

Academic Procrastination's Antecedents and their Predictability on College Students in Kathmandu Valley

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ABSTRACT

The purpose of this study is to examine the predictability of self-efficacy, self-regulation on academic procrastination of undergraduate students in Kathmandu Valley. For this, first, the undergraduate students from management program in three different districts in Kathmandu valley were taken through convenience sampling. The sample were examined by using self-report scale viz. Academic Procrastination Scale, Self-Efficacy Scale, Self-Regulation Scale and Self-efficacy for self-regulation Scale, followed by correlation and hierarchical regression under cross-sectional research design and finally, hypotheses were tested. The study found negative bivariate correlation between academic procrastination, self-efficacy, self-regulation and self-efficacy for self-regulation. Among all the the predictors, self-regulation stood the strong predictor. This study tires to provide the general understanding of procrastination in the Nepalese context, with the view to support on determining the antecedents in developing the possible intervention program for overcoming procrastinatory behavior among undergraduate students.

Keywords: self-efficacy, self-regulation, self-efficacy for self-regulation and academic procrastination.

Introduction

Academic success is a vital component for career development. However, required educational processes like higher devotion in study, completing academic tasks, regular attending classes, submitting assignments, engaging in group discussion, submitting projects etc. for academic improvement are restrained by procrastinatory behaviour (Kandemir, 2014). In addition, Steel (2007), claimed that most college students procrastinate on a regular basis. Ellis and Kanus (1977) went further claiming that 70-95% of undergraduate students procrastinate, where 20-30% are severe procrastinators.

Academic procrastination can be understood as individual's scenario where s/he knows what is supposed to do, and perhaps even wanting to complete it, but failing to perform the activity within the expected or desired time-frame (Senecal, Koestner & Vallran, 1995 as in Wolter, 2003). Rothblum, Solomon and Murakami (1986), expressed it as postponing academic duties such as preparing for exam and delaying homework sometimes or constantly. In addition, Steel and Klingsieck (2016) defined as a "voluntarily delay an intended course of study related action despite expecting to be worse for delay" (p., 37).

Academic procrastination has been seen as an impediment to academic success because it decreases the quality and quantity of learning while increasing the severity of stress and negative outcome in student lives (Howell & Watson, 2007). Ellis and Kanus (1977) argued that, procrastinators are frequently unsure of their ability to complete task and consequently they delay starting the task in question. Further, procrastinators are more likely to engage in negative self-talk, especially regarding excuse making (Greco, 1985 as in McCown, 1986).

However, Chu and Choi (2005), reported that some students benefit from working under time pressures, and actively choose to procrastinate. In addition, undergraduate procrastinators experience less stress and illness than non-procrastinator early (but not later) in an academic semester (Tice and Baumeister, 1997). Further, Steel (2007) argued that, procrastinators are aware of negative outcomes.

In such academic debate, procrastination is viewed as both positive and negative phenomenon, however, majority of the researchers have connoted the procrastinatory behavior negatively and presented various antecedents but still needs higher scrutiny to determine the agreeability.

Problem Statement

Procrastination is a voluntary delay caused due to the deviation of intention from the regular course of action needed and is contrary to strategic delaying behavior (Klingsieck, 2013). Plethora of studies indicated various antecedents of procrastination, for example, reduced cognitive and meta-cognitive learning strategies (Howell & Watson, 2007; Wolter, 2003), low level of perseverance and high level of distractibility while working on a task (Demitt & Schoumenurg 2002), poor planning skills (Rabin, Fogel & Nutter, Upham 2011), restless and unpleasant emotional experience during superficial learning (Orpen 1998), low conscientiousness (Steel 2007; Eerde, 2003), low self-esteem (Solomon & Rothblum, 1984) and overall low level of self-efficacy for self-regulation (Klassen, Krawchuk & Rajani, 2008). However, consensus among these predictors are still difficult to ascertain. Besides, there is always the necessity for scientific community to examine these antecedents effectively in different context to determine the possible accurate predictors. In addition, most of these studies were conducted in a western context, and still have a discrepancy in validating in Nepalese students' context where the academic cultures are different. Further, undergraduate courses are relatively high in length with long contact hours and also demand stringent academic discipline for better performance, which further challenges students to stick within the courses and thus, might prone to procrastinatory behavior.

In such backdrop, this study aimed to identify the level of procrastinatory behavior among undergraduate students and examined the effect of mostly explored antecedents viz. self-regulation self-efficacy and self-efficacy for self-regulation (see, Steel, 2007) on procrastination using a cross-sectional strategy under retrospective research design.

The specific objectives are;

- To identify the nature of academic procrastination among the undergraduate students of management.
- To ascertain the level of self-regulation, self-efficacy and self-efficacy for self-regulation among the undergraduate students.
- To measure the predictability of self-regulation, self-efficacy, self-efficacy for self-regulation in academic procrastination.

Literature Review

Klingsieck (2013) a large body of research on the causes, correlates, and consequences of procrastination has been accumulating over the last 40 years. The aim of this paper is to provide a systematic characterization of the trends in procrastination research and to suggest future directions for research and practice. The systematic characterization comprises a comparison of procrastination to functional forms of delay (referred to as strategic delay observed the procrastination heuristic, by categorizing different standpoints of scholars on procrastination under four perspectives i.e. differential psychology, motivational and volitional, situational and clinical psychology perspectives. Each perspective has its own unique way to interpreting procrastination, for instance, differential psychology define procrastination as a personality trait, whereas motivational and volitional perspectives assume it as deficit of individual willpower to self-regulate, again, situational perspective highlight the lack of proper situational factor in a job and, finally, clinical psychology consider stress and anxiety as the prime factors for procrastination.

Since, an individual shows his/her behavior on the basis of how s/he interpret the encounter with the situation (Mackey & Perrewé, 2014). Thus, this study also focuses on examining an intrapersonal cognitive resources that link to the student's academic procrastinatory behavior.

Self-Regulation

Self-regulation is ability to regulate oneself i.e. capability to avoid distraction and continuously maintain cognitive engagement in work or in given task in a defined environment (Corno, 1986; Corno & Rohrkemper, 1985 as in Pintrich & DeGroot, 1990). In the learning context, it includes students' metacognitive strategies for planning, monitoring and modifying their cognition, students' management and control of their effort on classroom academic tasks, and actual cognitive strategies that student use to learn, remember and understand the material. (Pintrich & Groot, 1990). Thus, self-regulatory students *plan* what they want to accomplish, *monitor* progress, *control* change when things don't do as planned and then *reflect* on what worked (Gaumer, Soukup, Noonan & McGurn, 2015). Apart from this, Self-regulated learners are distinguished by their capability to encourage oneself. So, without such cognitive component it is difficult for an individual to translate intention into action.

Park and Sperling (2012) found that, deficit of self-regulatory behavior is likely to show procrastination. In the similar vein Ferrari and Emmons (1995) found self-control as the significant predictor of procrastinatory behav-

ior. In addition, procrastinators are weak self-regulator (Pychyl & Flett, 2013) and thus, unable to suppress the hedonic distraction (Silver & Sabini, 1981). Consistent with these rationales, it is theorized that;

H₁: There is significant negative relationship between self-regulation and academic procrastination

Self-Efficacy

Self-efficacy or perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave (Bandura, 1994). It influences the level of goal challenge people set for themselves, the amount of effort they mobilize, and their persistence in the face of difficulties (Zimmerman, Bandura & Martinez-Pons, 1992). And, it increases when student believe that ability can grow with effort and also believe in their ability to meet specific goal or task (Gaumer, Soukup, Noonan & McGurn, 2015).

Different studies stated that, weak perceived self-efficacy likely to cause procrastinatory behavior. In the study of Bakar and Khan (2016) self-efficacy is found to be significantly negatively correlated with academic procrastination. In the similar vein, Kandemir (2014) found, meaningful negative relationship between self-efficacy and academic procrastination, however missed predictability ($\beta = 0.01$, $P > 0.05$). Prior to this study, Klaseen et al. (2008) also claimed self-efficacy as the significant negative influencer to procrastinatory behavior. In addition, people believe to be less competent on tasks are prone to procrastination (Bandura, 1977; Haycock, McCarthy and Skay, 1998; Kiamarsi and Abloghasemi 2014; Lay, 1992; Milgram, Marshevsky & Sadeh, 1995; Wolters, 2003). So it is necessary to be self-efficacious to reduce procrastinatory behavior. In the light of above findings, it is posited as;

H₂: There is significant negative relationship between self-efficacy and academic procrastination.

Self-Efficacy for Self- Regulation

Self-efficacy for Self-regulation is a belief in one's capability that endorse the perseverance to act effectively on given task under both favorable and unfavorable environments (Kalseen, Krawchuk & Rajani, 2008; Zimmerman, Bandura & Martinez-Pons, 1992). This endorsement or staying power is a key factor for explaining the procrastinating behaviour. (Kalseen et.al. 2008).

It is a belief on oneself to be able to regulate their mental deviation towards distractions and focus on desired goals. Failure to do so, leads to the gap between intention and action (Sliver & Sabini, 1981). In the study of Zimmerman, Bandura, and Martinez-Pons (1992), "self-belief of efficacy to strategically regulated learning plays an important role in academic motivation". In the similar vein, Kalssen et al. (2008), study found self-efficacy for self-regulation as significant predictor of procrastinatory behavior. Further Liu et al. (2020), showed the mediating effect of self-control between self-efficacy and academic procrastination. Moreover, Zhang eta al. (2018) stated the need of self-efficacy for self-regulation, which is likely to reduce the academic procrastinatory behavior. Consistent with these findings it is posited that;

H₃: There is significant negative relationship between self-efficacy for self-regulation and academic procrastination.

Conceptual Framework

From the reviews of extant literature, the conceptual framework was determined and presented in Figure 1. It tries to explain the possible effect of self-regulation, self-efficacy and self-efficacy for self-regulation on academic procrastination.

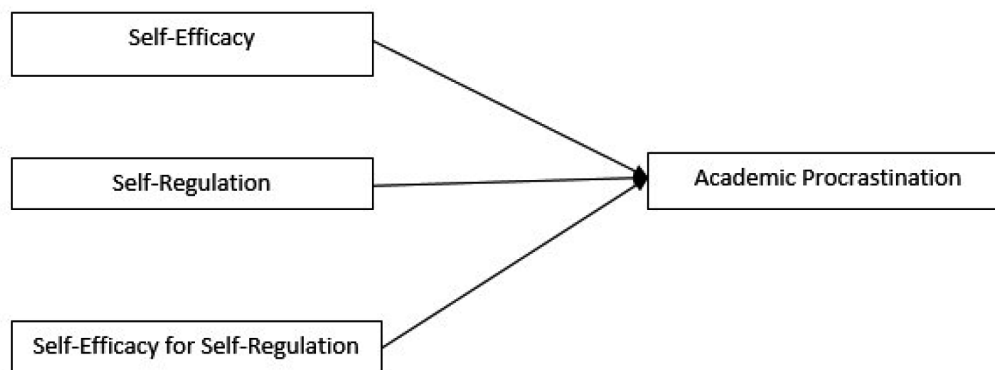


Figure 1 The relationship of predictor variables viz. Self-Efficacy, Self-Regulation and Self-Efficacy for Self-Regulation with a criterion variable i.e. Academic Procrastination.

Research Methods

Research Design

This study adopted cross sectional strategy following the retrospective research design due to difficulty to implement experimental design. Even, Waschle (2014) argued that, “academic procrastination cannot easily be investigated experimentally, because theoretically, it is defined as irrational postponing (Steel, 2007) and it would make no sense, for example, that a researcher request postponing from the participants in one experimental condition, because in that cases irrationality of the observed behaviour could not be assumed.”

The data were collected from the undergraduate students who are studying in four various management colleges in three different districts in Kathmandu Valley using convenience sampling with the response rate of 93%. Besides, to solve the problem of biased extremity and outliers under convenience sampling, the sample size was increased to 391 than the usual standard of 384 units prescribed by Cochran (1977), and is further supported by Smith (2011) who noted that, increase in sample size increases the power of convenience sampling technique.

Further, to minimize the response bias, consent was taken beforehand from the participants and briefly informed about the topic and procedure to be followed in fulfilling the questions requirement in each class. Any queries asked in the process of fulfilling the questionnaire were immediately answered. The questionnaire was subjected to complete in 30 minutes, so each participants was given adequate time in submission process.

Sample and Respondent Profile

The sample include 220 females and 171 males with a mean age of 20.69 years with the standard deviation of 1.098.

Table 1

The table presents frequency of student participants in terms of gender and district category with respect to age groups.

Items		Gender		District			Total
		Male	Female	Kathmandu	Bhaktapur	Lalitpur	
Age	18-20 years	59	111	68	71	31	170
	Above 20 Years	112	109	87	62	72	221
Total		171	220	155	133	103	391

Questionnaire

Standard questionnaires were used as the measurement tools for measuring procrastination (Lay's procrastination Scale, 1986), self-efficacy (Self-Efficacy Questionnaire, Gaumer, Soukup, Noonan & McGurn, 2016), self-regulation (Self-Regulation Questionnaire, Gaumer, Soukup, Noonan & McGurn, 2015), and self-efficacy for self-regulation (Self-Efficacy for Self-Regulation, Zimmerman, Bandura & Martinez-Pons, 1992).

Academic procrastination scale (Lay, 1986). This scale contains 20 items, self-report measure of academic procrastination. The scale was converted into 5 point scales to produce higher item variance and greater scale reliability. The items are scored on a Likert-type scale ranging from 1 (Totally false for me) to 5 (Totally true for me) with the possible maximum score of 100. Towards the direction of high procrastination, items included, “I often seem to end up my personal shopping at the last minute” and “My assignments remain undone even in its submission date”. Some items were rephrased for the better understanding to the undergraduate students. The measure has a Cronbach alpha coefficient of 0.82 (Lay, 1986) and retest reliability of 0.80 (Ferrari, 1989). Besides, Lay (1986), found that, individuals who scored high on this scale were more likely than individuals who scored low to delay the return of postage-paid surveys from an airport and from a college campus. Thus, maintaining discriminative and predictive validities. However, this study removed one question to maintain the reliability score above 0.7.

Self-Efficacy Questionnaire (Gaumer, Soukup, Noonan & McGurn, 2016). This scale is designed to measure a student's proficiency in two essential components of self-efficacy, viz. belief in ability can grow by effort and belief in own ability. The 13 items within the scale, are scored on Likert-type scale ranging from 1 (Totally false for me) to 5 (Totally true for me) with the possible maximum score of 65. Some items were rephrased for the better understanding to the undergraduate students. The items include, “If practice every day, I could develop just about any skills” and “My ability grows with effort”. The questionnaire was found to be reliable with Cronbach alpha score of 0.90 (Gaumer et al., 2016).

Self-Regulation Questionnaire (Gaumer, Soukup, Noonan & McGurn, 2015). This scale is developed to measure a student's proficiency in planning, monitoring, controlling and reflecting as the components of self-regulation. The 22 items within the scale are scored on Likert-type scale ranging from 1 (Totally false for me) to 5 (Totally true for me) with the possible maximum score of 110. The items include, "I can usually estimate how much time my homework will take to complete" and "I think about how well I'm doing as my assignment". The overall self-regulation questionnaire was found to be highly reliable with Cronbach alpha coefficient of 0.891 (Gaumer et al., 2015)

Self-Efficacy for Self-Regulation Questionnaire (Zimmerman, Bandura & Martinez-Pons, 1992). The score is designed to measure the students' beliefs in their capability to implement self-regulation strategies. The 11 items within the scale are scored on Likert-type scale ranging from 1 (Totally false for me) to 5 (Totally true for me) with the possible maximum score of 55. The item includes, "I can always finish homework assignments by deadlines" and "I can motivate myself to do college works". The items which were in question format were transformed into statements for effective understanding of undergraduates and also the scale was converted into 5 point scales to produce higher item variance and greater scale reliability. Previous studies have found the measure to display strong reliability and validity properties (Klassen, et al. 2008; Zimmerman et al., 1992). For measurement of the constructs, items were summed up after adjusting reverse items and total score was used for further analysis.

Data Analysis and Discussion

The descriptive statistics with the reliability and correlation coefficient are presented in the Table 2. The average score of the variables lies in-between 2.94 to 3.96, with the maximum score in self-efficacy. In addition, the reliability coefficient of the measures used in the study were in the range of 0.7(Nunnally, 1978).

Table 2

The table presents the Means, Standard deviations (SD), Skewness, Kurtosis and correlation of main variables (N=391, **P<0.01). The table also shows the Cronbach alpha value with the number of items.

Variables	Mean (SD)	Cronbach- α	1	2	3	4
1. Self-Regulation	3.475(0.480)	0.729 (19)	1			
2. Self-Efficacy	3.953(0.624)	0.795 (22)	(0.565)**	1		
3. Self-Efficacy for Self-Regulation	3.335(0.695)	0.862 (13)	(0.612)**	(0.556)**	1	
4. Academic Procrastination	2.948(0.502)	0.824 (11)	(-0.543)**	(-0.193)**	(-0.485)**	1
Skewness			0.010	-0.829	-0.032	0.199
Kurtosis			-0.222	0.649	-0.441	-0.094

Further, the Pearson bi-variate correlation was examined after confirming the normality distribution suggested by Muthen and Muthen, (2017) where, skewness and kurtosis absolute value should be less than 1.

The analysis shows that, academic procrastination is significantly negatively related to each of the three predictor variables, suggesting, student with higher self-regulation, higher self-efficacy and higher self-efficacy for self-regulation were less likely to show delay in academic behaviour.

Since the bi-variate analysis has certain limitation of being spurious, even though it is statistically significant (Sharma, 1997), hierarchical multiple regression was further used to examine the relationship and effect of predictors on criterion variable. This analysis examined how self-regulation, self-efficacy and self-efficacy for self-regulation predicted academic procrastination. In addition, it also examined whether adding of predictors step by step changes the strength of the model predictability or not. Moreover, this analysis was selected so that the ability of self-regulation, self-efficacy and self-efficacy for self-regulation could be evaluated separately.

Table 3

The table presents the hierarchical regression analysis, where variables viz. self-regulation, self-efficacy, self-efficacy for self-regulation are the influencing variables and academic procrastination is the outcome variable. The reported values are intercepts and slope coefficient of the independent variables with the *t*-statistics in parenthesis and ** show $P < 0.01$ level of significance with the standardized regression in italics.

Model	Intercept	Self-Regulation	Self-Efficacy	Self-Efficacy for Self-Regulation	R ²	F-Value	P-Value
1	4.919 (31.505)**	-0.567 (-12.739)**			0.293	162.274	0.000
		<i>-0.543</i>					
2	4.732 (28.749)**	-0.665 (-12.478)**	0.133 (3.250)**		0.310	88.415	0.000
		<i>-0.636</i>	<i>0.166</i>				
3	4.677 (29.73)**	-0.511 (-9.064)**	0.216 (5.24)**	-0.242 (-6.249)**	0.371	77.739	0.000
		<i>-0.490</i>	<i>0.269</i>	<i>-0.335</i>			

The predictability of the models get increased from 29.3% to 37.1% after adding the predictors one by one in final model. The result shows that all the independent variables have significant influence on academic procrastination, however, the 62.9% of variance is explained by error factors.

The following model is ascertained from the study:

Academic procrastination = $f(\text{Self-efficacy, Self-regulation, Self-efficacy for self-regulation})$, Where $f > 0$. i.e. $Y = 4.677 - 0.511 X_1 + 0.216 X_2 - 0.242 X_3 + \varepsilon$. (Where, $Y = \text{Academic procrastination}$, $X_1 = \text{self-regulation}$, $X_2 = \text{Self-efficacy}$ and $X_3 = \text{Self-efficacy for self-regulation}$ and $\varepsilon = \text{error factor}$)

The model suggested that, there is a positive significant relation between self-efficacy and academic procrastination, which means, procrastinators tend to be self-efficacious, which reject the research hypothesis (H_2). Besides, the improvement in self-regulation and self-efficacy for self-regulation minimizes the degree of academic procrastination level supporting the alternative hypotheses (H_1 & H_3). Moreover, it also suggests that, self-regulation and self-efficacy for self-regulation are the stronger and significant predictors of academic procrastination relative to self-efficacy.

Discussion

This study was conducted to examine the effect of self-regulation, self-efficacy and self-efficacy for self-regulation on academic procrastination among undergraduate students in Kathmandu Valley. The first research objective of this study is to identify the nature of academic procrastination among the undergraduate students of management, where the finding suggested that, undergraduate average procrastination level is less than procrastination scale's mid-point of 3, thus, stating as moderate procrastinators. This finding is tallied with other research studies on procrastination behavior of undergraduates conducted by scholars (Klaseen & Kuzucu, 2009). However, this finding contradicts with most of the American and European nations studies, where higher tendency of procrastinating behavior exhibit by the undergraduate students (Day, Mensink & O'Sullivan, 2000; Ferrari, O'Callaghan, & Newbegin, 2005; Harriott & Ferrari, 1996; Ferrari, Díaz-Morales, O'Callaghan, Díaz, & Argumedo, 2007 as in Bakar & Khan, 2016).

As per the second objective, the level of self-efficacy, self-regulation and self-efficacy for self-regulation are high (i.e. above the scale mid-points) among undergraduate students, suggesting that they have the strong belief in their capability and strategically utilize them for their effective academic performance.

In the case of third research objective which is the core of this research study, where the relationship between the criterion variable (academic procrastination) with predictors (self-efficacy, self-regulation and self-efficacy for self-regulation) were examined. The correlation between them, found to be strongly negative and significant. This suggested that, the degree of procrastination is highly related with the predictors and may vary with the level of self-efficacy, self-regulation and self-efficacy for self-regulation in opposite direction. This finding is consistent with the various studies of procrastination. (Bakar & Khan, 2016; Kandemir, 2014; Klaseen, et al. 2008; Park

& Sperling 2012; Steel, 2007; Wolter, 2003; Zimmerman et al., 1992).

As for the relative predictability, the study suggested that, unit standard deviation increase in level of self-efficacy will tend to increase the procrastination by 0.269 standard deviation when other things remain same i.e. confidence in students to execute the academic task may lead to the procrastinatory behaviour. However, this finding contradicts with major study findings in procrastination (Bakar & Khan, 2016; Klaseen et al., 2008; Steel, 2007; Wolter, 2003; Zimmerman et al., 1992), where they stated that, students with a greater level of self-efficacy may also start tasks in timelier manner. But, this study result suggests that, even though the level of self-efficacy is high in a student, s/he may procrastinate. Besides, Bandura (1986) stated that, “efficacy beliefs are multifaceted and contextual, but the level of generality of the efficacy items within a given domain of functioning varies depending on the degree of situational resemblance and foreseeability of the task demands” (p. 13). Therefore, it can perhaps be student confidence in their ability to study, however, deviated from intention to action process. In addition, since the study is based on self-report data, so, as the Freud (1953) stated, when individual’s ego gets threatened, s/he may show unreal or unexpected responses.

There is significant and strong negative relation between academic procrastination behaviour and self-regulation. The strongest model ($R^2= 37.1\%$) among three models in this study, stated that, unit standard deviation increase in self-regulation likely to reduce the 0.490 standard deviation of procrastination when other things remain same. Thus, suggesting the need of self-regulation for the reduction of procrastinating behaviour in academic tasks. This finding is consistent Waschle et al. (2014), where they stated that, inability to use cognitive learning strategy induces the procrastinatory behavior. Besides, Steel (2007) in his meta-analytic review concluded that ultimate need of self-regulation by describing procrastination as “quintessential self-regulatory failure” (p. 65). However, Bandura (1993) suggested that, “Self-regulatory skills will not contribute much if students cannot get themselves to apply them persistently in the face of difficulties, stressors and competing attractions” (p. 136).

Similar to the self-regulation, self-efficacy for self-regulation also shows, strong negative relation with academic procrastination. The model suggested that, unit standard deviation increase in self-efficacy for self-regulation likely to minimize the procrastinatory behaviour by 0.335 standard deviation when other things remain same. Thus, suggesting that “staying power” in own belief and act strategically reduces the procrastination behaviour of an individual Bandura (1998). In addition, Zimmerman, et al. (1992), claimed that, student self-belief of efficacy to strategically regulate learning play an important role in academic self-motivation and are more confident about mastering academic subjects and attain higher academic performance (p. 674). Moreover, self-efficacy for self-regulation is a stronger predictor of the tendency to procrastinate than other motivation variables (Kalseen, et al. 2008).

Conclusion

Academic procrastination is a major impediment for academic and career development (Kandemir, 2014). Majority of students procrastinate at least occasionally (Ellis & Kanus, 1977). Therefore, this study tried to examine the relationship between procrastination and its possible predictors. This study exhibited the significant negative bi-variate correlation between academic procrastination and self-efficacy, self-regulation and self-efficacy for self-regulation. The strongest model under hierarchical regression equation, suggested that, 37.1% variations in criterion variable (i.e. procrastination) is explained by the predictors (i.e. self-efficacy, self-regulation and self-efficacy for self-regulation). Further, the model suggested, that, procrastination caused by the positive change in self-efficacy (contradictory to prior research studies) and negative change in self-regulation and self-efficacy for self-regulation (consistent with prior research studies). In nutshell, the findings revealed that self-efficacy, self-regulation and self-efficacy for self-regulation are significant determinants of academic procrastination among undergraduate students in Kathmandu Valley.

Future Direction

Since procrastination is ubiquitous, its effective interpretation and analysis are utmost necessary to tackle the delaying behaviour, especially in academic sectors. However, the consensus in single definition is hard to be found, but most agreed regulatory failure as one of the major causal factor of delaying behaviour. This study also tallied with the previous findings. Apart from that, this study can also be useful in determining the antecedents for developing an intervention program to overcome the procrastinatory behavior among undergraduate students. For the future researcher, it would be better to explore the self-regulation construct’s constituents under behavioral indices rather than psychometric measures for its effective operationalization. Moreover, ontological clarification and mixed methods analysis may contribute to enhance the comprehending ability of procrastinatory behaviour.

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Author's Conflict of Interest

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