

# THE RELATIONSHIP BETWEEN SMARTPHONE ADDICTION, ACADEMIC BURNOUT AND ACADEMIC PROCRASTINATION AMONG UNIVERSITY STUDENTS DURING ONLINE LEARNING

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## ABSTRAK

*The present study aimed to find out the simultaneous relationship among smartphone addiction, academic burnout, and procrastination among guidance and counseling department students of Semarang State University. This correlational study involved 75 students who were recruited using proportionate stratified sampling with a 10% margin of error. The data were analyzed using multiple correlation and bivariate formulas. The study revealed that 1) there is no significant relationship between smartphone addiction and procrastination, as indicated by a p-value of 0.449. In addition, it was also found that 2) there is no significant relationship between smartphone addiction and academic burnout (p-value = 0.255). However, the study found 3) a significant relationship between academic burnout and procrastination (p-value = 0.046). The fourth finding was that the R-value between smartphone addiction, academic burnout, and procrastination was 0.219 and sig. Value of 0.171, indicating a positive, insignificant simultaneous relationship between smartphone addiction, academic burnout, and procrastination among Guidance and Counseling Students of Semarang State University. The result of the study could be used as the basis to determine guidance and counseling services at the university level in order to minimize the problems related to smartphone addiction, academic burnout, and procrastination.*

*Keywords: smartphone addiction, academic burnout, academic procrastination*

## INTRODUCTION

The covid-19 outbreak turns the world's status into a pandemic, forcing people to maintain physical distance in order to cut the viral spread. This condition affects the implementation of learning activities at the

university level, forcing face-to-face learning activities to shift to online learning activities.

Since learning activities are conducted online, students need to have adequate facilities to support an optimal learning process, including smartphones. The

increasing intensity of smartphone use due to the pandemic situation potentially results in smartphone addiction when one fails to use it wisely. A study conducted by (Haug, 2015) revealed that one of the predictors of smartphone addiction is frequent smartphone use. According to Roberts, Yaya, & Manolis (Tzu Tsun Luk, 2018); (Ling-ping & kai-feng, 2013), smartphone addiction makes students disengage from learning activities in the classroom, cheat during the examination, and commit academic procrastination. In addition, smartphone addiction can also affect one's academic performance. Following the description, procrastination is expected to relate to smartphone addiction. Regarding the relationship between academic burnout and smartphone use, (Elham, 2016) proves the positive, significant relationship between the internet and smartphone addiction and academic burnout among university students. Concerning academic burnout and academic procrastination, (Putri, 2018) confirms a positive, significant relationship between academic burnout and academic procrastination among students who are working on their thesis. Grounded on the results of previous studies, it could be concluded that smartphone addiction, academic burnout, and academic procrastination are interrelated.

The relationship among smartphone addiction, academic burnout, and academic procrastination is also supported by Wulandari (2017), who confirms a positive, significant relationship between smartphone addiction and academic procrastination among students who are working on their thesis ( $p$ -value = 0.000 ( $<0.05$ ) and  $r_{xy}$  value = 0.322). Another study conducted by Saputra (2020) confirmed a positive, significant relationship between academic burnout and academic procrastination among working students. This finding supports Kim's (2017) finding on the positive relationship between academic stress, academic burnout, and smartphone addiction. Consistent with Kim's (2017) findings, Demir (2017) found a negative, significant relationship between students' procrastination and burnout after the examination. Other studies on smartphone addiction and academic procrastination were conducted by Rohim (2017) and Ghaida (2019). These studies confirmed the effect of smartphone addiction on students' academic procrastination. These studies were also supported by Winahyu (2020), who found a

positive relationship between students' burnout and procrastination.

Grounded on the description mentioned earlier, the present study aimed to find out the relationship between smartphone addiction, academic burnout, and academic procrastination among university students in online learning. The result of this study may provide a basic consideration for university counselors to provide appropriate guidance and counseling service related to smartphone addiction, academic procrastination, and academic burnout.

### **RESEARCH METHODOLOGY**

The present study was categorized as correlational research. The objects of the study were smartphone addiction, academic burnout, and academic procrastination among students in online learning. The present study aimed to find the simultaneous relationship between smartphone addiction, academic burnout, and academic procrastination. The participants of the study were seventy-five Guidance and Counseling department students of Universitas Negeri Semarang from 2016 to 2019 academic year, consisting of 54 (71%) female students and 21 (29%) male students. The participants were recruited using a proportionate stratified sampling technique with a 10% margin of error. The data were collected using a smartphone short-form scale adapted from (Kwon, 2013), Maslach Burnout Inventory adapted from (Schaufeli, 2002), and academic short-form scale adapted from (Yockey, 2016). These scales were translated to Bahasa Indonesia by a language expert. The Cronbach's Alpha coefficient of the smartphone addiction scale was 0.814, the coefficient of corrected total item correlation ranged from 0.302 - 0.698. Regarding Maslach Burnout inventory, its Cronbach Alpha coefficient was 0.901 with the coefficient of corrected total item correlation ranging from 0.258 - 0.860; Meanwhile, the Cronbach's alpha coefficient of the academic procrastination scale was 0.727 with coefficient of corrected total item correlation ranging from 0.308 - 0.590. Partial data analysis was conducted using the bivariate analysis technique with Kendall tau-b formula, while simultaneous analysis was done using multiple correlation formulas.

## RESULT AND DISCUSSION

The result of the study is presented in the form of descriptive and statistical analysis. The data analysis results are displayed descriptively in Tables 1, 2, and 3. Meanwhile, partial correlation analyses of variables  $X_1$ ,  $X_2$ , and  $Y$  are displayed in table 4, while Table 5 displays the multiple correlation analysis.

**Table 1**  
*Students' Smartphone Addiction*

Range	Category	Frequency	Percentage
34-40	Very High	0	0 %
30-33	High	1	1.3 %
26-29	Fairly high	18	24 %
22-25	Moderate	27	36%
18-21	Fairly Low	24	32%
14-17	Low	5	6.7 %
10-13	Very Low	0	
	Total	75	100%
	Average		22.90

As displayed in Table 1, one student reported a high level of smartphone addiction, and eighteen students reported a fairly high level of smartphone addiction. This result proves that smartphone use may lead to addiction. The next table depicts the students' burnout.

**Table 2**  
*Students' Academic Burnout*

Range	Category	Frequency	Percentage
78-90	Very High	0	0 %
65-77	High	0	0 %
52-64	Fairly high	2	2.7 %
39-51	Moderate	15	20%
26-38	Fairly Low	29	38.6%
13-25	Low	21	28%
0-12	Very Low	8	10.7%
	Total	75	100%
	Average		28.55

As shown in Table 2, There were no students reported to have a high and very high level of academic burnout. Their burnout level was categorized into fairly high, moderate, fairly low, low, and very low levels of academic burnout. In the following table, the students' academic procrastination level is displayed.

**Table 3**  
*Students' Academic Procrastination*

Range	Category	Frequency	Percentage
23-25	Very High	0	0 %
20-22	High	12	16 %
17-19	Fairly high	9	12 %
14-16	Moderate	19	25.3%
11-13	Fairly Low	19	25.3%
8-10	Low	15	20%
5-7	Very Low	1	1.4%
	Total	75	100%
	Average		14.15

As shown in Table 3, some students reported a high, fairly high, and moderate level of academic procrastination. The following table displays the relationship between the three variables of the study.

As shown in Table 4, Coefficient of correlation ( $r_{xy}$ ) between smartphone addiction and academic burnout was 0.054 with sig. Value of 0.255, indicating a positive yet insignificant relationship; Coefficient of Correlation between smartphone addiction and procrastination was 0.011 with sig. Value of 0.449, indicating a positive, insignificant relationship, while coefficient of correlation between academic burnout and academic procrastination was 0.138 with sig. Value of 0.045, indicating a positive, significant relationship.

**Table 4**  
*Bivariate Correlations Analysis*

		smartphone	burn	Procrasti
			out	nation
Kendall's tau_b	Smart phone	Correlation Coefficient	1,000	.054 .011
		sig. (1-tailed)		.255 .449
		N	75	75 75
	Burnout	Correlation Coefficient	.054	1,000 .138*
		sig. (1-tailed)	.255	. .046
		N	75	75 75
	Procrastination	Correlation Coefficient	.011	.138* 1,000
		sig. (1-tailed)	.449	.046
		N	75	75 75

**Table 5**  
*Multiple Correlation Analysis*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.219 <sup>a</sup>	.048	.021	4.13743

As displayed in Table 5, an R-value of 0.219 indicates a positive relationship between smartphone addiction, academic burnout, and academic procrastination simultaneously.

**Table 6**  
*Multiple Correlation Significance Test*

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	sig.
1	Regression	62,064	2	31,032	1,813	.171 <sup>a</sup>
	Residual	1232.522	72	17,118		
	Total	1294.587	74			

As shown in Table 6, The sig. value of 0.171 ( $> 0.05$ ) indicates an insignificant simultaneous correlation between smartphone addiction, academic burnout, and academic procrastination. Suherman, as cited in (Delarosa, 2019), states that one of the functions of guidance and counseling is the curative function. This function refers to a function that is associated with students facing problems, either personal, social, academic, or career-related problems. Counselors are responsible for helping students overcome their problems. Since smartphone addiction, academic burnout, and academic procrastination are related to students' personal and academic problems, guidance and counseling services play an important role in supporting the optimal learning process. Furthermore, the pandemic situation forces individuals to adjust themselves to new normal settings, which potentially makes individuals suffer from a crisis during the transition periods.

Smartphone addiction is defined as excessive use of a smartphone that is difficult to control and adversely affect individuals' life (Tzu Tsun Luk, 2018). Some studies found that smartphone use influences students' academic success (e.g., Junco & Cotten; Lepp, Barkley, & Karpinski; Kibona, & Mgaya as cited in (Tzu Tsun Luk, 2018). According to Roberts, Yaya, & Manolis, and (Tzu Tsun Luk, 2018), Smartphone addiction makes individuals disengage with learning activities, cheat during the examination, and fail to finish the given tasks, thus adversely affect individuals' academic performance. Regarding academic burnout, Schaufeli et al., as cited in (Lee, 2016) identify three symptoms of burnout, including emotional exhaustion, cynicism, and inability to complete tasks. It occurs due to heavy academic workload and chronic negative stress. With regard to procrastination, it is defined as an individual's act of delaying a task (Klingsieck, 2016). It is consistent with Steel's (as cited in Klingsieck, 2016) definition

of procrastination, stating that academic procrastination is an intentional delay of task despite potential negative consequences.

Tables 4 and 5 shows that there is no significant relationship between smartphone addiction and academic procrastination among guidance and counseling students of Semarang State University. This result is in contrast with previous studies (e.g., Wulandari, 2017) on smartphone addiction and academic procrastination among psychology department students of UIN SUKA Riau who are working on their thesis. The study found a positive, significant relationship between smartphone addiction and academic procrastination among students who work on their thesis ( $r_{xy} = 0.322$  and  $p$  value = 0.000). The result of the present study also contradicts the finding of (Rohim, 2017) which found a positive, significant relationship between smartphone addiction and academic procrastination among university-level students. This difference may be accounted for by other factors, including gender-related factors since most of the participants in the present study were female students. This proportion is different from (Rohim, 2017) that involves mostly male students. Based on (Sayidani, 2016), male and female students exhibit different academic achievements. This study indicated that male students tend to exhibit delays of a task than female students did, which eventually affect their academic achievement.

The present study found a positive, insignificant relationship between smartphone addiction and academic burnout. This finding is in contrast with the study conducted by (Elham, 2016), which found a positive, significant relationship between smartphone addiction and academic burnout. This finding also contradicts (Nastiezaie's (2018) finding of a positive, significant relationship between smartphone addiction and academic burnout among Iranian medical students.

The present study also found a positive, significant relationship between students' academic burnout and procrastination. This finding is drawn based on the bivariate analysis result, which shows a coefficient of correlation of 0.138 and a  $p$ -value of 0.046. This finding indicates that a higher burnout level may be followed by a higher level of procrastination. This finding supports previous studies (Putri, 2018); (Saputra, 2020); (Winahyu, 2020); (Balkis, 2013); (Muhammad & Rahmawati, 2016) that prove a positive,

significant relationship between students' academic burnout and procrastination. Based on multiple correlation analyses, it was found that there is a positive, insignificant simultaneous relationship between smartphone addiction, academic burnout, and academic procrastination among guidance and counseling department students of Semarang State University. The result of multiple correlation analyses in the present study serves as a new finding related to the relationship between smartphone addiction, academic burnout, and academic procrastination in online learning.

According to (Agusta, 2016) there are some factors that trigger the risk of smartphone addiction, including 1) internal factors involving low self-control, high sensation seeking, and low self-esteem; 2) situational factors, involving an individual's situational psychological factors that occur at a particular time; 3) external factors, involving high media exposure, and 4) social factors, involving social interaction-related aspects a person experiences along with other people. According to Lin, as cited in (Chen, 2016) factors of smartphone addiction involve impulsive behavior, usage duration, withdrawal attitude, inability to perform optimally. Meanwhile, the factors leading to academic burnout consist of perfectionism, lack of social support, low self-resiliency. Regarding the factors leading to academic procrastination, they consist of: external locus of control, anxiety, low academic performance, poor learning management skill, low life satisfaction (Nurjaman, 2014).

The present study found a simultaneous positive but insignificant relationship between smartphone addiction, academic burnout, and academic procrastination among students during online learning. The partial analysis result showed a positive, insignificant relationship between smartphone addiction and academic burnout and a positive, insignificant relationship between smartphone addiction and academic procrastination. There was a positive, significant relationship between academic burnout and academic procrastination. Since there are factors contributing to these three variables, the relationship among these three variables is also affected by individuals' conditions and the dynamics of these factors.

## CONCLUSION

The present study finds a positive relationship between smartphone addiction, academic burnout, and academic procrastination based on the partial and simultaneous analysis. Regarding the significance of the relationship, the present study found a significant relationship between academic burnout and academic procrastination. However, there is no significant simultaneous relationship among the three variables in this study. There is also no significant relationship between smartphone addiction and academic burnout and between smartphone addiction and academic procrastination. The result of this study implies that the students and the educators should be aware of potential academic burnout in order to prevent academic procrastination behavior. The positive, significant simultaneous relationship found in the present study indicates that a higher level of smartphone addiction and academic burnout may be followed by a higher procrastination level. The result of the study could be used as the basis to determine the provision of guidance and counseling services at the university level to minimize the problems related to smartphone addiction, academic burnout, and academic procrastination.

## ACKNOWLEDGMENT

We would like to thank the guidance and counseling department of Universitas Negeri Semarang, Guidance and counseling department of Universitas Kristen Satya Wacana, UKSW Dormitory, Donny Osmond Popoko as the President of Students Association of Universitas Kristen Satya Wacana, Kabinet di Balik Layar team, and beloved Lydia Agatha for their contribution, suggestion, material and immaterial supports.

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