Elementary Students' Academic Stress in Distance Learning by Gender and School Environment

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Abstract. This study aims to reveal the academic stress experienced by elementary school students during the COVID-19 pandemic regarding the implementation of online learning from home. This research was conducted in Malang Raya by distributing questionnaires randomly with a total of 22 schools which were divided into 12 schools in urban areas and 10 schools in rural areas. The subjects were 236 students consisting of 103 male students and 133 female students. The instrument used is the academic stress scale developed by the researcher and has gone through the stages of validity and reliability. The lowest validity score is 0.363 and the highest validity value is 0.560 and the reliability score is 0.769. The data obtained show that the level of academic stress experienced by elementary school students in Malang Raya is in the low category of 98 students or 41.53%, then 126 students or 53.39% experience moderate stress, the rest are in the high category. Experienced by 12 students or 5.09% of students only. Furthermore, if mapped based on rural and urban areas, the data obtained: from a total of 122 students who study in urban areas 9.8% experienced high levels of academic stress, 49.1% experienced moderate levels of academic stress and the remaining 40.9% students experienced academic stress at low level. Academic stress data obtained from students who study in rural areas are 0% of students experiencing high academic stress, 58.1% of students experiencing moderate level of academic stress, the remaining 41.8% experienced a low level of academic stress. If mapped by gender, male students experience more academic stress than girls, although the difference is not too significant.

Keywords: Academic Stress; Covid-19 Pandemic; Elementary School Students
berdasarkan kawasan pedesaan dan perkotaan maka diperoleh data: dari total 122 siswa yang bersekolah dikawasan perkotaan 9,8% mengalami stress akademik pada level tinggi, 49,1% mengalami stress akademik level sedang dan sisanya 40,9% siswa mengalami stress akademik pada level rendah. Data stress akademik yang diperoleh pada siswa yang bersekolah di kawasan pedesaan yakni 0% siswa mengalami stress akademik tinggi, 58,1% siswa mengalami stress akademik level sedang, sisanya 41,8% mengalami stress akademik pada level rendah. Jika dipetakan berdasarkan jenis kelamin maka siswa laki-laki lebih mengalami stress akademik dibanding perempuan meski perbedaanya tidak terlalu signifikan.

Kata Kunci: Pandemi Covid-19; Siswa Sekolah Dasar; Stress Akademik

INTRODUCTION

COVID-19 has been declared a Global Public Health Emergency by the World Health Organization (WHO) on January 30, 2020. Morawska & Cao (2020), states that coronavirus is a type of virus that causes illness ranging from mild to severe symptoms. There are at least two types of coronavirus that are known to cause severe disease, such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). Coronavirus Disease 2019 (COVID-19) is a new type of disease that has never been previously identified in humans.(WHO, 2020) display data that Indonesia is one of the countries in Southeast Asia with the most positive cases of COVID-19.

Many trials have been initiated to evaluate the complications of COVID-19, the psychosocial effects on health care providers, the latest diagnostic tools and the various impacts of the outbreak of this virus which state that high vigilance is needed from various parties and elements of society (Sahu, Lal, & Mishra, 2020). Indonesia announced the first case on March 22, 2020, thereby changing the whole order of life due to anticipating the transmission of this dangerous virus. A significant impact also occurs on the global education system which will certainly give a new nuance to the student learning system. The government through its policies instructs all students to study from home as a form of caution in guarding against the threat of virus transmission. As stated by Hira & Anderson (2021), the role of technology in mediating teacher learning experiences and understanding whose motivation for teaching PBL during a pandemic also made students have to adapt to unusual conditions.

This condition has an impact on many sectors, including the field of education, where the educational process that has been taking place so far requires a meeting and gathering process for students and teachers in schools to carry out the learning process. With the COVID-19 pandemic, a new policy was implemented, namely an online learning system, so students do not need to go to school. This is a new experience where students and parents are still in the process of adjusting to habits that have never been done before. Siahaan et al. (2020) stated using this online learning system, sometimes there are various problems faced by students and teachers, such as subject matter that has not been completed by the teacher later teacher replaces with other tasks. This is a complaint for students because the tasks given by the teacher are more. A new thing, of
course, will cause reactions from students, one of which is academic stress, because the
learning pattern is much different from what has been done before. In line with the
Barseli & Ifdil (2017), which states that academic stress is pressure due to subjective
perception of an academic condition. This pressure gives rise to responses experienced
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physical reactions, behaviors, thoughts, and emotions that arise due to school or
academic demands (Barseli & Ifdil, 2017). Academic stress is the main problem faced by
students during their school years, when they struggle to get academic achievement for
their future life. Academic stress is one of the factors that cause failure among students.
Stress is a mental response and action through hormone signaling, the perception of
danger in the body that triggers an automatic response, known as the fight or flight
response. Stress is a feeling of tension and pressure as well as feelings that threaten
(Saqib & Rehman, 2018). The existence of new environmental conditions requires efforts to adapt
to all the demands that must be met, which can also lead to depressed conditions.
Complicated academic environment sometimes creates big problems for students' lives
(Agolla & Ongori, 2009).

Various factors can affect the occurrence of stress, especially academic stress, both
internally and externally. One of the main factors, namely biological factors or more
specifically, is gender. Between men and women, when they are under stress, they will
show the same reaction both from a physiological point of view, which is characterized
by fatigue, tension in the muscles of the shoulders and neck. Difficulty concentrating is
also a sign of stress. Emotionally people who experience stress will be quick to anger,
irritable and even apathetic. If stress is not managed properly it can lead to more serious
problems. However, it is not known for certain who has the higher level of academic
stress between male and female students when faced with learning from home situations
during the COVID-19 pandemic. Armayanti et al. (2022) argued that this situation
resulted in students doing a lot of online learning activities that could trigger fatigue,
boredom, stress to depression. There were even cases of suicide in students due to stress
due to online learning where students were charged with piling up tasks. Therefore, this
research was conducted as a means of digging up data in order to design appropriate
services.

In the learning process, in addition to the learning system which is still very
foreign, students when carrying out various activities are required to apply a new pattern
of habit, namely maintaining distance (physical distancing) and complying with very
strict health protocols, such as wearing masks and one of the things we must do. is to
maintain cleanliness, as stated by Ran et al. (2020) that hand washing can significantly
reduce viral or bacterial residues on hands. In previous research by Sagita, Fairuz, &
Aisyah (2021) get a finding that academic stress conditions for male and female students
are in the low category. Furthermore Boivin & Welby (2021) mention that students were
not the only group with anxiety and added stress. Having to pivot from in-person classes
to online classes half-way through the semester, teacher-preparation faculty had to deal with a myriad of options and not a lot of time to figure out the. This means that students have good emotional management. However, in this study, we tried to explore the academic stress experienced by elementary school students. This study aims to determine the relationship between studying from home during the covid-19 pandemic and the level of academic stress mapped by gender.

This study uses a conceptual framework consisting of theoretical and empirical factors related to academic stress experienced by elementary school students due to a new pattern, namely learning from home during the COVID-19 pandemic, which is reviewed based on gender, namely male, and women. Previous research has shown that female students have higher and general levels of academic stress compared to their male counterparts (Karaman, Lerma, Vela, & Watson, 2019). This study tries to uncover the academic stress experienced by elementary school students whose learning system is certainly affected due to the covid-19 pandemic, where students are required to do a different way of learning from before. They no longer go to school as usual.

**METHOD**

This study uses a quantitative approach to the type of survey research. The number of samples was 236 elementary school students consisting of lower class and upper class. The technique of collecting data is through a questionnaire in the form of a Likert scale. The total number of items is 10 items that have been tested for validity and reliability. Sinring & Umar (2021) said validity indicates the extent to which the measuring instrument or research instrument measures what is to be measured. The aim is to describe the answers to the questions in the questionnaire given to the respondents and to show that the questions or answers are relevant to the indicators derived by the researcher. The questionnaire used consists of ten items with the lowest validity value of 0.363 and the highest validity value of 0.560 and reliability of 0.769.

Data analysis technique using descriptive statistical analysis using SPSS version 22 aims to obtain a descriptive picture by describing and explaining the existing results. Jonathan Sarwono, Azhar Affandy (2020) said descriptive statistical analysis serves to make it easier to provide an overview of respondents based on characteristics such as gender, age, and semester. Descriptive analysis for measuring perceptions of the dimensions of the variables presented in the form of a frequency table including the highest score, average (mean), median (median), and standard deviation.

The items presented in the questionnaire reveal students' academic stress levels and their learning patterns during the COVID-19 pandemic. The data obtained then went through the statistical analysis stage and presented with a percentage model. Descriptive research is concerned with how what or what was for some previous event that has affected or affected current conditions or events. This research area is limited to the Malang Raya. Study materials were collected from all elementary schools in Malang Raya by random. From this population the researchers took a sample (n = 22) Elementary Schools in Malang Raya. Researchers further divided (n = 10) schools in rural areas and (n = 12) schools in urban areas. Meanwhile, it is mapped in more detail by gender, from
the entire sample, the students were divided into (n = 103) male and (n = 133) female students. This study will reveal the level of academic stress experienced by elementary school students in the Malang Raya area based on gender and based on the region where students live (village and city).

RESULTS AND DISCUSSION

Based on a questionnaire that was distributed randomly to a number of 236 respondents with the category of elementary school students who are currently studying in grades one to grade six in the Greater Malang area, the data related to the level of academic stress experienced by students are obtained as follows:

![Figure 1: Academic Stress Level of Elementary School Students During the COVID 19 Pandemic](image)

The graph above shows that of the 236 elementary school students who became respondents, the majority experienced academic stress in the low category of 98 students or 41.53%, then 126 students or 53.39% experienced moderate stress, the rest experienced high high category by 12 students or 5.09% of students only.

Mapping of academic stress based on gender in more detail is divided into two categories, namely male categories total 104 respondents and female respondents totaling 132 students, which are presented in the table as follows:

<table>
<thead>
<tr>
<th>Table 1. Academic stress based on gender</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
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<tr>
<td>Male</td>
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<tr>
<td>Female</td>
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</tbody>
</table>
In accordance with the data obtained, male students are more likely to experience academic stress than female students, although the difference is only slightly. Furthermore, the level of academic stress mapped based on the student's residence (village and city) during the COVID-19 pandemic shows the following results:

Based on the presentation of the data, it is known that all students who experience high levels of academic stress live in urban areas, namely a total of 12 children, for rural areas none of them experience high levels of academic stress. Furthermore, at the moderate level between students who live in villages and in cities, the number shows a balanced number, namely 60 students in urban areas and 64 students in rural areas.
Likewise, for low levels of academic stress, it appears that there is no significant difference between students living in rural areas and in cities, namely 50 students living in cities and 46 students living in villages.

**Discussion**

Based on the results of the study, the majority of elementary school students in the Greater Malang area experienced academic stress at a moderate level of 53.39% and a low level of 41.53%, the remaining only 5.09% of students experiencing high levels of academic stress. This phenomenon can be explained based on the results of a questionnaire that reveals the time span of students studying at home during the pandemic. The data obtained showed that 3.38% of students from all respondents carried out learning activities during the pandemic with a span of more than 3 hours, so that 96.62% of students during the pandemic only carried out learning activities at home with a span of less than 3 hours.

The findings of this data that underlie the conditions of academic stress experienced by students are dominated by low and moderate levels. External factors that trigger academic stress are reduced due to the application of a learning system from home which is still in the adaptation phase from various aspects. As expressed (Barseli & Ifdil, 2017) curriculum in the standard education system is getting higher. As a result, competition is getting tougher, learning time is increasing, and the burden of students is increasing, this makes the stress level faced by students increase. In this case, the online learning process has not been fully implemented and structured properly so that it makes the external factors that trigger stressors in the academic field decrease. Proven by Khusniyah & Hakim (2019) that online learning creates conditions: (a) students feel more relaxed and happy; (b) Students feel they have more time at home with their families; (c) Students feel they have more time to rest and relax; (d) Students feel more relaxed and less tense.

A new fact obtained from research that can answer the phenomenon of academic stress conditions for elementary school students who tend to be at low and moderate levels is the role of parents which is quite dominant when the learning system from home is applied. Parents of students who play an active role in responding to and doing various learning tasks that should be done by students themselves, so it is as if the tasks given by students become a burden for parents. In line with Cahyati & Kusumah (2020), in their research which states that many parents help provide motivation as long as students are required to study from home because of the government's appeal regarding covid-19, this is also what makes not a few parents deliberately take the time to help their children's learning process while at home. Many parents agree that during learning at home, it is the parents who also help do the assignments given by the teacher.
The online learning system forces parents to be involved in the student learning process, such as the statement by Habibah, Salsabila, Lestari, Andaresta, & Yulianingsih (2020) the role of parents in determining student achievement is very large. Meanwhile, if students are in a stressed condition, it is like Safira & Hartati (2021) said in their research found that when students experience academic stress, student achievement will decrease, it is difficult to adjust to school and cannot focus on assignments or lessons.

**Academic Stress by Gender**

Stress is a natural physiological mechanism that protects humans from harm. When stress occurs, the human body will stimulate the release of hormones that will increase alertness and focus (Nasrani & Purnawati, 2015). Everyone's stress response is different. One such response is gender dependent. In this study, between male and female students there was no significant difference with regard to the level of academic stress experienced, thus there was no significant difference with respect to the level of academic stress of students when viewed by gender (Adasi, Amponsah, Mohammed, Yeboah, & Mintah, 2020). The results of this study are supported by Astuti, Anisa Dwi, (2017) which showed that stress reactivity was not significantly different between girls and boys. Gender is not a factor that can increase the academic stress experienced by students. The factors that trigger academic stress are in accordance with the results of the study by Octavia (2019), academic stress is not only influenced by factors from within the individual (internal), but can also be influenced by factors from outside (external). Internal factors consist of self-efficacy, hardiness, motivation while external factors consist of social support.

Gender is related to the bodies of men and women, where men produce sperm and women produce eggs (Rohmatillah & Kholifah, 2019). This condition will certainly affect the body's hormones, which will also give its own nuance when responding to mental stress in the form of stressors. Responses to academic stressors consist of cognitive, behavior, physical, affective. Cognitive response is a response that arises from thoughts, such as: loss of confidence, fear of failure, difficulty concentrating, worrying about the future, forgetting things and thinking constantly about what they should do (Lubis, Ramadhani, & Rasyid, 2021).

**Academic Stress by Rural and Urban School Area**

Judging from the area where the students live, it is known that the stress level of elementary school students in rural areas tends to be higher than elementary school students in urban areas. This can happen because the majority of parents who live in cities have higher digital literacy than parents who live in villages, so they are more qualified when accompanying students when studying online using electronic devices.
such as laptops and mobile phones. This is reinforced by Hadiyat (2014) through the results of his research which states that in Indonesia there is still a digital divide (digital divide) as evidenced by the condition of the gap between those who can access the digital world and information technology and those with limited access or no access at all. It is also suspected that there is a disparity in the availability of infrastructure between urban and rural areas. Furthermore, it is also supported by a statement in accordance with the results of his research which states that various obstacles also arise in the application of online learning via the internet, which is difficult to do in certain areas with inadequate networks.

With regard to limited infrastructure in rural areas, it also triggers the emergence of academic stress experienced by students in line with Prawanti & Sumarni (2020) that the internet network is weak or sometimes lost, so students are often late in sending assignments, this triggers panic. In addition, because there are problems with the network, it causes students to do academic procrastination which means as a special form of procrastination that occurs in academic settings (Erfantinni, 2016). Furthermore Kusmiyati, Suryani, Herawati, & Firdausi (2020) convey to promote health and reduce stress, each individual should consume vitamin D and expose their skin to sunlight with ultraviolet light. To support mental health as stated by Erfantinni, Febriani, Ningrum, & Melinda (2019), stress conditions of students can actually be reduced by positive thinking training through cognitive restructuring techniques.

CONCLUSION

Based on the results of the study, it can be concluded that the academic stress conditions of elementary school students in the Malang area tend to be at a moderate level, because of the large role of parents involved in the learning process, this is a phenomenon that requires evaluation efforts regarding the online learning system for elementary school students. Further research with experimental nuances needs to be done to improve the quality of student learning, considering that students are in a mentally stable condition.

REFERENCES


