Statistical Analysis in Determining the UIN Kiai Haji Achmad Siddiq (UIN KHAS) Jember Students' Readiness Toward the Internet-Based Learning System

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Abstract:

Keywords:

E-Learning, 1 Sample Proportion Test, Chi-Square Test, Habit Variables Learning, Technological Habit Variables and Readiness

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This research focuses on finding out how far the readiness of UIN KHAS Jember students in facing this e-learning learning system is, so research is carried out in the form of a survey. From the survey results, it is hoped that data can be obtained regarding what factors influence the e-Learning-based learning system to be applied to UIN KHAS Jember students. The variables used are Study Habits and Technology Habits. The data analysis method used in this research is the 1 sample proportion test and the Chi-Square test. Respondents used were UIN KHAS Jember students Class of 2015, 2016, 2017, and 2018. From a series of data collection to the analysis stage, several conclusions can be drawn, namely the number of UIN KHAS Jember students ready to face the e-learning learning system by 60% (or more than 50% of students). The variables that affect student readiness in dealing with e-learning learning systems are study habits and technology habits. From each of these variables, it turns out that only the attitude factor towards the learning system and the length of time on the internet are very significant or affect student readiness.

Abstrak:

Fokus penelitian ini untuk mengetahui sejauh mana kesiapan mahasiswa UIN KHAS Jember dalam menghadapi sistem pembelajaran e-learning ini, maka dilakukan penelitian berupa survey. Dari hasil survey ini, diharapkan bisa diperoleh data mengenai faktor-faktor apa saja yang berpengaruh terhadap sistem pembelajaran berbasis e-Learning untuk diterapkan pada mahasiswa UIN KHAS Jember. Variabel yang digunakan yaitu Kebiasaan Belajar dan Kebiasaan Berteknologi. Metode Analisis Data yang digunakan dalam penelitian inu yaitu Uji proporsi 1 sampel dan uji Chi-Square. Responden yang digunakan yaitu mahasiswa UIN KHAS Jember Angkatan 2015, 2016, 2017 dan 2018. Dari serangkaian pengambilan data sampai tahap analisis, dapat diambil beberapa kesimpulan yaitu Banyaknya mahasiswa UIN KHAS Jember yang siap menghadapi sistem pembelajaran elearning sebesar 60% (atau lebih dari 50% mahasiswa). Variabel-variabel yang berpengaruh terhadap kesiapan mahasiswa dalam menghadapi sistem pembelajaran e-learning adalah variabel kebiasaan belajar dan variabel kebiasaan berteknologi. Dari masing-masing variabel tersebut ternyata hanya faktor sikap terhadap sistem pembelajaran dan lamanya berinternet sangat signifikan atau berpengaruh terhadap kesiapan mahasiswa.

INTRODUCTION

Electronic learning Eor Learning is a form of distance education that uses electronic media based on web technology to deliver material and communication between lecturers and students. E-learning is currently being developed in developed and developing countries as one of the learning media that can overcome the problem of limited time, place, and facilities. The purpose of this e-learning teaching method is to achieve the proper teaching method so that it can increase the percentage of student graduation, and it is hoped that the highest failure rate is around $10\%.^{1}$

Previous research on the use of e-learning in distance learning during the Covid-19 pandemic is a qualitative descriptive study on the use of elearning in distance learning during the pandemic, which results in a level of understanding of the material on learning using e-learning.²The E-Learning learning model in improving the quality of learning, which in this study discusses the literature review regarding learning and teaching models using e-learning, produces a breakthrough in the field of education. Another research on the use of elearning for teachers and lecturers in the digitalization era 4.0 resulted in a statement that students and educators are required to be technology literate, or master technology and must have specific technical skills to learn and teach creatively. On the contrary, this

study was conducted to prove the readiness of students to conduct elearning using a proportional survey method in taking respondents, and their readiness numbers were proven quantitatively (numeric based on numbers) using statistical analysis methods.

Using the e-learning method, expect to increase time efficiency considering the amount of material that must be given is temporarily limited. This method is also expected to make it easier for students to understand the lectures as one of the technology campuses that have used the internet network in each faculty at UIN KHAS Jember. This campus tries to promote this system as the latest learning system because it is considered that the process will be straightforward.

To find out how far the readiness of UIN KHAS Jember students in facing this e-learning learning system, a survey was conducted. From the results of this survey, it is hoped that data can be obtained regarding what factors affect the e-Learning-based learning system to be applied to students of UIN KHAS Jember.

In this study, several issues were raised as study material, including:

- 1. How are the students of UIN KHAS Jember ready to face the e-learning system?
- 2. How do determine the variables that affect the readiness of UIN KHAS Jember students in facing the e-learning learning system?
- 3. How are these variables related to the readiness of UIN KHAS Jember students to face the e-learning learning system?

¹Chandrawati, 'Pemanfaatan E-Learning Dalam Pembelajaran', *Jurnal Cakrawala Kependidikan*, 8.2 (2010), 101–203.

²Hariani. P.P, 'Pemanfaataan E-Learning Pada Pembelajaran Jarak Jauh Di Masa Pandemi Covid -19', *Jurnal Kajian Konseling Pendidikan*, 3.2 (2020), 41–49.

The objectives of this research are as follows:

- 1. To find out how readiness UIN KHAS Jember students are to face the e-learning learning system
- 2. 2. To find out the variables that affect the readiness of UIN KHAS Jember students in facing the elearning learning system
- 3. 3. To find out the relationship between these variables on the readiness of UIN KHAS Jember students to face the e-learning learning system.

LITERATURE REVIEW

E-Learning

Electronic learning or Elearning is a learning process system that utilizes information technology in the form of computers equipped with telecommunication facilities, such as the internet, intranet, extranet, and multimedia such as graphics, audio, and video. Both are the primary media in delivering material and interaction between teacher or lecturer and learners or students.³

Information and communication technology-based learning models using e-learning result in changes in learning culture in the context of learning. There are at least four essential components in building a learning culture using the e-learning model;

1. Learners are required to be independent in learning with various appropriate approaches so that students can direct, motivate, and regulate themselves in learning

- 2. Teachers can develop knowledge and skills, facilitate learning, understand learning and the things needed in learning
- 3. Availability of adequate infrastructure
- 4. Creative administrators and infrastructure preparation in facilitating learning.

The steps in the management of e-learning program management are:

- 1. Determine a clear strategy regarding the target audience, learning, audience location, availability of infrastructure, budget, and return on investment that is not only in the form of cash
- 2. Determine equipment such as host vs. installed LMS and Commercial or OS-LMS
- 3. There is a relationship with companies that develop research related to the developed e-learning program
- 4. Preparing materials needed are specific proposals that can be implemented and prepare a short response time.

Determining the quality of learning using the e-learning model has been developed by the Qualitative Standards Scholarship Assessed: An Evaluation of the Professoriate developed by Glassick, Huber, and Maeroff in 2005 with instrument indicators that have been developed including clarity of learning objectives, preparation of materials sufficient learning, preparation of appropriate learning methods. producing significant positive learning outcomes, effectiveness in presenting lesson materials and critical feedback from students.4

There are two models of online learning material development. In the

³Indah Purnama Sari, 'Implementasi Pembelajaran Berbasis E-Learning Menggunakan Claroline', *Research and Development Journal Of Education*, 4.1 (2017) https://swa.co.id/swa/listed-articles/iniera-e-learning-bung.

⁴Sari, 'Implementasi Pembelajaran Berbasis E-Learning Menggunakan Claroline', (2017).

first model, the lecturer builds a material with parts of the material using a computer. Each section can be read and studied offline by downloading it from the internet or a shared $CD.^5$

In the second model, the lecturer builds learning materials with online material development facilities. Lecture material is entered into the system piece by piece, which is assembled as a whole in the system. Students can only attend lectures in full through the same system online. With this model, offline distribution can only be done after the development of lecture material is complete or chapter by chapter.



Figure 1. Online Learning Scheme



Figure2. Online Learning Application

Cara-cara Perbandingan Proporsi

Response variables that have two categories are called binary. Several groups on the response variable Y are often compared. If there are 1 group, the results can be displayed in the 1 X 2 contingency table, where the columns are Y levels.⁶

1 Sample Proportion Test

The following hypothesis is used to determine 1 sample proportion of the population:

 $H_0: p = p_0$

 $H_1: p \neq p_0 or p > p_0 or p < p_0$

where **p** = population proportion

early

p₀ = estimate/proportionhipotesis

Reject condition H_0 if Iz-countI > z-tableor p-value < alpha (0,05).

Proportion test approach with standard normal distribution (N (0,1)) using the z test statistic withformula: $z = \frac{p - p_0}{p_0}$

$$=\frac{r-r_0}{\sqrt{\frac{p_0\left(1-p_0\right)}{n}}}$$

where p is the proportion obtained from the sample to estimate the population proportion.⁷

Proportion Difference

For the first line subject, i=1,2,....,I, π_{1Ii} is respon 1 probability, and $(\pi_{1Ii}, \pi_{2Ii})_{=}(\pi_{1Ii}, 1 - \pi_{1Ii})$

isconditional distributionfrom biner response. However, if comparing two lines, for example, h and i, then use a proportion comparison, $\pi_{1Ih} - \pi_{1Ii}$. The comparison in response 2 is equivalent to the comparison in response 1.8

$$\pi_{2Ih} - \pi_{2Ii} = (1 - \pi_{1Ih}) - (1 - \pi_{1Ii}) =$$

$$\pi_{1Ii} - \pi_{1Ih}$$

⁵Elyas, 'Penggunaan Model Pembelajaran E-Learning dalam Meningkatkan Kualitas Pembelajaran', (2018).

⁶Alan Agresti, An Introduction to Categorical Data Analysis Second Edition.

⁷Charlett, *Introduction to Survival Analysis* (HPA Colindale Statistics Unit, 2003).

⁸D Collet, *Modelling Survival Data In Medical Research* (london: Chapman and Hall, 1994).

Relative Risk

 $\pi_{_{1I1}}$

Figure 2X2, relative risk is a ratio π_{112} The ratio is a non-negative real number. Relative Risk is worth 1, indicating the relationship is mutually independent. Comparison in the second response used a different relative risk.⁹

 $\frac{\pi_{2I1}}{\pi_{2I2}} = \frac{(1 - \pi_{1I1})}{(1 - \pi_{1I2})}$

Odds Ratio

At figure 2X2, odds correspondencein

$$\Omega_1 = \frac{\pi_{1I1}}{\pi}$$

line 1 is π_{2I1} , and odds

$$\Omega_2 = \frac{\pi_{1/2}}{2}$$

correspondencein line2is π_{2I2} .

$$\Omega_i = \frac{\pi_{i1}}{\pi}$$

For combined distribution, π_{i2} each Ω_i non-negative with a value of

each Σ_i non-negative with a value of more than 1 if the response 1 is more than the response 2. Rasio of odds Ω_1

$$\theta = \frac{\Omega_1}{\Omega_2}$$
 called Odds Ratio. So,

$$\theta = \frac{\pi_{11}}{\pi_{21}} \frac{\pi_{11}\pi_{22}}{\pi_{21}} \frac{\pi_{11}\pi_{22}}{\pi_{21}\pi_{12}}$$

Yule

Yule was introduced and called Q in Honor of The Belgian statistician Quetelet, now known as Q Yule's. This is related to odds ratio $\theta = (\pi_{11}\pi_{22})/(\pi_{12}\pi_{21})_{\text{by Q}=}(\theta-1)/(\theta+1)$. For figure 2X2,

$$Q = \frac{\pi_{11}\pi_{22} - \pi_{12}\pi_{21}}{\pi_{11}\pi_{22} + \pi_{12}\pi_{21}}$$

Independence Test Pearson Chi-Squared Test

The expected frequency, namely $\left[\hat{m}_{ij} = np_{i+}p_{+j}\right]$. So, the statistic test of χ^2 is

$$\chi^{2} = \sum \sum \frac{(n_{ij} - \hat{m}_{ij})^{2}}{\hat{m}_{ij}}$$

Pearson (1900,1922) states that replacement $[m_{ij}]$ by approximation $\left[\hat{m}_{ij}
ight]$ will not affect the distribution of χ^2 . Since theere N=IJ categories for cross grouping, he argues that there will be a Chi-square distribution asymptote with df=ii-1.¹⁰ Likelihood Ratio Chi-Squared The Likelihood Ratio test is a common way to test H_0 toward H_1 . In this test, the likelihood is maximized under H_0 under the general condition that H_0 or H_1 is correct. Likelihood Ratio test mengikuti Wilks's statistic and is denoted by G^2 , that is

$$G^{2} = 2\sum \sum n_{ij} \log \left(\frac{n_{ij}}{\hat{m}_{ij}} \right)$$

Where $\left[\hat{m}_{ij} = n_{i+}n_{+j} / n\right]$ is an estimate of the expected frequency under independent assumptions.¹¹

Independence Type

Independence type for the probability cell in three ways of crossclassification of the response variables X, Y, and Z. The probability cell is denoted by $[\pi_{ijk}, i = 1, ..., I, j = 1, ..., J, k = 1, ..., K]$ where $\sum_{i} \sum_{j} \sum_{k} \pi_{ijk} = 1$.

⁹Cox, *Analysis of Survival Data* (London: Chapman and Hall, 1984).

¹⁰E. J Hinkley, D. V., Reid, N., dan Snell, *Statistical Theory And Modelling (In Honour Of Sir David Cox, FRS)* (london: Chapman and Hall, 1991).

¹¹Chap T Le, *Applied Survival Analysis* (canada: John Willey and Sons, 1997).

Three variablesare *mutually independent* if $\pi_{ijk} = \pi_{i++}\pi_{+j+}\pi_{++k}$ for all I,j, and k. While conditionally independent eg X and Y are conditionally independent at each level

Z, then $\pi_{ijk} = \pi_{i+k} \pi_{+jk} / \pi_{++k}$ for all I, j, and k.Wjconover.¹²

METODE

The research procedure used in this study can be seen in the following chart.



¹²Agresti.

The object of research or respondents' targets in this research are all students from various batches and study programs, both undergraduate and postgraduate.

The sampling technique used was proportional random sampling adjusted to the number of students at UIN KHAS Jember in each batch and not according to the study program. The number of samples describes as follows:

n3<n4<n5<n6

where n_3 = the number of samples in the 2015 academic year

 n_4 = the number of samples in the 2016 academic year

 n_5 = the number of samples in the 2017 academic year

 n_6 = the number of samples in the 2018 academic year.¹³

The variables used as materials for making questionnaires and further analyzed in this study were divided into three, namely:

- 1. ResponseVariable(Students readiness) \rightarrow Y
- 2. PredictorVariable

a. Variable 1 (Learning Habits) \rightarrow X₁

- ✓ Learning Duration → X_{11}
- ✓ Learning System \rightarrow X₁₂
- ✓ Activating → X_{13}
- ✓ SubjectType → X_{14}
- ✓ Learning Attitude → X_{15}
- ✓ AttitudetowadAssignment → X_{16}
- ✓ Lecturer Type → X_{17}
- ✓ AttitudetowadLearning System → X_{18}
- b. Variable 2 (Habit of using Technology) $\rightarrow X_2$
 - ✓ Using Internet Duration → X_{21}
 - ✓ Using Internet Location → X_{22}
 - ✓ Using Internet Activity → X_{23}
 - $\checkmark \text{ Sites } \rightarrow X_{24}$

¹³Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D* (Bandung: Alfabeta, 2009).

- ✓ E-learning Type → X_{25}
- ✓ Using Computer Duration → X_{26} ✓ Software → X_{27}
- 2. Additional Variable (E-learning Outlook)

RESULT AND DISCUSSION

Before further discussing this research, it is necessary to know how the objectives and general description of the respondents are the objects of research..

Respondents Descriptive Statistics

As previously explained, the target of this research was UIN KHAS Iember students from both undergraduate or strata 1 and postgraduate strata 2 levels from various generations, 2015, 2016, 2017, and 2018 academic years. This survey was conducted using proportional random sampling. simple Undergraduate and postgraduate students use the online method via WhatsApp Application assisted by the google form application due to the pandemic period of students studying at home. The respondents who were successfully surveyed can be described as follows:

Chart1.Summary ofRespondents

Aspect	Item	Freq	Total
	М	35	
Sex	F	69	
	M/F	8	
T 1	Strata 1	78	
Level	Strata 2	34	
	2015	11	110
Acedemic	2016	30	112
Year	2017	40	
	2018	31	
	Ready	64	
Readiness	Not Ready	15	
	Abstain	33	

Chart2.Completely valid summary of the
respondent's questionnaire

Aspek	Item	Frek	Total
Sex	М	33	
	F	59	
	M/F	7	
Level	Strata 1	69	
	Strata 2	30	
	2015	10	00
Academic	2016	28	99
Year	2017	36	
	2018	25	
	Ready	59	
Readiness	Not Ready	13	
	Abstain	27	

The number of respondent questionnaires used as material for analysis is 99 respondents. This number has a sufficient proportion because it can be seen from the number of students of UIN KHAS Jember, the majority of whom are women, and many are from Strata S1. The class selection is based on the number of students who are still in college and the length of time they have been in college. It is described in more detail as follows:



Chart4.Pie Chart of respondents by gender



Chart5.Pie Chart of respondents bylevel



Chart6.Histogram of Respondents Based on Readiness to Face E-learning.

It can be seen that after validating the less valid questionnaires, the results of graphs and descriptive statistics are not much different from expectations. The questionnaire determines validity by the presence of the information needed for analysis and the steps to deal with this problem by adding respondents and, if possible, returning the questionnaire that is considered less valid.

Visually, previous charts and graphs show the readiness of UIN KHAS Jember students for the elearning learning system, and it can be stated that 60% of students answered ready, and 13 % of students answered not ready. The remaining 27% answered they did not know/were doubtful. We have to prove this statement not only with graphs or descriptive statistics but need to be analyzed further to make sure that UIN KHAS Jember students are ready to implement an e-learning learning system and know what factors influence it.

To ensure that 60% of UIN KHAS Jember students are ready to face the e-learning learning system, a 1 sample proportion test is carried out as follows:

The hypothesis used:

 $H_0: p = p_0$

 $H_1: p \neq p_0 \text{ or } p > p_0 \text{ or } p < p_0$

where p = the value of the proportion of observations (sampel) and $p_0 =$ the estimated value of the proportion of a population. Reject H₀if p-value < alpha (0,05)

Based on the proportion test analysis series of 1 sample, p-values are obtained, which can be seen in table 4.3 below:

Table 3.1 Sample Test Result Proportion

p 0	p < p ₀	p≠p₀	p > p ₀
0,9	0,000	0,000	1,000
0,75	0,001	0,001	1,000
0,5	0,978	0,070	0,035
0,6	0,505	1,000	0,576

Based on the p-value above, it can be seen that the p-value will be more than 0.05 when the p0 value is equal to 0.6. So, the percentage of UIN KHAS Jember students ready to face the e-learning learning system is 60% or more than 50%.

Relationships between Variables Detection

identified Previously two variables affecting student readiness for e-learning learning systems, study and technology habits. The measurement of the influence of these variables is reviewed from several aspects, for example, learning duration, learning system, duration of stav in front of a computer, and software that is mastered.

The relationship between each variable and student readiness was detected. To detect this relation, the researcher carried out individual chisquare tests. The steps are almost the same when analyzing each of the variables. In this case, one example will be given for the analysis of the Student Readiness variable (Y) on the Study duration variable (X₁₁): Hipotesis :

 H_0 : The learning duration does not affect student readiness.

H₁ : The learning duration affects student readiness.

Statistical Test:

$$\chi^{2} = \sum \sum \frac{(n_{ij} - \hat{m}_{ij})^{2}}{\hat{m}_{ij}} \text{ or } p\text{-value}$$

Reject area :

Reject H₀if $I\chi^2$ - count $I > \chi^2$ - chartor p-value < alpha (0,05)

In the example, the p-value is 0.156 > alpha (0.05), and the Chi-square count is 6,647, which is smaller than the table value of 9,488. So, accepting H₀ or length of study does not affect student readiness, and the full results can be shown in the following table:

Learning Habit Variable Table 4.Chi-Square test results for each

leaf ling habit val lable								
Variable	Chi- db Square		Table	P-value				
X11	6,647	4	9,488	0,156				
X12	7,371	6	12,592	0,288				
X13	1,976	2	5,991	0,372				
X14	6,834	6	12,592	0,336				
X15	11,711	6	12,592	0,069				
X16	5,403	6	12,592	0,493				
X17	12,401	6	12,592	0,054				
X18	12,492	4	9,488	0,014				

It can be seen that the X18 variable has a relationship with student readiness because it has a chisquare count that is greater than the chi-square table (p-value less than 0.05). The X18 variable indicates that the X17 and X15 variables have an influence but are less significant. A variable like this is analyzed individually because the possibility of a joint bond with other variables exists. The next step is to increase the table's dimensions into a 3-dimensional table by including two variables study habits to student readiness. Not all combinations are tested because it is seen whether they have a mutual relationship between the two or not. As a result, four possibilities will be tried and can be seen in the following table.

Table 5. Chi-square Test using Crosstabulation on LearningHabits Variable

Variab	le	Code	Chi- Square	db	Table	P- value
X11 X14	vs	A B C	3,729 5,635 2,000	6 6 1	12,592 12,592 3,841	0,713 0,465 0,157
X12 X17	vs	D E F G	2,902 4,961 5,096 3,458	4 6 4 6	9,488 12,592 9,488 12,592	0,574 0,549 0,278 0,750
X13 X18	VS	H I	14,059 8,152	4 4	9,488 9,488	0,007 0,086
X15 X16	vs	J K L M	7,794 7,894 2,418 4,440	6 6 6 4	12,592 12,592 12,592 9,488	0,254 0,246 0,878 0,350

It turns out that after testing the relationship simultaneously with other variables that may have an effect, the results are not so significant. Only the variable X13 (student activity) with the variable X18 (attitude towards new learning) interact can affect the readiness of UIN KHAS Jember students to face the e-learning learning system.

This finding is indicated by the p-value, which is less than 0.05 (alpha), so that if the two variables interact, it affect student will readiness. Meanwhile, the interaction of the other variables has no effect. Moreover, there are still many possible interactions between variables that may affect but have not been discussed in this study.

on Each Technology Habit Variable								
Variable	Chi- Square	db	Table	P- value				
X21	19,002	8	15,507	0,015				
X22	9,56	6	12,592	0,144				
X23	3,578	6	12,592	0,734				
X24	2,833	6	12,592	0,829				
X25	3,521	6	12,592	0,741				
X26	5,968	6	12,592	0,427				
X27	6,293	6	12,592	0,391				

Technological Habit Variables Table 6.individual Chi-square Test Results on Each Technology Habit Variable

It can be seen that the variable X21 (internet surfing duration) has a relationship with student readiness because it has a chi-square count that is greater than the chi-square table (p-value less than 0.05). X21 variable is possible that there are indications such as the X22 variable that has an influence but are less significant. Both variables should be analyzed in unison because there may be dependencies with other variables.

The next step is to increase the table's dimensions into 3а dimensional table by including two variables from technology habits to student readiness. Not all combinations are tested because it is seen whether they have a mutual relationship between the two or not. As a result, three possibilities will be tried and can be seen in the following table.

Table 7. Chi-square Test using Crosstabulation on Technology Habit Variables

Variable	e	Code	Chi- Square	db	Table	P- value
X21 v X22	7S	A B C	5,192 17,600 2,104	6 6 4	12,592 12,592 9,488	0,519 0,007 0,717
X23 v X24	7S	D E F G	3 3,494 5,748 1,196	2 6 6 4	5,991 12,592 12,592 9,488	0,223 0,745 0,452 0,879

X26	vs	Н	7,796	6	12,592	0,253	
X27		Ι	3,888	6	12,592	0,692	
		J	1,105	3	7,815	0,776	
		К	5,031	6	12,592	0,540	

It turns out that after testing the relationship simultaneously with other variables that may have an effect, the results are not so significant. Only the variable X21 (internet length) with the variable X22 (internet location) that interact with each other can affect the readiness of UIN KHAS Jember students in facing the e-learning learning system.

This is indicated by the p-value, which is less than 0.05 (alpha) so that if the two variables interact, it will affect student readiness. Meanwhile, the interaction of the other variables has no effect. Furthermore, there are still many possible interactions between variables that may affect but have not been discussed in this study.

CONCLUSION

From data series collection to the analysis stage, the following conclusions show:

- 1. The number of UIN KHAS Jember students ready to face the e-learning system is 60% or more than 50% of students.
- 2. The variables that affect student readiness in facing the elearning learning system are study habits and technology habits.
- 3. From each of these variables, it turns out that only the attitude factor towards the learning system and the length of time on the internet are very significant or affect student readiness.

The implications of this research theoretically, with statistical methods, can be used to determine how big the percentage value of UIN KHAS JEMBER students face internetbased learning (e-learning). Identify the variables that affect student readiness in welcoming e-learningassisted learning. Practically, it can provide input and advice in policymaking. The quantitative results based on the questionnaire distribution survey show that UIN KHAS JEMBER students are ready to carry out an internet-based learning system.

As for what can be considered or suggestions for future research, it is carried out using multiple-answer questionnaires so that it can be known in more detail about what factors are influential. In addition, a more in-depth study of crosstab analysis with larger dimensions is needed. So we hope to help UIN KHAS Jember make decisions in implementing an e-learning learning system that can be more convincing with solid data support.

REFERENCE

- Agresti, A.An Introduction Categorical Data Analysis, Canada:John Willey and Sons.1996
- Chandrawati, Sri Rahayu. Pemanfaatan E-Learning dalam Pembelajaran. *Jurnal Cakrawala Kependidikan*. Vol 8 Nomor 2 September: 101-203.2010
- Charlett, A., , *Introduction to survival analysis*, HPA Colindale *Statistics Unit*, Pp. 1-42.2003
- Collet, D.*Modelling Survival Data In Medical Research*, London: Chapman and Hall,.1994
- Cox. *Analysis of Survival Data*,London. Chapman and Hall.1984

- Elyas, A.H. Penggunaan Model Pembelajaran E-Learning dalammeningkatkankualitaspemb elajaran.*Jurnal Warta.* Edisi56 April .2018.
- Hariani.P.P, 'Pemanfaataan E-Learning Pada Pembelajaran Jarak Jauh Di Masa Pandemi Covid -19', Jurnal Kajian Konseling Pendidikan, 3.2. 41–49.2020
- Hinkley, D. V., Reid, N., dan Snell, E. J.Statistical Theory And Modelling (In Honour Of Sir David Cox, FRS),London: Chapman and Hall,.1991.
- Kachman, S. D.*Application In Survival Analysis,* Department of Biometry, University of Nebraska-Lincoln, Lincoln. 1999.
- Le, Chap T.*Applied Survival Analysis*, John Willey and Sons, Inc, Canada.1997.

Purnama Sari, Indah, 'Implementasi Pembelajaran Berbasis E-Learning Menggunakan Claroline', *Research and Development Journal Of Education*, 4.1.2017 <https://swa.co.id/swa/listedarticles/ini-era-e-learning-bung>

- Rahayu, Santi, P., "Regresi Survival Hazard Proporsional Cox Sebagai Metode Alternatif Bagi Regresi Logistik Biner Dalam Mengidentifikasi Faktor Resiko. (studi Kasus Kematian Penderita Penyakit Jantung Koroner di RSUD Dr. Soetomo Surabaya)".2003
- Sagita, Mustakim, 'Pemanfaatan E-Learning Bagi Para Pendidik di Era Digital 4.0 Utilization of E-Learning For Educators In Gigital Era 4.0', JSH, 2.2 2019.
- Sugiyono, Metode Penelitian Kuantitatif, Kualitatif, dan R&D, Bandung: Alfabeta, 2009.
- W. J. Conover. *Practical Nonparametric Statistics,* New York:John Wiley & Sons. 1980.