

CHAPTER III

RESEARCH METHOD

This chapter present research methods applied in this research. It covers research design, research setting, population and sample, research instrument, data collecting procedure and data analysis.

A. Research Design

This study was a quantitative method. According to Cresswell (2002) quantitative research is the process of collecting, analyzing, interpreting and writing the result of a study. The design of this study used descriptive quantitative research. The reason why researcher used descriptive quantitative because the form of the data was in the form of number with described and interpreted the result by the researcher.

The researcher used questionnaire for measuring critical success factor with used 5-point scale to collect the data for this research : 1- strongly agree, 2- agree, 3-neutral, 4- disagree and 5-strongly disagree and analyzed with used exploratory factor analysis in SPSS to know critical success factor by students' EFL perception in e-learning.

B. Research setting

The researcher conducted research at English Education Department in Lambung Mangkurat University, Antarsari State Islamic University, University of Muhammadiyah Banjarmasin, and STKIP PGRI Banjarmasin. Lambung Mangkurat University located on Jl. Brigjen H. Hasan Basri, Pangeran,

Banjarmasin Utara, Banjarmasin Regency, Kalimantan Selatan Province. Islamic University of Antasari Islamic State University located on Jl.A. Yani. No.Km.4,5 RW.5, Kebun Bunga, Banjarmasin Timur, Banjarmasin Regency, Kalimantan Selatan Province. University of Muhammadiyah Banjarmasin located on Jl. S, Parman. Complex RS Islam , Pasar Lama, Banjarmasin Regency, Kalimantan Selatan Province. STKIP PGRI Banjarmasin located on Jl. Sultan Adam, Complex H. Iyus No. 18 Rt 23, Sungai Jingah, Banjarmasin Utara, Banjarmasin Regency, Kalimantan Selatan Province.

The reason why the researcher chose four university above as a research places because those universities were selected have english department in the university, their using e-learning in their teaching during covid-19 pandemic, the researcher had access to those universities and the location from all universities located in Banjarmasin.

C. Population and sample

1. Population

Population of this research were the students at the sixth semester of Lambung Mangkurat University, Antasari State Islamic University, STKIP PGRI Banjarmasin and at the fourth semester of University of Muhammadiyah Banjarmasin in the academic year of 2020/2021.

The students of sixth semester in Lambung Mangkurat University were 95 students, Antasari State Islamic University were 126 students, STKIP PGRI Banjarmasin were 18 students and the fourth semester in University of Muhammadiyah Banjarmasin were 26 students.

2. Sample

A sample is a subgroup of the target population that the researcher plans to research for generalizing about the target population (Creswell, 2012 p.142). The sample of this research were sixth semester of Lambung Mangkurat University, Antasari State Islamic University, STKIP PGRI Banjarmasin and the fourth semester of University of Muhammadiyah Banjarmasin, in the academic year of 2020/2021 have the same chance to be the subject of this research.

The reason why the researcher chose sixth semester as the subject of the reasearch because it has less university unit credits compared to other semester and most of the courses are related to English lessons, then they have also study online during this pandemic. And the reason why the researcher chose fourth semester at University of Muhammadiyah Banjarmasin because the students in sixth semester only 18 students whereas the researcher need more students for did the research.

The researcher used convenience sampling. The reason why researchers used convenience sampling for sampling because this technique took sample from the students who want to participated in research and accessible to the researcher for research.

In this study, the researcher spread questionnaire to all students of sixth semester there were Lambung Mangkurat University, Antasari State Islamic University, University of Muhammadiyah Banjarmasin, and STKIP

PGRI Banjarmasin without chose the people. The people who were considered as samples were people who filled out questionnaire from the google form that has been distributed.

The total of students who have filled out the questionnaire that was distributed to participants for 2 months were 100 students. The students of Lambung Mangkurat University who have filled out the questionnaire were 31 students, the students of Antasari State Islamic University who have filled out the questionnaire were 25 students, the students of University of Muhammadiyah Banjarmasin who have filled out the questionnaire were 26 students and the students of STKIP PGRI Banjarmasin who have filled out the questionnaire were 18 students.

D. Reasearch Instrument

The questionnaire in this research used 5-point linkert scale to collected the data for this researched : 1- strongly agree. 2- agree, 3-neutral, 4- disagree and 5-Strongly disagree. This study proposed four e-learning CSF categories which were student's characteristic, instructor's characteristic, technology and e-learning systems and content.

In this case, the researcher used online questionnaire through googleform to know the critical success factor of university level in Banjarmasin. The questionnaires distributed to 4 colleges in Banjarmasin. The questions were adopted from previous study of this research. So many instruments has been

proposed by the previous researchers and proved to be good. Furthermore, there were many indicators available from the previous study to measure the critical success factors for e-learning based on students' perceptions. In this study, researcher chose questions instruments from several previous study that has proved more good.

Students' characteristic adopted by Musa & Othman (2012, p. 143) from number 1-10, because they said that the first ten indicator were measure the students computing competency and previous used of technology measure mindset of the students about e-learning.

Then, instructor's characteristic adopted from Alhabeeb & Rowley (2018, p.10) the question are from 11-15. This indicator to measure instructor's characteristic. The researcher used this instructor's characteristic because they said that questionnaire design was informed by the literature review which identified potential of critical success factor and their categorization ,together with an earlier study conducted by the authors on critical success factor with e-learning experts.

For technology's characteristic adopted from Alhabeeb & Rowley (2018) & Musa & Othman (2012), from 16-18 question from Alhabeeb & Rowley (2018) and from 19-22 adopted from Musa & Othman (2012, p. 143) they said those questionnaire to measure the reliability and richness of information technology. The reason why the researcher used technology's characteristic

from them because the researcher adjust the question with the condition of the subjek in this research.

And the last characteristic was e-learning system, the question from 23-27 adopted from H.M.Salem (2007) as cited by Alhabeeb & Rowley (2018, p.10) and question from 28-32 adopted from H.M.Salem, (2007) as cited by Musa & Othman (2012, p.143). The reason researcher chose these questions because H.M. Salem used these question to measure student's level of collaborations activities like student-student and students-instructor collaboration and also to take care of e-learning contents effectiveness.

E. Data Collecting Procedure

In collecting the data, the researcher was give the participants questionnaire to answer the five point linkert scale questionnaire from the researcher which consist 32 item questions. Then researcher spread the questionnaire among higher education students in Banjarmasin. The reseacher collected the data started from 19 july 2021 until 19 september 2021 and from the questionnaire has spread out by the researcher, amount students who have filled out the questionnaire were 100 students collected.

F. Data Analysis

After collecting data, the researcher analyzed the data. Data analysis in quantitative research is research that the result of analysis preserved in number form then explained and interpreted in describe form (Hasan, 2004, p. 30). After all the questionnaire collected, the researcher analyzed the questionnaire

in SPSS with used Exploratory Factor Analysis to find out the critical success factor of e-learning activities. According to Bartholomew, Knott, & Moustaki (2011) as cited in Yong & Sean (2013, p.80) factor analysis operates on the notion that measurable and observable variables can be reduced to fewer latent variables that share a common variance and are unobservable, which is known as reducing dimensionality. Exploratory Factor Analysis analyzed each factor that the researcher input, from students' characteristic, instructor's characteristic, technology and e-learning systems and content. The procedure were first selected variables using *the Measure of Sampling test Adequacy (MSA)*, *Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy* and *Bartlett's Test of Sphericity*. Second, formationed the factor with using the *principal component analysis* which included deciding the amount of factor and *factor rotation*, the next the researcher interpreted the results of factor analysis based on the significance of *factor loading*, Then, the result was described and interpreted according to form number result.