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The Effect of Grit and Gratitude on Subjective Well-Being of Students Attending Limited Face-to-Face Learning

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Abstract: The decline in the number of Covid-19 cases and the wide implementation of vaccination programs in Indonesia have made the enforcement of the Restrictions on Community Activities (PPKM) to be lowered to alert level 1 for some regions in Indonesia. This has led schools to use hybrid learning that provides opportunities for students to attend face-to-face learning at schools. Students need to adjust with the current condition, and therefore, their subjective well-being might be influenced. Notably, students' subjective well-being is important as it determines students' academic and life outcomes. The two factors that might influence students' subjective well-being were grit and gratitude. This study aimed to examine the influence of grit and gratitude on subjective well-being of students attending face-to-face learning during the Covid-19 pandemic. Participants were 66 middle- and high-school students in some regions in Indonesia who voluntarily completed the questionnaire 12-Grit Scale, Gratitude Questionnaire (GQ-6), and Student Subjective Well-being Questionnaire. Multiple regression analysis showed that only gratitude was the best predictor of students' subjective well-being. Gratefulness enhanced students' subjective well-being but grit was not a significant predictor for students' subjective well-being perhaps because students perceived offline learning was difficult, making them unable to focus and enjoy the ongoing learning process. Students might also perceive that teachers did not provide sufficient support to their learning. Therefore, having perseverance and passion (grit) alone is not enough to make students overcome this condition, and make them feel happy with the learning process. As gender and education level might also influence students' subjective well-being, further studies need to consider these factors.

Keywords: Gratitude, Grit, Hybrid learning, Student subjective well-being.

Introduction

The Covid-19 pandemic has affected various aspects of people's lives. One of them is the enforcement of social distancing policies (PPKM), leading to the implementation of learning from home for all students and the use of information technology to limit the spread of Coronavirus (Anwar *et al.*, 2020). The implementation of vaccination program and declining number of Covid-19 cases have caused the PPKM to be lowered to level 1. This has led schools to adopt a hybrid learning system. Students have the opportunities to study offline at school for several days, while attending school from home on the other days. This change might affect student's

learning process, and is expected to make them more successful with their education.

Student success in school is related to teacher characteristics and features (Zakharov, Tsheko and Carnoy, 2016). Perceptions held by students regarding their sense of security and interactions with their teachers are related to student subjective well-being. Student subjective well-being defined as students' perceptions of their healthy living and success in school is the extension of subjective well-being (Renshaw *et al.*, 2015). Subjective well-being includes how individuals evaluate or appraise their own lives. Another form of subjective well-being is optimism which is often correlated with positive affect and includes positive expectations for the

future (Diener *et al.*, 2017). Research by Wijayanti *et al.*, (2021) showed that subjective well-being had positive impacts on academic achievement and creativity. Overall, student subjective well-being is important because it determines students' success in school and promotes students' future happiness.

Gratitude is a positive emotional responses that indicates thankfulness because of the actions of others (Emmons & McCullough, 2007). Emmons (2012) explains that gratitude is not only related to receiving and giving activities, but also includes motivation of someone who has received kindness to do good things in the future. Sucitra *et al* (2019) state that in order to feel grateful, individuals can recall their past experiences (memory recollection) that can trigger the feeling of gratitude. Atoqoh and Fu'ady (2020) indicate that limitations in school environment can affect students' ability to feel grateful. However, gratitude-based interventions could affect students' optimism and school connectedness (Renshaw and Hindman, 2017). School connectedness is an aspect that builds student subjective well-being (Renshaw *et al.*, 2014).

Meanwhile, grit is related to an individual's resilience and enthusiasm to achieve a predetermined long-term goal (Duckworth, 2020). Grit is a non-cognitive factor that support student success in their education, their career, and their life in general. It also helps students to solve problems in everyday life (Duckworth, 2020). In short, grit is a non-cognitive factor that can support student success in school (Takiuddin and Husnu, 2020). Christopoulou *et al.*, (2018) found that there was a positive relationship between grit and student success. Grit increased students' persistence in attending education. Grit is the predictor of well being because it raises one's awareness regarding goal and promote a motivation to increase academic performance (Datu *et al.*, 2016; Stoffel and Cain, 2018). Individuals with higher levels of grit continue struggling and facing long-term academic challenges, but this condition leads them to realize their educational purposes and optimize their academic efficacy. Thus, individuals are more likely to meet the demands of academic

environment (Renshaw *et al.*, 2015; Karlen *et al.*, 2019).

Given that student subjective well-being is important, and both gratitude and grit might influence student subjective well-being, it is necessary to test the relationship between student subjective well-being, gratitude and grit in the context of Covid-19 pandemic. Thus, the purpose of this study was to determine the effect of grit and gratitude on student subjective well-being among those attending limited face-to-face learning. The hypotheses in this study were as follows:

- Hypothesis 1: Grit and gratitude significantly affect student subjective well-being.
The specific hypotheses for each variable were:
- Hypothesis 2: Gratitude significantly affect student subjective well-being.
- Hypothesis 3: Grit significantly affect student subjective well-being.

Materials and Methods

Study area

Participants in this study were 66 students who were enrolled at junior and senior high schools in several provinces in Indonesia. Junior and senior high school students were chosen because they attended limited face-to-face learning. Compared to students at elementary education, students at secondary education were considered as better in understanding and implementing health protocol, and therefore, they were allowed to attend face-to-face learning at school. Furthermore, secondary school students were more mature (aged 12-18 years old) and independent.

Preliminary interviews with two high school students indicated that students were not close to their teachers and school mates because their interactions was limited to online learning and this mode of learning has been implemented in the last two years. Due to various obstacles during online learning, the students reported that they were impatient and feel excited to attend face to face learning.

Procedures

Participants were recruited online through social media. They voluntarily participated in the study and provided their consent. Participants who agreed to involve in the study completed a set of questionnaires that were distributed online. The questionnaire consisted of the Grit Scale, Gratitude Questionnaire, and Student Subjective Well-being Questionnaire.

Data were gathered online using (1) the 12-Grit Scale (Duckworth, Peterson, Matthews, and Kelly, 2007) consisted of 12 items; (2) the Gratitude Questionnaire (GQ-6) by McCullough, Emmons and Tsang (2002) consisted of 6 items; and (3) the Student Subjective Well-being Questionnaire developed by Renshaw, Long and Cook (2014) consisted of 16 items. The three measures were translated into Indonesian.

The Grit Scale is a 5-point scale ranging from 'not like me at all' (scored 1) to 'very much like me' (scored 5). The 6 unfavorable items were reverse scored. Higher scores indicate that students have higher levels of grit. The GQ-6 consists of 4 favorable items and 2 unfavorable items with 7 alternative options ranging from 'strongly disagree' (scored 1) to 'strongly agree' (scored 7). The scoring for unfavorable items was reversed. Higher scores indicate that students have higher levels of gratitude. Finally, the Student Subjective Well-being Questionnaire consists of 16 favorable items and four alternative options ranging from 'strongly disagree' (scored 1) to 'strongly agree' (scored 4). The scoring for unfavorable items was reversed. Higher scores indicate that students have higher levels of well-being.

Cronbach's Alpha was calculated to measure the internal consistency of each scale. The internal consistency of the Grit Scale and Gratitude Questionnaire (GQ-6) were adequate ($\alpha = 0.657$ and 0.676 , respectively). and the internal consistency of the Student Subjective Well-being Questionnaire was excellent ($\alpha = 0.912$).

Data analysis

Multiple regression analysis was used to test whether the two variables, grit and gratitude, had significant effects on student subjective well-being. Bootstrap method was also used because data were

not normally distributed. Data were analyzed using SPSS for Windows version 26.

Results and Discussion

Result

Participants were 66 students consisting of 45 females and 21 males. The age of the participants were as follows: 3 people were 13 years old, 1 person was 14 years old, 9 people were 15 years old, 17 people were 16 years old, 30 people were 17 years old, and 6 people were 18 years old. The results showed that mean age the participants was 16.33 with standard deviation (SD) of 1.15. Based on students' level of education, there were only 4 people (6%) at junior high school and 62 people (94%) at senior high school.

Multiple regression analysis was conducted to examine the effects of grit and gratitude on student subjective well-being. As seen in Table 1, there were significant effects of grit and gratitude on student subjective well-being, $F = 7.525$, $p = 0.001$ ($p < 0.05$). Thus, hypothesis 1 was confirmed.

Further inspection showed that gratitude was the only significant predictor for student subjective well being, $\beta = 0.401$ and $p = 0.002$ ($p < 0.05$). Grit did not have a significant effect on student subjective well-being, $\beta = 0.079$ and $p = 0.522$ ($p < 0.05$). The results of bootstrap supported the results of multiple regression analysis. Using 5,000 bootstrap samples, it revealed that the range of beta value for gratitude (95% confidence interval) was 0.283 to 0.941, whereas the range of beta value for grit (95% confidence interval) was -0.205 to 0.492. Thus, hypothesis 2 was confirmed but the hypothesis 3 was not confirmed.

The contribution of grit and gratitude to student subjective well being was 16.7%. More specifically, Table 1 describes the contribution of each variable to student subjective well being. Gratitude had a greater contribution ($\beta = 0.401$) than grit ($\beta = 0.079$). Its effect on student subjective well-being was significant. This indicates gratitude was a unique predictor for subjective well being of students attending limited face-to-face learning at school. This study also found that the majority of participants had a medium grit level (57.58% or 38

people). For gratitude, most participants had a very high level of gratitude (42.42% or 28 people). Similarly, most participants showed a very high level of student subjective well being (37.88% or 25 people). The categorization of data strengthens the result of multiple regression analysis. Gratitude and student subjective well being was closely related.

Tabel 1. Multiple Regression Analysis of Grit and Gratitude on Student Subjective Well-Being (N=66).

Variabel	B	SE B	β	p
Grit	0.106	0.164	0.079	0.522
Gratitude	0.610	0.188	0.401	0.002
Constant Score	26.434	6.709		0.000
F	7.525			0.001
df	2			
Adjusted R ²	0.167			

Note: B = Unstandardized beta coefficient; SE B =Standard error of B; β = Standardized beta coefficient.

Discussion

Results showed that there were significant effects of grit and gratitude on student subjective well being. The main hypothesis was confirmed. However, only gratitude was the significant predictor for student subjective well-being. Grit was not a significant predictor for student subjective well-being. Students have been studying online since Covid-19 spread to Indonesia in March 2019. During this time, students experience a range of difficulties. The online learning has negatively impacts the students. For example, not all students have good internet connections and facilities. Students need to spend their money to get internet access. Student could sometimes misuse of their gadgets for something other than learning; therefore, lead to an internet addiction. Student often do not understand their learning materials, and think that learning is less meaningful due to limited involvement of lecturers in their learning (Firman & Rahman, 2020). Research also showed that students feel dissatisfied with online learning

because their home environment is not supportive, they have less in-depth material to learn, they have unstable internet connection and they have reduced concentration when learning at home (Handayani, 2020).

The decline in the number of Covid-19 cases and the lower level of PPKM has led to the implementation of limited face-to-face learning among secondary school students. The students might feel grateful because they are able to return to school, re-experiencing the learning atmosphere in the classroom which makes them more focused and engaged in their learning process. Research has shown that individuals with high levels of gratitude have good psychological and physical health. Increased gratitude could bring a positive impact on individuals' subjective well-being (Alkozei *et al.*, 2017). Thus, students who attend limited face-to-face learning are more ready to be involved in their learning if they have gratitude. Gratitude provides satisfaction in students' lives and friendships. Furthermore, it can provide motivation, enthusiasm, and closeness with schoolmates and teachers (Bono *et al.*, 2020). This can explain why gratitude significantly affect student subjective well-being as confirmed in the hypothesis 2.

Closeness to school mates is also related to school connectedness, which then increases student subjective well-being. The results in this present study are in line with the results of Rahman *et al.*'s study (2020) which indicate that gratitude could lead students to achievement and build closeness with school. In addition, gratitude was found to have significant relationships with subjective well-being, school satisfaction, prosocial relationships, and goal settings. In short, it makes the life of students more meaningful. Gratitude is also related to hope and social support given during students' learning process. If students have a high hope and are supported by their family, peers and teachers, they are more likely to have high subjective well being. This is confirmed by Cui's study (2020), gratitude, social support, and hope had positive effects on subjective well-being and positive emotions of students. Furthermore, this study showed that both social support and hope were the

mediators for gratitude and student subjective well-being.

Similarly, Armenta et al.'s study (2020) found that gratitude increased students' well-being and motivation to be a better person, attain better grades, and school connectedness. Another study by Tian *et al.*, (2016) showed that teachers and parents played a significant role in increasing student subjective well-being. Students expressed their gratitude as teachers and parents met their school-related needs. Gratitude makes individuals aware of the valuable opportunities that are currently being passed. It also makes students able to manage their emotions when doing their assignments, and calmly accept their task demands (Prayogi and Indrawati, 2021). Student awareness of their ability in managing academic tasks might empower students to develop themselves, be more involved, and feel successful in school with teachers and friends.

However, it should be noted that grit did not have a significant effect on students' subjective well-being. Grit has a focus on passion and perseverance that guides individuals toward long-term achievement or goals (Duckworth, 2020), but in the present study, we found its effect was small in influencing student subjective well-being. This means that other factors might play a role in influencing student subjective well-being. This is confirmed by Sigmundsson et al.'s study (2020) indicating that interests or passion had no impact on students' well-being (Sigmundsson *et al.*, 2020). Having limited face-to-face learning can be difficult for some students because students should attend two different modes of learning (online and offline at the same time). Grit was not enough to make students stay focused on their learning. Students need teachers' help to provide them with support and facilitate their learning.

The second explanation why grit did not influence student subjective well being is because student subjective well is influenced by teacher's interpersonal behavior (Wati andLeonardi, 2016). Teachers who are helpful or friendly during their teaching are more likely to be accepted by their students. Students who feel supported will enjoy and engage more in their learning; thus, teachers' interpersonal behaviors could influence student

subjective well-being. However, during hybrid learning, teachers are required to teach online and offline at the same time; thus, it is possible that teachers are overwhelmed and this condition might influence students' subjective wellbeing. Furthermore, since online learning has been the only mode of students' learning for almost two years, students might feel disconnected with their school. School connectedness is an important aspect of student subjective well-being; thus, having higher levels of grit is not enough to make students feel connected to their school and this might influence the relationship between grit and student subjective well-being and cause the results of this study to be inconsistent with hypothesis 3. Han (2021) states that school connectedness plays a role in creating a sense of security for students when learning takes place. Feelings of security in learning will motivate students to pay attention and participate in their learning, and this might affect students' academic performance. Lestari *et al.*, (2021) emphasize that motivation, particularly intrinsic motivation, has an influence on academic achievement, because individuals are diligent, tenacious, and independent in their learning. Increasing school connectedness can have an overall positive impact on students' subjective well-being. It is a protective factor for students' emotional and psychological health in the future.

This study has several limitations that need to be considered. First, participants are junior and senior high school students throughout Indonesia, and therefore, their school situations are various from region to region. Each school might have differences in terms of their learning systems, teaching delivery during limited face-to-face learning, and technology development. We have not yet considered these factors in the present study. Furthermore, we did not control participants' demographic characteristics such as gender and levels of education that possibly influence the results. It should also be noted that this study used online questionnaires and participants completed the questionnaire on their own. Thus, it is difficult to control external factors that might influence participants during the completion of the questionnaire. Further studies need to consider all these factors, particularly

participants' education levels and gender in order to get a full picture of student subjective well being in schools.

Conclusions

There were significant effects of grit and gratitude on subjective well-being of students attending limited face-to-face learning. The only significant predictor for student subjective well-being was gratitude. Further studies need to consider participants' education levels and gender as these factors have not yet controlled in this present study.

Overall, the present study indicates that gratitude is an important factor for student subjective well-being. Gratitude should be nurtured during this difficult time, for example by asking students to keep a gratitude journal and encouraging students to express their gratitude to others. Gratefulness will enhance student subjective well-being and promote their academic achievement.

Conflict of Interest

With this, the researchers stated that the results of the research manuscript entitled "The Effect of Grit and Gratitude on Subjective Well-Being of Students Attending Limited Face-to-Face Learning" are really the work of their own. If later found evidence that the research manuscript turned out to be the result of plagiarism and / or the results of data manipulation, then the researcher is willing to accept sanctions in the form of cancellation of participation in the publication of proceedings and express an apology to the parties concerned.

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