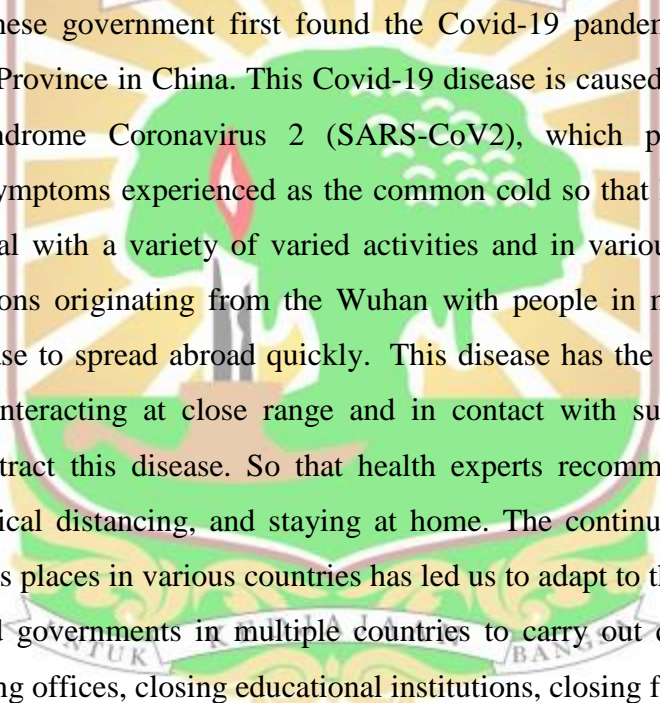


CHAPTER I

INTRODUCTION

This chapter contains the study's background, problem formulation, the research's objective, research scopes, and the study outline.

1.1 Background



The Chinese government first found the Covid-19 pandemic in November 2019 in Wuhan Province in China. This Covid-19 disease is caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV2), which previously people thought of the symptoms experienced as the common cold so that humans carry out activities as usual with a variety of varied activities and in various sectors of life. Human interactions originating from the Wuhan with people in multiple countries causes this disease to spread abroad quickly. This disease has the character of very fast-spreading. Interacting at close range and in contact with sufferers can bring someone to contract this disease. So that health experts recommend doing social distancing, physical distancing, and staying at home. The continued spread of this disease to various places in various countries has led us to adapt to this situation. This situation has led governments in multiple countries to carry out quarantine, social distancing, closing offices, closing educational institutions, closing factories, etc.

The continued spread of this disease to various places in various countries has led us to adapt to this situation. The Covid-19 pandemic in Indonesia began in March 2020, starting with a positive victim in Depok. After that, an increase in cases occurred throughout many provinces in Indonesia, including West Sumatera Province, so it became a red zone area. On May 26, 2020, there were 5,406,282 confirmed cases of Covid-19, including 343,562 deaths, reported to WHO. It's been a year since then. In Indonesia, the number of Covid-19 cases spread as of February 27,

2021, has reached 1,32 million cases and 35.786 deaths; meanwhile, in West Sumatera Province, the total cases have reached 29.017 643 deaths cases. This rapid transmission has caused panic and fear in everyone, coupled with information written on social media and mass media, thus creating fear of this coronavirus disease. Almost all governments in various countries take steps to prevent and stop the spread of Covid-19.

As for Indonesia, Indonesia does not carry out a country-scale lockdown. Only certain areas do it even though the central government opposes it. DKI Jakarta, as the State Capital of Indonesia, carries out a gradual prevention process until finally implementing large-scale social restrictions. PSBB is a term of health quarantine in Indonesia. PSBB is defined as restricting population activities in an area suspected of being infected or contaminated to prevent the disease's spread, despite the Governor of DKI Jakarta's regulations with various policies and the facts. Many experts explain that Indonesia is already experiencing an alarming condition for Covid-19, so the government should carry out a lockdown to stop the spread of this disease. The Covid-19 pandemic that is being significantly experienced affects various things, including education.

Students also experience the impact of covid-19. Online lectures were chosen to solve conventional lecturing activities that could not be implemented due to social restrictions. One of the prevention standards implemented by the government is social distancing. Social distancing also means that face-to-face lectures, as usual, should not be done like before. One of the lecture environment applications by government recommendations is online lectures using internet technology (Setiawan, 2018). Like other countries, Indonesia has also decided to dismiss all educational institutions for offline activities in class together. However, all institutions are asked to apply learning technology for online lectures. This online lecture is aimed at preventing the transmission of Covid-19. Lectures with the online system aim to provide opportunities for all Indonesian citizens to enjoy the learning process.

The applications in online learning that lecturers and students use are different from each university. Online teaching carried out at various universities, including Indonesia, quickly adapts to various applications, such as Zoom Meeting, Skype for Business, Google Meet, Microsoft Teams, etc. The large number of online learning platforms that can be used for teaching and learning activities raises students' preference for online learning platforms. Based on the Journal *EduTeach: Journal of Education and Learning Technology* volume 1, No.2 of the June 2020 edition, Agus Kusnayat et, al, 2020, it is said that "The results showed that the online learning platform which is the preference of UGM students based on the perception criteria of the respondents gave rise to the alternative online learning platform that was most popular with UGM students, namely ELISA with a final weight gain of 0.27 followed by good platform, classroom, zoom, google meets, and lastly webex".

Online learning is a part of distance education that specifically combines electronic technology and internet-based technology. Online learning activities are very flexible because they can be accessed without being hindered by time and place. Besides, online learning provides flexibility for lecturers to access their students to get other learning material references. This method is beneficial for improving the quality of learning (Pardede, 2011). But if there are good things, there are also bad things that can be happened in the implementation of online learning. It is often found that there are many obstacles or discrepancies in learning. One of the challenges experienced in distance education is the lack of equipment, personnel, resources, limited educational technology, and the lecturers' insufficient skills and quality (Dursun et al., 2013). There are considerable obstacles in the use of the internet or online learning media during distance learning. One is a network connection, internet limitations both from network availability and quotas to access online learning, and technical errors (server down and error) hinder learning success (Nurmukhametov et al., 2015).

The Internet connection can also be a massive problem for this online learning. Students living in urban areas have many internet service providers with sufficient internet network capabilities to support online learning. However, for rural areas, there are very few choices of internet service providers. Of those available, it turns out that the quality of the internet network is inadequate, so it does not support online learning. One of the solutions they do to solve internet network problems is leaving the house and going to higher places, and some go to busier areas and are considered to have better network quality. On the other hand, this is contrary to government programs required to avoid crowds as much as possible and only carry out activities around the house.

Students' feelings of stress when facing online learning can be seen from students who complain about discomfort, complex signals, limited quota, and intricate networks in the area where they live. Research results related to stress conditions and cognitive performance by John J Medina found that humans in stressful situations significantly decreased cognitive test results, even up to 50% (Djuwari, 2008). More instructional assignments than usual, environmental conditions, and uncommon media knowledge force college students to adapt throughout again. Boredom in learning results in a person's mental state experiencing extreme lethargy and fatigue, resulting in sluggishness, lack of enthusiasm, or enthusiasm for learning activities (Hakim, 2004). This circumstance will reduce college students' attention in gaining knowledge and intrude with student success in attaining their understanding of goals, academically and psychologically.

The following is the explanation of Livana PH, in the journal Causes Of Student Stress During The Covid-19 Pandemic (2020: 203- 208): "The results showed that 40.2% of respondents said that one of the causes of stress during the Covid-19 pandemic was not being able to meet loved ones, including college friends. This research is different from previous research, which states that students compete for academic activities, thus causing stress. Still, in the Covid-19 pandemic situation,

the cause of stress is not due to academic competition, but because they cannot meet physically".

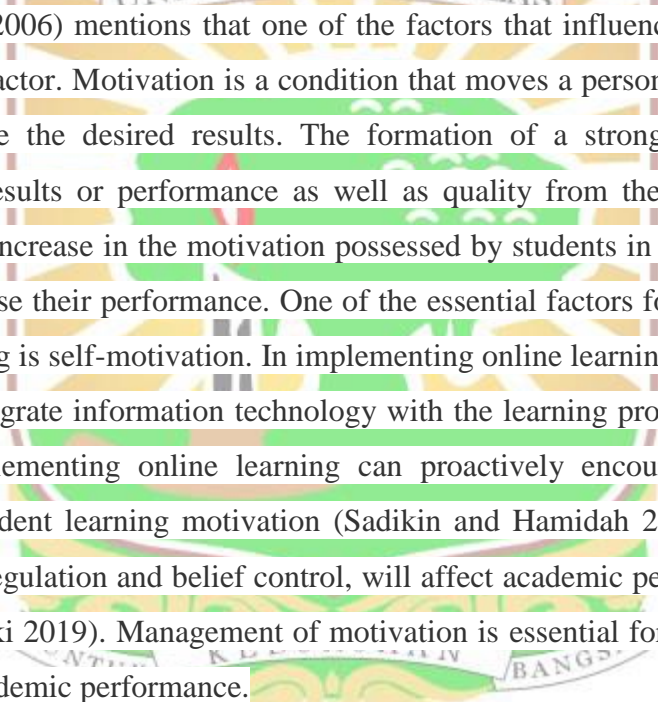
The study results differ from Agustin, Hidayatulloh, and Aminoto (2018) that friend relations are the most dominant factor in student stress levels in adapting to the learning process. Jain's research (2017) also states that competition with other students is a stress source. This study's results also reinforced the research results that express a significant relationship between academic stress and workload (Maharani, 2017).

Andalas University itself also carried out face-to-face learning activities before the Covid-19 pandemic. However, after the Covid-19 pandemic emerged, lectures were carried out through online media. The activity of conducting online lectures is an innovation to answer the challenges of education during the Covid-19 pandemic at Andalas University itself. However, lecturers and students experience several difficulties when implementing online learning, such as:

1. Difficulty in getting an internet signal, having limited internet quota, and having limited supporting devices (computers or laptops)
2. Difficulty adapting to new learning conditions during the covid-19 pandemic;
3. The material described is insufficient, the form of the material provided is limited, and the applications used in online learning by lecturers are also limited (Annur and Hermansyah, 2020). Another challenge faced during online learning is effective communication, such as students' reluctance to activate video cameras and student behavior preferences with audio-only during online learning sessions (Sunasee, 2020).

Therefore, a research is needed relating to the mental workload of online lectures among Engineering Faculty students of Andalas University. Mental workload is the gap between the demands of a job with the maximum mental load capacity of a worker in a motivated condition (Henry, 1988). If work demands exceed one's

capacity, this condition can cause overstress and work accidents. Conversely, if work demands are lower than one's capacity, this can lead to stress and burnout. One of the workload assessment methods is the NASA-TLX method (Sudijeng, 2004). The NASA-TLX method was developed by Sandra G and Lowell E. Staveland in 1981. This method is used to present the subject's mental workload by considering nine factors which are then simplified into six indicators, which are Mental Demand (MD), Physical Demand (PD), Temporal Demand (TD), Performance (P), and Frustration Level (FR). (Hidayat et al., 2013).



Hakim (2006) mentions that one of the factors that influence performance is the motivation factor. Motivation is a condition that moves a person to try to achieve goals or achieve the desired results. The formation of a strong motivation will produce good results or performance as well as quality from the work it does. It means that any increase in the motivation possessed by students in carrying out their work will increase their performance. One of the essential factors for student success in online learning is self-motivation. In implementing online learning, self-motivation is needed to integrate information technology with the learning process (El-Seoud et al., 2014). Implementing online learning can proactively encourage independent learning and student learning motivation (Sadikin and Hamidah 2020). Motivation, especially self-regulation and belief control, will affect academic performance during learning (Almalki 2019). Management of motivation is essential for students with its influence on academic performance.

Based on the above background, it can be seen that motivation is essential for students in finishing their study. Seeing these conditions, the author is interested in seeing whether a pandemic influences student motivation and stress levels to finish their study by conducting a research entitled "**The Impact of Covid-19 Pandemic on Student Performance and Stress Levels in Finishing Study**" (Case Study: Engineering Faculty Students of Andalas University).

1.2 Problem Formulation

The formulation of the problem in this study are:

1. Which indicators most influence students' stress levels for finishing their study?
2. Is there a motivational influence on students in finishing their study?

1.3 Research Objective

The objectives to be achieved in this research are:

1. To determine what indicators influence students' stress levels to finish their study.
2. To determine whether there is a significant influence between motivation for students in finishing their study.

1.4 Research Scopes

Many factors are associated with the level of motivation of students in finishing their study. This study investigates the extent of the pandemic's relationship or impact on student motivation and stress level in finishing their study. In collecting the data for this study, the author would limit this study only focuses on the Engineering Faculty students of Andalas University.

1.5 Outline of Proposal

The systematics of writing a research report consists of several chapters, which will be explained as follows:

CHAPTER I INTRODUCTION

This chapter contains the study's background, problem formulation, the research's objective, research scopes, and the study outline.

CHAPTER II LITERATURE REVIEW

This chapter consists of literature reviews about the Covid-19 pandemic, Large-Scale Social Restrictions / *PSBB*, online learning, motivation, mental workload, NASA-TLX, and quantitative research needed to complete the study.

CHAPTER III RESEARCH METHODOLOGY

This chapter contains the steps undertaken in this research.

CHAPTER IV DATA COLLECTION AND DATA PROCESSING

This chapter contains data collection and data processing results obtained to calculate the mental workload of Engineering Faculty students of Andalas University and hypothesis testing to see the effect of the Covid-19 pandemic and motivation of Engineering Faculty students of Andalas University in finishing their study.

CHAPTER V ANALYSIS

This chapter contains the analysis obtained from the results of data processing that was carried out before.

CHAPTER VI CLOSING

This chapter contains conclusions obtained from the results of research conducted and suggestions needed for further research.

