



Exploring the role of self-control on student procrastination

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Abstract

Procrastination is widespread across the nation and setting. Its occur commonly in an academic setting which has many demands and deadline. One of the variable construct which reported has a high association with procrastination is self-control. It is why we would like to find out the role of self-control on student procrastination. There were 100 undergraduate students enrolled this study, from religious education faculty of a private university in Yogyakarta. Pure Procrastination Scale, Procrastination Academic Scale for Student, and Brief Self-Control Scale were administered to obtain student procrastination and self-control. Results showed that self-control correlates moderately negative with both of general and academic procrastination. Also, self-control could predict procrastination both in an academic and general setting. As an additional, there were significantly different between the lowest and highest procrastination group based on student self-control, with big size-effect reported. For further analysis, the prevalence of six areas of academic procrastination also discuss.

Keywords: Procrastination, Self-control, Undergraduate students.

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Introduction

There is no doubt that controlling our behavior is so crucial to achieving a positive outcome. Both in personal, organizational, or community context, daily or professional context, people need to be well-managed to achieve one's success. As an example, we cannot imagine if an employee who failed to get up early in the morning, could get good compensation from the company. Also, in the academic example, a student who could not override the short-term temptation such playing game, would have trouble in accomplishing an academic task.

Having a good self-control is beneficial to our life. Denson, DeWall, & Finkel, (2012) review of self-control experiments, has underlined the important role of self-control to override the aggressive urges. Lacking such self-control would predict aggressive behavior and high self-control tends to reduce aggressive response. Another study amplifies the substantial role of self-control, which identifies both implicit and explicit self-control had an influence on aggressive tendency (Keatley, Allom, & Mullan, 2017).

At the macro level of several counties in Texas, Diamond, Jennings, and Piquero (2017) study have shown that self-control was associated with violent crime, property crime, and unemployment, especially in rural areas. The key feature of self-control such impulsive and unhealthy behavior, linked with unemployment. Converse, Beverage, Vaghaf, and Moore, (2018) confirm the influence of self-control on work. It could predict not only work but also relationship issue and well-being in adolescent and young adult. The association between self-control and health also reported by Yang, Zhao, Chen, Zu, and Zhao (2017), where depressed university students reported has benefited from self-control training.

In an academic setting, self-control gives pivotal role in determining success. Candeias et al., (2014) has shown that self-control positively associate with academic self-efficacy and school satisfaction in primary and secondary school. It also affirms by Galla and Duckworth longitudinal study (2015), student self-control gives valuable affect to homework habits, homework accomplishment, higher school grade, and also GPA and college persistence. It gives corroboration that self-control not merely about inhibit temptation.

Alongside with that issue, self-discipline reported has become reliable predictor than IQ in predicting student grade, school attendance, homework time spent, and high school selection (Duckworth & Seligman, 2005). Supporting this finding, Komarraju, Ramsey, and Rinella (2013), found that academic discipline better in predicting college GPA than standardized test scores (ACT) and high school GPA. It partially mediated the correlation between high school GPA and college GPA.

Another indicator of academic success is the way student deal with the academic demand and deadline. Whether they would accomplish or postpone the tasks, become matters. A student who tend to procrastinate, tend to have a problem. As Gustavson and Miyake (2017) investigated, a college student who reported as high procrastinate tend to have low on goal accomplishment. According to Steel (2007), self-control highly associated with procrastination. It means that student who has a problem with their self-control tends to procrastinate on an academic task. Kim, Hong, Lee, and Hyun (2017) study also point out that students who have high self-control reported have low on procrastination. Delaying or postpone behavior, indicate poor on self-control. In this present study, we would like to explore the role of self-control on student procrastination, both in an academic context and general procrastination.

Method

Participants

There were 100 undergraduate students (47 males and 53 females) enrolled this study. They were from the faculty of Islamic religion in private university Yogyakarta, which has an age from nineteen to twenty-two years old.

Instruments

Data were obtained with three self-report. There were Brief Self-Control Scale, Pure Procrastinate Scale, and Procrastination Academic Scale for Student. The Brief Self-Control Scale was self-report scale to assess unidimensional trait self-control, which developed by Tangney, Baumeister, and Boone (2004). It has 13 items which Cronbach's α in this sample is 0.78 and item-total correlation ranged from 0.58 – 0.63. This scale used a Likert model with five alternative responses, ranging from strongly disagree, disagree, hesitation, agree, and strongly agree.

Academic procrastination was assessed by using Procrastination Academic Scale for Student, developed by Solomon and Rothblum (1984). These 12 item self-report covers six academic domains: Writing a term paper, studying for exams, keeping up with the weekly reading task, academic administration task, attendance task such meeting with advisor and college activity in general. Likert responses also used in this scale, ranging from never, seldom, about half the time, usually, and always. Cronbach's α in this sample reported 0.89 and item-total correlation were 0.49 – 0.73.

General procrastination was measured by using Pure Procrastination Scale (Steel, 2010). This self-report derived from three meta-analyses of General Procrastination Scale, Adult Inventory of Procrastination, and Decisional Procrastination Questionnaire (DPQ), which composed of 12 items. According to recent refinement scale, Svetina, Marie Scott, Danckert, Svartdal, and Steel, (2017) stated that the PPS has good psychometric properties. It comprises of three subscales, namely decisional procrastination, implemental delay, and timeliness/lateness. In this sample, Cronbach's α was 0.92 and the item-total correlation was ranging from 0.39 – 0.76. Five Likert responses also applied: strongly disagree, somewhat disagree, neutral, somewhat agree, and strongly agree.

Procedure

All of the three questionnaires were given to the undergraduate student at the end of three classes. Permission from the Dean of religion faculty was taken before the questionnaires distributed. After researcher introduced, the material was given to the student by asking their cooperation. They were told that they have to fill up the questionnaires and there were no wrong or right answers.

Data analysis

Correlation analysis was employed to determine the relationship between self-control and both procrastination. Regression analysis was applied in order to find procrastination predictor. As an addition, independent t-test also applied to compare between the low and high group of procrastination based on self-control.

Results and Discussion

Result

The descriptive analysis has shown (Table 1) that there were 36% students who identified themselves procrastinate on academic demands. Along with that, general procrastination of student also indicates at the same level, 39%. More than a third of the sample reported having the problem with delayed behavior. Of them, 19% students having a high risk to meet the deadline.

Table 1. Descriptive Statistics of general and academic procrastination

	PASS	PPS
N	100	100
Mean	33.89	34.90
S.D	8.058	9.143
Very Low	18%	15%
Low	22%	25%
Moderate	24%	11%
High	17%	20%
Very high	19%	19%

From correlation analysis table 2 shown that self-control has negative and significant correlation on procrastination, both academic domain and general ($r = -.32$, $p < .01$ and $r = -.45$, $p < .001$). The self-control explains 10% on the academic procrastination variance and twice higher in explaining 20% general procrastination variance (see table 3).

Table 2. Correlation between PASS, PPS, and Self-control

		PASS	PPS	Self-control
PASS	Pearson's r	—		
	p-value	—		
PPS	Pearson's r	0.548***	—	
	p-value	< .001	—	
Self-control	Pearson's r	-0.321**	0.450***	—
	p-value	0.001	< .001	—

* $p < .05$, ** $p < .01$, *** $p < .001$

Whether self-control could predict procrastination, regression analysis was applied. Self-control variable significantly predicted both academic and general procrastination ($\beta = -.32$, $F = 11.23$; $df = 1$; $p < 0.01$ and $\beta = -.63$, $F = 24.82$; $df = 1$; $p < 0.001$). Self-control explain 10,3% of the variance in academic procrastination. In the general context, self-control do higher explain 20,2% of the procrastination variance (see Table 3).

Table 3. Summary of Regression Analysis for Predicting procrastination (N = 100)

	Model 1 (PASS)			Model 1 (PPS)		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Self-control	-.395	.118	-.321**	-.628	.126	.450***
<i>R</i>²		.103			.202	
<i>F</i>		11.23			24.82	

** $p < .01$, *** $p < .001$.

Some study indicates that gender has an influence on procrastination(Steel & Ferrari, 2012; Rebetz, Rochat, Barsics, & Van Der Linden, 2016)and self-control(Candeias et al., 2017; Duckworth & Seligman, 2006; Jo & Bouffard, 2014). Data analysis revealed that of three variables, only self-control having a difference between male and female, which female (M=44.49, SD=6.02) superior to male (M=41.89, SD=6.89). There were no significant differences between male and female procrastination based on gender, both in academic and general context (see Table 4).

Table 4. Academic procrastination, general procrastination, and self-control differences based on gender

	Male (N=47)		Female (N=53)		df	t
	M	SD	M	SD		
PASS	33.96	7.99	33.83	8.19	98	.078
PPS	35.68	9.54	34.21	8.81	98	.803
Self-control	41.89	6.89	44.49	6.02	98	-2.01*

* $p < .05$

Independent sample t-test analysis was employed to compare low and high self-control group. Table 5 showed that there was significant procrastination difference between the two groups. The student having low self-control (M=37.05, SD=8.11), procrastinate in academic setting higher than high self-control group (M=28.88, SD=9.05). At the same time, low self-control student (M=40.86, SD=9.01), having general procrastination higher than high self-control group (M=29.46, SD=9.11).

Also, all of six academic procrastination domains were difference significantly between the two groups, except attendance task learning.Low self-control student reported having high procrastination on writing a paper, studying for exams, weekly reading assignment, academic administration task, and college activity in general and vice versa. As an addition, three areas of academic task which percept as most problematic, from highest to lowest were writing a paper, weekly reading assignment, studying for exams,

Table 5. Academic procrastination, general procrastination, and six domain of academic procrastination differences between low and high self-control group

	Low self-control (N=22)		High self-control (N=24)		df	t	Cohen's d	Highly perceived as a problem
	M	SD	M	SD				
PASS	37.05	8.11	28.88	9.05	44	398**	0.51	-
PPS	40.86	9.01	29.46	9.11	44	4.26***	1.26	-
Writing a paper	3.455	0.858 0.907	2.708 2.458	0.859	44	382.5**	0.45	40%
Studying for exam	3.182			1.215 0.999	44	369.5*	0.40	28%
Weekly reading task	3.455	1.011	2.958			351.0*	0.33	32%
Academic administration task	3.045	0.899	2.125	1.035	44	402.0**	0.52	20%
Attendance task	3.136 2.773	1.037 0.922	2.500	1.319	44	343.5	0.30	22%
College activity in general			1.708	0.859	44	421.0***	0,60	11%

* $p < .05$, ** $p < .01$, *** $p < .001$.

Discussion

Exploring the role of self-control on student procrastination is the aim of this study. The results have indicated that self-control gives an important role to both academic and common procrastination. It has a negative correlation with procrastination and reasonably as a predictor of procrastination, in academic and general areas. This finding underlines the previous study which has linked between the self-control and procrastination (Rebetez, Rochat, Barsics, & Van der Linden, 2016; Steel, 2007; Steel & Klingsieck, 2016; Ursia, Siaputra, & Sutanto, 2013).

According to Park and Sperling (2012), a student who procrastinate displayed a failure of self-regulation across of behavior, cognitive, and motivation. The reason why student postponed their task is not concerning the absence of planning and intention or isn't aware of the negative consequence, but more likely poor of energy and willpower. They already have the goal, but the problem is to get a start or accomplish what they have done due the limit time. According to Gollwitzer, Gawrilow, and Oettingen (2010), there are four obstacles lying between one's goal and implementation. Firstly, to get a start. Procrastinate student tends to hold off what they have planned. Usually, there was pleasure thing such playing or hanging out with a friend which alter initial planning. A student having low self-control would fail to resist that temptation. Secondly, to stay on track. After the student makes initial action to implement what has stated before, the problem still remains, how to constantly act until the finish. Many academic tasks, such writing a paper, couldn't accomplish just in a few minutes. It needs to keep in touch until done. Low self-control student tends to fail to stay on the track. Any distraction would inhibit the goal. Thirdly, calling a halt. A complex task or invaluable assignment is challenging for some individual. But for a student having poor self-control, it would be easy to make an excuse to call a halt. If this so, then any assignment would be abandoned. The last is not overextending oneself. Some goals which take a high resource would make student depleted. Such long-term project which required high control, yield cognitive load which in turn make ego-depletion.

The association between self-control and general procrastination is higher than in academic context, though it still in the moderate level. When it put as a predictor, self-control does better in predicting general academic twice than in an academic setting. This difference seems likely to reflect the domain specification of procrastination just as Klingsieck suggest (2013), where trait self-control better in predicting trait procrastination in general.

The difference between low and high self-control group on general and academic procrastination give an impression that association between two variables are salient, especially with large effect size reported on general procrastination. From six domains of academic procrastination, three of them having moderate effect size: college activity in general, academic administration assignment, and writing a paper and the rest were small effect size.

Based on the student report, they confess having a problem with the three most academic demands. At the top rank was writing a paper, followed by weekly reading task and studying for exams. It is not surprising that writing a paper is the most perceived task to as a problem. As Kellogg (1994) argues, writing is a complex process which comprises of four cognitive tasks. There are gathering ideas, plan it, translate to text, and reviewing. It is not only collecting knowledge in our head, but also a concern of intellectuality, motivation, cognitive style, and anxiety.

Gender issue on the self-control and procrastination were found only in self-control variable and no difference was reported in both academic and general procrastination. Consistent with the previous study (Candeias et al., 2017; Angela Lee Duckworth & Seligman, 2006; Jo & Bouffard, 2014), male and female were differing in self-control, which female reported better than male. But this finding differs with Wang, Fan, Tao, and Gao (2017), which yield on male superior in Asian sample. This inconsistency perhaps linked with the cultural background lying on the sample.

Conclusion

Finding on this study emphasize the role of self-control on procrastination. It has a moderate association with both academic and general procrastination. Self-control is better in predicting general procrastination than in academic context. The differences between the high and low self-control group in almost all of the academic procrastination domain amplified the key contribution of self-control in an academic setting, especially a college student. As a consequence, promoting one's capability to take more control in his own life would benefit, both in present and future. An academic institution should pay attention to this non-cognitive factor to cultivate positive outcome.

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