The Effect of E-Learning Readiness on Learning Performance Moderated by Digital Divide and E-Learning Experience in Nursing Faculty of Riau University

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Abstract—**In the era of the COVID-19 pandemic that is currently sweeping the world. Actions to prevent the spread of the COVID-19 coronavirus even more widely are very important to do by reducing the mobility of people from one place to another. Indonesia's government through the ministry of education and culture issued a policy for schools and colleges to implement e-learning. One of the colleges currently implementing the e-learning system is Riau University. Even though there are many online learning models, the applications are still not optimal because not all schools are ready to facilitate online learning. This study aims to determine the effect of e-learning readiness on learning performance moderated by the digital divide and e-learning experience in the Nursing Faculty of Riau University. Survey data was collected from 208 students via the internet. The results indicated that: 1) E-learning readiness is positively related to learning performance. 2) Digital divide is positively related to learning performance partially. 3) Digital divide moderates the effect of e-learning readiness on learning performance partially. 4) E-learning experience has a significant effect on learning performance. 5) E-learning experience moderates the effect of e-learning readiness on learning performance partially.**

Keywords—COVID-19, E-Learning, Policy, Technological developments, E-learning readiness, Digital divide, E-learning experience, and Learning Performance.

I. INTRODUCTION

The concept of e-learning is now largely embraced by the general public. This is evidenced by the widespread application of e-learning, especially in education [1]. Some colleges use online learning as a complement to the subject content covered in class regularly. Some universities, on the other hand, see e-learning as a viable option for students who are unable to attend face-to-face classes. In this sense, students have the option of using e-learning. But that doesn't mean e-learning can be used directly in a campus environment. success in achieving educational goals depends on the learning process experienced by students. The participants have excellent scores in e-learning preparedness, only around a third of participants chose to use online learning in their nursing studies. This could be due to a lack of awareness and information about e-learning requirements and processes among research participants, and the fact that the majority of them have no prior experience with e-learning may make them fearful of graduating with insufficient experience [2]. One of the psychological factors involved. The learning process that affects educational goals is readiness [13]. Readiness is a condition that makes us ready to give a response/answer in a particular way to a situation. Willingness to respond or react. This readiness needs to be considered in the learning process. Organizations must be able to quantify their level of e-learning readiness. By knowing the level of readiness. The organization can select what policies or tactics to implement based on the level of preparation.

One of the faculties in UNRI that implements the e-learning method is Nursing Faculty. Nursing Faculty students need to understand the subject matter well because they're being trained to become a nurse and their job will relate to one's health. Especially for the 2017,2018 and 2019 classes because that class is still studying nursing theory and practice during this pandemic. Meanwhile, apart from that class are currently writing theses. The dominant obstacle experienced by nursing students in implementing e-learning is mostly the digital gap or another term, namely the digital divide. The term "digital divide"

refers to the disparity in access to information and communication technologies (ICT) or telematics, as well as the use of the internet for various activities, between households, individuals, businesses (or groups of people), and geographic areas at various socioeconomic levels. Students who are mostly classified in the adolescent group are very adaptive in responding to technological developments and information. This is indicated by data obtained by the Ministry of Communication and Information in 2014 internet users in Indonesia reaches 82 million and 80% is a teenager. The obstacle that is often faced in e-learning is the lack of optimization use of internet networks in e-learning. when in fact, students have the skills to operate a computer. The digital divide is a big problem in e-learning implementation. Because the main key in an e-learning system is digital media that can turn face-to-face learning activities into distance learning.

Comparison of theory and practice courses in the nursing major is around 60:40. For theoretical subjects whose material contains more narratives, the lecture method still dominates in the delivery of material in e-learning. As a result, students are still very dependent on lecturers and their interest in learning is lacking because there is no variation in learning. While in practical courses, UNRI nursing students usually make practical videos using household items such as dolls as human models, ropes as infusion tubes, pens as syringes and use it as if these items are medical equipment. Therefore, a solution is needed to overcome this problem.

This study aims to answer some research questions, as follows: (1) Does e-learning readiness affect learning performance in Nursing Faculty of Riau University?, (2) Does digital divide affect learning performance?, (3) Does digital divide moderate the effect of e-learning readiness on learning performance?, (4) Does e-learning experience affect learning performance in Nursing Faculty of Riau University?, (5) Does e-learning experience moderate the effect of e-learning readiness on learning performance in Nursing Faculty of Riau University?

II. LITERATURE REVIEW

A. E-Learning Readiness

[14] defined e-learning readiness as an organization's physical or mental readiness for an online learning experience or action. According to [15] e-learning readiness is the ability to increase learning quality through the use of multimedia technology and e-learning resources [3].

B. Digital Divide

According to Mason and Dodds (2005a; 2005b), The digital divide is the distinction between students who have home access to digital technology and those

who do not. Location, race, and socioeconomic level are all factors that contribute to the disparity [4].

C. E-Learning Experience

According to [14] student experience is defined as students' involvement in learning and teaching. Other elements that affect learning, some of which are the responsibility of higher education institutions, may also be included.

D. Learning Performance

According to the U.S. Department of Education (2015), learning performance is the progress of students' academics, such as formative and summative assessment data, instructor observations, coursework, student engagement and time on task, and similar information.

E. The Effect of E-Learning Readiness on Learning Performance

E-learning readiness is related to motivation and satisfaction [17] and also with achievement in academics [18]. Low readiness tiers among students reason failure in an environment of online learning.

Advances in online learning environments at universities around the world continue to contribute to enhancing college students' educational success [19;20] If the advances in e-learning are followed by readiness. it will have a good impact on student learning.

F. The Effect of Digital Divide on Learning Performance

An examination through [21] discovered that colleges with extra computer access have a great deal higher studying and math rankings. additionally, [22] found that 87% of students felt they had learned greater via the use of technology and 72% stated they held favorable attitudes. However, good learning performance as described above will be difficult to achieve because of the digital divide that occurs in the classroom. One of the obstacles to e-learning is the scarcity of qualified and technology-savvy teachers in underfunded institutions. [23]

Teachers in economically deprived schools who attempt to employ technology do so mostly for classroom management or drill-and-repeat exercises. [24] It's worth noting that a few aspects of the digital divide have attained statistical significance in terms of predicting academic success. After accounting for the influence of other variables, the greater the amount of time spent on academic-related computer activities, the higher the level of academic grades obtained. Computer knowledge accurately predicted academic performance. Among the numerous types of computer knowledge, computer software expertise played a vital role in learning success. Students that have a greater understanding of computer software perform better academically, in general [5].

G. The Effect of Digital Divide on the Relationship Between E-Learning Readiness and Learning Performance

COVID-19 has given a clear picture of inequality. Access to the Internet has become a segregating line between students with access and those with little or no access at all. In India, during the quarantine, it painted a big picture of disparity. those students who stay in regions with proper internet connection are taking part in online studying, while those in areas where internet availability is very poor are struggling.

According to UNESCO, there are 706 million students don't have Internet access and 826 million don't have computers. In the same article, it was found out that teachers also need training in the use of technology for their teaching. It appears that not just the students suffer from the Digital Divide, but the educators as well. It is a reality that we are not created equal, and there will always be the rich and the poor, no matter how hard we try, we cannot resolve poverty. Due to this pandemic, the lines are becoming more evident, all the while we thought that education is an equation that will balance these differences. We are wrong, because of the lockdown, students are forced to learn online or through distance education. this once again provides proof of inequality; Students with an Internet connection can easily adapt to online learning, but those with little or no access are left behind. Online learning offers a different learning environment. However, we must provide digital access to those who do not have one. We must provide alternative learning delivery options for those who don't have internet access. [25]. If students get easier access to using e-learning, the student learning outcomes will also increase.

H. The Effect of E-Learning Experience on Learning Performance

Overall satisfaction is one of the factors to measure the e-learning experience. Students' learning performance might be influenced by how happy they are with their educational experience [6].

When students get more comfortable with E-learning, the value of the E-learning process variable will rise. Furthermore, the e-learning experience has a considerable impact on indirect learning outcomes through the process as an intervening variable, implying that enhancing student learning outcomes can be accomplished by improving the learning process. [7].

I. The Effect of E-Learning Readiness on Learning Performance Moderated by E-Learning Experience

This readiness is obtained from the experience that has been had. The more experience in doing online learning, the more ready students will be to carry it out so that it can improve learning performance.

J. Research Framework

Based on the descriptions that have been stated previously in the literature review, the variables involved in this study can be formulated through a framework as follows:
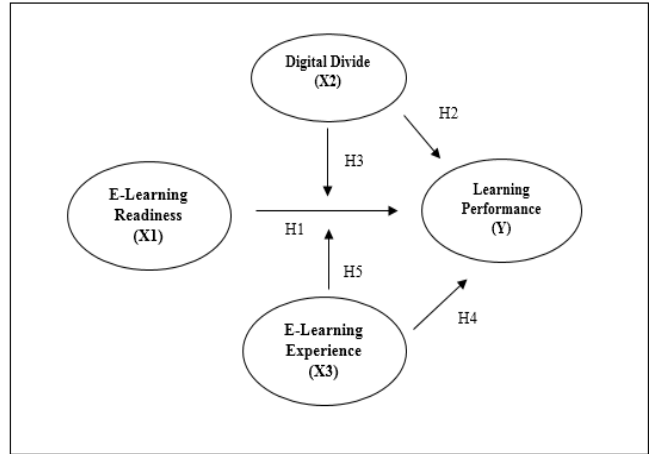

Fig. 1. Research Model

K. Research Hypotheses

Based on the problem formulation and research framework above, the research hypotheses are:

H1: E-learning readiness has a significant effect on learning performance

H2: Digital Divide has a significant effect on learning performance

H3: Digital divide moderates the effect of e-learning readiness on learning performance

H4: E-learning experience has a significant effect on learning performance

H5: E-learning experience moderates the effect of e-learning readiness on learning performance

III. RESEARCH METHOD

A. Research Location

This research was conducted on active students from the 2017, 2018, and 2019 classes in the Nursing Faculty of Riau University.

B. Data Collection Technique

The data were collected through an online survey that employed a five-point Likert scale to let respondents express how strongly they agree, agree, neutral, disagree, and strongly disagree with a statement.

C. Population and Sample

The population in this study is 464 active students from the 2017, 2018, 2019 classes in the Nursing Faculty of Riau University. The sample was determined using the Slovenian formula $n = N / (1 + (N \times e^2))$ so that the total sample is 214.

TABLE I.   POPULATION AND SAMPLE

NO	Class	Population	Sample
1	2017	168	77
2	2018	149	69
3	2019	147	68
Total		**464**	**214**

a. Source : Nursing Faculty UNRI, 2020

D. Operational Variables

The independent variable in this study is E-learning Readiness (X1), the moderator variables in this study are Digital Divide (X2) and E-Learning Experience (X3), and dependent variables in this study are Learning Performance (Y). The indicators for each variable can be seen in the table below.

TABLE II.   OPERATIONAL VARIABLES

NO	Variables	Indicators	Scale
1	E-learning Readiness (X1)	Psychological Readiness Culture Readiness Content Readiness Technological Readiness (Aydin and Tasci, 2005; Kaur and Abas, 2004; Psycharis, 2005; Tasci, 2005).	Ordinal
2	Digital Divide (X2)	Infrastructure Knowledge Affordability Quality Usage (Digital Acces Index, 2003)	Ordinal
3	E-Learning Experience (X3)	good teaching scale Generic Skills scale Overall Satisfaction (Course Experience Questionnaire, 2016)	Ordinal
4	Learning Performance (Y)	Reaction Criteria Learning Criteria Behavioral Criteria (Kirkpatrick 1959; 1976; 1996)	Ordinal

E. Data Analysis Technique

To determine the effect of e-learning readiness on learning performance moderated by digital divide and e-learning experience in Nursing Faculty of Riau University, multiple regression analysis is used as follows:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 \qquad (1)$$

$$Y = a + \beta_1 X_1 + \beta_3 X_3 \qquad (2)$$

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_4 X_1 X_2 + e \qquad (3)$$

$$Y = a + \beta_1 X_1 + \beta_3 X_3 + \beta_5 X_1 X_3 + e \qquad (4)$$

Note:

Y: Learning performance

a: Constant

X1: E-learning readiness

X2: Digital divide

X3: E-learning experience

β1: E-learning readiness regression coefficient

β2: Digital divide regression coefficient

β3: E-learning experience regression coefficient

β4: E-learning readiness*digital divide regression coefficient

β5: E-learning readiness*e-learning experience regression coefficient

e: error.

IV. RESULT AND DISCUSSION

TABLE III.   RESULTS OF THE EFFECT OF E-LEARNING READINESS AND DIGITAL DIVIDE ON LEARNING PERFORMANCE

Model	Regression Coef.	R Square	F	T	Sig.
Reaction Criteria					
Constant	4.186			3.199	0.002
Technological Readiness	0.270			4.510	0.000
Content Readiness	0.138	0.596	41.858	2.474	0.000
Culture Readiness	0.989			12.522	0.000
Psychological Readiness	0.509			6.098	0.000
Infrastructure	0.217			2.016	0.045

Affordability	0.544			2.384	0.018
Knowledge	-0.074			-1.006	0.316
Quality	0.721			4.017	0.000
Usage	0.239			2.565	0.011
Learning Criteria					
Constant	4.968			4.268	0.000
Technological Readiness	0.259			4.718	0.000
Content Readiness	0.230			2.849	0.005
Culture Readiness	0.290			4.133	0.000
Psychological Readiness	0.215	0.533	24.596	2.777	0.006
Infrastructure	-0.313			-4.153	0.000
Affordability	-0.699			-4.911	0.000
Knowledge	-0.192			-2.910	0.004
Quality	0.935			7.932	0.000
Usage	0.253			4.196	0.000
Behavioral Criteria					
Constant	11.320			10.288	0.000
Technological Readiness	0.086			1.977	0.049
Content Readiness	0.270			4.012	0.000
Culture Readiness	0.151			2.734	0.007
Psychological Readiness	0.453			5.546	0.000
Infrastructure	-0.317	0.278	18.288	-4.450	0.000
Affordability	0.004			0.032	0.974
Knowledge	0.030			0.477	0.634
Quality	-0.164			-1.473	0.142
Usage	-0.079			-1.388	0.167

[b.] Source: Processed data, 2020.

Based on table III, We can conclude that the effect of e-learning readiness and digital divide on reaction criteria. Technological readiness, content readiness, culture readiness, psychological readiness, infrastructure, affordability, quality, and usage have a significant effect on reaction criteria, and knowledge does not. The highest factor that affects reaction criteria is culture readiness with a t value of 12,522 and sig. value of 0,000. On the effect of e-learning readiness and digital divide on learning criteria. Technological readiness, content readiness, culture readiness, psychological readiness, quality, and usage have a significant effect on reaction criteria. Meanwhile, infrastructure, affordability, and knowledge do not. The highest factor that affects learning criteria is technological readiness with a t value of 4.718 and sig. value of 0,000. On the effect of e-learning readiness and digital divide on learning criteria. Technological readiness, content readiness, culture readiness, and psychological readiness have a significant effect on reaction criteria. Meanwhile, infrastructure, affordability, knowledge, quality, and usage do not. The highest factor that affects behavioral criteria is psychological readiness with a t value of 5.546 and sig. value of 0.000.

TABLE IV.   RESULTS OF THE EFFECT OF E-LEARNING READINESS AND E-LEARNING EXPERIENCE ON LEARNING PERFORMANCE

Model	Regression Coef.	R Square	F	T	Sig.
Reaction Criteria					
Constant	5.419			5.228	0.000
Technological Readiness	0.284			4.831	0.000
Content Readiness	0.455			3.735	0.000
Culture Readiness	0.984	0.578	58.315	11.000	0.000
Psychological Readiness	0.264			2.696	0.008
Good Teaching Scale	0.242			2.753	0.006

Generic Skill Scale	0.375			5.019	0.000
Overall Satisfaction	1.288			4.508	0.000
Learning Criteria					
Constant	5.010			4.349	0.000
Technological Readiness	0.150			2.384	0.018
Content Readiness	0.225			2.616	0.010
Culture Readiness	0.300	0.237	8.707	3.014	0.003
Psychological Readiness	0.231			2.654	0.009
Good Teaching Scale	0.171			2.590	0.010
Generic Skill Scale	0.150			2.221	0.027
Overall Satisfaction	0.534			2.139	0.034
Behavioral Criteria					
Constant	7.312			8.240	0.000
Technological Readiness	0.086			1.977	0.049
Content Readiness	0.209			3.072	0.002
Culture Readiness	0.151	0.217	7.743	2.734	0.007
Psychological Readiness	0.159			2.048	0.042
Good Teaching Scale	0.207			3.440	0.001
Generic Skill Scale	0.112			2.623	0.009
Overall Satisfaction	0.387			2.127	0.035

[c.] Source: Processed data, 2020

Based on table IV, we can conclude that on the effect of e-learning readiness and e-learning experience on reaction criteria. Technological readiness, content readiness, culture readiness, psychological readiness, good teaching scale, generic skill scale, and overall satisfaction have a significant effect on reaction criteria, learning criteria, and behavioral criteria. The highest factor that affects reaction criteria is culture readiness with a t value of 11,000 and sig. value of 0,000. The highest factor that affects learning criteria is culture readiness with a t value of 3.014 and sig. value of 0,003. The highest factor that affects behavioral criteria is a good teaching scale with a t value of 3.440 and sig. value of 0,001.

TABLE V.   RESULTS OF THE INFLUENCE OF E-LEARNING READINESS ON LEARNING PERFORMANCE MODERATED BY DIGITAL DIVIDE

E-Learning Readiness and Digital Divide		Learning Performance		
		Sig. of RC	*Sig. of LC*	*Sig. of BC*
Technological Readiness	Infrastructure	0.056	0.023	0.009
	TRI	0.000	0.000	0.007
	Affordability	0.337	0.011	0.302
	TRA	0.000	0.000	0.135
	Knowledge	0.280	0.044	0.531
	TRKN	0.905	0.005	0.022
	Quality	0.001	0.000	0.813
	TRQ	0.534	0.817	0.000
	Usage	0.023	0.003	0.586
	TRU	0.033	0.773	0.045
Content Readiness	Infrastructure	0.043	0.079	0.021
	CRI	0.016	0.012	0.493
	Affordability	0.031	0.122	0.381
	CRA	0.072	0.018	0.017
	Knowledge	0.682	0.054	0.116
	CRKN	0.000	0.000	0.442
	Quality	0.000	0.000	0.405
	CRQ	0.214	0.614	0.944
	Usage	0.001	0.001	0.000
	CRU	0.785	0.251	0.268
Culture Readiness	Infrastructure	0.301	0.000	0.000

	CURI	0.102	0.124	0.388
	Affordability	0.060	0.055	0.426
	CURA	0.000	0.112	0.542
	Knowledge	0.139	0.100	0.663
	CURKN	0.013	0.168	0.003
	Quality	0.049	0.000	0.506
	CURQ	0.022	0.975	0.084
	Usage	0.485	0.019	0.294
	CURU	0.041	0.019	0.047
Psychological Readiness	Infrastructure	0.281	0.000	0.000
	PRI	0.000	0.133	0.002
	Affordability	0.021	0.192	0.553
	PRA	0.089	0.080	0.004
	Knowledge	0.262	0.072	0.259
	PRKN	0.001	0.812	0.000
	Quality	0.002	0.000	0.360
	PRQ	0.007	0.524	0.005
	Usage	0.202	0.015	0.058
	PRU	0.000	0.794	0.025

To test the X2 status whether as a pure moderator, quasi moderator, or not a moderating variable at all, it can be determined by the following criteria:

- Pure moderator: if the sig. value of X2 (digital divide) on Y2 (learning performance) on the first output is not significant, and the sig. value of the X1X2 interaction on the second output is significant

- Quasi moderator: If the sig. value of X2 (digital divide) on Y2 (learning performance) on the first output and the sig. value of the X1X2 interaction on the second output is significant.

- Predictor moderator: if the sig. value of X2 (digital divide) on Y2 (learning performance) on the first output is significant, and the sig. value of the X1X2 interaction on the second output is not significant

- Not moderator: If the sig. value of X2 (digital divide) on Y2 (learning performance) on the first output and the sig. value of the X1X2 interaction on the second output is not significant.

Table 5 uses labels for several factors from the multiplication of the X1 factor and X2 factor. The TRI label is the product of technology readiness and infrastructure multiplication. TRA is the product of technology readiness and affordability multiplication. TRKN is the product of technology readiness and knowledge multiplication. TRQ is the product of technology readiness and quality multiplication. TRU is the product of technology readiness and usage multiplication. CRI is the product of content readiness and infrastructure multiplication. CRA is the product of content readiness and affordability multiplication. CRKN is the product of content readiness and knowledge multiplication. CRQ is the product of content readiness and quality multiplication. CRU is the product of content readiness and usage multiplication. CURI label is the product of culture readiness and infrastructure multiplication. CURA is the product of culture readiness and affordability multiplication. CURKN is the product of culture readiness and knowledge multiplication. CURQ is the product of culture readiness and quality multiplication. CURU is the product of culture readiness and usage multiplication. PRI label is the product of psychological readiness and infrastructure multiplication. PRA is the product of psychology-cal readiness and affordability multiplication. PRKN is the product of psychological readiness and knowledge multiplication. PRQ is the product of psychological readiness and quality multiplication. PRU is the product of psychology-cal readiness and usage multiplication.

Table 5 shows that there are 27 pure moderator factors, 15 predictor moderator factors, 10 quasi moderator factors, and there are 8 factors that are not moderator factors. Based on these data, we can conclude that the digital divide moderates the effect of e-learning readiness on learning performance partially.

TABLE VI.   RESULTS OF THE INFLUENCE OF E-LEARNING READINESS ON LEARNING PERFORMANCE MODERATED BY E-LEARNING EXPERIENCE

E-Learning Readiness and E-Learning Experience		Learning Performance		
		Sig. of RC	*Sig. of LC*	*Sig. of BC*
Technological Readiness	GTS	0.284	0.386	0.000
	TRGTS	0.132	0.820	0.399
	GSS	0.000	0.016	0.055
	TRGSS	0.049	0.035	0.167
	OS	0.000	0.000	0.002
	TROS	0.106	0.006	0.008
Content Readiness	GTS	0.006	0.427	0.000

	CRGTS	0.011	0.954	0.457
	GSS	0.000	0.001	0.302
	CRGSS	0.006	0.000	0.125
	OS	0.000	0.000	0.766
	CROS	0.042	0.000	0.027
Culture Readiness	GTS	0.178	0.987	0.045
	CURGTS	0.200	0.417	0.000
	GSS	0.317	0.255	0.982
	CURGSS	0.084	0.923	0.261
	OS	0.459	0.200	0.230
	CUROS	0.000	0.010	0.053
Psychological Readiness	GTS	0.675	0.581	0.001
	PRGTS	0.019	0.460	0.399
	GSS	0.001	0.024	0.453
	PRGSS	0.499	0.223	0.100
	OS	0.000	0.000	0.041
	PROS	0.220	0.987	0.000

d. Source: Processed data, 2020.

Table VI uses labels for several factors from the multiplication of X1 factors and Y1 factors. The TRGTS label is the product of technology readiness and good teaching scale multiplication. TRGSS is the product of technology readiness and generic skill scale multiplication. TROS is the product of technology readiness and overall satisfaction multiplication. CRGTS is the product of content readiness and good teaching scale multiplication. CRGSS is the product of content readiness and generic skill scale multiplication. CROS is the product of content readiness and overall satisfaction multiplication. CURGTS label is the product of culture readiness and good teaching scale multiplication. CURGSS is the product of culture readiness and generic skill scale multiplication. CUROS is the product of culture readiness and overall satisfaction multiplication. PRGTS label is the product of psychological readiness and infrastructure multiplication. PRGSS is the product of psychological readiness and generic skill scale multiplication. PROS is the product of psychological readiness and overall satisfaction multiplication.

Table VI shows that there are 4 pure moderator factors, 8 predictor moderator factors, 11 quasi moderator factors, and there are 13 factors that are not a moderator. Based on these data, we can conclude that e-learning experience moderates the effect of e-learning readiness on learning performance partially.

V. CONCLUSION

There are 5 objectives of this research. First, this study aims to determine the effect of e-learning readiness on e-learning performance. Second, this study aims to determine the effect of the digital divide on learning performance. Third, this study aims to determine whether the digital divide moderates the effect of e-learning readiness and learning performance. Fourth, this study aims to determine the effect of the e-learning experience on learning performance. Fifth, this study aims to determine whether e-learning experience mediates the effect of e-learning readiness on learning performance.

Based on the research objectives, this study has collected 208 students as respondents through a questionnaire. 33 respondent data have extreme values and cannot be processed in a hypothesis test. For this reason, only 175 respondent data could be tested and 6 hypotheses in this study have been tested.

TABLE VII.   RESULTS OF THE STUDY

No	Hypothesis	Result
1	E-learning readiness has a significant effect on learning performance	Supported
2	Digital Divide has a significant effect on learning performance	Partially Supported
3	Digital divide moderates the effect of e-learning readiness on learning performance	Partially Supported
4	E-learning experience has a significant effect on learning performance	Supported
5	E-learning experience moderates the effect of e-learning readiness on learning performance	Partially Supported

According to the research result in table v, there are several conclusions in this study. The first conclusion is the results of the test data support the first hypothesis, namely e-learning readiness has a significant effect on learning performance. The finding indicated that e-learning readiness is positively related to learning performance. If the e-learning readiness of nursing students increases, the learning performance will also increase. The result is consistent with previous research. According to [17;18] Academic achievement, as well as satisfaction and motivation, are related to e-learning readiness. Advances in online learning environments at universities around the world contribute to enhancing college students' educational success [19;20].

Second, the finding indicated that the digital divide has a significant effect on learning performance partially. This study is supported by Means, [26] In e-learning environments, technological tools and systems improve the quality of learning experiences and outcomes by delivering adaptive materials and tactics for individual learners' requirements and preferences. In

another study by [21] observed that reading and math results are significantly higher in schools with more computer access.

Third, the finding indicated that the digital divide moderates the effect of e-learning readiness on learning performance partially. These study results are supported by research conducted by [27]. By investigating 125,000 American undergraduates, They studied the relationship between the usage of technology and achieving desired college results. They discovered that increased computer familiarity was related to the development of critical skills and competencies such as analytical and logical thinking, synthesizing ideas and concepts, and social skills.

Fourth, the finding indicated that the e-learning experience has a significant effect on learning performance. The result is consistent with previous research conducted by Espeland and [28;29] students' learning performance might be influenced by how happy they are with their learning environment. The research conducted by [30] at Tanzania University found the fact that student achievement was related to student satisfaction with the e-learning system. Students who were happy with the university's services were more likely to excel academically. However, the results of the test data in this study found that e-learning experience was not a mediating variable on the effect of e-learning readiness on e-learning performance.

Fifth, the finding indicated that e-learning experience plays as a moderator variable in the effect of e-learning experience on learning performance partially.

VI. MANAGERIAL IMPLICATIONS

Based on the conclusions of this study, several implications can be applied as follows:

- To improve the experience felt by students in implementing e-learning, lecturers can prepare varied learning media so that students are not bored with online learning.

- If conditions are getting better, the Nursing Faculty can implement offline practicum for students alternately by implementing the COVID-19 protocol. and lecturers can provide face-to-face guidance to students if students experience problems in the understanding lecture material.

- In this situation, lecturers need digital skills or an understanding of new technologies and innovations in online learning. The nursing faculty should facilitate training for lecturers so that the lecturers can teach effectively and improve student learning performance.

- To solve internet network problems, the government needs to improve facilities and infrastructure that are evenly distributed in various regions.

VII. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

In this study, there are several limitations and some suggestions for further research. First, In the digital divide variable, the affordability indicator only has 1 question, and the quality indicator only has 2 questions. So it does not rule out the possibility that the result of data processing on the digital divide variable does not describe these two indicators. Therefore, future research should make at least 4 question items for each indicator.

Second, In the location item in the questionnaire, there are still many students who are confused about the answer options. For further research, the researcher should guide and explain well the answer options in the questionnaire that are distributed to respondents.

Third, This research was only conducted at the nursing faculty. whereas, various faculties and departments are also feeling the impact of online learning. for further research, the study should be conducted in another faculty or all faculties.

Fourth, the current study investigates e-learning from the student's views. further studies may explore e-learning from the lecture's point of view.

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