



Time Management in Digital Activity of International Students during COVID-19

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Abstract— The COVID-19 pandemic has an impact on higher education globally. The rapid changes in the social environment have consequences for the allocation of time to international students' daily activities. This article explores the time management behaviour of international students and their time allocation for digital activities during a pandemic. This study used a qualitative approach with data collection methods using online focus group interviews and in-depth interviews. The subjects of this study were active international students from ten countries. The research findings show that international students make academic activities through online learning a top priority during the COVID-19 pandemic. They use their free time to do exercises on social media platforms, do personal hobbies, and social activities through digital communication media.

Keywords— *Time Management, Digital Activity, International Students, COVID-19*

I. INTRODUCTION

International students have crossed national or territorial borders for educational purposes and are now registered outside their home country [1]. They have learning experiences in international classes covering various global content and discussions [2]. The OECD noted that between 2000 and 2011, the number of international students more than doubled. In 2013, nearly 4.5 million college students were enrolled outside the nationality of their country. The largest number of international students come from China, India, and Korea. Asian students account for 53% of all students studying abroad worldwide [3]. In UNESCO's record in 2017, statistically, there were around 5.3 million international students worldwide, and this figure continues to increase [4].

Globally, many developed countries are experiencing growth in international students. In countries such as the US, UK, and Australia, international education is one of the primary income [5]. In the Indonesian context, the records of the Ministry of Research, Technology, and Higher Education of Republic of Indonesia [6] through the Directorate of Higher Education Institutional Development said that the number of applications for Study Permits for Foreign Students is increasing, namely 150-500 applications every week. Throughout 2016, 6,967 Study Permits were issued.

The Covid-19 pandemic has spread massively to various countries on all continents of the world in 2020's first quarter. World Health Organization (WHO) declared this pandemic as a global disaster. The impact caused by this pandemic is also international. Education is one of the sectors that have been very

significantly affected by the Covid-19 epidemic. According to UNESCO [7], the COVID-19 pandemic has created the most significant disruption in the global education system's history. This pandemic affects nearly 1.6 billion students in more than 190 countries and all continents. The closure of schools, education centers, and other learning spaces has affected 94 percent of the world's student population.

In various countries, national and local governments have implemented rigorous health protocols to suppress the increase in the positive number of Covid-19. Interaction between residents that can be carried out daily outside the home is required to continue at home to break the Covid-19 virus chain. Through physical distancing, the health protocol policy requires residents to work and learn from home to change people's daily habits and behavior. Massive public action occurs because Covid-19 is a digital activity. Lockdowns may have been lifted across many countries, but many of the new digital behaviours that people adopted during confinement have endured, resulting in meaningful increases in various kinds of digital activity [8]. This paper seeks to answer the following questions:

1. What are the response of international students to facing the pandemic?
2. How do international students manage their time in digital activities during pandemic?
3. What are the priorities for students in digital activities during pandemic?

II. LITERATURE REVIEW

A. Time Management of International Students

The term "time management" became known in the '50s to '60s, which refers to an instrument or tool to help organizational managers make better use of the time available. The concept of time management originates from the thinking of Frederick Winslow Taylor, who carried out an initial analysis of the movement and time of workers. This study aims to reduce unproductive work tasks and waste time [9].

Previous researchers developed the ABC (Awareness, Believe, Continuation) model to establish rules for managing time. The ABC model has three basic concepts in analyzing time management behavior as follows:

1) *Awareness:*

When an individual realizes the significance of the activities carried out, every available time can be an opportunity to make it useful. The relationship between time and activity develops an approach to analyzing daily activities, which can be grouped into four levels/quadrants, as shown table below.

2) *Believe:*

When an individual realizes the timing and value, and importance of life goals, he is halfway to success. Focusing on and following the four quadrants will create a habit of doing things over time and with confidence.

3) *Continuation:*

When an individual puts his awareness and belief into practice, he needs a tool or technique. Continued use of time management tools and techniques will lead to success in personal and personal life [10][11].

TABLE I. FOUR QUADRANTS IN THE ABCD MODELS

Particular	Urgent	Not Urgent
Important	1 Exam Preparaton	2 Exercise
Not Important	3 Unimportant phone calls	4 Watching TV and Gaming

Source : (Chowdury,2013; Jinalee et.al, 2018))

Razali's research [9] classified student time management behavior into three main groups: time planning, time attitude, and time waste. The results also showed that students' gender and race did not show significant differences in time management behavior. Mohammed et al. research [12] shows that time management plays a vital role in improving student performance and academic achievement. Every student should have time management skills, including setting goals & priorities, using time management mechanisms, and organizing time.

Students, in general, have hectic and stressful lives. They attend classes, various complete assignments, and study for exams. They also need to have a daily routine and lifestyle to balance academic and non-academic activities. Trying to find the time to do it all at once can be challenging and tiresome. Somebody can put good time management skills can be put into practice. These skills need to be learned by students. They must have the ability to take the necessary approaches and implement them to be effective and more productive [13].

Suyasa & Widyastuti's research [14] found that there are vital factors that can support international students' success in pursuing higher education, including adapting to the environment, culture, and time management of students who are currently studying. Time management skills have a positive impact on learning and student outcomes [15]. Managing time is the foundation for students to develop good study habits and success strategies. Adams [15] confirms that time control has a positive correlation with academic performance.

B. Time Management of Digital Activities During a Pandemic

We can use the VUCA concept to understand the Covid-19 pandemic. VUCA is an acronym consisting of Volatility (unstable condition), Uncertainty (uncertainty), Complexity (complexity), and Ambiguity (ambiguity) [16]. This approach is relevant to describe the wave of the COVID-19 pandemic that is currently hitting many countries. In line with the acronym above, Indonesian society has experienced very significant changes in various sectors, including higher education [17].

Managing the time of a pandemic requires a new approach. The Covid-19 epidemic has challenged human existence. The routine is lost, and the anxiety overwhelms the individual, which can lead to stress. Pandemic times are unique times with so much pressure and fear surrounding Covid-19. Managing work from home in these conditions is somewhat different. New ways are needed to maintain productivity while still allowing time to relax, pay attention to pets, be with family, and other activities to help someone relieve stress [18].

III. METHODOLOGY

This research uses a qualitative approach. This qualitative approach explicitly uses a case study strategy. Case studies are a type of qualitative approach that examines a particular case in a contemporary real-life context or setting. The main procedure involves purposeful sampling [19]. Data collection methods through in-depth interview and focus group interview (FGI) techniques during the May 2020 period. The researcher conducted both online interviews through the Zoom video conference application. Researchers used open-ended questions to explore the subjects' experiences in managing time and daily activities.

The sampling method used a purposive sampling method with specific criteria. Informants are active students and take online learning during the Covid-19 pandemic. The research subjects consisted of twelve international students of privat University at Jakarta, Indonesia and public university at Lafayette, USA. The international students come from Asian culture, European culture, and African culture with origin country such as Malaysia, China, Taiwan, Vietnam, South Korea, Netherland, France, Finlandia, Nigeria, and Indonesia.

Data analysis uses interaction analysis, which involves the following stages of study:

- (1) data collection,*
- (2) data reduction,*
- (3) display data, and*
- (4) concluding.*

The validity of this study used a triangulation procedure. Denzin originally conceived triangulation as a strategy of validation. It use multiple methods, data sources, and researchers to enhance the validity of research findings [20]. This research conduct a triangulation of data sources. In its analysis, this study constructs the main themes and expands the data found during the research.

IV. FINDING AND DISCUSSION

A. *Time Management Behavior of International Student During Pandemic*

The time management behavior of international students at Binus University in planning activities based on their time is divided into three categories: the first category is students who make daily activity plans. The second category is students who regularly plan weekly activities. The third category is students who do not specifically plan daily or weekly activities.

The first group of students always observes what activities must be done based on the daily learning schedule. They do it every day in the morning. The second group looked at the activity plan more comprehensively regarding what they wanted to produce in the next week. For the third group, they chose to rely on Binusmaya to carry out their daily activities. The three categories of students make planning activities based on the university's learning agenda provided in the Binusmaya digital platform. Learning plans and scheduling at Binusmaya are the primary considerations in determining the time allocation for international students to carry out their daily activities during the Covid-19 pandemic.

Before the pandemic, students did many activities outside the home and dormitories. They love to meet various people and do outdoor activities together. One of the motives for international students to study in other countries is their eagerness to learn new things not found in their own countries. That's why international students tend to explore new things in their places of study in other countries. Through these kinds of meetings, they practice learning informally outside the classroom.

B. *Digital Activity of International Students during COVID-19*

Since the Covid-19 outbreak in March 2020, the learning system is transforming online through assignments or video conferencing. Some informants expressed difficulties with the pandemic. The challenges experienced by international students include being in the house/building for a longer time than usual and facing so many lecture assignments. They feel alone and bored when faced with a lot of college assignments. Some of them admit that they don't like multiple online tasks. They, more like lectures, are more fun when done through face-to-face interactions. However, this problematic condition does not reduce their commitment to allocating time to work on online college assignments.

International students have priority time to complete various assignments from campus via the online application. The Binus University campus provides a means of online learning through an application called Binusmaya. Students and lecturers can interact online through Binusmaya. In this application, all learning plans, primary materials, learning methods, assessments, and assessments are available and accessed 24 hours.

Informants stated that their priority during the pandemic was to fulfill their online assignments from the university's lecturer. They do online projects, online teaching, and follow various information and learning updates from universities. They prioritize lectures because of their awareness that courses are their primary task. International students' attention to completing the course on time gives them a more significant opportunity to take new credit for their studies next semester. Academic activities get most of the time that students own, even though the distribution of time varies. It depends on what has been scheduled by the university.

This research is in line with Muhammed's research [12] conducted in the pre-pandemic period. In the times before COVID-19, students spend most of their time in affairs related to their studies. This time is determined and practiced for certain activities related to education. Students used short term time planning for specific times and assignments. The culture of planning and using time properly should get more attention from students [12].

The daily activities by international students besides academic activities are personal activities and social activities. The academic and non-academic activities involving other people are carried out online. After complete all the tasks available at Binusmaya, they take time for personal activities. Every morning their attention is focused on Binusmaya as their navigation in carrying out activities on that day. Student personal activities are related to relationships with other people, hobbies, and self-development. Several types of non-academic activities that are personal, namely:

1. *Activities aimed to maintain relationships with other people. The first type to maintain relationships with other people includes talking with family members and friends to playing games with friends.*
2. *Activities aimed to improve hobbies. The second type of activity includes cooking, photography, and playing games by himself/herself.*

3. *Activities aimed at maintaining health. The third type of activity includes sports by running in or in the home environment while maintaining health protocols, walking, meditation, and yoga.*

4. *Activities aimed at learning informally. The fourth type of exercise is digital activities using the internet, such as social media activities, searching, and browsing to follow various updated information. Both information related to Covid-19 and information about developing personal skills such as photography and coding.*

In some activities, intersections appear between these types of activities. An example is informal learning activities through sites available on the internet to improve personal skills for their hobbies.

International students start doing daily activities according to their choice, awareness, and belief to do their activities well. They wake up in the morning and start their main activities that very morning, but some start it during the day. Students who have a habit of working in the morning will use their productive time to work on assignments since the morning. Apart from the morning, international students also work on tasks in the afternoon.

Among them, some international students have been doing social media activities since the morning. Only in the afternoon do they start online lecture activities. During the day, international students work on various online lectures that are their priority. They do sports activities in the morning or evening. Sport becomes an activity in the morning before they take part in online learning, while for afternoon sports, they do it after online learning. For students who join the organization, the afternoon is when they choose to carry out these social activities.

The selected social activities are organizations related to students' interests and talents, such as guitar clubs, music clubs, sports clubs, and student associations. The social activity activists held online meetings every two days to once a week. Even though they cannot do activities together, they begin to prepare the program in the following semester. All informants stated that they did not have professional jobs apart from being students.

They do non-academic activities like social media activities, playing games, calling friends, or family members at night. This study found that during a pandemic, international students roughly divide their time into several parts. The following table is an overview of the time allocation for Binus University international students during the Covid-19 pandemic in the even semester 2019/2020:

TABLE II. TIME ALLOCATION OF INTERNATIONAL STUDENTS

Time	General Activity	Digital Activity	
		Yes	No
Early Morning to Noon 05.00 am- 11.00 am	<ul style="list-style-type: none"> • Wake up • Online Class • Doing campus assignments • Social Media Activities • Sports 	√	
Noon to Afternoon 11.00 am- 05.00 pm	<ul style="list-style-type: none"> • Online Class 	√	
Afternoon to Night 05.00 pm- 11.00 pm	<ul style="list-style-type: none"> • Doing campus assignments • Social Media Activities • Social/Organizaton Activity • Sports • Talking with parents • Calling friends 	√	
Night to Early Morning 11.00 pm- 05.00 am	<ul style="list-style-type: none"> • Playing Games • Social Media Activities • Sleep 	√	

Source : (Tri Adi Sumbogo, et.al, 2020))

During a pandemic, social media is one of the tools that help the interaction process between individuals. Communication technology through digital platforms provides information and facilities to interact and exchange news. During the pandemic by international students, social media activity has two types divided into non-users and active users. For non-user students, it does not mean that they do not interact using computers or internet media. They use online games to interact with their friends.

For active users, they use social media such as Instagram, Whatsapps, LinkedIn, Facebook, Snapchat, and Line. For active social media users, they use social media for 1 - 4 hours per day. The length of time using social media depends on their needs. The motives for using social media such as:

1. *Making contact with friends.*
2. *Talking with family members.*
3. *Doing activities that support the completion of college assignments.*
4. *Organizing.*
5. *Reducing boredom.*
6. *Improving language skills through online chat*

V. CONCLUSION

Pandemic, as a global crisis, changes human behavior in managing time. The epidemic has created a new routine for global citizens, including international students. The daily activities transform from offline to online channel communication—academic and non-academic activities drive-by digital technology. As their primary task, the university's educational affair is the center of attention and priority to manage their time. The limited space spectrum makes international students experience boredom. They try to make a way out of dealing with this boredom by using their spare time to do entertaining activities such as: contacting relatives through media communication, cooking, and sports. They have more time to communicate with family and friends than before the pandemic.

The pattern of time management approaches and their relationship with the study's success has changed the meaning of time priority—digital activities through communication technology seen as important, necessary, and time-consuming activities. Digital activities allow every citizen to develop their potential and increase productivity through the time they spend.

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