

# The Relationship between Academic Procrastination and Future-Orientation: an Investigation among a Mid-sized International School in China

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**Keywords:** Procrastination, Future-orientation, High-school students.

**Abstract.** As one proceeds through school, the responsibility of controlling his or her academic behavior shift significantly from teachers and parent-centered to self-centered. Study and programs were established to help college students ease this process (example studies need to be cited here). However, often do they neglect the origin of these academic habits are shaped and formed in secondary education period (citation needed). This study examines the potential cause of academic procrastination behaviors among Chinese high school students (N =150) studying in an international school.

## Introduction

The term Procrastination means the tendency to delay initiation or completion of important tasks to the point of discomfort [1], which is often viewed as a kind of regulation failure. In the same vein, academic procrastination is the irrational delay in executing academic assignments required for students (e.g., problem-solving practice, reading, exam revision) [2]. Although psychologists are trying to explain the reason behind procrastination, the causes of procrastination still did not reach a universal conclusion[3]. Specifically, academic procrastination has significant ramification for students at all age levels, includes a strong negative indicator of grade point average [4], and a positive indicator of stress [5]. There is a growing attention in procrastination research. Analysis of the PsycINFO database reported that there had been 117 articles about procrastination published after 2000 (there are only 38 theses published in the previous seven years [6]. The current study explores the motivators correlates with those for whom uncompleted task has a great impact now and future: post-secondary procrastinators.

Practical literature and academic researchers have associated negative student performance with Procrastination behavior. Procrastination refer to the intentional postpone of a planed task, in spite of being aware of adverse outcomes [7]. While empirical and theoretical argument of procrastination are less firm compare to those of other psychological fields, researchers found the frequency of troublesome academic procrastination among undergraduate students is 70% - 95% [7]. According to Temporal Motivation Theory [7], procrastination reflects personality traits which promote disregard behavior, such as low self-regulation behavior, which also means that not being a procrastinator indicates some favorable characteristics such as high self-esteem and efficacy. The research of procrastination has somewhat limited in variables related to self-regulation [8]. The current study examines a personal characteristic variable: achievement goal orientation.

## **The current study**

Few studies have investigated procrastination and its related factors in non-Western settings, let alone secondary school population. Several studies [2] has examined procrastination about all four achievement goal orientations criteria consist of the two · two achievement goal taxonomy, which was designed for undergraduate population. The current research employs a validated procrastination self-report scale to investigate its relationship with the achievement goal orientations framework. It's hypothesized that a negative correlation between future-orientation and students' procrastination level; and an inverse relationship between performance approach and mastery approach goal orientation with procrastination; And, finally, a positive relationship between mastery avoidance and performance avoidance goal orientations.

## **Literature Review**

Some key factors have been suggested to correlate with college students' procrastination behaviors. Procrastination is frequently associate with negative actions among students, like low-quality works, overdue submission, test and social anxiety, and under-achievement. These behaviors could all lead to mental health damage, depression and anxiety [9,10,11,12]. Among all of the investigated variables which is in relation with academic procrastination self-efficacy, and self-esteem show to be the most trendy variables.. [13,7,14,15] The following section provides a literature review of some related variables.

## **Future-Orientation and Procrastination**

Using an achievement goal framework, researchers have demonstrated the association between Future-Orientation and Procrastination among college students. Several studies have determined that during school students who are different in their learning purposes and motivations, will receive different emotional, cognitive outcomes [16,17,18]. Goal orientation a individual's tendency toward developing or validating one's capability to achieve their pre-setting goals [19]. The current study uses the definition conceptualized by [20]to interpret the term Goal orientation, which is derived into four types of goal orientation in a 2.2 achievement goal framework [2] - where an approach versus avoidance dimension and a mastery versus performance dimension. The performance-approach orientation describes students who motivated themselves to do better than their classmates; the performance-avoidance prompt describes students who try to stay away from bad performance relatively to other. And the mastery-approach orientation describes students who try to study what is available for them as much as possible and mastery-avoidance orientation catalog students who try to keep away from learning as much as possible.

Approach orientation is shown to be negatively correlated with procrastination. Although there are limited studies, conclude the relationship between procrastination and approach goal orientation, particularly the mastery-approach, the results do consistently with each other claiming a negative relationship between the two. Moller and Elliot [21] suggest that approach orientations (e.g., mastery-approach) are positively related to self-regulatory process, a variable that is negatively related to procrastination (discussed in the next section). It can be inferred that procrastination should be inversely related with the approach orientations, which can help to reduce the likelihood to engage in sentiment orientation, a factor that is positive related to procrastination [22,15,23]. Without investigating approach or avoidance orientation, most existing research shows a negative correlation between procrastination and mastery ori-

entation [24,25], while McGregor & Elliot for a null result [20]. The relationship between procrastination and mastery approach was further proved to be negatively related by Andrew J. H, 2007, by using the exact two by two achievement frame work on 176 undergraduates. As shown in researches, performance-approach orientation is not correlated with procrastination [20,25], yet does in some other once[15].

Avoidance orientation is shown to be negatively correlated with procrastination. The results from [21] also suggests that there should be a positive relationship between avoidance goal orientation, especially master avoidance orientation since such kind of orientation will cause temporal fluctuation. By using the inter-correlation statistic analyzation between the two variables, Howell & Watson [2] proves that mastery-avoidance goal orientation is positively correlated with procrastination. This result can be explained by Elliots and McGregor's [20] founding that the fear of failure is strongly related to mastery-avoidance goal orientation category . And researches do show that performance-avoidance orientation is positively correlated with procrastination.

### **Other variables related to procrastination**

Different approaches to learning, like planned approach, un-planned approach, are also related to a student's procrastination tendency. Procrastination can be view as a failure in self-regulation of one's own performance [13]: procrastinator fails to control a large load of work under a stressful situation. This finding has been proved by another study claiming that students who have problems in academic self-regulation often have immense procrastination practice [27]. Wolters also examined the link between self-regulation study practice and procrastination actions and found it to be the "second strongest predictor" after self-efficacy [15]. To conclude, evidence suggests a lower level of self-regulating behaviors leads to higher level of procrastination behaviors.

Self-efficacy, what we believe about our self, would also provide students with motivations of working and, therefore, reduce their procrastination behavior. Students with high self-efficacy would more often approach their school works willingly since they see them feasible. Self-efficacy can a strong indicator of performance in a academic setting. It is about dependent associate with the task in question [28]. Many have studied the association between self-efficacy and procrastination, with results suggesting a positive relationship between the two variables [29,7,15]. Academic self-efficacy can determine student's academic performance significantly, some up to 11% [30]. And this effect can be observed among high school students as an increase or decrease in grade [26]. A positive correlation was found by Klassen [31] between academic self-efficacy and procrastination in a sample of native Canadian university students. A significant negative influence on academic procrastination was found on another group of Korean college students [32]. However, researchers also warn that self-efficacy measures need to be assigned into different domains that are closely corresponded, otherwise it loses the predictive power [6]. Robert also argues that self-efficacy cannot describe a person in all aspects and, therefore, would lost correlation with procrastination.

Another characteristic category that was often mentioned together with self-efficacy is self-esteem, the judgments of global self-worth [3]. Self-esteem also receives a considerable amount of attention from procrastination literature [20,25]. Procrastination is often used as a reason to explain low self-esteem: numerous studies have found an inverse relationship between the procrastination behavior and self-esteem [34]. Flett [34] proposes that people who have low self-esteem tend to engage in behaviors such as task delay or avoidance and often

use excuses to explain poor-performance. Above all, considerable researches have investigated in the relationship between self-esteem and procrastination.

### **Participants and procedure**

One hundred Chinese high school students (50 males, 50 females; mean age = 16, SD = 1.14) at a Beijing international school participated in this study. After having the prior knowledge of the research explained to them in class, they were voluntarily recruited from a Chinese Civilization class. Student participants were instructed to complete an online survey with total of 27 items, which took about 5 minutes to complete.

### **Measurement**

**Procrastination Assessment Scale – Students.** The extent to which student procrastinate in six major academic areas (studying for exams, attendance tasks, keeping up with weekly reading assignments, term paper and school activities in general academic administrative tasks,) are self-reported. And the Procrastination Assessment Scale – Students assess the extent to which procrastination in the six areas become a problem to them [1]. Students respond to two five-point scales with endpoints labeled 1 (never procrastinate) and 5 (always procrastinate) for the common problem items and 1 (not at all a problem) and 5 (always a problem). Responses are summed across the 12 items, with higher scores indicating greater procrastination level. Previously, Howell et al reported have demonstrated a significant correlation between the procrastination behavior and PASS scores.

**The Achievement Goal Questionnaire.** There is a total of 12 items in the Achievement Goal Questionnaire [20] with every three items composing each of the four-achievement goal orientation in the two by two achievement goal taxonomy. By averaging the three trials, the scores for each goal orientation is calculated. Elliot and McGregor [35] reported evidence attesting the reliability of mastery-approach ( $\alpha = .87$ ), mastery-avoidance ( $\alpha = .89$ ), performance-approach ( $\alpha = .92$ ) and performance-avoidance ( $\alpha = .83$ ) goal orientations.

### **Procedure**

On a random class day, students were invited to complete the questionnaire package during a one-hour class period. No incentive for participation was offered. The Achievement Goal Questionnaire was completed first, followed by the PASS.

## **Results**

### **Detailed statistics measured**

Results were analyzed using SPSS for Windows, version 17. Detailed statistics are reported in Table 1. Among the procrastination and achievement goal variables, performance avoidance approach seems to be the most common ( $M = 4.76$ ,  $SD = 1.37$ ) compare to master approach ( $M = 4.68$ ,  $SD = 1.54$ ), Mastery Avoidance ( $M = 4.58$ ,  $SD = 1.65$ ), and Performance Approach ( $M = 3.89$ ,  $SD = 1.51$ ). Among the Procrastination Assessment Scale variables, doing summative work shows to be the category where most students are procrastinated in or

worries about ( $M = 3.16$ ,  $SD = 1.16$ ) higher than studying for exam ( $M = 3.10$ ,  $SD = 1.16$ ). Meeting with advisor scored the lowest ( $M = 1.90$ ,  $SD = 0.62$ ).

### **Inter-correlations among variables**

As shown on Table 2, scores on the PASS correlated negatively with the future orientation total mean score, as predicted. Additionally, PASS scores is positively correlated with performance-avoidance goal orientation. However, contradicting the hypothesis, Mastery Avoidance correlates with PASS scores positively, instead of negatively. As predicted, future-orientation is inversely related to exam revision.

Negative associations emerged between all goal orientation and doing summative work, exam revision, and keeping up reading. Except there is no relation between performance-avoidance and keeping up reading. And the other two PASS variables activity participation and meeting with advisor did not correlate with procrastination scores.

### **Discussion**

Procrastination was negatively associated with both master-approach orientation and master-avoidance orientation. High school students who adopted the goal to learn knowledge possible or to avoid falling behind tended not to procrastinate. As suggested by the Temporal Motivation Theory [7], mastery-approach orientated students who has greater motivation tended not to procrastinate [35], which provides a more short-term award for studying and reduce the discontent generated by tiredness. However, the numerical evidence does not support the negative correlation between procrastination and master-avoidance orientation [21], since greater task aversion can lead to greater dissatisfaction. This divergence between theory and this experiment might be hinge upon the difference sample population which the experiment is conducted on. While college students in the U.S are the sample for Moller and Elliot, this experiment is conducted on high school students in Beijing. The negative relationship might cause by the motivation provided by the consequences when students failed to learn (e.g., domestic pressure, peer-pressure).

Results also reveal a positive association between performance-approach and performance-avoidance goal orientation and procrastination. Students who adopt the goal of performing better than their peers in the study tended not to procrastinate. This finding is in line with prior research [15,25], where the tendency of procrastination is linked to the impact of task postponement. Specifically, intentional or unintentional delays may worry those performing-orientated students (i.e., last-minute preparation is seen as not sufficient relatively to their peers). In contrast, performance-avoidance orientation students, who look to avoid performing poorly relative to others, is less affected by these consequences. Plus, they sometimes benign from delaying task (e.g., leaving work to the last-minute boots their efficiency), while the pressure of others doing better than them is negligible. Performance approach orientation, in general, have higher negative association compare to mastery approach and mastery avoidance. This is different from [2], where mastery approaches are shown to have a stronger association with procrastination. This divergence perhaps because of the difference in population. Whereas college students, a sample of Andrew and David, are more self-driven and less related with each other, high school students are more like a class, and their performance are often compared by instructor or parents. More significant peer-pressure cause high school students to more likely adopt future orientation in the performance branch.

**Table 1. Means and standard deviation for variables (N=141)**

Variable	N					M					Range	
Performance Approach	141					3.89					1.51	1-7
Mastery Avoidance	141					4.58					1.65	1-7
Mastery Approach	141					4.68					1.54	1-7
Performance Avoidance	140					4.76					1.37	1-7
Doing summative work	141					3.16					1.16	1-5
Studying for exam	141					3.10					1.16	1-5
Keeping up reading	141					2.28					0.92	1-5
Meeting with advisor	141					1.90					0.62	1-5
Participating school activity	141					2.87					1.24	1-5
Variable	1	2	3	4	5	6	7	8	9	10	11	
1.PASS	-											
2.Doing Summative work	.76**	-										
3.Studying for Exams	.75**	.56**	-									
4.Keeping up Reading	.70**	.45**	.56**	-								
5.Meeting with advisor	.30	.06	.08	.23	-							
6.Participating School activity	.48**	.12	.03	.01	.01	-						
7.Future orientation	-.55**	-.55**	-.44**	-.52**	-.18	.02	-					
8.Performance Approach	-.66**	-.75**	-.53**	-.37**	-.20	-.15	.68**	-				
9.Mastery Avoidance	-.46**	-.37*	-.48**	-.54**	-.19	.08	.88**	.41*	-			
10.Mastery Approach	-.52**	-.55**	-.56**	-.46**	-.09	.07	.93**	.65**	.85**	-		
11.Performance Avoidance	.52**	.47**	.68**	.23	.07	.05	-.25	-.58**	-.34*	-.46**	-	

### Limitations and future directions

The sample comprised grade 7 - 11, Bilingual (English and Chinese) high school students enrolled in an international school in Beijing. Thus, the result would be uncertain to generalize to more students in Beijing or college undergraduates in a different curriculum, age, or cultural background. Although we can draw a general relationship between achievement goal orientations and procrastination in the experiment, no direct causal relationship can be determined since other factors in student's learning process have not been taken into account. A limitation of this experiment concerns the reliability of self-report survey of PASS and goal orientation. Other factors like parents' behaviors (e.g., frequently checking student's work)

could also be further explored in relation with student's procrastination behavior since they also play an important factor in high school student's life. Future research could also examine ways to regulate procrastination behaviors, which have a more significant practical use. For example, one way could be to determine the relationship between Cognitive learning strategy and procrastination in high school students, since the result of such experiment could then be applied to reduce the impact of the deleterious form of procrastination.

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