

Correlation Between Social Support and Self-Regulated Learning in Senior High School Students During the Covid-19 Pandemic

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ABSTRACT

High school seniors have more responsibilities that must be carried out however since the end of 2019, the world faced the COVID-19 pandemic. This pandemic forced us to have to do almost everything online. Students must be able to adapt and be able to carry out self-regulated learning (SRL) so that they do well in academia. SRL is a learning process that is regulated by individuals and involves metacognition, motivation, and behaviour to acquire knowledge. In adapting to the new environment of studying, social support has an important role. Social support is a form of comfort and attention that can be obtained from anyone. This study aims to determine whether there is a relationship between social support and self-regulated learning. This study involved 90 participants that are senior high school students in Jakarta, Bogor, Tangerang, and Bekasi, that consists of 70 females and 20 males. The researcher uses two measuring instruments, those are Motivated Strategies for Learning Questionnaire and Multidimensional Scale of Perceived Social Support. The analysis result between social support with self-regulated learning used Spearman correlation technique, obtains $r(90) = 0.371$, $p = 0.000 (< 0.05)$. The result of both variables correlation shows that there is a positive and significant correlation between social support and self-regulated learning.

Keywords: social support, self-regulated learning, high school student, covid-19 pandemic

1. INTRODUCTION

School is a place for students to get as much knowledge as possible. In Indonesia, high school is the final middle education level and the last level before entering college. The students are faced with lessons that are certainly more difficult than those in junior high school. Based on Government Regulation No. 17 of 2010 article 76 paragraph 1 explains that the function and purpose of high school are to increase physical and mental readiness to continue education to a higher level. Some students must have started studying to prepare for the college entrance selection exam. In their 3rd year, high school students must manage their time well for final exams in school and college entrance exams. Every successful student must be able to ascertain a learning system that is suitable for them. For optimal results, students must know their learning process called self-regulated learning (SRL). According to Zimmerman [1], SRL is a learning process regulated by individuals and involves metacognition, motivation, and behavior to acquire knowledge. According to Bryners et. al [2], students who have SRL will avoid behaviors that might damage academic success, they know the strategies needed and how to use them to improve persistence and performance.

According to Zimmerman [3], three things in cognitive social theory influence someone to do SRL: individual, behavior, and environment. Social support is one part of the environment. A person receives social support in the form of moral, material, informational, and emotional support from family, friends, and people considered special in life [4,5]. Social support is an important thing in a person's life because it can affect the emotions and behavior of the recipient. It can be said that social support has a strong relationship with SRL.

Students usually get their knowledge from school, taught directly face to face by their teachers. However, the situation in 2020 is different because SARS-CoV-2 (COVID-19) caused a global pandemic. The COVID-19 virus is an infectious disease caused by a coronavirus discovered and started an outbreak in Wuhan, China, in December 2019 [6]. In Indonesia, people are advised to stay at home to avoid being exposed to this virus. Large-Scale Social Restrictions (PSBB) have been implemented in several areas, including Jakarta. Based on circular letter No. 4 of 2020 by the Ministry of Education and Culture (Kemendikbud), the learning process is carried out online with varied learning tasks and according to each condition, including access and learning facilities at home.

With the COVID-19 pandemic, students must be able to adapt to online learning. Students should have to regulate themselves in a new environment and a new learning system. The implementation of online learning requires technologies such as smartphones, laptops, computers, and tablets that students can use to access information anytime and anywhere [7]. Students must be able to manage SRL well in this pandemic condition. At home, students must also be forced to stare at laptop screens or gadgets for a long time. It is not like a face-to-face learning; on offline system they don't need to stare at the screen for a long time. It can affect vision health of students. Staring at the screen for too long can cause dry eyes and blurry vision. Another problem with staring at a screen for too long is eye fatigue. Dr. Gardiner says one possible cause is brightness or glare from electronic screens [8].

The number of adjustments made can make it difficult for students to self-regulate their learning. Social support obtained from the family environment can help students regulate themselves in a new environment. According to Aziz [9], the social support that individuals get can be assistance from family, teachers, and friends. It can affect SRL in the learning process. In their 3rd year of high school, students are faced with various challenges in front of them. They have a lot to prepare and to deal with, moreover learning is done online due to the COVID-19 pandemic. Students need to adapt and regulate themselves with new ways of learning. Different learning environments certainly affect the student's learning process, and students need direction and support from their surroundings. Therefore, based on the phenomenon above, the researcher wants to investigate further social support and SRL for high school seniors during the COVID-19 pandemic.

1.1. Related Work

Merisa, Rahayu, and Nastasia [10], examined social support and SRL in Sekolah Menengah Kejurusan (SMK) 4 Padang and found that the two variables had a positive and significant relationship. Another study was also conducted by Fauziah [11], who researched social support and SRL in homeschooling junior high school students. The results obtained are a positive and significant relationship between social support and SRL.

1.2. Our Contribution

This study was conducted to examine the correlation between social support and self-regulated learning in third grade high school students during the COVID-19 pandemic.

1.3. Paper Structure

The rest of the paper is organized as follows. Section 2 discusses self-regulated learning and social support, result tables, discussion, conclusion, acknowledgement, and references.

2. BACKGROUND

2.1. Self-Regulated Learning

SRL is a self-regulation process carried out by students to carry out a learning process that is suitable for them. SRL is a process where students set their learning goals and try to monitor and regulate their cognition, motivation, and behavior to suit their goals and the contextual conditions of their environment [12]. A student who has SRL can do good learning and can also set academic goals. Zimmerman [1] defines SRL as an individual's ability to organize learning and involve metacognition, motivation, and behavior to acquire knowledge.

Based on Pintrich & Groot [13], there are two parts: motivation and learning strategies, with five dimensions. The following are the dimensions of SRL in the motivation section, (a) intrinsic value; this dimension refers to students' perceptions of the subject matter in terms of interest, importance, and usefulness; (b) self-efficacy, this dimension refers to students' belief that their efforts to learn will produce positive results. It means that if the student feels that he can control his academic performance, he is more likely to propose what is needed strategically to effect the desired change; (c) test anxiety, test anxiety have two components: a worry, or cognitive component, and an emotional component. The worry component refers to students' negative thoughts that interfere with performance, while the emotional part refers to the practical and physiological aspects of anxiety arousal.

In the learning strategies section, there are two dimensions: (d) cognitive strategy use; this dimension is a variety of basic training, elaboration, organization, and critical thinking. The last dimension is (e) self-regulation; three general processes form metacognitive self-regulation activities: *planning, monitoring, and regulation*.

2.2. Social Support

According to Zimet [14], social support can be obtained from the closest people who have daily contact with individuals such as family and friends. The social support that a person gets can affect the individual's life. There are various ways to provide social support to individuals. Social support can be given information or material obtained from close social relationships that can make a person feel cared for, valued, and loved.

Based on Zimet's theory [14], social support can be received from someone close to the individual. The closest people to an individual's daily life are family, friends, and significant others. The family has an understanding as to the smallest unit in society. Support that can be provided can be in the form of advice or facilities. A friend is someone who has a voluntary relationship between individuals and is usually mutual. People involved in friendships want to pursue intimacy and comfort. Significant others, usual people around the individual, are considered special by themselves, such as a teacher, lover, or neighbor.

The participants of this study are high school seniors and are still active online during the COVID-19 pandemic. Schools of the participants must be in Jakarta, Bogor, Depok, Tangerang, and Bekasi (Jabodetabek), but unfortunately, there isn't any participant from Depok. Participants aged 16-19 years. The criteria for participants are not limited by gender, race, religion, or ethnicity. The total number of participants obtained is 90 people.

Table 1 Participant Based on Gender

Gender	Amount	Percentage (%)
Female	70	77.8
Male	20	22.2
Total	90	100

Table 2 Participant Based on Ages

Age	Amount	Percentage
16	15	16.7
17	65	72.2
18	9	10.0
19	1	1.1
Total	90	100

Table 3 Participant Based on School Location

School Location	Amount	Percentage
Jakarta	58	64.4
Bogor	9	10.0
Tangerang	3	3.3
Bekasi	20	22.2

This study used quantitative research with a non-experimental method. The research used is correlational to find out the relationship between social support and self-regulated learning in senior high school students during the pandemic COVID-19. Data obtained by distributing Google Forms questionnaires online through instant messaging applications and social media.

The research instruments consisted of four parts: informed consent, subject's data, Motivated Strategies for Learning Questionnaire (MSLQ) and Multidimensional Scale of Perceived Social Support (MSPSS). Another instrument is the Statistical Product and Service Solution (SPSS) 23rd version; it is used to process and analyse research data using Kolmogorov-Smirnov, One-Sample Test, Non-Parametric Spearman, Mann-Whitney U, and Kruskal-Wallis, because data were not normally distributed.

Social support was measured using MSPSS developed by Zimet [14]. In this measuring tool, there are consist of 12 items. This measuring tool uses a Likert Scale of 1-7. It has three dimensions, namely family, friend, and significant other. The researcher conducted a validity test, and all the items had a value above 0.2.

Self-regulated learning was measured using MSLQ developed by Pintrich and Groot [15]. The researcher translated the measuring instrument from English to Indonesian. There are several revisions in a quantitative way based on pilot's data / try out. In this measuring tool, there are 44 items, 40 positive items and four negative items. This measuring tool uses a Likert Scale of 1-7. It has five dimensions: self-efficacy, intrinsic value, test anxiety,

cognitive strategy use, and self-regulation. The researcher conducted a validity test and found two items, namely 26 and 37, which had a value below 0.2. Because of this, both items were discarded, and 42 items remained.

MSPSS has a hypothetical mean of 4. All dimensions have scores above the hypothetical mean, meaning that they are high. Therefore, overall is high. As shown in Table 4.

Table 4 Empirical Mean of Social Support

Dimension	Hypothetical Mean	Empirical Mean	Std. Deviation	Meaning
Family	4	5.3056	1.18439	High
Friend	4	4.8889	1.30638	High
Significant Other	4	5.3694	1.100045	High

In the next section, MSLQ has a hypothetical mean of 4. All dimensions have scores above the hypothetical mean, meaning that they are considered to be medium to high. Therefore, overall is considered to be high. As shown in Table 5.

Table 5 Empirical Mean of SRL

Dimension	Hypothetical mean	Empirical Mean	SD	Meaning
Self-Efficacy	4	4.8481	0.93801	High
Intrinsic Value	4	5.0543	.99272	High
Test Anxiety	4	4.3833	1.29292	Medium
Cognitive Strategy Use	4	5.1231	0.86776	High
Self-Regulation	4	4.4986	0.86511	Medium

Before further analysis, normality testing was carried out using the Kolmogorov-Smirnov One-Sample Test. If the significance score (p) is greater than 0.05, then the data are normally distributed. If the significance score (p) is smaller than 0.05, the data are not normally distributed. Social support has a significance value of $p = 0.013 (< 0.05)$, meaning that the data are not normally distributed. Self-regulated has a significance value of $p = 0.200 (> 0.05)$, meaning that the data is normally distributed. Based on the results the overall data is not normally distributed because one of the variables has a p value below 0.05. Table 6 shows these findings.

Table 6 Normality Test Results for Support and SRL

Variable	Kolmogorov-Smirnov Z	Sig. (2-tailed)	Meaning
Social Support	0.107	0.013	Not Normal
Self-Regulated Learning	0.073	0.200	Normal

With the above results, the correlation between social support and self-regulated learning is calculated using Spearman correlation. Results show that there is a significant positive relationship between social support and self-regulated learning based on the value of $r = 0.317$ and the value of $p = 0.000$ (< 0.05). The resulting positive relationship means the higher social support score, the score of self-regulated learning will also be high. Table 7 shows these findings.

Table 7 Result of Main Data Analysis

Variable	Sig. (2-tailed)	Correlation Coefficient	Meaning
Social Support and Self-Regulated Learning	0.000	0.317	Has significant and positive correlation

Based on the analysis of additional data through the processing of variable differences test based on gender, Mann-Whitney U was used. Results of the difference test on social support variables based on gender obtained p value = 0.182 (> 0.05). There is no significant difference by gender in social support and SRL, as shown in Table 8.

Table 8 Social Support Based on Gender

Gender	N	Mean Rank	Sig. (2-tailed)
Female	70	45.60	0.946
Male	20	45.15	
Total	90		

For the difference test results on the SRL variable based on gender, the p value = 0.946 (> 0.05). So, there is no significant difference by gender in social support and SRL, as shown in Table 9.

Table 9 SRL Based on Gender

Gender	N	Mean Rank	Sig. (2-tailed)
Female	70	43.54	0.182
Male	20	52.38	
Total	90		

For difference tests on age and school location, the researchers used the Kruskal-Wallis method. The results of the different test on social support variables based on age got p value = 0.484 (> 0.05). Thus, there is no significant difference based on age on the social support variable, as shown in Table 10.

Table 10 Social Support Based on Age

Age	N	Mean Rank	Sig. (2-tailed)
16	15	44.53	0.484
17	65	46.12	
18	9	38.78	
19	1	80.50	
Total	90		

For the different test results on the SRL variable based on age, the p value = 0.776 (> 0.05). There is no significant difference based on age on the social support variable and the SRL variable, as shown in Table 11.

Table 11 SRL Based on Age

Age	N	Mean Rank	Sig. (2-tailed)
16	15	46.40	0.776
17	65	45.14	
18	9	49.33	
19	1	21.00	
Total	90		

The difference test results on the social support variable based on school location, the p value = 0.135 (> 0.05). There is no significant difference based on school location on the social support variable and the SRL variable, as shown in Table 12.

Table 12 Social Support Based on School Location

School Location	N	Mean Rank	Sig. (2-tailed)
Jakarta	58	41.86	0.114
Bogor	9	64.00	
Bekasi	3	41.33	
Tangerang	20	48.35	
Total	90		

The difference between test results on the self-regulated learning variable based on school location, the p value = 0.114 (> 0.05). There is no significant difference based on age on the social support variable and the SRL variable, as shown in Table 13.

Table 13 Self-Regulated Learning Based on School Location

School Location	N	Mean Rank	Sig. (2-tailed)
Jakarta	58	42.75	0.135
Bogor	9	61.22	
Bekasi	3	28.33	
Tangerang	20	48.98	
Total	90		

Based on the results of data analysis, this study shows that there is a positive and significant relationship between social support and SRL in senior high school students. This is in accordance with previous research conducted by Aziz [9], that social support and SRL have a positive and

significant relationship. In addition to testing the relationship between dimensions and variables, this study also conducted a different test based on participant data such as gender, age, and city. The results of the different test of the variables and dimensions of social support based on gender, age, and city showed no difference.

This research has limitations and difficulties faced. In this study, only 90 participants were obtained because the current situation did not allow researchers to visit high schools in Jabodetabek because learning was conducted online. Participant data collection was also carried out online using *Google Forms* and not face-to-face due to the COVID-19 pandemic. Due to filling out the questionnaire online, the researcher could not control and observe the participants directly.

3. CONCLUSION

There is a significant relationship between social support and self-regulated learning in 3rd grade high school students during Covid-19 pandemic. If the value of the social support variable is high, then the value of the SRL is also high.

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