

The Differences of Students' Burnout from Level of Education and Duration Daily Online Learning During COVID-19 Pandemics

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Abstract

The COVID-19 pandemic changes to activities in teaching activities. This research was specifically conducted to determine the state of student burnout caused by online learning during the COVID-19 pandemic. This study aims to analyze the students' burnout from level of education and duration daily online learning during COVID-19 Pandemics. School Burnout Inventory (SBI) were distributed among 2,310 students and analyzed using crosstabs analysis and also two ways ANOVA. School Burnout Inventory (SBI) was distributed among 2,310 students who conducted an online survey using the google form application. The data were analyzed using crosstabs analysis and two ways ANOVA. The findings showed that most students at the junior high school (49.9%), senior high school (52.8%), and university (43.8%) levels had online learning duration between 1 and 3 hours per day. The findings of this study also indicated that there is a difference in the interaction between education level and duration of daily online learning at the level of burnout ($F(8, 2295) = 2.47, p < 0.05$). This research has implications for guidance and counseling services for students during the pandemic and the new-normal COVID-19.

Keywords: COVID-19, Students' Burnout, Online Learning

1. Introduction

Since the outbreak in China last December until now, the coronavirus around the world has become uncertain with a pandemic outbreak that has not subsided. The COVID-19 pandemic affects all areas of life, including the health sector, the economy, including education. Moreover, in the field of education, the impact is very large, the rapid spread of the COVID-19 pandemic has disrupted the education sector in Indonesia. As of April 17, 2020, it is estimated that 91.3% or around 1.5 billion students worldwide will be unable to attend school due to the COVID-19 pandemic

(UNESCO, 2020). This number includes about 45 million students in Indonesia or about 3% of the total student population affected globally (AFP, 2020).

The COVID-19 pandemic changes to activities in teaching activities (Zaharah et al., 2020). In Indonesia, since mid-March 2020 online learning activities have become an option for the ministry of education and culture to prevent the spread of the COVID-19 virus. The practice of online learning is carried out by various levels of education from elementary, junior, middle, high school, until college levels. Online learning was initially an alternative choice but became a necessity (Coman et al., 2020; Dhawan, 2020; Ferri et al., 2020). There are no longer learning activities in communication classrooms commonly carried out by educators: teachers and lecturers. This change is the right step but because without adequate preparation, it has resulted in many educators stuttering in facing this drastic change.

Purwanto et al. (2020) stated that the impacts that would arise from Distance Learning during the COVID-19 Pandemic were felt by various groups, both teachers and students. Learning that has not been properly prepared certainly has an impact on the learning methods used by the teacher. Likewise, students' acceptance of learning varies widely, they do not understand the material or delivery from the teacher. Students who are usually in school immediately change to carry out learning activities at home. Changes in learning methods and strategies are felt by all students at the junior, middle, high school, and tertiary levels (Amir et al., 2020; Gonzalez et al., 2020). With this sudden change, not a few have complained about the results of their studies. Not a few teachers actually give assignments that have an impact on the learning load of their students. Tasks that are too heavy for a short time have an impact on student academic burnout (Andriyani et al., 2017; Jacobs & Dodd, 2003; Rahmati, 2015).

Pines & Aronson (Slivar, 2001) define that burnout as the emotional condition of a person who feels tired and bored mentally and physically due to increased work. Burnout is a form of changes in psychological conditions in the form of physical exhaustion, emotional exhaustion, and mental exhaustion (May et al., 2015; Salmela-Aro & Read, 2017). While student burnout is a condition caused by the same activities that are carried out by students every day. Academic burnout is an emotional condition that occurs to someone who has experienced mental and physical saturation as a result of increased learning-related work demands. This means that burnout provided by students comes from changes in psychological conditions. Agustina et al. (2019) stated that student burnout comes from monotonous routines, such as too many tasks, lack of self-control, high pressure, absence, rules that are difficult to apply, contradicting each other, being ignored, missed opportunities, and deadlines. Academic burnout will greatly affect students for the continuity of their education.

This research was specifically conducted to determine the state of student burnout caused by online learning during the COVID-19 pandemic. In addition, the phenomenon of the method and duration of learning carried out by students at each level of education is also the basis of this research. This research hopes to provide empirical data regarding the state of student burnout when experiencing online learning during COVID-19 which is analyzed based on educational level. This paper also provides an analysis related to student burnout, duration of the study, and level of education.

2. Methods

2.1 Research Subjects and Procedures

This study uses a survey method. Subjects in this study were 2,310 students who were willing to be respondents in the study. Table 1 shows the distribution of respondent data both from gender (female and male) and educational level (SMP, SMA, and college students). Online data collection using google forms.

Table 1. The Respondent Backgrounds

Demography		Fequences	%
Gender	Male	716	31
	Female	1594	69
	Total	2310	100
Education level	Junior High School	1056	45.71
	Senior High School	595	25.76
	University	659	28.53
	Total	2310	100

2.2 Instruments

Before the data collection process, Current research uses the back-translation procedure. To validate instruments in the Indonesian version, instruments are translated from English to Indonesian. This translated item, further translated into English, the last stage was done in comparison with the original questionnaires to inform the final version in Indonesian.

School burnout was examined using the School Burnout Inventory developed by Salmela-Aro et al. (2009). This instrument consists of nine items measuring three components of school burnout which are adapted to the conditions of online learning during the COVID-19 pandemic. The adjustment of the instrument was given additional information "during the COVID-19 pandemic". Component (1) exhaustion at school (e.g., I feel overwhelmed by my schoolwork, backtranslated to, "*saya merasa terbebani oleh tugas sekolah saya ketika masa pembelajaran daring ini*"; component (2) cynicism toward the meaning of school (e., I am not motivated to do my schoolwork and often think of giving up, backtranslated to, "*saya merasa tidak memiliki motivasi dalam tugas sekolah saya dan sering berpikir untuk menyerah*", and component (3) sense of inadequacy at school (e.g., I often have feelings of inadequacy in relation to my schoolwork, backtranslated to, "*saya sering memiliki perasaan tidak mampu dalam tugas sekolah saya pada masa pembelajaran daring ini*" to be rated on a 6-point scale (1 =strongly disagree; 6= strongly agree). Item validity measured by corrected correlation with total items (score $r = 0.704 - 0.886$), reliability measured with Cronbach alpha score $r = 0.913$.

2.3 Data analysis

To answer the problem formulation in this study were analyzed using crosstabs analysis and two ways ANOVA. Data processing in this study will be carried out using the help of the SPSS 21.00 for Windows program. As a parametric statistical requirement, to be able to use the regression formula, it is necessary to first carry out a classical assumption test including normality, heteroscedasticity, and random sampling.

3. Results and Discussion

3.1 How was the distribution of the duration of daily online learning?

The distribution of students' daily online learning duration at the junior high school, senior high school and university levels is presented in Table 2. Most students at the junior high school (49.9%), senior high school (52.8%), and university (43.8%) levels had online learning duration between 1 and 3 hours per day. Furthermore, there is a decreasing trend of duration of daily online learning for less than 1 hour among junior high school, senior high school, and university students; junior high school (34.8 %), senior high school (20.4%), and university (13.8%). However, there is an increasing trend of duration of daily online learning above 4 hours per day (4-6 hours/day, 7-9 hours/day, and more than 9 hours/day) between junior high school, high school, and university levels; university students had higher duration of daily online learning than senior high school and junior high school, respectively.

Students in senior high school also had higher duration of daily online learning than senior high school. In general, university students had higher daily online learning duration than junior high and high school students.

Table 2. The distribution of duration of daily online learning of students at Junior High School, Senior High School, and university

Duration of Daily Online Learning (hour/day)	Level of Education (%)		
	Junior High School	Senior High School	University
< 1	34.8	20.4	13.8
1 - 3	49.9	52.8	43.4
4 - 6	11.3	19.3	34
7 - 9	2.3	6.7	7.3
> 9	1.8	2	2.6

3.2 How was the differences of burnout level from level of education and duration of daily online learning?

Table 3 showed the mean, SD and the difference in burnout levels based on level of education, duration of daily online learning, and interaction between levels of education and duration of daily online learning. The results of this study revealed that the significant differences in the level of burnout only occurs at the level of education, while in the duration of daily online learning there is no significant difference in the level of burnout. The results of this study indicated that there is a significant difference between the burnout levels between junior high school, high school, and university students ($F(2, 2295) = 32.18, p < 0.01$). The results of the post hoc test, as presented in Table 4, confirmed that the burnout rate at the university level is higher than senior high school level ($MD = 0.24, p < 0.01$) and junior high school ($MD = 0.42, p < 0.01$) level. The burnout rate of high school students was also significantly higher than that of junior high school students ($MD = 0.18, p < 0.01$).

Table 3. The results of two ways ANOVA

Group		Burnout		F	p
		M	SD		
Level of education	Junior High School	2.27	0.63	32.18	< .01
	Senior High School	2.44	0.63		
	University	2.69	0.69		
Duration of daily online learning	Less than 1 hour/day	2.36	0.63	2.29	> .05
	1-3 hour/day	2.39	0.69		
	4-6 hour/day	2.57	0.68		
	7-9 hour/day	2.55	0.70		
	More than 9 hour/day	2.63	0.63		
Level education * Duration of daily learning		-	-	2.47	< .05

Table 4. Results of post hoc test based on Benferroni Test

Paired Comparison	MD	SE	p
Senior High School - Junior High School	0.18	0.33	< .01
University - Junior High School	0.42	0.03	< .01
University - Senior High School	0.24	0.04	< .01

Finally, the findings of this study also indicated that there is a difference in the interaction between education level and duration of daily online learning on level of burnout ($F(8, 2295) = 2.47, p < 0.05$). As shown in Figure 1, the highest level of burnout is experienced by students with duration of daily online learning more than 9 hours per day. In this study, there were at least 55 respondents who had a duration of daily online learning of more than 9 hours/day and almost 50% of them from the university level. Furthermore, in other lower duration of daily online learning students from university level consistently showed higher burnout rates than students from high school and junior high school levels.

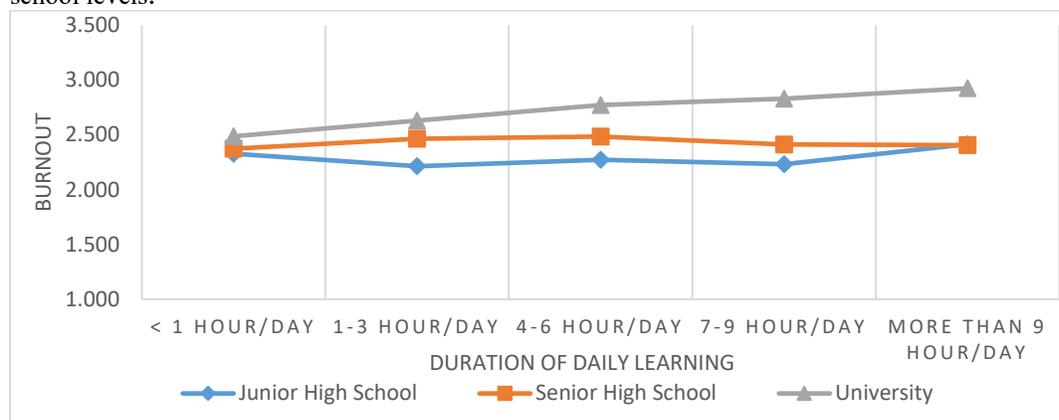


Figure 1. The interaction differences of students' burnout between level of education and duration of daily learning

3.3 The Differences of Students' Burnout from Level of Education and Duration Daily Online Learning During COVID-19 Pandemics

This research was intended to explore the condition of students' academic burnout in taking online learning during the COVID-19 pandemic in terms of education level and the duration of daily online learning. In line with the research findings of Salmela-Aro & Read (2017) and Aypay & Sever (2015), findings of this study confirmed that higher level of education had impact on higher level on academic burnout. University students tend to experience higher levels of academic burnout than senior high school and junior high school students. In fact, the highest level of academic burnout was experienced by students who had a study duration of more than 9 hours per day. Findings of this study have succeeded in generalizing the differences in education levels on the level of burnout during the COVID-19 pandemic. This generalization is interesting considering that online learning activities during the COVID-19 pandemic were not well-prepared learning activities but learning activities that were forced to be conducted to reduce the risk of spreading the COVID-19 virus, while in normal period online learning was conducted as an alternative choice and implemented in advance.

The absence of differences in the level of academic boredom indicated that the duration of online learning hours allocated by students is not from educators' demand that they must meet, but because of their willingness to learn. If the student's online learning duration is due to high demands, students who allocate a longer duration for learning experience a higher level of academic burnout due to learning demands (Kanto et al., 2020; Lee et al., 2020; Nuraini et al., 2019). In addition, the absence of differences of students' online learning duration during a pandemic on the level of academic burnout reflects that online learning is presented in less structured and students are also less prepared to carry out online learning. Findings of this study have implications for the importance of increasing students' daily online learning duration through presenting learning material and content in a more structured online learning systematic manner both in synchronized and unsynchronized sessions. At the same time, teachers also need to monitor students' academic burnout so that the increasing of learning duration will not be followed by increasing academic burnout.

Findings of current study that showed an increase in burnout when the level of education is higher and the different interactions which indicated that students with daily online learning duration above 9 hours per day reflect that university students have better readiness and awareness to carry out online learning activities than senior high school and junior high school students. This readiness and awareness seem to be supported by online learning activities in university which tend to be structured in requiring students to achieve certain learning performance and the demand to carry out structured and independent learning activities in line with the semester credit load. Academic burnout tends to occur when students are faced with demands from learning activities and expectations from their self (Walburg, 2014). In the context of this research, students who allocate more time to daily online learning duration tend to increase their academic burnout. The implication of this finding confirms that in designing online learning activities, educators need to be able to consider the adequacy of time in accomplish learning activities such as doing structured assignments, carrying out projects, research, and others in accordance with the credit semester load of every subject.

5. Conclusion and Recommendations

This study has described the level of student academic burnout during learning in the COVID-19 pandemic. University students tend to have higher levels of academic burn out compared to senior high school and junior high school students. Interestingly, during the online learning activities in the COVID-19 pandemic, there was no difference in the level of burnout between students who allocated a small amount of online learning duration (less than 1 hour per day) and more.

In accordance with the findings of this study, educators at the junior and senior high school level are recommended to increase students' motivation and readiness to engage online learning so that their learning duration increases. In addition, teachers are expected to present learning materials in a more structured and systematic online learning format for guiding students to increase their daily learning duration. Educators at universities are recommended to monitor the students' study load and assignments so that they are prevented from burnout. For further research, it will be valuable in the future to conduct experiments of online learning formats that have impact on burnout prevention. In addition, studies that lead to exploration of the impact of academic burnout during the COVID-19 pandemic on their mental health and learning performance are very important to be achieved.

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