# Chapter I

#### **INTRODUCTION**

This chapter presents the background of the study, statement of the problem, significance of the study, and scope and delimitation. Background of the Problem

Coronavirus was declared a global pandemic by the World Health Organization on March 11, 2020. The virus has since killed more than 15 fifteen thousand people across in the Philippines, and taken some two point six million lives around the world (WHO,2020). The outbreak of coronavirus diseases (COVID-19) has been substantially influencing the life and living of people across the world. Hence, many countries implemented a range of anti-epidemic measures, such as restricting travel for foreign nationals (Zhai & Du, 2020), closing down public spaces, and shutting down the entire transit system (Ahmed et al., 2020; Chen & Yuan 2020), to contain the transmission of the highly contagious infections from human-to-human.

Following the detection of first COVID-19 case on March 1, 2020 (Edrada et al., 2020), The Philippines like many other countries put the lockdown strategy into effect on March 16, 2020, to ensure 'social distance' through 'home quarantine' to curb the 'spread' among its population (Official Gazette Philippines, 2020). This unprecedented experience of 'home quarantine' under lockdown with the uncertainty of academic and professional career has multifaceted

impacts on the mental health of students. The ongoing COVID-19 pandemic is creating a psycho-emotional chaotic situation as countries have been reporting a sharp rise of mental health problems, including anxiety, depression, stress, sleep disorder as well as fear, among its citizens (Gritsenko et al., 2020;Xiao et al., 2020;Savitsky et al., 2020; Roy et al., 2020; Ahorsu et al., 2020) that eventually increased the substance use (Gritsenko et al., 2020) and sometimes suicidal behavior (Mamun & Griffiths 2020), (Goyal et al., 2020), & (Russia Today, 2020).

Many students suffer from anxiety when facing difficult academic tasks. On November 06, 2020, The academic break towards a collective struggle for education during Covid-19 that was requested by the entire students at the Technological University of the Philippines was canceled by Dr. Torres (TUPC-USG-Cavite, 2020). However, school and administration prefer a consolidation week (TUPC-USG-Cavite, 2020). As a result, The USG's students at the Technological University of the Philippines - Manila created the logo due to the cancelation of the academic break. Recently, the Logo has been trending on social media, because it was supported by many students including TUP-C's students (USG TUP Manila, 2020). Many students believe that a lot of school work during covid-19 was the reason why they have felt an anxiety. This initial perception fails to take into account, so it is essential to gain more understanding of

their engagement with this issue. To date, there are no studies that examine how many students were affected by generalized anxiety disorder at the Technological University of the Philippines - Cavite. Given the unexpected circumstances, it is crucial to explore the psycho-social experience of students at the Technological University of the Philippines -Cavite, especially during the COVID-19 pandemic. Such a study is expected to measure the psychological impacts of an unforeseen emergency on students, as well as to formulate and execute effective interventions and strategies to mitigate the mental health of people at large. This study was designed to address the psychological problems experienced by students at the Technological University of the Philippines - Cavite.

# Statement of the Objectives

The purpose of this study was to investigate the prevalence of generalized anxiety disorder (GAD) among students at the Technological University of the Philippines during the COVID-19 pandemic. It also aimed at identifying the determinants of anxiety. In accordance with this, it will answer specifically the following questions:

- 1. Describe generalized anxiety disorder (GAD) of student.
- 2. What are the factors that influence Generalized Anxiety Disorder among the students during the pandemic Covid-19?

3. What is the relationship between the effects of Covid-19 and Generalized Axiety Disorder?

Significance of the study

This study would be beneficial to the following:

- 1. Students this study would be beneficial to them since generalized anxiety disorder (GAD) is one of the factors that affect the academic performance of the students. By that, they would be able to know how it affects them and how they could avoid encountering them.
- 2. Teachers this research could give them awareness on how anxiety affects the overall students' academic performances. Not all teachers understand the signs of generalized anxiety disorder and the effects of it on their students. If teachers can recognize the signs, they can help the students cope an academic anxiety, and at the same time they can help the students' perform well in class.
- 3. Parents this study would be valuable to every parent as it will help them in guiding their children in their daily academic performance and also, they can be assured that their children are having healthy personality or if not, they can easily detect the problem and the do the necessary measures.
- 4. Administrators this research study could be helpful to the administrators as it will serve as their reference or basis for their

future research study relating to the students' stressor at the Technological University of the Philippines -Cavite during Covid-19.

# Scope and Delimitation

This study is focused to examine the prevalence of Generalized Anxiety Disorder (GAD) among subject students or protégé, and also to identify the psychological problems they have been encountering at the Technological University of the Philippines - Cavite amidst the Covid-19 pandemic. In this study, the researchers will use crosssectional research, the researchers observe variables without influencing them. Hence, researchers will undergo through the process of survey questionnaire with students in the same campus regardless of age and gender. Furthermore, due to ethical requirements on confidentiality, the contact details of the respondents were not collected. The e-questionnaire allows to assess the prevalence of GAD among students while maintaining the World Health Organization (WHO) recommended "social distance" during the COVID-19 pandemic, which otherwise would be impossible, the snowball sampling strategy was chosen by researcher instead of random samples. Since the research methodology could not reach people with medically examined anxiety symptoms, the provision of the results may not fully reflect the severity of anxiety symptoms among students. Another limitation of the study is not using the tools

designed specifically for the COVID-19 pandemic, such as the coronavirus anxiety scale (CAS).

# Chapter II

#### REVIEW OF RELATED LITERATURE AND STUDIES

This chapter consists of the review of related literature and studies, theoretical framework, hypothesis, and operational definition of terms

#### Anxiety

The word anxiety is derived from Latin word "angere," meaning to cause distress (Sharma & Sharma, 2015). Anxiety has also been defined as a vague, uncomfortable feeling exacerbated by prolonged stress and the presence of multiple stressors (Lazarus & Folkman, 1984). A cross-sectional study done by Tan (et, al. 2013) revealed that the prevalence of anxiety in Filipino COPD patients is 47.55%. Normative anxiety may include being concerned about issues such as money, health, and/or family problems, but those with an anxiety disorder are extremely worried about these or other things, even when there is little or no reason to worry about them. They are very anxious about getting through the day, have a negative outlook, and think that things will go wrong (National Institute of Mental Health, 2016).

Anxiety disorders feature excessive fear or anxiety that persist developmentally appropriate lengths of time. These disorders cause clinically significant impairment or distress in important areas of functioning (American Psychiatric Association, 2013). The different

types of anxiety disorders are categorized by the type of objects or situations that cause the anxiety and can have different ages of onset (American Psychiatric Association, 2013).

# Generalized Anxiety Disorder

One type of anxiety is Generalized Anxiety Disorder (GAD), GAD is a common anxiety disorder, it is marked by excessive, exaggerated anxiety and worry about everyday life events for no obvious reason (National Institute of Mental Health, 2016). People with symptoms of generalized anxiety disorder tend to always expect disaster and can't stop worrying about health, money, family, work, or school (Anxiety and Depression Association of America). This type of anxiety is found to be more prevalent among adolescent, based on diagnostic interview data from National Comorbidity Survey Adolescent Supplement (NCS-A), the prevalence of generalized anxiety disorder among adolescents was higher for females (3.0%) than for males (1.5%) (National Institute of Mental Health, 2016).

To meet criteria for an anxiety disorder diagnosis, the individual must experience the excessive anxiety and worry that he/she finds difficult to control for at least six months to the extent which it causes significant distress or impairment in functioning. The individual must also experience three or more of these symptoms: sleep disturbances, difficulty concentrating, restlessness, fatigue, irritability, and muscle tension.

Generalized Anxiety disorder can also start during the teen years or young adulthood as peer interaction becomes increasingly important (National Institute of Mental Health, 2016). Symptoms may get better or worse at different times, and often are worse during times of stress. Young adults often use maladaptive coping skills such as safety or avoidant behaviors, risk-taking behaviors, alcohol and/or drug abuse to try to manage their anxiety alone. Many of these will reduce the symptoms in the short-term, while continuing to strengthen and maintain the disorder in the long term (American Psychiatric Association, 2013).

Completing assignments, concentrating work, doing on homework, grades, getting aood giving oral reports, taking tests/exams, and writing in class are some of the academic tasks that may indicate overall academic performance (Nail et al., 2015). generalized anxiety disorder (GAD) can affect all these tasks, but concentrating on work was found to be the most frequently reported academic difficulty of those with GAD. These findings are applicable to the college student population because when anxiety develops in youth and goes untreated, this can lead to maladaptive coping skills throughout development (American Psychiatric Association, 2013). For example, if an individual develops anxiety in elementary, middle, high school and it is not treated, they may abuse alcohol or drugs to cope, which can have negative consequences for many areas of his/her life. Generalized anxiety disorder, as well as other forms, may affect students' ability to engage with faculty and their peers, which can be an important aspect of academic achievement (Gougen, 2010).

As an individual go from college university, the difficulty during covid-19 increases as well as the level of pressure to perform well. For those with generalized anxiety disorder, this may cause the anxiety to increase as well. According to Schleicher (1983), Learners who don't have access to digital learning resources or lack the resilience and engagement to learn on their own, are at risk of falling behind.

Garcia & Weiss also showed (2020) that the regarding online learning and teaching showed that they are effective only if students have consistent access to the internet and computers and if teachers have received targeted training and supports for online instruction.

There are lots of work inside the school especially during pandemic, and some students still do not have what they need for online class, such as computer and internet connection. According to American Psychiatric Association (2013) work and school performance are often domains that individuals with anxiety persistently and excessively worry about.

The effects of the covid-19 for the students is alarming because generalized anxiety disorder (GAD) can go undetected and/or untreated and continue to affect social, occupational, academic, or other important areas of functioning.

Generalized Anxiety Disorder & Covid-19

The coronavirus disease 2019 (COVID-19) pandemic may be stressful for people. Fear and anxiety about a new disease and what could happen can be overwhelming and cause strong emotions in adults and children. Public health actions, such as social distancing, can make people feel isolated and lonely and can increase stress and anxiety (Hwang, 2020).

During the pandemic, Generalized Anxiety Disorder has increased. Earlier studies in philippine show that the students report moderate-to-severe psychological impact of the COVID-19 pandemic, and their findings found that the home quarantine is associated with depression, anxiety and stress symptoms (Lee, et al., 2020).

Sasangohar (2020) study showed among 195 students at Texas A&M University, 138 (71%) of students indicated increased stress and anxiety due to the COVID-19 outbreak. Another study done by Saadé, et al., (2020), out of 1377 students, 30% of students seem to experience some sort of anxiety with online courses. Female students are more anxious about taking online courses than male. Generalized anxiety disorder was also prevalent mostly among students with no physical exercise (61.95%) during Covid-19 pandemic (Islam, 2020). Hence, there are many factors that influenced generalized anxiety disorder during Covid-19. Researchers in China was found that the greater exposure to 'misinformation' through social media are more

likely contributing to the development of generalized anxiety disorder, and other mental health problems among its population of different socioeconomic background (Bao et al., 2020; Cao et al., 2020; Gao et al., 2020; Chen et al., 2020).

In this lockdown period, these events are necessary to pay attention, take care for your mental health will help you to get better in everyday life. The good news is that GAD is treatable, GAD sometimes runs in families, but no one knows for sure why some family members have it while others don't. Researchers have found that several parts of the brain, as well as biological processes, play a key role in fear and anxiety (National Institute of Mental Health, 2016). Aside from this, there are ways to help young people cope with the current situation including establishing an open dialogue, creating a structured daily routine with a schedule with assigned roles, and using social media and video conferencing to remain socially connected (Lambrese, 2020). Another study done by Ozmete & Pak (2020) generalized anxiety disorder levels decreased significantly when perceived social support increased. Lastly, Stronger resilience and usage of humor were associated with significantly lower anxiety levels (Savitsky et al., 2020).

On the other hand, according to the result done by Fullana (et al, 2020). Following a healthy/balanced diet, following a routine, not reading news/updates about COVID-19 very often, taking the

opportunity to pursue hobbies, and staying outdoors or looking outside were the best predictors of lower levels of anxiety symptoms.

Sometimes GAD is too severe and can no longer resist, people with severe anxiety are necessary to have treatment from a doctor or psychiatrist. GAD is generally treated with psychotherapy, a type of psychotherapy called cognitive behavioral therapy (CBT) is especially useful for treating GAD. CBT teaches a person different way of thinking, behaving, and reacting to situations that help him or her feel less anxious and worried (National Institute of Mental Health, 2016). TheoreticalFramework

For this study, the researchers utilized the Rational Emotive Behavior Therapy (REBT): Theory, proposed by Albert Ellis, Cognitive Therapy: Theory, proposed by Aaron Beck. Lastly, the Psychodynamic Theory proposed by Sigmund Freud.

Albert Ellis defines student's intense suffering from negative emotion was caused by their irrational core beliefs. Core beliefs refer to the basic beliefs people have about themselves and the world around them. For instance, students thought "I'll probably fail this test" may stem from a core belief "I must always achieve complete success or else I am a complete failure" Irrational core beliefs cause the negative emotions that lead to anxiety to the students (Lim, 2003, p79).

Aaron Beck is slightly different from Albert Ellis. He defines Students' internal thoughts and perceptions had a large influence on their emotions. He also believed that a more active and directive approach to modify thoughts would positively influence behavioral change. These thoughts characteristically pop into a person's mind. For example, the signal of the internet was weak, so the student often did not attend at school, negative automatic thoughts are triggered. They make a person feel even more worrying thus setting up a vicious cycle of thoughts, symptoms of anxiety and more negative thoughts (Lim, 2003, p81).

On the other hand, Sigmund Freud opined that anxiety results from aggression turned against oneself, following the loss of an ambivalently loved object. Persons who have anxiety experience a loss of self-esteem (Lim, 2003, p83).

Albert Ellis and Aaron Beck's definition is the most relevant to the aims of this study, given the emphasis on students' internal thoughts and core beliefs was the reason to influence their negative emotion. Although Sigmund Freud says the loss of an ambivalently loved object was able to cause anxiety, there is no distinction between Covid-19 pandemic and student's anxiety comparisons in their definition. The effects of the Covid-19 pandemic claims that were the reasons why students have experienced anxiety during pandemic, and also students' who were facing their academic performance during

pandemic; as a result, student's core beliefs and internal thoughts will play an important role in their academic performance during pandemic.

## Hypothesis

On the basis of the review of related literature and studies the following are formulated:

 $H_0$ : The predictors variables (our independent variables) do not have a significant effect influencing generalized anxiety disorder (our predicted/dependent variable) among students.

 $H_1$ : Female respondents will be more likely to report generalized anxiety disorder generalized anxiety disorder (GAD).

H<sub>1</sub>: Respondents who have exercises during pandemic will be less likely to report generalized anxiety disorder (GAD)

H<sub>1</sub>: Respondents who have stable internet connection were less likely to report generalized anxiety disorder (GAD)

 $H_1$ : Respondents living with family were less likely to report GAD

# Operational Definition of Terms

1. Covid-19 - a mild to severe respiratory illness that is caused by a coronavirus (Severe acute respiratory syndrome coronavirus 2 of the genus Beta coronavirus), is transmitted chiefly by contact with infectious material (such as respiratory droplets) or with objects or surfaces contaminated by the causative virus, and is characterized

especially by fever, cough, and shortness of breath and may progress to pneumonia and respiratory failure

Generalized Anxiety Disorder During Covid-19 Among Students

2. Generalized Anxiety Disorder (GAD) - Generalized anxiety disorder is one of the common type of anxiety disorder, it is marked by excessive, exaggerated anxiety and worry about everyday life events for no obvious reason. People with symptoms of generalized anxiety disorder tend to always expect disaster and can't stop worrying about health, money, family, work, or school

## Chapter III

#### **METHODOLOGY**

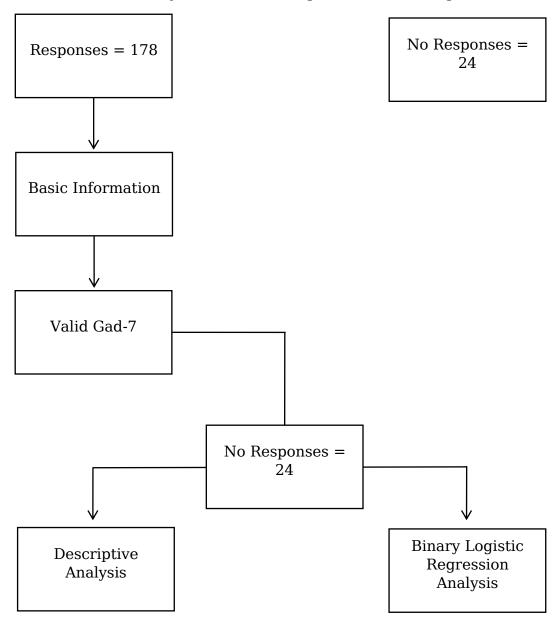
This chapter comprises the research design, sample, instruments, procedure and statistical treatment.

# Research Design

The researchers chose Cross-Sectional research as the method of this research study. Cross-Sectional type of research investigates present time phenomena and uses interviews and surveys to collect data from many different individuals at a single point in time which applies to the whole system of this study (Campbell, et al. 2007). This is, for the reason that this research investigated the prevalence of generalized anxiety disorder and to address the psychological problems experienced by students at the Technological University of the Philippines - Cavite.

The Flowchart show the procedure on the descriptive analysis and binary logistic regression analysis based on the GAD-7 result and the Basic Information of each respondent in January 2021. Hence, Cross-Sectional research design is well-suited in this research.

Figure 1. Flowchart (see nextpage)



Sample

The Snowball sampling technique was used for collecting information from students. Snowball sampling is defined as a non-probability sampling technique in which existing subjects provide referrals to recruit samples required for a research study (Johnson, 2014). An informed consent form was attached to the e-questionnaire and each participant consented to participate in the survey after

reading the consent form. The participants were asked to share the equestionnaire with their friends using their personal and institutional Facebook and Messenger.

#### Instrument

The researchers conducted a survey that was used as an instrument tool for data gathering and analysis of the study. The survey questionnaire included different statements that will allow the reflection of each respondents' routine and perception regarding to the topic thus, the questionnaire was divided into two sets; Basic Information and Valid GAD-7.

#### Basic information

'Basic Information' contained the personal information of the respondents. Current 'age' of students ('17-20', '21-24', '>24'), whether the student is 'lagging behind study on E-learning' ('yes' and 'no'), doing any sorts of 'exercise during lockdown' ('yes' and 'no'), students who did 'computer/laptop' during lockdown ('yes' and 'no'), the gender of the student ('male' and 'female'), students who have 'internet connection' issue ('stable' and 'Unstable'), is he/she 'living with family' during lockdown ('yes' and 'no').

# Generalized Anxiety Disorder-7

Anxiety was evaluated by using the generalized anxiety disorder (GAD-7). In the questionnaire, the questions were used for screening anxiety states of an individual on a scale ranging from '0 = not at all sure' to '3 = nearly every day' (Spitzer et al., 2006). GAD-7 has been

found successful in identifying anxiety among different populations and thus used for its reliability (Hossain, 2019). The levels of anxiety for the study were categorized as 'none-minimal = <5,' 'mild = 5-9,' 'moderate = 10-14 and 'severe =  $\ge 15$ .'.

## GAD-7 Reliability and Validity

From November of 2004 through June of 2005 a criterion-standard study was performed in 15 primary care clinics in the U.S. 965 patients who had completed the GAD-7 were also evaluated by a mental health professional. The 7-item anxiety scale (GAD-7) had good reliability, as well as criterion, construct, factorial, and procedural validity. A cut point was identified that optimized sensitivity (89%) and specificity (82%) with test-retest reliability with ICC=0.83. (Spitzer et al., 2006). Making the GAD-7 a valid and efficient tool for screening for generalized anxiety disorders and even assessing its severity in a clinical practice scene (Swinson, 2006)

#### Procedure

The survey was conducted in the second week of January, from January 12 to January 18 2021. Students enrolled at the Technological University of the Philippines - Cavite were the target population. An easy to understand questionnaire was used to collect 'basic information,' and 'anxiety' related information. An online-based platform was used to distribute the e-questionnaire, developed by using the Google Form, to the students. College Students from

Technological University of the Philippines - Cavite in the Philippines were contacted through different social networks and interviewed (see Fig 1).

#### Statistical Treatment

Frequency tabulation was used to summarize basic information of respondents, as well as their response to generalize anxiety disorder (anxiety). Binary logistic regression (Hosmer & Lemeshow, 2000) was used to identify variables influencing anxiety among students by categorizing the outcome variable into two categories, i.e., anxious = 'yes' and 'no,' which would provide a clearer idea about how intensely different factors are influencing the outcomes. The data gathered in this study were analyzed using SPSS to predict a logit transformation of the probability of the presence of generalized anxiety disorder

Rather than choosing parameters that minimize the sum of squared errors (like in ordinary regression), estimation in logistic regression accepts parameters that maximize the likelihood of observering the sample values.

Table 1 below shows the research problem and the corresponding statistical treatment used in the study.

Table 1. Research Problem and the Statistical Treatment

Research Problem	Statistical Treatment
1. Describe generalized anxiety	% & f

disorder (GAD) of student.

2. What are the factors that influence generalized anxiety disorder (GAD) among the students during the pandemic Covid-19?

OR

3. What is the relationship between the effects of Covid-19 and generalized axiety disorder (GAD)?

P-Value & r

# ${\it Chapter \, 4}$ PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

This chapter includes the presentation, analysis and interpretation of data.

Table 2 shows the descriptive information of different selected variables of the student at the Technological University of the Philippines - Cavite.

Table 2. Frequency table for different selected variables.

Variables	Frequency	Percent
Age		
17-20	103	57.9%
21-24	68	38.2%
>24	7	3.9%
Lagging academically		I
Yes	142	79.8%
No	36	20.2%
Exercise		<u> </u>
Yes	89	50.0%
No	89	50.0%
Has computer or laptop		<u> </u>
Yes	138	77.5%
No	40	22.5%
Gender		1
Male	89	50.0%

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Female	89	50.0%
Internet Connection		
Stable	86	48.3%
Unstable	92	51.7%
Living with family		
Yes	163	91.6%
No	15	8.4%
Anxiety		
Minimal (<5)	27	15.2%
Mild (5-9)	58	32.6%
Moderate (10-14)	52	29.2%
Severe (≥15)	41	23.0%

Table 2 shows that more than two-thirds of the students (84.8%) were experiencing mild to severe anxiety. More than 75% of the students lived with family (91.6%), the rest were living without family. Same study done by Lee et al., (2020) that the students reported moderate-to-severe psychological impact of the COVID-19 pandemic. The number of females (50%) is just the same as the number of males (50%), and just 50% reportedly exercise regularly during the lockdown at home.

You would also see in this table that the majority of students (79.8%) believed that they were academically lagging, which means, there are some obstacles in conducting online learning. There is one study identified three major obstacles in conducting online learning: the first is availability and sustainability of internet connection, the

second is accessibility of the teaching media, and the last is the compatibility of tools to access the media (Agung, 2020). However, You will see, Even though, 77.5% of the students have computer or laptop and 48.3 % of them have stable internet connection, many of them still fall behind in online class.

Table 3 shows the prevalence of generalized anxiety disorder (GAD) among students at the Technological University of the Philippines -Cavite.

Table 3. Result of Generalized Anxiety Disorder-7 (GAD-7)

	Generalized Anxiety Disorder						
	Minimal	Mild	Moderate	Severe			
Age	Age						
17-20	9 (5.1)	35 (19.7)	27 (15.2)	32 (18.0)			
21-24	13 (7.3)	23 (13.0)	23 (13.0)	9 (5.0)			
>24	5 (2.8)			2 (1.1)			
Lagging academically	L	<u> </u>					
Yes	20 (11.2)	50 (28.7)	40 (22.5)	32 (18.0)			
No	7 (3.9)	10 (5.6)	10 (5.6)	9 (5.0)			
Exercise							
Yes	17 (9.6)	30 (17.4)	24 (13.5)	18 (10.0)			
No	10 (5.6)	30 (16.9)	25 (14.0)	24 (13.5)			
Has computer or laptop							
Yes	20 (11.2)	50 (28.7)	35 (19.7)	33 (18.5)			
No	7 (3.9)	10 (5.6)	14 (7.9)	9 (5.0)			
Gender							
Male	19 (10.7)	26(15.0)	23 (13.0)	21 (11.8)			

Female	8 (4.5)	34 (19.1)	26 (14.6)	21 (11.8)
Internet Connection				
Stable	9 (5.0)	31 (18.0)	29 (16.3)	17 (9.6)
Unstable	18 (10.0)	29 (16.3)	20 (11.2)	25 (14.0)
Living with family				
Yes	22 (21.4)	57 (32.6)	44 (24.7)	40 (22.5)
No	6 (3.4)	2 (1.1)	5 (2.8)	2 (1.1)

Out of the total 178 valid participants, 151 (84.8%) students exhibited mild to severe generalized anxiety disorder. Meanwhile, students suffering from an anxiety disorder, males (46.35%) had lower anxiety symptoms than females (53.64%), whereas students in the late twenties (62.25%) showed higher anxiety. Generalized anxiety disorder was also prevalent mostly among students with no physical exercise (52.31%), troubled with the thought of lagging behind others academically (80.79%). Moreover, students who have computer/laptop (78.14%), stable internet connection (50.99%) and students living with families (93.37%) also showed symptoms of anxiety.

Table 4 shows the binary logistic regression model predicting generalized anixety disorder to identify the determinants of generalized anxiety disorder (GAD).

Table 4. Binary logistic regression between GAD and Basic Information

	Generalized Anxiety Disorder			
Variables	Beta	P value	OR	95%
				Lower- Upper

Generalized Anxiety Disorder During Covid-19 Among Students

Lagging academically					
Yes	0.82	0.131	2.28	0.78	6.65
No <sup>ref</sup>	1.00				
Exercise		<u> </u>	<u> </u>		I
Yes	-0.67	0.147	0.51	0.21	1.26
No <sup>ref</sup>	1.00				
Has computer or laptop	ı	<u> </u>	<u> </u>	I	1
Yes	-0.9	0.872	0.91	0.31	2.70
No <sup>ref</sup>	1.00				
Gender	<u> </u>	<u> </u>	<u> </u>	<u>I</u>	1
Female	0.75	0.098	2.14	0.87	5.27
Male ref	1.00				
Internet Connection					
Stable	0.87	0.074	2.39	0.92	6.21
Unstable <sup>ref</sup>	1.00				
Living with family		<u> </u>			
Yes	1.47	0.017	4.36	1.30	14.65
No <sup>ref</sup>	1.00				

Table 4 reveals that students who thought that s/he was lagging behind others in academic activities were 2.3 times (95% CI: 0.78-6.65 was more likely to be anxious than the student with no such worries. Students with stable internet connection were 2.4 times (95% CI: 0.92-6.21), more likely to show mild to severe anxiety symptoms than students' with unstable internet connection. Moreover, female respondents were 2.1 times (95% CI: 0.78-6.65) more likely to report generalized anxiety disorder than male. On the other hand, students

have exercise regularly during the lockdown were 0.51 times (95% CI: 0.31-2.70) less likely to show mild to severe anxiety symptoms, students who have gadgets such as laptop and computer were 0.9 times (95% CI: 1.099-2.883) less likely to exhibit mild to severe anxiety symptoms than students with such worries with their gadgets. Students living with families were 4.3 times (95% CI: 1.30-14.65), more likely to have mild to severe anxiety symptoms than students staying away from families during the lock-down.

Table 5 shows the Pearson's r and the P-value of each predictor variables based on the Generalized Anxiety Disorder - 7 scales.

Table 5. Relationship between predictors variables and generalized anxiety disorder

Pair	$\mathrm{H}_1$	r	p/sig
Female respondents & GAD	μ1> μ2	0.610	0.098
Students with exercises & GAD	μ1< μ2	0.145	0.147
Students with stable internet connection & GAD	μ1< μ2	0.920	0.074
Students living with family & GAD	μ1< μ2	0.005	0.017

Table 5 shows that a.) Students with no exercise during lockdown found to have not a statistically significant relationship with the generalized anxiety disorder (GAD) b.) same as students with stable internet connection. Moreover, c.) though female students were

more anxious than male, but they are found to have not statistically significant relationship with generalized anxiety disorder (GAD) d.) On the other hand, students living with family were found to have a statistically significant relationship with the GAD.

There are possibilities that GAD runs in families, but no one knows for sure why some family members have it while others don't. Based on research done by McLaughlin et al., (2020) The individuals with GAD were more likely to have family members with anxiety problems, but not other psychological problems. However, there is one study who found that there is little evidence as yet that identified family factors are connected to child anxiety, rather than to child psychopathology in general (Bogels et al., 2006).

The family remains the most important social context to positively influence students and there are some factors which can cause anxiety to them. These factors are Fear of death, uncertain outcome, emotional turmoil, financial concerns, role changes, disruption of routines, and unfamiliar hospital environments are a few sources of anxiety for family members. Therefore, family played a vital role to the students by providing positive support, comprehend information, maintain patterns of adequate family function and use effective coping skills —for each other (Leske 2020)

# Chapter 5

#### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary, findings, conclusions and recommendations of the study.

#### Summary

The COVID-19 pandemic was the most challenging crisis for public health in the world. All the nations across the globe have been suffering from the corona virus diseases and it could bring psychological outcomes to the people of all ages, i.e., anxiety and stress among children and/or parents. College students are no exceptions to this since they are dealing with uncertainty during coronavirus with Reach Out Schools' classroom activity. Given such circumstances, the main goal of this study was to investigate the prevalence generalized anxiety disorder (GAD) among the students at the Techonological University of the Philippines -Cavite during the COVID-19 pandemic and to explore the factors influencing the presence of GAD. For this study, the researchers utilized the Rational Emotive Behavior Therapy (REBT): Theory, proposed by Albert Ellis and Cognitive Therapy: Theory, proposed by Aaron Beck. Their definition is the most significant to the goals of this study, given the emphasis on students' internal thoughts and core beliefs was the justification to impact their

adverse feelings in the midst of covid-19. The hypothesis of this research claim that female respondents or those who have exercises during pandemic, will be more likely to report GAD, and those who have stable internet connection or those living with family, were less likely to report GAD.

In this study, the researchers used cross-sectional research wherein the identified factors were regarded as associated factors, which could be the cause of anxiety. The snowball sampling strategy were chosen instead of random samples, the valid gad-7 and basic information questionnaire was used as an instrument. Furthermore, Binary logistic regression was used to identify variables influencing anxiety among students and frequency tabulation was used to summarize basic information of respondents, as well as their response to generalize anxiety disorder (anxiety).

## Findings

The findings of the web-based cross-sectional survey indicated that more than two-thirds of the students were experiencing mild to severe Generalized Anxiety Disorder (GAD) (84.8%). Students with no such exercise (P-value = 0.147), stable internet connection during lockdown (P-value = 0.074), and female respondents found to have no significant relationship with generalized anxiety disorder (P-value = 0.098). On the other hand, students living with family was the only

found to have a statistically significant relationship with the generalized anxiety disorder (P-value = 0.017).

#### Conclusion

Despite of Covid-19 pandemic, this study gives the first empirical evidence that a large percentage of college students at the Technological University of the Philippines - Cavite have been suffering from Generalized Anxiety Disorder (GAD) during the ongoing pandemic. In addition to academic and professional uncertainty, lack of academic support from family is contributing to the rise of generalized anxiety disorder (GAD) among students at the TUP-C.

#### Recommendations

To minimize the growing mental health problems, the parents, along with the Teacher, should work together to deliver a good relationship for the students. Moreover, to ensure the continuous involvement of students in educational processes, the Technological University of the Philippines-Cavite should conduct seminar about Mental Health Awareness, and initiate all-inclusive online-based educational programs to reach out the students living without devices in association with internet-service providers by providing scholarship or student loan. Furthermore, parents should be encouraged, by providing pandemic response and support their children from their schoolworks, to create a friendly and positive family environment for

TUP's students without imposing pressure on the future academic and working career.

#### REFERENCES

- A gung, A. S. N. (2020, July 31). Students' perception of online learning during COVID-19 pandemic: *A case study on the english students of STKIP pamane talino | soshum: Jurnal sosial dan humaniora.*Http://Ojs.Pnb.Ac.Id/Index.Php/SOSHUM/Article/View/1316.
- Ahorsu DK, Imani V, Lin C-Y, Timpka T, Broström A, Updegraff JA, et al. Associations between fear of COVID-19, mental health, and preventive behaviours across pregnant women and husbands: *An actor-partner interdependence modelling. International Journal of Mental Health and Addiction. 2020:1–15.*
- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: *American Psychiatric Publishing*.
  - Link:https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3777342/
- Anxiety and Depression Association Of America: Generalized Anxiety

  Disorder (GAD) | Anxiety and Depression Association of America,

  ADAA
- Bao Y, Sun Y, Meng S, Shi J, Lu L. 2019-nCoV epidemic: address mental health care to empower society. The Lancet. 2020;395(10224):e37-e8. doi: 10.1016/S0140-6736(20)30309-3. pmid:32043982

- Generalized Anxiety Disorder During Covid-19 Among Students
- Bogels S, Margaretel Toussainth B, (2006) Family issues in child anxiety:

  Attachment, family functioning, parental rearing and beliefs. (2006a,

  November1).ScienceDirect.

  <a href="https://www.sciencedirect.com/science/article/abs/pii/S027273580500">https://www.sciencedirect.com/science/article/abs/pii/S027273580500</a>

  1625
- Campbell, M. J., Machin, D., & Walters, S. J. (2007). Medical statistics: *A textbook for the health sciences (4th ed.). Chichester, UK: Wiley.*
- Chen IH, Chen CY, Pakpour AH, Griffiths MD, Lin CY. *Internet-related behaviors and psychological distress among schoolchildren during COVID-19 school suspension. J Am Acad Child Adolesc Psychiatry.* 2020. Epub July 2020. doi: 10.1016/j.jaac.2020.06.007 pmid:32615153.
- Cao W, Fang Z, Hou G, Han M, Xu X, Dong J, et al. *The psychological impact of the COVID-19 epidemic on college students in China.* Psychiatry Research. 2020;287:112934. doi: 10.1016/j.psychres.2020.112934. pmid:32229390
- Chen L, Yuan X. China's ongoing battle against the coronavirus: Why did the lockdown strategy work well? Socio-Ecological Practice Research. 2020:1-6.
- Edrada .M, Lopez .B, Villarama, Dagoc .F, Smith C. Solante1 First COVID-19 infections in the Philippines: a case report. Published online 2020 Apr

- Generalized Anxiety Disorder During Covid-19 Among Students
  14. doi: 10.1186/s41182-020-00203-0
- Fullana M. Hidalgo-Mazze D. Vieta E. Raduaade J (2020) Coping behaviors associated with decreased anxiety and depressive symptoms during the COVID-19 pandemic and lockdown.

  https://doi.org/10.1016/j.jad.2020.06.027
- Gao J, Zheng P, Jia Y, Chen H, Mao Y, Chen S, et al. *Mental health problems*and social media exposure during COVID-19 outbreak. PLOS ONE.

  2020;15(4):e0231924. doi: 10.1371/journal.pone.0231924.

  pmid:32298385
- Garcia M. Weiss E. COVID-19 and student performance, equity, and U.S. education policy: Lessons from pre-pandemic research to inform relief, recovery, and rebuilding. EnglishEconomic Policy Institute.

  Link:https://www.epi.org/publication/the-consequences-of-the-covid-19-pandemic-for-education-performance-and-equity-in-the-united-states-what-can-we-learn-from-pre-pandemic-research-to-inform-relief-recovery-and-rebuilding/
- Goguen, L., Hiester, M., & Nordstrom, A. (2010) Associations among peer relationships, academic achievement, and persistence in college.

  Journal of College Student Retention, 12(3), 319-337. doi: 10.2190/CS.12.3d

- Generalized Anxiety Disorder During Covid-19 Among Students
- Goyal K, Chauhan P, Chhikara K, Gupta P, Singh MP. Fear of COVID 2019:

  First suicidal case in India! Asian journal of psychiatry.

  2020;49:101989-. Epub 2020/02/27. pmid:32143142.
- Gritsenko V, Skugarevsky O, Konstantinov V, Khamenka N, Marinova T, Reznik A, et al. *COVID 19 fear, stress, anxiety, and substance use among Russian and Belarusian university students.* International Journal of Mental Health and Addiction. 2020. 2020:1-15.
- Hwang. T, Rabheru. K, Peisah. K, Reichman. W,Ikeda W. (2020) *Loneliness*and social isolation during the COVID-19 pandemic doi:

  10.1017/S1041610220000988

  Link:https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7306546/
- Hosmer DW, Lemeshow S. Applied logistic regression. 2nd ed. New York: Wiley; 2000.
- Hossain S, Anjum A, Uddin ME, Rahman MA, Hossain MF. Impacts of sociocultural environment and lifestyle factors on the psychological health
  of university students in Bangladesh: *A longitudinal study. J Affect Disord.* 2019;256:393–403. https://doi.org/10.1016/j.jad.2019.06.001.
  pmid:31226611
- Islam, M. A. (2020, August 26). Depression and anxiety among university students during the COVID-19 pandemic in Bangladesh: *A web-based*

Generalized Anxiety Disorder During Covid-19 Among Students

cross sectional survey.

Https://Journals.Plos.Org/Plosone/Article?Id=10.1371/Journal.Pone.02

38162.

- Johnson, T. P. (2014, September 29). Snowball Sampling: Introduction.

  Wiley
  Online
  Library.

  https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118445112.stat0

  5720
- Lambrese, J. (2020, July 26). Helping children cope with the COVID-19

  pandemic. PMID: 32371559 DOI: 10.3949/ccjm.87a.ccc010

  https://pubmed.ncbi.nlm.nih.gov/32371559/
- Lazarus, R. S., & Folkman, S, (1984). Stress, appraisal, and coping. New York: Springer Link:https://books.google.com.ph/books?hl=en&lr=&id=i-ySQQuUpr8C&oi=fnd&pg=PR5&dq=(Lazarus+%26+Folkman,+1984) &ots=DgCTjrfkRe&sig=Z00BHBoT\_Bwlz4V0SVXUQ2nBF9M&redir\_e sc=y#v=onepage&q=(Lazarus%20%26%20Folkman%2C%201984)&f=false
- Leske, J. S. (2002, December 1). *Interventions to Decrease Family Anxiety* |

  Critical Care Nurse | American Association of Critical-Care Nurses.

  Https://Aacnjournals.Org/Ccnonline/Article
  Abstract/22/6/61/801/Interventions-to-Decrease-Family-Anxiety.

- Generalized Anxiety Disorder During Covid-19 Among Students
- Lim, L. (2003). DEPRESSION: The Misunderstood Illness. ARMOUR
- Mamun MA, Griffiths MD. First COVID-19 suicide case in Bangladesh due to fear of COVID-19 and xenophobia: *Possible suicide prevention strategies*. Asian Journal of Psychiatry. 2020;51:102073. pmid:32278889
- Nail, J., Christofferson, J., Ginsburg, G., Drake, K., Kendall, P., McCracken, J., & Sakolsky, D. (2015). Academic impairment and impact of treatments among youth with anxiety disorders. Child & Youth Care Forum, 44(3), 327-342. doi:10.1007/s10566-014-9290-x
- National Institute of Mental Health (2013). *Generalized anxiety disorder:*When worry gets out of control. Retrieved from https://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml
- National Institute of Mental Health (2013). Generalized anxiety disorder:

  When worry gets out of control. Retrieved from National Institute of

  Mental Health (2016). Generalized anxiety disorder: When worry gets

  out of control. Retrieved from

  https://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml
- McLaughlin K, Behar E, Borkovec T.Family history of psychological problems in generalized anxiety disorder. (2008, July 7). Https://Www.Ncbi.Nlm.Nih.Gov/Pmc/Articles/PMC4081441/.

- Generalized Anxiety Disorder During Covid-19 Among Students <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4081441/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4081441/</a>
- Official Gazette Philippines, 2020. Memorandum from the executive secretary on community quarantine over the entire luzon and further guidelines for the management of the coronavirus disease 2019 (COVID-19) situation. https://www.officialgazette. gov.ph/2020/03/16/memorandum-from-the-executive-secretary-on-communityquarantine- over-the-entire-luzon-and-further-guidelines-for-the-management-of-thecoronavirus- disease-2019-covid-19-situation/
- Ozmete E. & Melike P. (2020, July 26). *The Relationship between Anxiety*Levels and Perceived Social Support during the Pandemic of COVID
  19 in Turkey. https://doi.org/10.1080/19371918.2020.1808144
- Roy D, Tripathy S, Kar SK, Sharma N, Verma SK, Kaushal V. *Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic.* Asian journal of psychiatry. 2020;51:102083-. pmid:32283510.
- Russia Today. Reims football club doctor commits suicide in quarantine, mentions Covid-19 in note Moscow, Russia: RIA Novosti; 2020 [cited 2020 06 April].

- Generalized Anxiety Disorder During Covid-19 Among Students
- Saadé, R. G. (2017, June 22). InSITE 2017 Anxiety & Performance in

  Online

  Learning.

  <a href="https://www.informingscience.org/Publications/3736?Type=MostDow">https://www.informingscience.org/Publications/3736?Type=MostDow</a>
  <a href="mailto:nloadedKevin">nloadedKevin</a>
- Savitsky B, Findling Y, Ereli A, Hendel T. *Anxiety and coping strategies*among nursing students during the covid-19 pandemic. Nurse

  Education in Practice. 2020:102809.
- Sharma, R., & Sharma, P. (2015). A correlational study to assess the relation of anxiety and social phobia with academic performance of students in a selected nursing college. International Journal of Nursing Education, 7(2), 26-30. doi:10.5958/0974-9357.2015.00067.7
- Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., & Jacobs, G. A.(1983). Manual for the State-Trait Anxiety Inventory. Palo Alto, CA: Consulting Psychologists Press.
- Spitzer RL, Kroenke K, Williams JBW, Löwe B. A brief measure for assessing generalized anxiety disorder: *The GAD-7. Archives of Internal Medicine*. 2006;166(10):1092–7. doi: 10.1001/archinte.166.10.1092. pmid:16717171
- Swinson, R.P. December 2006. *The GAD-7 Scale Was Accurate for Diagnosing Generalized Anxiety Disorder*. McMaster university.

- Generalized Anxiety Disorder During Covid-19 Among Students
- Tan S.K, Benedicto .J, Santiaguel .J (2020)Determinants of anxiety and depression among Filipino patients with chronic obstructive pulmonary disease: *A multi-center study. European Respiratory Journal* 2013 42: P4183; DOI:
- T eeab M, Teec C, Anlacand J, Aligamd K.J, Reyese P.Y, Kuruchitthamf V,
  Hog R (2020, December 1). Psychological impact of COVID-19
  pandemic in the
  Philippines.ScienceDirect .https://www.sciencedirect.com/science/article/abs/pii/S0165032720326495
- Timothy P. Johnson (2014, September 29) Snowball Sampling.

  <a href="https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118445112.stat0">https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118445112.stat0</a>

  <a href="mailto:5720?fbclid=IwAR02uF-AgcjMGbCKUp5MQu7NTRerCeZMik3mT4FohLGubZVi7r7DDR49fEk">https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118445112.stat0</a>

  <a href="mailto:4720?fbclid=IwAR02uF-AgcjMGbCKUp5MQu7NTRerCeZMik3mT4FohLGubZVi7r7DDR49fEk">https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118445112.stat0</a>
- USG Technological University of the Philippines-Cavite. (2020, October 10). Academic break cancelation. Https://Web.Facebook.Com/775534235865942/Posts/3359267227492  $617/?\_rdc=1\&\_rdr$ .
- USG Technological University of the Philippines-Cavite. (2020, October 10).

  \*\*Academic consolidation week.\*\*

  Https://Web.Facebook.Com/775534235865942/Posts/3359267227492

  617/? rdc=1& rdr.

- Generalized Anxiety Disorder During Covid-19 Among Students
- USG Technological University of the Philippines-Manila. (2020, October 11). *Logo.* 
  - https://web.facebook.com/TUPManilaUSG/photos/a.158120904260928 /4677500865656220
- World Health Organization. WHO Director-General's opening remarks at the media briefing on COVID-19–11 March 2020 Geneva, Switzerland:

  World Health Organization; 2020 [cited 2020 18 April].

  Link:https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-11-march-2020.
- WHO (2020). Weekly epidemiological update 29 December 2020 Link: <a href="https://www.who.int/publications/m/item/weekly-epidemiological-update---29-december-2020">https://www.who.int/publications/m/item/weekly-epidemiological-update---29-december-2020</a>
- Xiao H, Zhang Y, Kong D, Li S, Yang N.(2020) Social capital and sleep quality in individuals who self-isolated for 14 days during the coronavirus disease 2019 (COVID-19) outbreak in January 2020 in China. Med Sci Monit. 2020;26:e923921-e. pmid:32194290.
- Zhai Y, Du X. (2020) Mental health care for international Chinese students affected by the COVID-19 outbreak. The Lancet Psychiatry. 2020

#### **APPENDICES**

## Appendix A QUESTIONNAIRE

**Basic Information** 'Basic Information' contained the personal information of the respondents. Age □ 17-20 □ 21-24 □ >24 Lagging behind study on E-learning □ Yes □ No Exercise during lockdown □ Yes □ No Do you have a computer or laptop? □ Yes □ No Gender □ Male □ Female Your internet connection Stable □ Unstable Living with family □ Yes □ No

GAD-7 (Generalized Anxiety Disorder)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Feeling nervous, anxious or on edge

- □ Not at all
- □ Several days
- ☐ More than half the days
- □ Nearly every day

Not being able to stop or control worrying

- □ Not at all
- □ Several days
- ☐ More than half the days
- □ Nearly every day

Worrying too much about different things

- □ Not at all
- □ Several days
- ☐ More than half the days
- □ Nearly every day

Trouble relaxing

- □ Not at all
- □ Several days
- $\mbox{\ensuremath{\square}}$  More than half the days
- $\ ^{\square}$  Nearly every day

Being so restless that it is hard to sit still  $% \frac{1}{2}\left( \frac{1}{2}\right) =\frac{1}{2}\left( \frac{1}{2}\right) =$ 

- □ Not at all
- □ Several days
- $\mbox{\ensuremath{\square}}$  . More than half the days
- □ Nearly every day

Becoming easily annoyed or irritable

- □ Not at all
- □ Several days
- $\mbox{\ensuremath{\square}}$  . More than half the days

□ Nearly every day

Feeling afraid as if something awful might happen

- □ Not at all
- □ Several days
- ☐ More than half the days
- □ Nearly every day

How difficult have these problems made it for you

- □ Not difficult at all
- □ Somewhat difficult
- □ Very difficult
- □ Extremely difficult

#### **APPENDICES**

#### Appendix B

# THE RESULT OF GENERALIZED ANXIETY DISORDER - 7 AND BASIC INFORMATION OF THE RESPONDENT

\_\_\_\_\_

#### GAD-7 SCALE

No 1 2 3 4 5 6 7 0

1	Several days	Several days	Several days	Not at all	Not at all	Nearly every day	Several days	Somewhat difficult
2	Several days	More than half the days	More than half the days	Nearly every day	Nearly every day	Nearly every day	Several days	Somewhat difficult
3	Several days	Several days	Several days	Not at all	Not at all	Several days	Several days	Somewhat difficult
4	Several days	Several days	Several days	Several days	Not at all	Several days	Not at all	Somewhat difficult
5	Several days	Several days	More than half the days	Several days	Not at all	Not at all	More than half the days	Somewhat difficult
6	More than half the days	More than half the days	More than half the days	Nearly every day	More than half the days	Several days	More than half the days	Extremely difficult
7	More than half the days	More than half the days	More than half the days	Several days	Not at all	Several days	More than half the days	Very difficult
8	More than half the days	Several days	Several days	Several days	Not at all	Several days	Several days	Somewhat difficult
9	Several days	Several days	Several days	Several days	More than half the days	Several days	More than half the days	Somewhat difficult
10	Several days	Several days	More than half the days	More than half the days	Several days	Nearly every day	Several days	Somewhat difficult
11	Several days	More than half the days	More than half the days	More than half the days	Several days	More than half the days	More than half the days	Very difficult
12	Several days	Several days	Several days	More than half the	Several days	Several days	Several days	Somewhat difficult

				days				
13	Several days	Several days	Several days	Not at all	Not at all	Not at all	Not at all	Somewhat difficult
14	Several days	Several days	Nearly every day	Not at all	Not at all	Several days	Several days	Somewhat difficult
15	Several days	Nearly every day	Nearly every day	Several days	More than half the days	Not at all	Several days	Very difficult
16	Not at all	Not at all	Several days	Several days	Not at all	Not at all	Not at all	Somewhat difficult
17	Nearly every day	Nearly every day	Nearly every day	More than half the days	Several days	Several days	Several days	Extremely difficult
18	More than half the days	Not at all	Nearly every day	Several days	More than half the days	More than half the days	Several days	Somewhat difficult
19	Several days	Several days	Several days	Several days	Several days	Several days	Several days	Somewhat difficult
20	Nearly every day	More than half the days	More than half the days	More than half the days	More than half the days	Nearly every day	More than half the days	Very difficult
21	Not at all	Not at all	Several days	Not at all	Not at all	Several days	Several days	Somewhat difficult
22	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not difficult at all
23	More than half the days	Nearly every day	Nearly every day	Nearly every day	Several days	More than half the days	Nearly every day	Somewhat difficult
24	Several days	Several days	Several days	Several days	Not at all	Several days	Several days	Somewhat difficult
25	More than half the days	Nearly every day	Nearly every day	More than half the days	Several days	More than half the days	More than half the days	Very difficult
26	More than half the days	Nearly every day	More than half the days	More than half the days	Several days	Nearly every day	More than half the days	Very difficult
27	Several days	Several days	Several days	Several days	Several days	More than half the days	More than half the days	Somewhat difficult
28	Several days	Several days	More than half the days	Not at all	Not at all	More than half the days	More than half the days	Somewhat difficult
29	More than half the	More than half the	More than half the	Several	Several	Several	Several	Somewhat

	days	days	days	days	days	days	days	difficult
30	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Several days	Nearly every day	Nearly every day	Extremely difficult
31	Several days	Several days	More than half the days	Several days	Several days	More than half the days	Nearly every day	Somewhat difficult
32	Not at all	Several days	Not at all	Not at all	Several days	More than half the days	Not at all	Somewhat difficult
33	Several days	Nearly every day	Nearly every day	Several days	More than half the days	Nearly every day	Nearly every day	Extremely difficult
34	Several days	More than half the days	Nearly every day	More than half the days	More than half the days	More than half the days	Nearly every day	Very difficult
35	Nearly every day	More than half the days	Nearly every day	Not difficult at all				
36	Nearly every day	Several days	Several days	Several days	More than half the days	Nearly every day	Nearly every day	Extremely difficult
37	Several days	Several days	Not at all	Not at all	Several days	Several days	Several days	Somewhat difficult
38	Nearly every day	Nearly every day	Nearly every day	More than half the days	Nearly every day	Nearly every day	Nearly every day	Extremely difficult
39	Not at all	Not at all	Not at all	Not at all	Not at all	Several days	Several days	Somewhat difficult
40	Several days	Several days	Several days	Several days	Several days	More than half the days	Several days	Somewhat difficult
41	Several days	Nearly every day	Nearly every day	More than half the days	Not at all	Several days	More than half the days	Very difficult
42	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	More than half the days	More than half the days	Extremely difficult
43	Nearly every day	More than half the days	More than half the days	More than half the days	Several days	Nearly every day	More than half the days	Somewhat difficult
44	Several days	Several days	Nearly every day	Nearly every day	Several days	More than half the days	Several days	Somewhat difficult
45	Several	Several	Several	Several	Not at all	Nearly	Several	Somewhat

	days	days	days	days		every day	days	difficult
46	More than half the days	More than half the days	More than half the days	Several days	Nearly every day	More than half the days	Nearly every day	Very difficult
47	Not at all	Several days	Not at all	Not at all	Not at all	Not at all	Several days	Somewhat difficult
48	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	More than half the days	More than half the days	Somewhat difficult
49	More than half the days	More than half the days	More than half the days	More than half the days	Not at all	More than half the days	Not at all	Somewhat difficult
50	More than half the days	Several days	Several days	Several days	Nearly every day	More than half the days	Several days	Extremely difficult
51	Several days	More than half the days	More than half the days	Not at all	Not at all	More than half the days	Several days	Somewhat difficult
52	Nearly every day	More than half the days	Nearly every day	Several days	More than half the days	Several days	Nearly every day	Extremely difficult
53	Several days	Several days	Several days	More than half the days	Several days	More than half the days	Several days	Somewhat difficult
54	More than half the days	Several days	Several days	More than half the days	More than half the days	Nearly every day	Several days	Somewhat difficult
55	Not at all	Not at all	Several days	Several days	Several days	Several days	Several days	Not difficult at all
56	Several days	Not at all	Not at all	Several days	Several days	Several days	Not at all	Somewhat difficult
57	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Somewhat difficult
58	Not at all	Not at all	Several days	Not at all	Not at all	Not at all	Not at all	Not difficult at all
59	Several days	Nearly every day	Nearly every day	Nearly every day	More than half the days	Nearly every day	Nearly every day	Extremely difficult
60	Several days	Not at all	Several days	Several days	Several days	Not at all	Several days	Somewhat difficult
61	Several days	Several days	More than half the days	Several days	Several days	More than half the days	Several days	Somewhat difficult

62	Nearly every day	Nearly every day	Nearly every day	More than half the days	Nearly every day	More than half the days	More than half the days	Somewhat difficult
63	Several days	Several days	Not at all	Several days	Not at all	Several days	Several days	Somewhat difficult
64	More than half the days	Several days	Not at all	More than half the days	More than half the days	Several days	Several days	Somewhat difficult
65	Several days	Several days	Several days	Several days	Several days	Several days	Several days	Somewhat difficult
66	Several days	Several days	Several days	Several days	Several days	Several days	Several days	Very difficult
67	Not at all	Not at all	Not at all	Several days	Several days	Not at all	Not at all	Somewhat difficult
68	Several days	Nearly every day	More than half the days	Several days	Several days	More than half the days	More than half the days	Somewhat difficult
69	More than half the days	Several days	Several days	Several days	Several days	Not at all	Several days	Somewhat difficult
70	More than half the days	Nearly every day	Nearly every day	Not at all	More than half the days	Nearly every day	Nearly every day	Extremely difficult
71	Several days	Several days	Several days	Several days	Several days	More than half the days	More than half the days	Very difficult
72	Several days	Several days	Not at all	Several days	Nearly every day	Not at all	Several days	Somewhat difficult
73	More than half the days	Nearly every day	Nearly every day	Nearly every day	More than half the days	More than half the days	More than half the days	Very difficult
74	Several days	Several days	Several days	Several days	Several days	More than half the days	Several days	Somewhat difficult
75	Several days	Nearly every day	Nearly every day	More than half the days	More than half the days	More than half the days	More than half the days	Very difficult
76	Nearly every day	More than half the days	Nearly every day	Nearly every day	Nearly every day	Several days	Several days	Very difficult
77	Several days	Several days	Not at all	Not at all	Several days	Several days	Several days	Somewhat difficult
78	More than half the	More than half the	More than half the	More than half the	Several days	More than half the	More than half the	Extremely difficult

	days	days	days	days		days	days	
79	Several days	Nearly every day	Nearly every day	More than half the days	More than half the days	Nearly every day	Not at all	Somewhat difficult
80	More than half the days	Not at all	Not at all	Several days	Several days	Several days	Several days	Somewhat difficult
81	Several days	Not at all	Several days	Not at all	Several days	Not at all	Not at all	Somewhat difficult
82	Several days	More than half the days	Several days	Several days	Several days	Several days	Several days	Somewhat difficult
83	Not at all	Not at all	Several days	Several days	Several days	Several days	Several days	Not difficult at all
84	Not at all	Several days	Not at all	Not at all	Not at all	More than half the days	Several days	Not difficult at all
85	More than half the days	More than half the days	Nearly every day	More than half the days	Several days	Nearly every day	More than half the days	Very difficult
86	Several days	Nearly every day	Nearly every day	Very difficult				
87	Several days	Several days	Several days	Several days	Not at all	Not at all	Not at all	Somewhat difficult
88	Several days	Several days	Not at all	Not at all	Not at all	Not at all	Not at all	Somewhat difficult
89	Not at all	Several days	Not at all	Somewhat difficult				
90	Several days	Several days	Several days	Several days	Several days	Not at all	Not at all	Somewhat difficult
91	Several days	Several days	Several days	Several days	Several days	Nearly every day	Several days	Very difficult
92	Several days	Several days	Several days	More than half the days	More than half the days	More than half the days	Several days	Very difficult
93	Not at all	Not at all	Several days	Several days	Several days	Nearly every day	Several days	Very difficult
94	Not at all	Not at all	Not difficult at all					
95	Several days	Several days	More than half the days	Several days	Not at all	Nearly every day	Several days	Very difficult

0.0								Not difficult
96	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	at all
97	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not difficult at all
98	Nearly every day	Nearly every day	Nearly every day	Several days	Several days	Several days	Several days	Extremely difficult
99	More than half the days	Nearly every day	Nearly every day	Several days	Several days	Not at all	More than half the days	Very difficult
100	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not difficult at all
101	Nearly every day	Several days	Several days	Nearly every day	Several days	Not at all	Not at all	Somewhat difficult
102	Nearly every day	Several days	Nearly every day	More than half the days	Not at all	Several days	Several days	Very difficult
103	Nearly every day	Several days	Several days	Several days	More than half the days	Several days	Several days	Very difficult
104	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Extremely difficult
105	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Extremely difficult
106	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not difficult at all
107	Several days	Several days	Not at all	Several days	Several days	Nearly every day	Several days	Somewhat difficult
108	Several days	Nearly every day	Several days	Several days	Not at all	More than half the days	Several days	Somewhat difficult
109	Nearly every day	Nearly every day	Nearly every day	Several days	Not at all	Several days	Nearly every day	Very difficult
110	Several days	Not at all	Several days	Several days	Several days	More than half the days	Not at all	Somewhat difficult
111	Nearly every day	More than half the days	Several days	More than half the days	Nearly every day	More than half the days	More than half the days	Somewhat difficult
112	Several days	Several days	Several days	More than half the days	Nearly every day	Several days	Several days	Very difficult
113	Several days	Several days	Several days	Several days	Several days	Several days	Several days	Very difficult

114	Several days	Several days	Several days	Several days	Several days	Several days	Nearly every day	Somewhat difficult
115	Several days	More than half the days	Several days	Several days	Not at all	Nearly every day	More than half the days	Somewhat difficult
116	Several days	Several days	Nearly every day	Several days	More than half the days	Several days	Nearly every day	Very difficult
117	More than half the days	Several days	Nearly every day	Several days	Very difficult			
118	Nearly every day	Nearly every day	Nearly every day	Nearly every day	More than half the days	Several days	More than half the days	Very difficult
119	Several days	Several days	Several days	Not at all	Several days	Several days	Several days	Somewhat difficult
120	Several days	Not at all	Not at all	Several days	Not at all	Several days	Not at all	Somewhat difficult
121	Several days	Several days	Several days	More than half the days	More than half the days	More than half the days	More than half the days	Very difficult
122	Several days	Several days	More than half the days	Several days	Several days	Several days	Several days	Somewhat difficult
123	Several days	Several days	Several days	More than half the days	More than half the days	More than half the days	Several days	Very difficult
124	Several days	Several days	Several days	More than half the days	Several days	More than half the days	More than half the days	Very difficult
125	Nearly every day	Several days	More than half the days	More than half the days	Several days	Several days	Several days	Somewhat difficult
126	Several days	Nearly every day	Nearly every day	More than half the days	Several days	Nearly every day	Nearly every day	Very difficult
127	Several days	More than half the days	More than half the days	More than half the days	Several days	Not at all	More than half the days	Somewhat difficult
128	More than half the days	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Very difficult
129	Several days	Several days	Several days	Several days	Several days	Several days	Several days	Somewhat difficult

130	Several days	Several days	Several days	Several days	Not at all	Not at all	Several days	Somewhat difficult
131	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Somewhat difficult
132	More than half the days	Several days	More than half the days	More than half the days	Several days	More than half the days	Nearly every day	Somewhat difficult
133	Several days	More than half the days	More than half the days	Several days	Several days	More than half the days	More than half the days	Very difficult
134	Several days	Not at all	Several days	Several days	Several days	Not at all	Several days	Somewhat difficult
135	Nearly every day	Several days	Several days	Nearly every day	Nearly every day	Nearly every day	Several days	Somewhat difficult
136	More than half the days	More than half the days	Several days	Several days	Nearly every day	Not at all	More than half the days	Somewhat difficult
137	Several days	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Very difficult
138	Several days	Several days	Several days	Several days	Not at all	Several days	More than half the days	Somewhat difficult
139	Not at all	Not at all	Not at all	Not at all	Not at all	Several days	Not at all	Not difficult at all
140	Several days	Not at all	Not at all	Several days	Not at all	Not at all	Several days	Somewhat difficult
141	Nearly every day	More than half the days	More than half the days	Several days	More than half the days	Nearly every day	Nearly every day	Extremely difficult
142	Several days	Several days	Several days	More than half the days	More than half the days	Several days	Several days	Very difficult
143	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Very difficult
144	More than half the days	Several days	Several days	More than half the days	More than half the days	More than half the days	Several days	Somewhat difficult
145	Several days	Several days	Several days	Several days	Several days	More than half the days	Several days	Somewhat difficult
146	Several days	Nearly every day	Nearly every day	More than half the days	Several days	Nearly every day	More than half the days	Somewhat difficult

147	More than half the days	More than half the days	More than half the days	Several days	Several days	More than half the days	More than half the days	Very difficult
148	Nearly every day	Nearly every day	More than half the days	Nearly every day	Nearly every day	More than half the days	Nearly every day	Very difficult
149	Several days	Several days	Several days	Nearly every day	Nearly every day	More than half the days	More than half the days	Very difficult
150	Several days	Several days	More than half the days	Several days	Several days	Several days	Not at all	Somewhat difficult
151	Nearly every day	More than half the days	Nearly every day	More than half the days	Nearly every day	More than half the days	Nearly every day	Somewhat difficult
152	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Nearly every day	Extremely difficult
153	Several days	Several days	Several days	Several days	Several days	More than half the days	Several days	Very difficult
154	Several days	Several days	Nearly every day	Nearly every day	Nearly every day	Several days	Nearly every day	Somewhat difficult
155	More than half the days	Several days	Nearly every day	More than half the days	Several days	Several days	Several days	Very difficult
156	Not at all	Several days	Several days	Several days	Not at all	Several days	Several days	Somewhat difficult
157	Several days	Several days	Several days	Several days	Several days	Several days	More than half the days	Somewhat difficult
158	Several days	Nearly every day	More than half the days	Several days	Several days	More than half the days	Several days	Very difficult
159	More than half the days	Several days	More than half the days	Not at all	Not at all	More than half the days	Not at all	Somewhat difficult
160	Several days	Several days	Nearly every day	Several days	Several days	Several days	Nearly every day	Somewhat difficult
161	More than half the days	More than half the days	Nearly every day	More than half the days	Not at all	More than half the days	More than half the days	Very difficult
162	Several days	Several days	Several days	Not at all	Not at all	Several days	Several days	Somewhat difficult
163	Nearly	Nearly	Nearly	More than half the	More than half the	Several	Nearly	Extremely

	every day	every day	every day	days	days	days	every day	difficult
164	More than half the days	Nearly every day	Nearly every day	More than half the days	Several days	Several days	More than half the days	Somewhat difficult
165	Several days	Several days	Nearly every day	Several days	Several days	Nearly every day	More than half the days	Somewhat difficult
166	Several days	Several days	Several days	Not at all	Several days	Not at all	Not at all	Somewhat difficult
167	Several days	Several days	Nearly every day	More than half the days	Nearly every day	Nearly every day	Nearly every day	Somewhat difficult
168	Several days	Not at all	Several days	Several days	Not at all	Not at all	Several days	Somewhat difficult
169	Nearly every day	Several days	Several days	Several days	More than half the days	Several days	More than half the days	Somewhat difficult
170	Nearly every day	More than half the days	Very difficult					
171	Several days	Several days	Several days	Not at all	Not at all	Several days	Several days	Somewhat difficult
172	Several days	Several days	Several days	More than half the days	More than half the days	More than half the days	Several days	Somewhat difficult
173	Several days	Several days	Several days	Several days	Not at all	Not at all	Not at all	Somewhat difficult
174	Several days	Several days	Several days	Several days	Not at all	Several days	Several days	Somewhat difficult
175	Several days	Several days	More than half the days	Not at all	Several days	More than half the days	More than half the days	Very difficult
176	More than half the days	Several days	Several days	More than half the days	Several days	Several days	Several days	Very difficult
177	Several days	Nearly every day	More than half the days	Very difficult				
178	More than half the days	More than half the days	Several days	Several days	More than half the days	More than half the days	Several days	Somewhat difficult

#### BASIC INFORMATION OF THE RESPONDENT

No	Age	Laggi ng behin d study on E- learni ng	Exerci se during lockdo wn	Do you have a compu ter or laptop ?	Gende r	Your intern et conne ction	Living with family
1	17-20	No	Yes	Yes	Male	Unstable	Yes
2	21-24	Yes	No	Yes	Male	Unstable	Yes
3	17-20	Yes	No	Yes	Female	Unstable	Yes
4	17-20	Yes	Yes	Yes	Female	Stable	Yes
5	17-20	Yes	Yes	Yes	Male	Stable	Yes
6	21-24	No	No	No	Female	Unstable	Yes
7	21-24	Yes	No	Yes	Male	Stable	Yes
8	17-20	Yes	Yes	Yes	Female	Stable	Yes
9	21-24	Yes	Yes	No	Female	Stable	Yes
10	17-20	Yes	No	Yes	Female	Stable	Yes
11	17-20	Yes	No	Yes	Male	Unstable	Yes
12	17-20	Yes	No	Yes	Female	Stable	Yes
13	21-24	Yes	Yes	Yes	Female	Stable	Yes
14	21-24	Yes	Yes	Yes	Male	Unstable	Yes
15	21-24	Yes	No	No	Male	Unstable	Yes
16	21-24	Yes	Yes	Yes	Male	Stable	Yes
17	21-24	Yes	Yes	No	Male	Unstable	Yes
18	17-20	Yes	No	Yes	Male	Stable	Yes
19	21-24	No	No	Yes	Male	Stable	Yes
20	21-24	Yes	No	Yes	Female	Unstable	Yes

22         17-20         No         Yes         Yes         Male         Stable         Yes           23         17-20         Yes         No         Yes         Female         Unstable         Yes           24         21-24         Yes         No         Yes         Female         Stable         Yes           25         21-24         Yes         Yes         No         Female         Unstable         Yes           26         21-24         Yes         No         Yes         Male         Stable         Yes           27         17-20         Yes         No         Yes         Female         Unstable         Yes           28         21-24         Yes         No         Yes         Female         Unstable         Yes           29         21-24         No         No         Yes         Female         Unstable         Yes           30         >24         Yes         No         Yes         Female         Unstable         Yes           31         21-24         Yes         No         Yes         Male         Stable         Yes           32         17-20         Yes         Yes         Yes </th <th>2.1</th> <th></th> <th></th> <th></th> <th></th> <th>3.5.1</th> <th></th> <th></th>	2.1					3.5.1		
23         17-20         Yes         No         Yes         Female         Unstable         Yes           24         21-24         Yes         No         Yes         Female         Stable         Yes           25         21-24         Yes         Yes         Yes         Female         Stable         Yes           26         21-24         Yes         No         Yes         Male         Stable         Yes           27         17-20         Yes         No         Yes         Male         Stable         Yes           28         21-24         Yes         No         Yes         Female         Unstable         Yes           30         >24         Yes         No         Yes         Female         Unstable         Yes           31         21-24         Yes         No         Yes         Male         Stable         Yes           31         21-24         Yes         No         Yes         Male         Stable         Yes           31         21-20         Yes         Yes         Yes         Male         Stable         Yes           32         17-20         Yes         Yes         Yes	21	21-24	No	No	Yes	Male	Unstable	Yes
24         21-24         Yes         No         Yes         Female         Stable         Yes           25         21-24         Yes         Yes         Yes         Female         Stable         Yes           26         21-24         Yes         No         Yes         Male         Stable         Yes           27         17-20         Yes         No         Yes         Male         Stable         Yes           28         21-24         Yes         No         Yes         Female         Unstable         Yes           29         21-24         No         No         Yes         Female         Unstable         Yes           30         >24         Yes         No         Yes         Female         Unstable         Yes           31         21-24         Yes         No         Yes         Male         Stable         Yes           32         17-20         Yes         Yes         Yes         Male         Stable         Yes           33         17-20         Yes         Yes         Yes         Male         Unstable         Yes           34         17-20         Yes         Yes         Yes	22	17-20	No	Yes	Yes	Male	Stable	Yes
25         21-24         Yes         Yes         Female         Stable         Yes           26         21-24         Yes         Yes         No         Female         Unstable         Yes           27         17-20         Yes         No         Yes         Male         Stable         Yes           28         21-24         Yes         No         Yes         Female         Unstable         Yes           30         >24         Yes         No         Yes         Female         Unstable         Yes           31         21-24         Yes         No         Yes         Male         Stable         Yes           32         17-20         Yes         Yes         Yes         Male         Stable         Yes           33         17-20         Yes         Yes         Yes         Male         Unstable         Yes           34         17-20         Yes         Yes         Yes         Male         Unstable         Yes           35         17-20         Yes         Yes         Yes         Female         Stable         No           36         17-20         Yes         Yes         Yes         Female	23	17-20	Yes	No	Yes	Female	Unstable	Yes
26         21-24         Yes         Yes         No         Female         Unstable         Yes           27         17-20         Yes         No         Yes         Male         Stable         Yes           28         21-24         Yes         No         Yes         Female         Unstable         Yes           29         21-24         No         No         Yes         Female         Unstable         Yes           30         >24         Yes         No         Yes         Female         Unstable         Yes           31         21-24         Yes         No         Yes         Male         Stable         Yes           32         17-20         Yes         Yes         Yes         Male         Stable         Yes           33         17-20         Yes         Yes         Yes         Male         Unstable         Yes           34         17-20         Yes         Yes         Yes         Male         Unstable         Yes           35         17-20         Yes         Yes         Yes         Female         Stable         No           36         17-20         Yes         Yes         Yes <td>24</td> <td>21-24</td> <td>Yes</td> <td>No</td> <td>Yes</td> <td>Female</td> <td>Stable</td> <td>Yes</td>	24	21-24	Yes	No	Yes	Female	Stable	Yes
27         17-20         Yes         No         Yes         Male         Stable         Yes           28         21-24         Yes         No         Yes         Female         Unstable         Yes           30         >24         Yes         No         Yes         Female         Unstable         Yes           31         21-24         Yes         No         Yes         Male         Stable         Yes           32         17-20         Yes         Yes         Yes         Male         Stable         Yes           33         17-20         No         No         Yes         Female         Stable         Yes           34         17-20         Yes         Yes         Yes         Male         Unstable         Yes           35         17-20         Yes         Yes         Yes         Female         Stable         No           36         17-20         Yes         Yes         Yes         Male         Unstable         Yes           38         17-20         Yes         Yes         Yes         Female         Unstable         Yes           39         17-20         Yes         Yes         Yes <td>25</td> <td>21-24</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Female</td> <td>Stable</td> <td>Yes</td>	25	21-24	Yes	Yes	Yes	Female	Stable	Yes
28         21-24         Yes         No         Yes         Female         Unstable         Yes           29         21-24         No         No         Yes         Female         Unstable         Yes           30         >24         Yes         No         Yes         Female         Unstable         Yes           31         21-24         Yes         No         Yes         Male         Stable         Yes           32         17-20         Yes         Yes         Yes         Male         Stable         Yes           33         17-20         No         No         Yes         Female         Stable         Yes           34         17-20         Yes         Yes         Yes         Male         Unstable         Yes           35         17-20         Yes         Yes         Yes         Female         Stable         No           36         17-20         Yes         Yes         Yes         Female         Stable         No           37         17-20         No         Yes         Yes         Female         Unstable         Yes           38         17-20         Yes         Yes         Yes <td>26</td> <td>21-24</td> <td>Yes</td> <td>Yes</td> <td>No</td> <td>Female</td> <td>Unstable</td> <td>Yes</td>	26	21-24	Yes	Yes	No	Female	Unstable	Yes
29         21-24         No         No         Yes         Female         Unstable         Yes           30         >24         Yes         No         Yes         Female         Unstable         Yes           31         21-24         Yes         No         Yes         Male         Stable         Yes           32         17-20         Yes         Yes         Yes         Male         Stable         Yes           33         17-20         No         No         Yes         Female         Stable         Yes           34         17-20         Yes         Yes         Yes         Male         Unstable         Yes           35         17-20         Yes         Yes         Yes         Female         Stable         No           36         17-20         Yes         Yes         Yes         Male         Stable         No           37         17-20         No         Yes         Yes         Male         Unstable         Yes           38         17-20         Yes         Yes         Yes         Female         Stable         Yes           40         17-20         Yes         Yes         Yes	27	17-20	Yes	No	Yes	Male	Stable	Yes
30         >24         Yes         No         Yes         Female         Unstable         Yes           31         21-24         Yes         No         Yes         Male         Stable         Yes           32         17-20         Yes         Yes         Yes         Male         Stable         Yes           33         17-20         No         No         Yes         Female         Stable         Yes           34         17-20         Yes         Yes         Yes         Male         Unstable         Yes           35         17-20         Yes         Yes         Yes         Female         Stable         No           36         17-20         Yes         Yes         Yes         Female         Stable         No           37         17-20         No         Yes         Yes         Female         Unstable         Yes           38         17-20         Yes         Yes         Yes         Female         Stable         Yes           39         17-20         Yes         Yes         Yes         Female         Stable         No           40         17-20         Yes         No         Yes	28	21-24	Yes	No	Yes	Female	Unstable	Yes
31         21-24         Yes         No         Yes         Male         Stable         Yes           32         17-20         Yes         Yes         Yes         Male         Stable         Yes           33         17-20         No         No         Yes         Female         Stable         Yes           34         17-20         Yes         Yes         Yes         Male         Unstable         Yes           35         17-20         Yes         Yes         Yes         Male         Unstable         Yes           36         17-20         Yes         Yes         Yes         Female         Stable         No           37         17-20         No         Yes         Yes         Female         Unstable         Yes           38         17-20         Yes         Yes         Yes         Female         Stable         Yes           39         17-20         Yes         Yes         Yes         Female         Unstable         No           40         17-20         Yes         No         Yes         Female         Stable         Yes           42         17-20         No         No         No	29	21-24	No	No	Yes	Female	Unstable	Yes
32       17-20       Yes       Yes       Yes       Male       Stable       Yes         33       17-20       No       No       Yes       Female       Stable       Yes         34       17-20       Yes       Yes       Yes       Male       Unstable       Yes         35       17-20       Yes       Yes       Yes       Male       Unstable       Yes         36       17-20       Yes       Yes       Yes       Male       Stable       No         37       17-20       No       Yes       Yes       Male       Stable       Yes         38       17-20       Yes       No       Yes       Female       Unstable       Yes         39       17-20       Yes       Yes       Yes       Female       Stable       Yes         40       17-20       Yes       Yes       Yes       Female       Unstable       No         41       17-20       Yes       No       No       Female       Stable       Yes         42       17-20       No       No       No       Female       Stable       Yes         43       17-20       No       Yes	30	>24	Yes	No	Yes	Female	Unstable	Yes
33         17-20         No         No         Yes         Female         Stable         Yes           34         17-20         Yes         Yes         Yes         Male         Unstable         Yes           35         17-20         Yes         Yes         Yes         Male         Unstable         Yes           36         17-20         Yes         Yes         Yes         Female         Stable         No           37         17-20         No         Yes         Yes         Male         Stable         Yes           38         17-20         Yes         Yes         Yes         Female         Unstable         Yes           39         17-20         Yes         Yes         Yes         Female         Stable         Yes           40         17-20         Yes         Yes         Yes         Female         Unstable         No           41         17-20         Yes         No         No         Female         Stable         Yes           42         17-20         No         No         No         Female         Stable         Yes           43         17-20         Yes         Yes         Yes <td>31</td> <td>21-24</td> <td>Yes</td> <td>No</td> <td>Yes</td> <td>Male</td> <td>Stable</td> <td>Yes</td>	31	21-24	Yes	No	Yes	Male	Stable	Yes
34       17-20       Yes       Yes       Yes       Yes       Male       Unstable       Yes         35       17-20       Yes       Yes       Yes       Male       Unstable       Yes         36       17-20       Yes       Yes       Yes       Female       Stable       No         37       17-20       No       Yes       Yes       Male       Stable       Yes         38       17-20       Yes       No       Yes       Female       Unstable       Yes         39       17-20       Yes       Yes       Yes       Female       Stable       Yes         40       17-20       Yes       Yes       Yes       Female       Unstable       No         41       17-20       Yes       No       Yes       Female       Stable       Yes         42       17-20       No       No       No       Female       Stable       Yes         43       17-20       No       Yes       Yes       Male       Unstable       Yes         44       17-20       Yes       Yes       Yes       Male       Stable       Yes         45       17-20       Yes	32	17-20	Yes	Yes	Yes	Male	Stable	Yes
35         17-20         Yes         Yes         Yes         Male         Unstable         Yes           36         17-20         Yes         Yes         Yes         Female         Stable         No           37         17-20         No         Yes         Yes         Male         Stable         Yes           38         17-20         Yes         No         Yes         Female         Unstable         Yes           39         17-20         Yes         Yes         Yes         Female         Stable         Yes           40         17-20         Yes         Yes         Yes         Female         Unstable         No           41         17-20         Yes         No         No         Female         Stable         Yes           42         17-20         No         No         No         Female         Stable         Yes           43         17-20         No         Yes         Yes         Male         Unstable         Yes           44         17-20         Yes         Yes         Yes         Male         Stable         Yes           45         17-20         Yes         No         Yes	33	17-20	No	No	Yes	Female	Stable	Yes
36         17-20         Yes         Yes         Yes         Female         Stable         No           37         17-20         No         Yes         Yes         Male         Stable         Yes           38         17-20         Yes         No         Yes         Female         Unstable         Yes           39         17-20         Yes         Yes         Yes         Female         Stable         Yes           40         17-20         Yes         Yes         Yes         Female         Unstable         No           41         17-20         Yes         No         Yes         Female         Stable         Yes           42         17-20         No         No         No         Female         Stable         Yes           43         17-20         No         Yes         Yes         Male         Unstable         Yes           44         17-20         Yes         Yes         Yes         Male         Stable         Yes           45         17-20         Yes         No         Yes         Female         Stable         Yes	34	17-20	Yes	Yes	Yes	Male	Unstable	Yes
37       17-20       No       Yes       Yes       Male       Stable       Yes         38       17-20       Yes       No       Yes       Female       Unstable       Yes         39       17-20       Yes       Yes       Yes       Female       Stable       Yes         40       17-20       Yes       Yes       Yes       Female       Unstable       No         41       17-20       Yes       No       Yes       Female       Stable       Yes         42       17-20       No       No       No       Female       Stable       Yes         43       17-20       No       Yes       Yes       Male       Unstable       Yes         44       17-20       Yes       Yes       Yes       Male       Stable       Yes         45       17-20       Yes       No       Yes       Female       Stable       Yes	35	17-20	Yes	Yes	Yes	Male	Unstable	Yes
38         17-20         Yes         No         Yes         Female         Unstable         Yes           39         17-20         Yes         Yes         Yes         Female         Stable         Yes           40         17-20         Yes         Yes         Yes         Female         Unstable         No           41         17-20         Yes         No         Yes         Female         Stable         Yes           42         17-20         No         No         No         Female         Stable         Yes           43         17-20         No         Yes         Yes         Male         Unstable         Yes           44         17-20         Yes         Yes         Yes         Male         Stable         Yes           45         17-20         Yes         No         Yes         Female         Stable         Yes	36	17-20	Yes	Yes	Yes	Female	Stable	No
39         17-20         Yes         Yes         Yes         Female         Stable         Yes           40         17-20         Yes         Yes         Yes         Female         Unstable         No           41         17-20         Yes         No         Yes         Female         Stable         Yes           42         17-20         No         No         No         Female         Stable         Yes           43         17-20         No         Yes         Yes         Male         Unstable         Yes           44         17-20         Yes         Yes         Yes         Male         Stable         Yes           45         17-20         Yes         No         Yes         Female         Stable         Yes	37	17-20	No	Yes	Yes	Male	Stable	Yes
40         17-20         Yes         Yes         Female         Unstable         No           41         17-20         Yes         No         Yes         Female         Stable         Yes           42         17-20         No         No         No         Female         Stable         Yes           43         17-20         No         Yes         Yes         Male         Unstable         Yes           44         17-20         Yes         Yes         Yes         Male         Stable         Yes           45         17-20         Yes         No         Yes         Female         Stable         Yes	38	17-20	Yes	No	Yes	Female	Unstable	Yes
41 17-20 Yes No Yes Female Stable Yes  42 17-20 No No No Female Stable Yes  43 17-20 No Yes Yes Male Unstable Yes  44 17-20 Yes Yes Male Stable Yes  45 17-20 Yes No Yes Female Stable Yes	39	17-20	Yes	Yes	Yes	Female	Stable	Yes
42 17-20 No No No Female Stable Yes  43 17-20 No Yes Yes Male Unstable Yes  44 17-20 Yes Yes Yes Male Stable Yes  45 17-20 Yes No Yes Female Stable Yes	40	17-20	Yes	Yes	Yes	Female	Unstable	No
43 17-20 No Yes Yes Male Unstable Yes  44 17-20 Yes Yes Yes Male Stable Yes  45 17-20 Yes No Yes Female Stable Yes	41	17-20	Yes	No	Yes	Female	Stable	Yes
44 17-20 Yes Yes Yes Male Stable Yes 45 17-20 Yes No Yes Female Stable Yes	42	17-20	No	No	No	Female	Stable	Yes
45 17-20 Yes No Yes Female Stable Yes	43	17-20	No	Yes	Yes	Male	Unstable	Yes
	44	17-20	Yes	Yes	Yes	Male	Stable	Yes
46 17-20 Vac Vac Famala Stable Vac	45	17-20	Yes	No	Yes	Female	Stable	Yes
10 17-20 1es 1es 1es 1emaie Stable 1es	46	17-20	Yes	Yes	Yes	Female	Stable	Yes

47       21-24       Yes       Yes       Yes       Male       Unstable         48       17-20       No       No       Yes       Female       Unstable         49       17-20       No       No       Yes       Female       Stable         50       17-20       Yes       Yes       Yes       Female       Stable         51       17-20       No       No       Yes       Female       Unstable         52       17-20       Yes       Yes       No       Female       Unstable         53       21-24       Yes       Yes       No       Female       Unstable         54       17-20       Yes       Yes       No       Female       Unstable         55       17-20       Yes       No       Yes       Female       Stable	Yes Yes Yes Yes Yes Yes Yes
49       17-20       No       No       Yes       Female       Stable         50       17-20       Yes       Yes       Female       Stable         51       17-20       No       No       Yes       Female       Stable         52       17-20       Yes       Yes       No       Female       Unstable         53       21-24       Yes       Yes       No       Female       Unstable         54       17-20       Yes       Yes       No       Female       Unstable         55       17-20       Yes       No       Yes       Male       Unstable	Yes Yes Yes Yes Yes Yes
50         17-20         Yes         Yes         Female         Stable           51         17-20         No         No         Yes         Female         Stable           52         17-20         Yes         Yes         No         Female         Unstable           53         21-24         Yes         Yes         No         Female         Unstable           54         17-20         Yes         Yes         No         Female         Unstable           55         17-20         Yes         No         Yes         Male         Unstable	Yes Yes Yes Yes Yes
5117-20NoNoYesFemaleStable5217-20YesYesNoFemaleUnstable5321-24YesYesNoFemaleUnstable5417-20YesYesNoFemaleUnstable5517-20YesNoYesMaleUnstable	Yes Yes Yes Yes
5217-20YesYesNoFemaleUnstable5321-24YesYesNoFemaleUnstable5417-20YesYesNoFemaleUnstable5517-20YesNoYesMaleUnstable	Yes Yes Yes
53 21-24 Yes Yes No Female Unstable 54 17-20 Yes Yes No Female Unstable 55 17-20 Yes No Yes Male Unstable	Yes
54 17-20 Yes Yes No Female Unstable 55 17-20 Yes No Yes Male Unstable	Yes
55 17-20 Yes No Yes Male Unstable	
	Yes
56 21-24 No Yes Yes Female Stable	
	Yes
57 >24 Yes No Yes Female Unstable	No
58 >24 Yes Yes No Male Unstable	No
59 17-20 Yes Yes Yes Female Unstable	Yes
60 21-24 Yes Yes No Female Unstable	Yes
61 21-24 Yes No No Female Unstable	Yes
62 17-20 Yes No No Female Unstable	Yes
63 21-24 Yes No Yes Female Unstable	Yes
64 17-20 Yes No No Male Unstable	Yes
65 17-20 No No Yes Female Stable	Yes
66 17-20 Yes Yes Yes Female Stable	Yes
67 >24 No No Yes Male Stable	Yes
68 21-24 No Yes Yes Female Unstable	Yes
69 17-20 Yes No Yes Female Unstable	Yes
70 17-20 Yes No No Male Unstable	Yes
71 21-24 Yes No Yes Male Unstable	Yes
72 21-24 Yes No No Female Stable	Yes

73	21-24	Yes	No	No	Male	Unstable	Yes
74	21-24	Yes	Yes	Yes	Male	Unstable	Yes
75	21-24	Yes	No	No	Male	Unstable	Yes
76	17-20	Yes	Yes	Yes	Female	Stable	No
77	17-20	Yes	Yes	Yes	Female	Unstable	Yes
78	21-24	Yes	No	Yes	Female	Stable	Yes
79	21-24	Yes	No	Yes	Female	Unstable	No
80	21-24	Yes	Yes	Yes	Male	Stable	Yes
81	>24	Yes	No	No	Female	Unstable	Yes
82	21-24	Yes	No	Yes	Female	Unstable	Yes
83	21-24	Yes	No	Yes	Female	Stable	Yes
84	21-24	No	Yes	Yes	Male	Stable	No
85	17-20	No	No	Yes	Male	Stable	Yes
86	17-20	Yes	No	Yes	Male	Unstable	No
87	21-24	Yes	Yes	Yes	Male	Unstable	Yes
88	21-24	Yes	No	No	Male	Unstable	Yes
89	21-24	Yes	No	No	Female	Unstable	Yes
90	21-24	Yes	No	Yes	Male	Unstable	Yes
91	17-20	Yes	Yes	Yes	Female	Stable	Yes
92	21-24	Yes	Yes	Yes	Male	Stable	Yes
93	21-24	Yes	Yes	Yes	Female	Unstable	Yes
94	17-20	Yes	No	No	Male	Unstable	Yes
95	17-20	Yes	No	Yes	Female	Unstable	Yes
96	21-24	No	Yes	Yes	Male	Unstable	Yes
97	21-24	No	No	Yes	Male	Unstable	Yes
98	21-24	Yes	Yes	Yes	Male	Stable	Yes

99	17-20	Yes	Yes	No	Female	Unstable	Yes
100	17-20	Yes	Yes	No	Male	Unstable	Yes
	17-20	168	165	110		Ulistable	168
101	17-20	Yes	Yes	Yes	Male	Unstable	Yes
102	21-24	Yes	No	Yes	Female	Unstable	Yes
103	21-24	Yes	No	Yes	Female	Stable	Yes
104	21-24	Yes	Yes	Yes	Male	Stable	Yes
105	17-20	Yes	Yes	Yes	Male	Stable	Yes
106	>24	Yes	Yes	Yes	Male	Unstable	No
107	21-24	Yes	Yes	No	Male	Unstable	No
108	21-24	Yes	No	Yes	Female	Stable	Yes
109	21-24	No	No	Yes	Female	Stable	Yes
110	17-20	Yes	No	Yes	Male	Unstable	Yes
111	17-20	Yes	No	Yes	Male	Stable	Yes
112	21-24	Yes	No	No	Male	Unstable	No
113	17-20	Yes	No	Yes	Male	Stable	Yes
114	17-20	Yes	No	Yes	Male	Stable	Yes
115	17-20	No	Yes	Yes	Male	Stable	Yes
116	17-20	Yes	No	Yes	Female	Stable	Yes
117	21-24	Yes	No	Yes	Female	Unstable	Yes
118	17-20	Yes	No	No	Female	Stable	Yes
119	17-20	Yes	Yes	No	Male	Unstable	Yes
120	17-20	Yes	Yes	Yes	Female	Unstable	Yes
121	17-20	Yes	Yes	Yes	Male	Unstable	Yes
122	17-20	No	No	Yes	Female	Stable	Yes
123	17-20	Yes	No	Yes	Male	Stable	Yes
124	17-20	Yes	Yes	No	Male	Stable	No

125							
123	17-20	Yes	Yes	Yes	Male	Stable	Yes
126	17-20	Yes	No	Yes	Female	Stable	Yes
127	17-20	Yes	Yes	Yes	Female	Stable	Yes
128	17-20	Yes	Yes	Yes	Male	Unstable	Yes
129	17-20	Yes	Yes	No	Male	Stable	Yes
130	17-20	Yes	No	Yes	Female	Unstable	Yes
131	17-20	Yes	No	Yes	Male	Unstable	Yes
132	17-20	Yes	Yes	No	Male	Stable	Yes
133	17-20	Yes	Yes	Yes	Female	Stable	Yes
134	17-20	Yes	Yes	Yes	Male	Stable	Yes
135	17-20	Yes	Yes	Yes	Male	Stable	Yes
136	17-20	No	Yes	Yes	Male	Stable	Yes
137	17-20	No	No	Yes	Male	Stable	Yes
138	17-20	Yes	Yes	No	Male	Stable	Yes
139	21-24	Yes	No	Yes	Male	Unstable	Yes
140	17-20	Yes	Yes	Yes	Male	Unstable	Yes
141	17-20	Yes	No	Yes	Female	Unstable	Yes
142	17-20	Yes	Yes	Yes	Male	Unstable	Yes
143	17-20	Yes	No	No	Male	Unstable	Yes
144	17-20	Yes	Yes	No	Female	Unstable	Yes
145	17-20	Yes	Yes	Yes	Female	Unstable	Yes
146	21-24	Yes	No	Yes	Male	Unstable	Yes
147	21-24	Yes	No	No	Female	Unstable	Yes
148	17-20	Yes	Yes	Yes	Female	Unstable	Yes
149	17-20	Yes	Yes	Yes	Female	Unstable	Yes
150	17-20	No	Yes	Yes	Male	Stable	Yes

151	17-20	No	Yes	Yes	Female	Unstable	Yes
152	17-20	Yes	Yes	Yes	Male	Stable	Yes
153	17-20	Yes	No	Yes	Male	Unstable	Yes
154	>24	Yes	No	Yes	Male	Unstable	Yes
155	17-20	No	Yes	Yes	Female	Stable	Yes
156	21-24	No	No	Yes	Male	Unstable	Yes
157	21-24	Yes	Yes	Yes	Female	Stable	Yes
158	17-20	No	No	Yes	Male	Stable	Yes
159	17-20	Yes	Yes	Yes	Male	Stable	Yes
160	17-20	Yes	Yes	Yes	Male	Stable	Yes
161	21-24	Yes	Yes	Yes	Female	Stable	Yes
162	21-24	No	Yes	Yes	Female	Stable	Yes
163	21-24	No	Yes	Yes	Female	Stable	Yes
164	21-24	Yes	No	No	Female	Unstable	No
165	21-24	Yes	No	No	Male	Stable	Yes
166	17-20	Yes	Yes	Yes	Female	Stable	Yes
167	17-20	Yes	Yes	No	Male	Unstable	Yes
168	21-24	Yes	Yes	No	Male	Unstable	No
169	21-24	No	No	Yes	Female	Unstable	Yes
170	21-24	Yes	Yes	No	Male	Unstable	Yes
171	17-20	Yes	Yes	Yes	Female	Stable	Yes
172	21-24	Yes	No	Yes	Male	Stable	Yes
173	21-24	Yes	No	Yes	Female	Unstable	No
174	17-20	No	No	Yes	Female	Stable	Yes
175	17-20	Yes	Yes	Yes	Female	Unstable	Yes
176	17-20	Yes	No	Yes	Male	Stable	Yes

177	17-20	No	No	Yes	Female	Stable	Yes
178	17-20	Yes	Yes	Yes	Male	Stable	Yes

#### Appendix C

# **Technological University of the Philippines, Cavite Campus**CQT Ave., Salawag, Dasmariñas City 4114

Department of Industrial Education

#### REQUEST FOR RESEARCH ADVISER

1.				Mark Angelo Guerrero, anne S. Sambrano
2.		(Check one)	BSIE	BTTE
3.	Specializa	tion: Information	n Communicati	on Technology
4.	-	Title of Research vid-19 Among St		Anxiety Disorder
5.	Proposed	Research Advise	r / Consultant:	
	Name of F	Faculty: Julieta M	I. Fajardo	
	Specializa	tion: Psychology		
	Conforme	of the Faculty: _		
Requ	ested by:			
-	Jenj	i.		Arrighto
Je	enjie V. Del	a Pena	Mark	Anghelo Guerrero
	April	ilas	. –	Je 681-x
A	.cey Aljorie	V. Ponilas	Jessic	Anne S. Sambrano
Name	e and Signa	ature of Student/	S	
Reco	mmending	Approval:		
	_			
	MYRNA R. I			
BSIE	/PIE 14, Fa	culty In-Charge		
Appr	oved:			
PR∩F	TIIIIFTA	M. FAJARDO		
	l, IE Depart	•		
Date				

#### Appendix D

# **Technological University of the Philippines, Cavite Campus**CQT Ave., Salawag, Dasmariñas City 4114

Department of Industrial Education

#### REQUEST FOR PANEL DEFENSE

1. NAME/S OF ST	UDENT/S: Jenj	ie V. Dela P	Pena, Mark A	<b>Angelo</b>
Guerrero,	Acey Aljorie V.	. Ponilas, ar	nd Jessica A	nne S.
Sambrano	)	,	_	

- 2. PROGRAM: (Check one) SIE [ ] BTTE
- 3. SPECIALIZATION: Information Communication Technology
- 4. TITLE OF RESEARCH/STUDY: Generalized Anxiety Disorder During Covid-19 Among Students
- 5. DATE OF DEFENSE: June 8, 2021
- 6. VENUE: Google Meet
- 7. ADVISORY COMMITTEE:

Position	Name	Signature
1. Ms. Ellyssa R. Sebastian		
2.Prof. Dina D. Nicolas		

Research Adviser	-
PROF. JULIETA FAJARDO	
Noted	

DR. MYRNA R. BATINO Professor, BSIE/PIE 14 PROF. JULIETA M. FAJARDO Head, IE Department

#### Appendix E

# **Technological University of the Philippines, Cavite Campus**CQT Ave., Salawag, Dasmariñas City 4114

#### Department of Industrial Education

#### REPORT ON THE ORAL EXAMINATION I

- 1. NAME/S OF STUDENT/S: Jenjie V. Dela Pena, Mark Angelo Guerrero, Acey Aljorie V. Ponilas, and Jessica Anne S. Sambrano
- 2. PROGRAM: (Check one)

**₩** BSIE

[ ]BTTE

- 3. SPECIALIZATION: Information Communication Technology
- 4. TITLE OF RESEARCH/STUDY: Generalized Anxiety Disorder During Covid-19 Among Students
- 5. DATE & TIME OF DEFENSE: June 8, 2021, 1:00 pm.
- 6. VENUE: Google Meet
- 7. ADVISER: Julieta M. Fajardo
- 8. PANEL MEMBERS:

Panel of Examiners	Accepted with Revision	Deferred for Revision	Not Accepted
1. Ms. Ellyssa R. Sebastia			
2. Prof. Dina, D. Nicolas			

This is to certify to the authenticity of the above evaluation of the Panel of Examiners whose signatures are affixed herewith.

Chairperson

#### Appendix F

# **Technological University of the Philippines, Cavite Campus**CQT Ave., Salawag, Dasmariñas City 4114

Department of Industrial Education

#### REPORT ON THE ORAL EXAMINATION II

- 1. NAME OF RESEARCHER: Jenjie V. Dela Pena
- 2. PROGRAM: (Check one) SSIE [ ] BTTE
- 3. SPECIALIZATION: Information Communication Technology
- 4. TITLE OF RESEARCH/STUDY: Generalized Anxiety Disorder During Covid-19 Among Students
- 5. DATE & TIME OF DEFENSE: June 8, 2021, 1:00 pm.
- 6. VENUE: Google Meet
- 7. ADVISER: Julieta M. Fajardo
- 8. PANEL MEMBERS:

Position	Name	Rating
1. Adviser	Prof. Julieta M. Fajardo	
2.	Prof. Dina D. Nicolas	
3.	Ms. Ellyssa R. Sebastian	
Average		

Noted

DR. MYRNA R. BATINO Professor, BSIE/PIE 14

PROF. JULIETA M. FAJARDO Head, I.E. Department