THE RELATIONSHIP BETWEEN HYBRID LEARNING DURING THE COVID-19 PANDEMIC AND ANXIETY LEVELS

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ABSTRAK

COVID-19 merupakan virus yang menyebar dengan cepat ke seluruh dunia dan membuat pemerintah membatasi segala kegiatan sosial, tak terkecuali pada bidang pendidikan. Hal ini merupakan sesuatu yang baru bagi semua individu dan rentan berdampak pada kejiwaan mereka. Oleh karena itu, penelitian ini menjadi penting. Penelitian ini bertujuan untuk mengetahui sejauh mana hubungan antara pembelajaran *hybrid* (pembelajaran jarak jauh dan pembelajaran tatap muka) dengan tingkat kecemasan pada masa pandemi COVID-19 pada peserta didik di MA Citra Cendekia, Jakarta Selatan. Jenis penelitian ini menggunakan metode kuantitatif. Objek penelitian adalah peserta didik kelas X dan XI di MA Citra Cendekia, Jakarta Selatan. Data dalam penelitian ini dikumpulkan dengan menggunakan teknik angket. Hasil penelitian menunjukkan bahwa dari 54 sampel, sebanyak 20 orang atau 37,0% mengalami kecemasan yang disebabkan oleh pembelajaran *hybrid*. Terdapat hubungan yang signifikan antara kedua variabel tersebut yang berdampak pada kognisi peserta didik menurut hasil uji statistik dimana nilai probabilitasnya sebesar 0,008.
Kata Kunci: Pembelajaran *Hybrid*, Kecemasan, COVID-19

ABSTRACT

COVID-19 is a virus that quickly spread worldwide and made the government limit all social activities, including in the field of education. This is something that is new to all individuals and is prone to having an impact on their psyche. Therefore, this research is important. This study aims to find out how far the relationship between hybrid learning and anxiety levels during the COVID-19 pandemic in students at MA Citra Cendekia, South Jakarta. This type of research uses quantitative methods. The object of the research is class 10th and 11th students at MA Citra Cendekia, South Jakarta. The data in this study were collected using a questionnaire technique. The results showed that out of 54 samples, 20 people or 37.0% of them experienced anxiety caused by hybrid learning. There is a significant relationship between the two variables that impact students' cognition according to the statistical test results where the probability value is 0.008.
Keywords: Hybrid Learning, Anxiety, COVID-19

INTRODUCTION

The COVID-19 pandemic originated from the SARS-CoV-2 virus, which spread rapidly through human-to-human contact, affecting both patients and healthcare workers. Consequently, this virus has continuously increased the number of casualties (Middleton et al., 2020). The effects of COVID-19 are being felt globally, impacting the economy, health, education, and more. In the field of education, the government has implemented a policy to close schools (Viner et al., 2020). There are no exceptions in Indonesia regarding the teaching and learning process, which has moved to online methods (network learning) to reduce crowds and avoid physical contact. Unfortunately, several studies have shown that the implementation of online learning has not yielded positive results. The primary reasons for these shortcomings

include many educators who are still struggling with technology and students who face difficulties accessing online learning platforms (Munastiwi & Puryono, 2021). Hybrid learning, which combines online and offline learning, has been permitted by the government as the Covid-19 cases begin to decline.

Hybrid learning is an innovative concept because it includes the two advantages of traditional learning and ICT-based learning. However, due to the wide scope of the hybrid learning model, the demands for educators are very high as it takes super extra effort, the right attitude, adequate finances, and so on (Lalima & Lata Dangwal, 2017). Hybrid learning that combines online and face-to-face methods if it is not accompanied by the capacity of educators to apply it can have an impact on the psyche of students, not to mention in the online method, computer anxiety is often encountered, namely the fear that arises in individuals when using a computer or when weighing use of the computer (Al-Busaidi & Al-Shihi, 2012), while the online method cannot be separated from hardware such as computers, laptops, or smartphones. As for the face-to-face method, students are faced with fear of contracting the virus, lack of treatment, a relatively high chance of death, uncertainty when the virus can be controlled and the availability of vaccines that are not yet clear are the main factors that mental illness can occur, especially anxiety (Lakhan et al., 2020).

The researcher concluded that hybrid learning is a combination or combination of two or more approaches, media and methods in learning in order to achieve the goals of the learning process. Where hybrid learning has the goal of optimizing learning activities for the better, and facilitating learning characteristics and independence. However, hybrid learning does not completely replace face-to-face online learning. Hybrid learning only supports and complements material that has not been conveyed during class learning through the help of online media.

As for hybrid learning in this study, it is operationally defined as learning issued by the Ministry of Education and Culture of the Republic of Indonesia regarding the re-provision of face-to-face learning during this pandemic, which is known as limited face-to-face learning (Also known in Indonesia as limited PTM (*Pembelajaran Tatap Muka*). This is a breath of fresh air and an answer to public anxiety in learning during this pandemic. However, the government emphasizes that this limited PTM must pay attention to a number of things such as the holding of PTM may only be carried out in areas with community restrictions (PPKM) level three and below and with permission from each student's parents. The limited PTM weight can only be done two days a week with two hours each and may only be attended by 25% of students in one class. Some of these things clearly still need to be considered considering the pandemic is not completely over. Many school institutions, both public and private, responded positively to the Ministry of Education and Culture's decree and eventually implemented limited PTM and PJJ (online learning, also known in Indonesia as *Pembelajaran Jarak Jauh*) alternately (Hybrid Learning). The object of this research, namely Citra Cendekia Madrasah Aliyah, South Jakarta, also chose to use this hybrid learning. The hybrid learning model in this school is carried out in turn by each stratum. Class X conducts limited PTM on Monday, class XI on Wednesday, and class XII on Friday. As for Tuesday and Thursday, learning is carried out online (remote).

Education in Indonesia is forced to adapt to this hybrid learning for safety reasons which ultimately has an impact on the psyche of those involved in it. This kind of phenomenon can be said as culture shock and technology shock. The public's shock, especially in the use of online learning media and carrying out new roles, is also the cause of these two things happening. The implementation of education in the pandemic era was shocked because it spontaneously increased and migrated to hybrid learning.

Anxiety is defined as a temporally diffused emotional state caused by a potentially harmful situation, with the probability or occurrence of harm being low or uncertain (Daviu et al., 2019). Anxiety is a natural thing and must be felt by all individuals, but anxiety can be dangerous, even at risk of becoming a mental disorder, if it lasts for a long period or continuously. This is quite dangerous because people generally underestimate mental illnesses (Bandelow, 2017), even though the impact can be suicide and other unwanted things. So, Researchers concluded that anxiety is a human response or reaction to a threatening situation. Where an individual will try to avoid the danger if he feels unable to overcome it.

If we look at the current difficult situation, the chances of an individual experiencing anxiety or other mental disorders will certainly increase. They are forced to be able to adapt to new things that they have never done before. It's the same with hybrid learning in the field of education. Students who come to school every day and meet face-to-face with educators to study at this time must study independently in their homes. Unfortunately, educators still pay little attention to this. Even though with knowledge about mental health, educators can understand the factors that cause unhealthy mentality so that educators can assist in solving problems felt by students and are able to prepare them so that they have a healthy mentality.

Anxiety is an emotional state that precedes an actual encounter with a threatening stimulus, which is sometimes even difficult to identify. This is usually experienced in everyday life, such as during exams, when making important decisions, at work, and so on (Appukuttan, 2016). It should be noted that the level of anxiety in each individual is different and can be influenced by various factors, including gender, age, culture, body mass index, cognitive level, and many others (O'Neill & Murray, 2016).

Based on the arguments presented, the researcher aims to explore the relationship between hybrid learning and the level of anxiety experienced by students. To investigate this, observations were conducted at several schools in South Jakarta. Among these, MA Citra Cendekia, located in Jagakarsa, stands out as one of the institutions implementing hybrid learning in its teaching methods.

RESEARCH METHOD

The method used in this study is a quantitative method with the aim that phenomena can be described through numerical data which is analyzed using mathematically based methods. This research took place for approximately 6 months during the COVID-19 pandemic, starting in October 2021 and completed in March 2022. The data was taken through a sample of 54 students which comes from five classes with two different levels and two different majors, namely class 10th Natural Science, 11st Natural Science, 10th Social Science 1, 10th Social Science 2, and 11st Social Science at MA Citra Cendekia, South Jakarta. From the number of respondents, they were then grouped into two levels, namely levels X and XI. Due to an initial agreement with the school which decided not to include level XII students in the research because they would face final school exams. This study uses a purposive sampling technique or commonly called Judgmental, Selective and Subjective sampling. The data collection technique used is a questionnaire, to get a breadth view. The questionnaire distributed was made by the researcher by self-taught by improvising the DASS-42 (Depression, Anxiety & Stress Scales) with the aim of getting more accurate results. At the end, the researcher analyzed the data with the help of the SPSS (Statistical Packages for the Social Science) application.

RESULT AND DISCUSSION
Result

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The data in this study were taken from students of class X and XI, with a sample of 54 people. The following are the characteristics of respondents and the presence or absence of anxiety felt during hybrid learning during the COVID-19 pandemic.

Table 1. Repondent Characteristics

		Amount	Percentage
Gender	Male	26	48,1%
	Female	28	51,9%
Age	15	23	42,5%
	16	27	50,0%
	17	4	7,5%
Grade	X	27	50,0%
	XI	27	50,0%
Tribe	Java	24	44,4%
	Sunda	8	14,8%
	Betawi	13	24,1%
	Other	9	16,7%
Body Mass Index	Thin	19	35,2%
	Normal	25	46,3%
	Fat	8	14,9%

In table 1. the data that the researcher has collected shows that the respondents consist of 28 students or 51.9% female and 26 male students or 48.1%. The age of the respondents consisted of 15-17 years. There are 27 student who are 16 years old or half (50%) of the overall percentage of respondents and there are 4 student who are 17 years old and the rest are 15 years old. The respondents themselves came from the upper secondary education level, namely class X and XI with 27 students in each class. The respondents were categorized into four ethnic groups where the Javanese numbered the most, namely 24 students or 44.4%. The researcher also measured the body mass index of the respondents and found that most of the respondents had a normal body mass index of 25 students or 46.3%. From a total of 54 respondents who participated in this study, it was found that there were 20 students or 37.0% of them who experienced anxiety due to hybrid learning during the COVID-19 pandemic.

Table 2. Relationship Between Gender and Anxiety Levels in Hybrid Learning

	Gender		Total	P
	Male	Female		
Don't feel Anxious	19 (73,0%)	15 (53,5%)	34 (63,0%)	
Feel Anxious	7 (27,0%)	13 (46,5%)	20 (37,0%)	P = 0,138
Total	26	28	54	

Table 2. shows that female students experience more anxiety than male students. However, it does not show a relationship between gender and anxiety levels and does not show

statistical significance because the probability (p) value is greater than 0.05. (chi square test, p = 0.138) In chi square testing, data is said to be significant if it is lower than 0.05 and is said to be insignificant if it is greater or equal to 0.05. (Dahlan, 2014).

Table 3. Relationship Between Age and Anxiety Levels in Hybrid Learning

	Age			Total	P
	15 y.o	16 y.o	17 y.o		
Don't feel Anxious	12 (52,5%)	19 (70,4%)	3 (75,0%)	34 (63,0%)	
Feel Anxious	11 (47,8%)	8 (29,6%)	1 (25,0%)	20 (37,0%)	P = 0,362
Total	23	27	4	54	

Table 3. shows that students aged 15 years experienced more anxiety than students aged 16 and 17 years. However, it does not show a relationship between age and anxiety levels and does not show statistical significance because the probability (p) value is greater than 0.05. (chi square test, p = 0.362)

Table 4. Relationship Between Class and Anxiety Levels in Hybrid Learning

	Class		Total	P
	X	XI		
Don't feel Anxious	15 (55,5%)	19 (70,4%)	34 (63,0%)	
Feel Anxious	12 (44,5%)	8 (29,6%)	20 (37,0%)	P = 0,134
Total	27	27	54	

Table 4. shows that class X students experience more anxiety than class XI students. However, it does not show a relationship between class and level of anxiety and does not show statistical significance because the probability (p) value is greater than 0.05. (chi square test, p = 0.134)

Table 5. Relationship Between Tribe and Anxiety Levels in Hybrid Learning

	Tribe				Total
	Java	Sunda	Betawi	Other	
Don't feel Anxious	16 (66,6%)	6 (75,0%)	6 (46,2%)	6 (66,6%)	34 (63,0%)
Feel Anxious	8 (33,4%)	2 (33,4%)	7 (53,8%)	3 (33,4%)	20 (37,0%)
Total	24	8	13	9	54

Table 5. shows that students from the Betawi ethnic group experience more anxiety than students from other ethnic groups. In this table, the Chi-Square test is not carried out because it does not meet the requirements to carry out the test. In table 5, 3 cells (37,5%) have expected count less than 5. The minimum expected count is 2,96 which is why the chi square test cannot be performed (Dahlan, 2014).

Table 6. Relationship Between Body Mass Index and Anxiety Levels in Hybrid Learning

	Body Mass Index			Total	P
	Thin	Normal	Fat		
Don't feel Anxious	11 (57,9%)	18 (72,0%)	4 (50,0%)	34 (63,0%)	
Feel Anxious	8 (42,1%)	7 (28,0%)	4 (50,0%)	20 (37,0%)	P = 0,435
Total	19	25	8	54	

Table 6. shows that students with a fat body mass index experience more anxiety than students with a lean and normal body mass index. However, it does not show a relationship between body mass index and anxiety levels and does not show statistical significance because the probability (p) value is greater than 0.05. (chi square test, p = 0.435)

Table 7. Relationship Between Cognitive Levels and Anxiety Levels in Hybrid Learning

	Cognitive Levels		Total	P
	Good	Not Good		
Don't feel Anxious	33 (70,2%)	1 (14,3%)	34 (63,0%)	
Feel Anxious	14 (29,8%)	6 (85,7%)	20 (37,0%)	P = 0,008
Total	47	7	54	

Table 7 shows that students with poor cognitive levels experience more anxiety than students with good cognitive levels. Thus, it shows that there is a relationship between cognitive level and anxiety level and shows statistical significance because the probability (p) value is less than 0.05. (fisher's exact test, p = 0.008)

Discussion

In this study, researchers looked at six factors that influence student anxiety during hybrid learning, namely gender, class, age, ethnicity, body mass index, and cognitive level. Table 2. shows that female students are more prone to anxiety than male students. Factors that influence it are from men who tend to be not easy to express their anxiety, fears and weaknesses because of social standards which ultimately make them tend to be stronger and less prone to anxiety (Mavridou et al., 2013). From women themselves, the main factor is because women have more estrogen than men where the quantity of this hormone can affect anxiety in an individual (Zhang et al., 2016).

For more details, Altemus, et.al. explained in their research that women are significantly more prone of experiencing anxiety than men. Where the onset of anxiety and depression peaks in adolescence and early adulthood. Women are more at risk of experiencing anxiety two times greater than men. There are exceptions to the above, namely if the woman has obsessive-compulsive disorder and bipolar disorder which can cause an equal prevalence between men and women. However, even for these disorders, men and women have differences in disease presentation and course. In addition to higher rates of affective disorders that meet full diagnostic criteria, subclinical anxiety and depression symptoms are also more common in women (Altemus et al., 2014).

The researchers suspect that women are more prone to anxiety, experience sleep disturbances, eating disorders, and experience feelings of guilt when under stress. This condition is caused by the hormone estrogen which is more in women, so women are more susceptible to stress than men. Hybrid learning, especially during a pandemic like today, certainly has an impact and pressure that is not small on the condition of students.

Table 3. shows that students aged 15 years are more prone to experiencing anxiety than those aged 16 and 17 years. Younger students have a greater chance of experiencing anxiety than older students, especially during the Covid-19 period (Huang & Zhao, 2020). This is general, because younger individuals do not have comparable social experiences to those who are older, so they are more prone to anxiety (Lever & Geurts, 2016).

In accordance with the researchers' estimates, the quantity of anxiety of an individual on average slightly increased from the youngest group to the age of 55-59 years, which then began to experience a decrease in the quantity of anxiety on average when entering the age of 65-69 years. Those in the second category had a low quantity of anxiety presumably because many of them were old enough to retire and thus relieved of the stress of work, but they were relatively young enough to still be able to enjoy good health (Hinz et al., 2017). As expected, the younger a person is, the more vulnerable they are to anxiety and stress. Young people are more susceptible to psychological pressure (stress) and anxiety, due to immature mental and mental readiness and lack of experience. They experience anxieties that are sometimes funny and trivial to adults. This is consistent with the data collected in this study where age 15, which is the youngest among other respondents, is more prone to experiencing anxiety, namely as much as 47.8%.

Table 4. shows that class X students are more prone to experiencing anxiety than students in class XI. Psychological factors are the main cause of student anxiety in learning, because this anxiety makes students nervous during learning, lacks confidence, even has no interest in learning (Yan, 2020). Class X students are the most junior and have just entered high school, this is one of the factors that make them more prone to experiencing anxiety than other students. Similar results were also found in the study of (Zhang et al., 2020) who found that anxiety in grade 10 was slightly higher than the other two grades, 11 and 12 (33.1 vs. 31.1% and 28.6%)

Researcher suspects that class X students have a higher chance than class XI to experience anxiety disorders. This is caused by the transition process from one level to another which is higher and of course more difficult. Moving from junior high school to high school certainly requires adjustments to the environment, both academically and socially, especially with peers. This was further exacerbated by the pandemic that hit the archipelago. Students who have just entered high school must experience the first day of school from their respective homes. They find it difficult to make new friends and socialize happily as they have always felt before.

Table 5 shows that students from the Betawi ethnic group are more anxious than those from other ethnic groups. One of the most famous cultures of the Betawi tribe is the characteristic of its people who are prominent, open and easy to get along with. Until finally Covid-19 came and limited social interaction between them, it was clear that this behavioral changes caused the students to feel uncomfortable and anxious (Chinazzi et al., 2020). In several studies related to anxiety and ethnicity, it is generally found that those with minor ethnicities are more at risk of experiencing anxiety than those with major ethnicities because of discrimination. such as research conducted by (Cathey et al., 2014) where he found in his research that ethnic minorities (outside Caucasians) are more prone to anxiety than those with

major ethnic groups (Caucasian). In contrast to this study, the Betawi ethnic who were found to experience the most anxiety were not in the minor ethnic group. So, the researchers suspect that major or minor in ethnicity does not always affect individual psychology, but can also be influenced by the characteristics of the ethnic itself. The Betawi tribe, which is characterized by interaction and social support, will certainly be prone to experiencing anxiety because limited social support will have an impact on their psyche. as it is known that culture has a relationship with anxiety because culture can influence the values that are considered the most important.

Table 6. shows that students with a fat body mass index, followed by thin, are more anxious than those with a normal body mass index. This is because body mass index is very influential on a person's self-confidence. Individuals who feel less confident both because of physical and other aspects will have an impact on excessive worry and anxiety (Macintyre et al., 2016). This is linear with the research of Huiyan Duan, et.al. which states the positive correlation was found between BMI (Body Mass Index) and SAS (Self-rating Anxiety Scale) (Duan et al., 2022).

The researcher's analysis is that body mass index is very influential with a person's self-confidence. One that affects self-confidence is the body shape or physical appearance it has. Physical appearance which is very influential on self-confidence is based on how the individual sees his physical condition which can be in the form of body shape or body weight that he has and how the individual evaluates his physique and what shape he wants. Self-confidence is a person's belief in all aspects that exist in him and is manifested in daily behavior and how the individual is able to evaluate himself and his environment positively.

Table 7. shows that students with weak or poor cognitive levels are more prone to experiencing anxiety than students who have good cognitive levels. Cognitive level can affect a person's anxiety. Students who lack cognitive skills tend to be worried and embarrassed when their "secret" is revealed, they are termed like "waiting for the other shoe to drop" which means ready to be replaced at any time (Nielsen & Harder, 2013), therefore they are more prone to experience anxiety. This is in line with the contents of (Maloney et al., 2014) research which termed "test anxiety". According to them, test anxiety, which refers to anxiety that is felt in testing situations, is a commonly experienced form of anxiety that is associated with poor exam scores. High levels of test anxiety are linked to poor academic performance, lower marks in school, and increased grade repetition.

Based on the explanation above the researcher concluded that there was a significant relationship between the cognitive level of students and the level of anxiety they felt. as it is known that cognitive development is an aspect of development that emerges and develops rapidly when the part of the brain cortex that produces an excess number of synapses as an implication of the initial development of a person begins to interact with the surrounding environment. There are many things that can cause students to feel anxious, one of which is cognitive aspects such as anxiety that students feel before carrying out exams. A student's fear of exams will result in excessive anxiety and pressure. Exams are a source of anxiety for students. At least before the exam, students prepare themselves in advance including intellectually (mastering the subject to be tested), emotions and physical condition. At least this step is done so that the anxiety experienced by students is not excessive. However, when students experience excessive anxiety, especially when they are about to face exams, of course this will have an impact on disrupting the student learning process and of course it will be able to hinder the implementation of the exam. Students who have a good cognitive level are

certainly more prepared to face exams, whereas those who are less cognitive will certainly feel anxious in facing exams.

CONCLUSION

Hypothesis testing carried out on six aspects, namely gender, age, class, ethnicity, body mass index, and cognitive level on the relationship with anxiety levels in hybrid learning showed that there was an influence between the two, but statistically assessed on five aspects (gender, age, class, ethnicity, and body mass index) are not significant because the p value (chi-square test) is less than 0.05. As for the cognitive aspect, the number is 0.008 (> 0.05), so it is said to be statistically significant. So it can be concluded that hybrid learning during the covid-19 pandemic has a psychological impact in the form of anxiety on students at MA Citra Cendekia, South Jakarta.

This study demonstrates that hybrid learning during the COVID-19 pandemic has affected students' anxiety, particularly at the cognitive level, specifically at MA Citra Cendekia in South Jakarta. Therefore, the researchers emphasize the urgent need for collaboration among three key parties: the government, educators, and parents. It is crucial for these groups to work together in providing additional support for students' mental health during hybrid learning. The researchers believe that the hybrid learning model will continue to be relevant after the COVID-19 pandemic, especially in an era of advancing technology.

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