations 2 course obtained a mean value of 76.40, median 83.00, mode 83, the standard deviation of 15.45, minimum value of 24, maximum value of 93, and the total value of 13,293. Therefore, the results of the descriptive analysis indicated that student learning achievement in the Front Office Operations 2 course is in a good category. This is because the average value of respondents' answers is 76.40, which is in the range of 60-80, categorized as good.

Influence of Online Learning Quality on the Vocational Students' Learning Achievement During the Covid-19 Pandemic

Before using simple linear regression analysis, a prerequisite test was carried out: normality, homogeneity, and linearity ([Denis, 2018](#)). From the normality test, the data were normally distributed. Then the homogeneity test shows that the data come from populations with the same variance or homogeneous data. And the linearity test shows that the data is linear. The test results are eligible to use simple linear regression analysis. Hypothesis testing in this study uses simple linear regression techniques with the help of the SPSS 21.00 program. The following are the results of hypothesis testing in this study.

Table 3. Coefficient of Determination

| Model | Model Summary | | | |
|-------|-------------------|----------|-------------------|----------------------------|
| | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .164 ^a | .027 | .021 | 15.28510 |

a. Predictors: (Constant), Online Learning Quality

$$KP = r^2 \times 100\% = 0.164 \times 100\% \quad (1)$$

R square = 0.164, meaning that the contribution of online learning quality toward the vocational students' learning achievement during the Covid-19 pandemic was 16.4%, while other factors determined 83.6%.

Table 4. Results of Significance

| Model | ANOVA ^a | | | | |
|--------------|--------------------|-----|-------------|-------|-------------------|
| | Sum of Squares | df | Mean Square | F | Sig. |
| 1 Regression | 1106.563 | 1 | 1106.563 | 4.736 | .031 ^b |
| Residual | 40185.075 | 172 | 233.634 | | |
| Total | 41291.638 | 173 | | | |

a. Dependent Variable: Learning Achievement
b. Predictors: (Constant), Online Learning Quality

F value hit 4,736 with sig. 0.031 < 0.05, meaning that online learning quality can significantly explain vocational students' learning achievement.

Table 5. The Regression Coefficient of Variable X Against Y

| Model | Coefficients ^a | | | | t | Sig. |
|-------------------------|-------------------------------|------------|--------------------------------|--------|------|------|
| | Unstandardized Coefficients B | Std. Error | Standardized Coefficients Beta | | | |
| 1 (Constant) | 89.430 | 6.100 | | 14.661 | .000 | |
| Online Learning Quality | .208 | .095 | .164 | 2.176 | .031 | |

a. Dependent Variable: Learning Achievement

From Table 5, the following regression equation is obtained: $Y = a + bX = 89.430 + 0.208X$. Based on Table 5, it is obtained a constant value (a) of 89,430. This number means that if there is no online learning quality (X), then the consistent value of the vocational students' learning achievement (Y) is 89,430. Then the regression coefficient value (b) is obtained of 0.208. This figure means that with each addition of one online learning quality unit (X), the vocational students' learning achievement (Y) will increase by 0.208.

Discussion

Online Learning Quality During the Covid-19 Pandemic

Based on the study results, in general, the value of the mean score is 3.3. In Table 1, it can be described that online learning quality is still in the sufficient category. This is expressed through the student's feelings that online learning quality during the Covid-19 pandemic is not as expected or in the sufficient category. The students feel less satisfied with the online learning quality during the Covid-19 pandemic than before the Covid-19 pandemic.

The study results found that students felt that relevance, attractiveness, effectiveness, efficiency, and productivity of learning did not meet the expectations they expected in the learning process. The limitations of the network and learning facilities they experience in their respective places make them feel online learning quality has not been optimal. In any case, it is hoped that the

quality of learning should be optimized. This is in line with [Sulisworo \(2016\)](#) and [Hang \(2021\)](#) that it is necessary to maintain the quality of learning in the teaching and learning process to produce quality human resources who will work in the industry.

Vocational Student Learning Achievement

Based on the study results in general, it can be described that vocational student learning achievement is still in a good category. The achievement of learning achievement is a benchmark used in achieving success in the learning process. In the results of this study, the achievement of learning outcomes obtained by students is not optimal after they follow the online learning process during the Covid-19 pandemic, so it is necessary to increase the achievement of learning in the future through innovative learning strategies. Of course, we expect very satisfying learning achievement as a measure of success because of the learning process. This study is in line with research by [Dufrene and Young \(2014\)](#) that the success of the learning process is seen by good learning achievement.

Influence of Online Learning Quality on the Vocational Students' Learning Achievement During the Covid-19 Pandemic

Online learning quality has a significant effect on vocational students' learning achievement during the Covid-19 pandemic with a regression coefficient of 0.208, meaning that if there is an increase in the value of online learning quality by one unit, it will increase students' learning achievement during the Covid -19 pandemic by 0.208 units and vice versa. So, it can be said that the online learning quality, which includes relevance, attractiveness, effectiveness, efficiency, and learning productivity, is the higher level of students' learning achievement during the Covid-19 pandemic.

The results also show the contribution of online learning quality to students' learning achievement during the Covid-19 pandemic, which is 16.4%. This finding also means that online learning quality significantly affects vocational students' learning achievement during the Covid-19 pandemic because relevance, attractiveness, effectiveness, efficiency, and learning productivity will increase vocational students' learning achievement during the Covid- 19 pandemic. In the context of this study, the quality of online learning can still be maintained even though it has not been managed optimally. The learning achievement can also be obtained well but improved with better learning quality. So the results of this study are in line with [Prasetya and Harjanto \(2020\)](#), [Gopal et al. \(2021\)](#), and [Mahyoob \(2021\)](#) that there is a positive influence of online learning quality on vocational students' learning achievement during the Covid-19 pandemic.

This study will also make a new contribution to the body of literature and have practical implications. This finding also provides a basis for other researchers to look at and have a wider scope, especially those related to student learning achievement. The study findings also provide significant insights and lead to various practical consequences for universities. Universities must monitor learning quality in the learning process by lecturers to students. These practical actions will increase learning achievement to be maintained properly so that these students can meet the competencies expected by the industrial world. Vocational programs in universities must design an attractive learning process development program for students while still paying attention to the quality of the learning process. This form of practical implication will encourage students to be more motivated to study well so that their learning achievement can be obtained as expected.

CONCLUSION

The overall findings showed that online learning quality affects the vocational students' learning achievement during the Covid-19 pandemic. Furthermore, online learning quality during the Covid-19 pandemic in Front Office Operation 2 is still a sufficient category, and vocational students' learning achievement during the Covid-19 pandemic is categorized as good. Students perceive that the quality of online learning they receive is sufficient or has not met their expectations optimally. This has an impact on learning achievement that has not been achieved optimally. In addition, the online learning experience is certainly different from the face-to-face learning process on campus.

Developing technology that can help the online learning process but cannot fully improve the quality of learning without face-to-face meetings in offline classes.

This study was limited to the time of the Covid-19 pandemic, and future research can be carried out in the post-Covid-19 periods. Furthermore, the sample of this study was limited to students studying Front Office Operation 2 in Hotel Management Universitas Negeri Padang. Future research should examine whether the related variables can broadly generalize to vocational education. On the other hand, this study relies on a cross-sectional design that only collects data once. Perhaps, further research should look at the longitudinal design by looking at the development of student learning achievement at the beginning of the lecture with the end of the lecture after they feel the benefits of the predictor variable, namely online learning quality used in the study. Another important area of research is to take a deeper look at the challenges of the online learning process, with the style of the current generation of students being heavily influenced by the negative impact of digital technology developments. Until now, the lack of such research is very interesting to study.

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