The Influence of Self-Control Through Self-Efficacy on Academic Procrastination

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Article Info	Abstract
	Academic procrastination is a vital concern, considering that it has detrimental effects on students, like emotional disturbances (stress, anxiety disorders, self-guilt, depression and disappointment), academic performance, social achievement, subjective well-being, and even physical health. This study aims to prove that self-efficacy can mediate the effect of self-control on academic procrastination. The sample was taken using the random cluster sampling technique consisting of 329 students from 4 schools in Semarang. The data analysis technique used was bias-corrected bootstrapping. The findings proved that self-control predicts self-efficacy, while self-control and self-efficacy predict academic procrastination. Moreover, self-control can reduce academic procrastination through self-efficacy. This study's results indicated that self-control and self-efficacy are essential and significantly minimize academic procrastination.

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INTRODUCTION

Academic procrastination is marked by the tendency to delay or avoid high-concentrated academic assignments to finally finish at an emotional-stressing point (Liu et al., 2020; Seo, 2008). Students with this issue generally relate their troubles with personality defects such as laziness, indiscipline, or poor time management (Senécal et al., 1995), resulting in them cranking out the assignment in one night while they have sufficient time spent doing unnecessary work (Ferrari & Tice, 2000; Ghosh & Roy, 2017).

Referring to Bozgun & Baytemir (2021), students with academic procrastination experience temporary tranquillity from delaying the assignment, yet they unconsciously worry about their inability to finish the tasks on time. Academic procrastination has long been considered a dysfunctional attitude as it gives psychological pressure (Svartdal et al., 2020). As explained by Liu et al. (2020) in their research, academic procrastination adversely affects emotion, academic performance, social achievement, subjective welfare, and even physical well-being.

Academic procrastination is a success-inhibiting factor leading to declining academic achievement. If this situation remains untreated, it will decrease academic scores, enthusiasm for learning, and emotional discomforts such as guilt, depression, anxiety and stress (Lay & Schouwenburg.,1993; Solomon & Rothblum., 1984 in Kim & Seo, 2015). Academic procrastination is a vital object to investigate as it potentially hinders the learning process and negatively impacts academic achievement. Ideally, learners are expected to have productive traits, for example, the ability to overcome all forms of procrastination to enhance academic performance (Sansgiry et al., 2004) and achieve the desired objectives. Students who do not procrastinate will be more diligent in doing assignments (Surijah & Tjundjing, 2007). They will also be more consistent and persistent in planning future goals (Steel, 2007).

According to Kim & Seo (2015), 80-90% of South Korean students experience academic procrastination. Similarly, Savira & Suharsono (2013) stated that the procrastination level of accelerated students reached 52.1% (high) and 47.9% (low). Moreover, Jatmiko & Setyawan (2021) revealed that students of SMA Mardisiswa Semarang experienced academic procrastination at high (12.5%), medium (71.2%), and low (16.3%).

Jensen & Carton in Ursia et al. (2013) elucidated that the factors influencing high academic procrastination behaviour are low self-control, self-esteem, and self-efficacy. Self-efficacy is the confidence to reach high achievement expectations, thus increasing one's drive to achieve the set goals and simultaneously decreasing academic procrastination (Syukur et al., 2020). In Przepiorka (2019), self-efficacy has a significant negative correlation with academic procrastination. Zhang et al. (2018) showed that self-efficacy mediates the effect of self-esteem variables on academic procrastination. However, Batool (2017) and (Zusya & Akmal, 2016) argued that self-efficacy does not have a significant relationship with academic procrastination.

In addition to self-efficacy, self-control also has the power to resist academic procrastination behaviour. Based on Baumeister (2018), self-control leads to positive results like confidence, adaptability, happiness, and avoiding problematic behaviour. Further, Tangney (2004) explained that self-control is the capacity to change and adapt to the environment to produce optimal alignment.

Self-control dramatically influences the behaviour of academic procrastination (Novera & Thomas, 2018; Susanti & Nurwidawati, 2014; Wulandari, 2020). Moreover, Tangney (2004) emphasized that self-control is a student's ability to resist the temptation to take maladaptive actions. It forms positive self-regulation to minimize academic procrastination.

Much empirical evidence is related to research on self-control, academic procrastination and self-efficacy. Nevertheless, no research has examined the effect of self-control on academic procrastination mediated

by self-efficacy. The researchers tried to seek the answer to this issue.

METHODS

Respondents involved in this study totalled 329 students who came from 4 Vocational High Schools in Semarang City, Central Java. Participants were selected using the Simple random sampling technique based on Isaac and Michael's table with a 5% error rate.

Three scale types employed were self-efficacy, academic procrastination, and self-control scale. These scales were derived from the published instruments; thus, a back-translation procedure was done for adaptation.

Academic procrastination was measured using the Tuckman Procrastination Scale (TPS) developed by Tuckman (1991). The aspects included (1) self-image for dealing with something; (2) a tendency to avoid discomfort and unpleasant difficulties; and (3) a tendency to blame others for one's difficulties. The scale consists of 35 statement items on a Likert scale (1 = not appropriate, 5 = very appropriate). The reliability test results on the TPS scale obtained a Cronbach α coefficient of 0.824.

The self-control was measured using the Brief Self-Control Scale (BSCS) developed by Tangney et al. (2004). This scale is a short form of self-control scale (SCS). The BSCS consists of 13 statement items representing five aspects; Self-Discipline, Non-Impulsivity, Healthy Habits, Work Ethics and Reliability, stated in the form of a Likert scale (1 = not suitable, 5 = very suitable). The reliability test results obtained a Cronbach α value of 0.75, thus, declared reliable.

Meanwhile, self-efficacy was measured using the General Self-Efficacy (GSE) established by Rimm & Jerusalem (1999). The GSE aims to measure self-efficacy components: magnitude, strength, and generality. It consists of 10 items on a Likert scale (1 = not suitable, 4 = very suitable). The reliability test on the GSE scale resulted in a Cronbach α value of 6.89 and was declared reliable. In addition, the gathered data were analyzed using the bias-corrected bootstrapping on PROCESS application developed by Andrew F. Hayes (2013).

RESULTS AND DISCUSSION

The data description showed the mean and standard deviation on Self Control (M = 39.13; SD = 6.924), academic procrastination (M = 138.89; SD = 7.567), and self-efficacy (M = 27.20; SD = 5.400). The immense mean value indicated an excellent representation of the data spread. The following Table 1 presents the detailed data.

Table 1. Description of Data

Variable	M	SD
Self-control	39.13	6.924
Academic Procrastination	139.89	7.567
Self-efficacy	27.20	5.400

Hypothesis testing was done using mediator analysis on the PROCESS application. The mediation analysis was carried out using the bias-corrected technique, bootstrapping N=5000, with a 95% confidential interval. The results of which are shown in table 2.

Table 2. The Influence of Self-Efficacy as a Mediator

Predictor	B	t	P	SE	LLCI	ULCI	R	R²	F	P
Criterium :SE							0.21	0.01	3.83	<0.01
SC	0.32	1.96	<0.01	0.06	0.07	0.24				
Criterium : AP							0.9	0.81	705.36	<0.01
SC	-0.18	-2.69	<0.01	0.03	0.11	1.02				
SE	-0.29	-3.53	<0.01	0.02	0.94	1.04				
Total Effect	-0.14	-0.59	<0.01	0.07	0.09	0.18				

Indirect Effect	β	SE	BC 95%	
			Lower	Upper
SC→SE→AP	-0.12	0.08	0.05	0.29

Information : SC = Self-Control (X),
AP = Academic Procrastinator (Y)
SE = Self-Efficacy (M)

Based on table 2, self-control has a positive effect on self-efficacy (β=0.32, p<0.01), while self-control affected academic procrastination by 81% (R2 = 0.81). Then, there is a negative effect between Self Control on Academic procrastination (β = -0.18, p<0.01). That being said, if students have a high level of self-control, they tend to have low academic procrastination and vice versa.

Furthermore, the table also shows a negative effect between Self Efficacy on Academic procrastination (β = -0.29, p<0.01). Thus, if students have a high level of Self-Efficacy, Academic Procrastination is relatively low.

Meanwhile, the indirect effect of Self Control on Academic Procrastination is seen from Self Efficacy (β = -0.12; SE = 0.08; LLCI = 0.05; ULCI = 0.29). In other words, Self-efficacy has been proven to have a mediating effect on Self Control's influence on Academic procrastination. Hence, when students' self-control is high, their level of self-efficacy will increase and reduce academic procrastination.

In detail, the regression analysis and mediation results are visualized in Figure 1
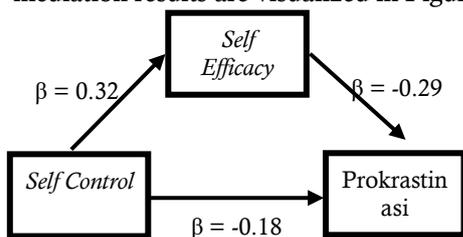

Figure 1. Self-efficacy model mediating self-control on academic procrastination p<0.01

The findings proved that self-control predicts self-efficacy. This is in line with research conducted by Yang (2019) that self-control contributes positively to self-efficacy; in other words, students with higher self-control tend to experience a greater sense of self-efficacy. In addition, Bandura (1999) stated that self-control is also pivotal in encouraging self-efficacy. Bandura's theory underlined that individuals with stronger self-control are inclined to have stable self-efficacy towards tasks and the future.

Counsellors can provide guidance and counselling services to increase self-control by understanding the importance of self-control concerning resisting temptations. The service can be in the form of individual, group, or classical guidance.

Further results unveiled the effect of self-control on academic procrastination, which showed a negative influence. This is parallel with research conducted by Steel (2007), revealing that self-control negatively correlates with academic procrastination. He elucidated that self-control is an individual's way of controlling himself related to the behaviour of delaying tasks. Therefore, someone with low self-control will have more potential to do academic procrastination. Individuals' low self-

control has also been found to worsen academic barriers, and increase aggression, the potential for substance abuse, internet addiction, and other maladaptive behaviours.

Self-efficacy has a negative effect on academic procrastination. This finding is similar to Wulandari (2020), stating that self-efficacy is one of the factors influencing academic procrastination, i.e., the higher the individual's self-efficacy, the lower the academic procrastination behaviour. As self-efficacy is confidence with expectations, it can increase a person's drive to achieve his goals. Thus, the level of academic procrastination decreases Syukur (2020). A person's insecurity about carrying out academic assignments is the main factor of academic procrastination behaviour; hence, the presence of self-efficacy boosts the students' stability and motivation to complete their academic assignments on time.

This study has proven the function of self-efficacy as a vital mediator for the relationship between self-control and academic procrastination. This finding supports the critical role of self-efficacy in controlling individuals before experiencing academic procrastination. Self-efficacy creates a perception of a person's goals after dealing with his problems, let alone personal development. This will give positive nuance on confidence which eventually leads to stronger goal-planning, persistence in finishing academic tasks, and better learning motivation.

CONCLUSION

This study has proven a direct effect of self-control on academic procrastination through self-efficacy. Self-control acts as a student's ability to resist maladaptive temptations, which can lead to academic procrastination. The researchers hope that these results are beneficial as a basis for experimental studies. It is suggested that future research expand and broaden the scope of respondents, in addition to student involvement and intervention using experimental methods.

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