

The Effects of Coping Styles and Gender on Academic Procrastination among University Students

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ABSTRACT

Background: Procrastination is one of troubling phenomena which affects millions of people all over the world. Academic procrastination is one of the most important reasons of failure or underachievement of university students. Some reasons can be put forward why university students rank highly among those mostly vulnerable to academic procrastination. Aim: The present study examined the relationships between coping style and gender on academic procrastination and their inter-relationship as common predictors of academic procrastination, regarding students' fields of study. Sample: 310 subjects were selected by multi-stage cluster sampling from among University of Mashhad students in Iran. Methodology: First of all, the Lay academic procrastination scale was translated from English into Persian. The results of the pilot study on 35 samples demonstrate an acceptable reliability of Lay academic procrastination for Iranian university students. The present study is a project of correlation method. Then, the Questionnaires of Lay academic procrastination and Andler-Parker coping style were administered to the subjects. Results: The data were analyzed using, mean, standard deviation, and one-way ANOVA, t-test and regression analyses. Analyses of the data using one-way ANOVA indicated significant differences among the three coping style groups. In general, the result of regression analysis showed that Problem-oriented coping style, inversely, is a significant predictor of academic procrastination. Furthermore, there was no significant difference among boys and girls, as far as the level of academic procrastination concerns. Conclusion: Findings suggest that coping strategies are affective factor to predictor of academic procrastination. Implications of the findings are discussed and some suggestions are made for the educator and counselors.

KEY WORDS: *Academic Procrastination, Coping style, Task Orientation, Emotion Orientation, Avoidance Orientation, Gender, Field of study*

1. INTRODUCTION

Procrastination considered as one of the most serious problems in daily life and educational settings in modern societies. Studies throughout history show that procrastination has been a damaging disaster for individuals at least from three thousand years ago (Steel, 2007).

Procrastination is derived from the Latin term "procrastinare" which means "to delay something until morning", or to put it in other way, it means to postpone something to the future which preferably should be done now. Of course, we should differentiate between procrastination and preprogrammed delays which have reasonable causes. Schraw, Wadkins, and Olafson (2007) defined it as intentionally deferring or delaying work that must be completed. Ferarri (1998) and Lay (1977) identify academic procrastination as an illogical reason to postpone commencing or the completion of a coursework. The learners do not have enough stimuli to do an activity which they really intend to do in a specific time. Academic procrastination which can be named as reflection of daily postponement to school life is defined as to delay duties and responsibilities related to school, or to save them to the last minute (Haycock, & et al, cited by Deniz & et al. 2009).

The researchers (Eliss & Knaus, 1977) who have studied procrastination estimated that more than %95 of American university students postpone commencing or the completion of homework intentionally and more than %70 of students procrastinate repeatedly. Solomon & Rothblum (1984) found out %65 of students want to learn how they can avoid postponing their research papers. %62 of students felt that they should have started studying for their examinations earlier and %55 wished to start doing homework earlier. The average students showed a considerable procrastination in a way that it occupies 1.3 of their daily activities and it seems that these percents are increasing (Pychyl & et al, 2000; Steel, 2007).

The definitions for procrastination show that we can interpret it in two ways: a) procrastination as a behavior, b) procrastination as a trait. In the past those who studied procrastination focused more on its behavioral characteristic and considered it as avoiding a certain task (Schouwenburg, 2005). Some researchers (Broca & Yoen, 1983; cited in Zarick & Stonebraker, 2008) consider procrastination as a personality weak point and some concluded that a procrastinator has a low self-confidence. Ram (2005) believes that procrastination roots from individual's motivational states and it includes a combination of

knowledge, emotional and behavioral processes which are related to avoidance from tasks. Steele's (2007) survey has suggested that some factors can impact on individual response to task procrastination, such as: Aversion to the task, Worry about failure, Depression or mood related, Rebellion, impulsiveness, time management issues, environmental factors, enjoy working under pressure. Spock (cited in Jaradat, 2004) emphasizes authoritarian parenting role in creating procrastination. The unconscious feeling of parental anger emerges, when children fail to do all tasks enforced by their parents. Children respond this anger unconsciously by postponing, those tasks which should be done in order to achieve future goals. Uzun Özer, Demir and Ferrari (2009) found that fear of failure; risk taking, laziness, and rebellion against control were the reasons of academic procrastination for the Turkish university undergraduates.

Based on anxiety-avoidance assessment model, individuals first assess the situation they face if they do not have enough resources to treat that situation. They show a reaction with anxiety and try to avoid the situation. In procrastination, this avoidance means to postpone the anxiety provoker task until when it is possible and this will change into a negative reinforcement to decrease anxiety and it helps to maintain this behavioral pattern (Milgram & et al, 1998; cited in Van Eerde, 2002). According to Expectation-Value model, individuals first complete some tasks which have the highest value and most benefit. Thus, we can explain that why students prefer to watch their favorite television program instead of doing difficult homework of university courses which are due to be done soon. Also, this model shows that there is some degree of procrastination in all individuals in society (Steel, 2007). Munchik & et al (1988; cited in Van Wyk, 2004) state that: procrastination has important objective (losing deadlines, losing the opportunities, losing incomes, low production and wasting time) and emotional (weakening spirits, anxiety increase, fear and anger and low stimuli) outcomes. Wegner (1994; cited in Van Eerde, 2002) talks about psychological effects of procrastination such as losing concentration and thinking about avoided task which causes internalized negative outcomes and this results in sorrow, shame, disappointed from oneself and other emotions related to oneself.

Procrastinators face different anxiety situations according to the amount of their procrastination in which they should use different coping strategies. Coping or psychological pressure refers to behavioral and knowledge efforts of an individual which change permanently in order to satisfy internal or external needs of the individual which are beyond his/her resources and abilities (Lazarus & Folkman, 1984; cited in Sepehrian, 2008). Folkman & Lazarus (1986) studied and analyzed a factor on criterion questions of coping strategies and found out about two of them as follows: 1- task-oriented coping: a process in which an individual tries to cope with stressful sources through approaching the problem and active reaction to it in order to solve the problem and, 2- emotion-oriented coping: a process of avoidance in which an individual tries to adjust stressing anxieties and decrease his/her psychological anxieties. Endler & Parker (1990) consider avoidance from problems, as the third main category in coping strategies. In this method, an individual refers to the society and others or does any other task to keep him/herself far from distressing situation, then he/she copes with stress and in order to decrease anxiety may commit behaviors which cause more problems for him/her. For example, to decrease anxiety he/she may smoke, overeat and abuse drugs. In theory, task-oriented processes mostly have positive effects while emotionally oriented ones have negative effects (Sepehrian, 2008).

In a study of the relationship between coping strategies and procrastination on a sample consisting 110 boys and girls (studying in Missouri State University), Holloway (2009) showed that there is a negative co-efficiency between academic procrastination and task-oriented coping ($r = -0.14$) and there is a meaningful positive co-efficiency between academic procrastination and emotion-oriented coping method ($r = 0.25$). Some researches (Wolters, 2003; Oysao & et al, 2004; Ram, 2005; Otken, 1982; stated in Steel, 2007) state that a procrastinator usually cannot doing the task on time and in most cases uses inefficient coping strategies instead of analyzing the situation and choosing a suitable method. Jokar & Delavarpour (2007) studied the relationship between procrastination and development goals among a sample comprising 255 students (121 girls, 134 boys), studying in Shiraz University in MA, and showed that avoidance performance goals and avoidance domination were positive predictors and tending domination goal was a negative predictor of academic procrastination.

Several researches have studied the relationship between gender and courses studied with procrastination. A number of studies indicate that procrastination behavior does not differentiate according to the gender difference (Balikis & Dura, 2009). Akinsola & et al (2007) studied the relationship between academic procrastination and development in mathematics on a sample group of students comprising 150 students of universities of Ibadan and Lagos in Nigeria and showed that academic procrastination has a meaningful co-efficiency of (-0.82) with development in mathematics and gender discrimination does not have any role in academic procrastination. Ann Wegbuzzy (2004) studied 135 graduates of North-East America and showed that there is a meaningful co-efficiency of ($r = 0.51$) between academic procrastination and stress of statistics course. It was reported that 40 to 60 percent of the sample they studied, always or almost always had procrastination in writing research papers, studying for examinations and doing weakly

homework, but they could not find any difference between two genders in academic procrastination. Özer, B.U.; Ferrari (2011) studied on 115 females, 99 males, They found no significant difference between female and male students' academic procrastination rates, results from multivariate analysis on the excuses, They showed significant differences in terms of the gender role orientation.

Other studies represent that it is more commonly seen in female students (Washington, 2004); on the other hand, another group of studies report that it is frequently seen in male students. Findings of Balkis & Duru (2009) on a sample comprising 580 (329 girls, 251 boys) students of teaching course in Pamukkale university showed that men are more intended to procrastination.

On the whole, the theoretical importance of this study lies in the fact that as we help the development of knowledge boundaries, the efficient factors of academic procrastination becomes clearer and the importance of this paper lies in determining the coping strategies to avoid academic procrastination. Thus, we can devise more efficient coping strategies for procrastinator students.

Regarding the above mentioned studies, the goal of the present research is to study the coping strategies and gender on academic procrastination and their interactions as common predictors of procrastination regarding the course of study in university. In order to achieve these goals, the following hypothesis were devised and tested.

1. There is a meaningful difference between students using task-oriented coping, emotion-oriented and avoidance-oriented regarding academic procrastination.
2. There is a meaningful difference between girls and boys who study at university regarding academic procrastination.
3. Coping strategies and gender are meaningful predictors of students' academic procrastination in technical courses of university.
4. Coping strategies and gender are meaningful predictors of students' academic procrastination in humanities courses of university.

2. METHOD

Participants: The illustration of the study was set through the random sample method. The sample included 153 female and 157 male students who study in different major fields (149 students from humanities and 151 students from engineering courses) at the Mashad University in the year 2008-2009. The age range varied from 17 to 25.

Measures: In this study, Lay's academic procrastination inventory and Parker & Endler's coping strategies inventory were used to gather data.

Lay's academic procrastination inventory:

The scale was designed by Lay's (1986; cited in Sirois, 2007) to measure the tendency of students to procrastination in their academic tasks and includes 20 questions. The alternatives of this inventory are in five Laykurt degrees (never, seldom, I have no idea, sometimes, often), which the testee should choose one. In this criterion, except for the items 3,4,6,8,11,13,14,15,18,20 which are numbered conversely, other items are valued as 1, 2, 3, 4, 5 and finally the sum of numbers show the amount of procrastination in an individual. Sirois (2007) reported the internal homogeneity of the criterion by using $\alpha = 0.82$. Also he (2007) reported the internal homogeneity of this criterion by using α in a sample of 254 persons to be 0.90.

Parker & Endler's coping strategies inventory:

Coping strategies inventory is a measurement tool of self-reporting paper and pencil which consists 48 questions. These questions include three categories of coping strategies as follows:

16 questions of the inventory measure Task-oriented behaviors, which are shown by using the letter T.

16 questions of the inventory measure Emotion-oriented behaviors, which are shown by using the letter E.

16 questions of the inventory measure Avoidance-oriented behaviors, which are shown by using the letter A.

In order to control the questions' side-effects, they have been distributed randomly among the questionnaires. The answers are marked based on Laykurt degrees from never (1) to most often (5).

The internal consistency for these three criteria in this test among different samples was reported to be 0.80 by Parker & Endler (1990).

Academic achievement:

Final term examination scores were as a measure of academic achievement.

3. PROCEDURES

First Lay's academic procrastination measure was translated from English into Persian, and then by using a reverse translation, Persian text was again translated into English. Finally, by comparing the two questionnaires, the needed revisions were done and the final form was supplied. Then, in pilot studies to identify the consistency of procrastination inventory on Iranian University students, these inventories were

distributed among 35 sample university students giving the needed instructions and they were asked to answer the questions carefully. Besides that, the needed descriptions were included in the questionnaires themselves. The completion of inventory took 5 to 10 minutes for each student.

The results of the pilot study on 35 samples demonstrate an acceptable reliability of Lay academic procrastination for Iranian university students (Cronbach, s alpha = 0.69), and the results of coefficient alpha reliability on 310 samples for all, girls and boys testees were 0.734, 0.749 and 0.718 in this study.

In the present study, the reliability of Parker & Endler's coping strategies inventory were calculated by using Cronbach coefficient alpha for the following three criteria and with gender segregation (Table 1). Furthermore, procrastination inventory and coping strategies inventory were administrated simultaneously on studied sample (310 students).

Table 1: Cronbach coefficient alpha for three criteria with gender segregation

Sub-criterion	N	Cronbach alpha		
		girl	boy	total
Task-oriented	310	.848	.870	.860
Avoidance-oriented	310	.795	.770	.783
Emotion-oriented	310	.866	.856	.863

In order to study the research hypotheses and analyze data statistically, we used T-tests, one-way variance analyses and regression analyses.

4. RESULTS

The samples studied were divided into three categories based on their grades in coping strategies of Parker & Endler's inventory. The descriptive data of testees are shown in three different groups in table 2 based on the amount of academic procrastination.

The results of the table2 show that the most amount of average procrastination is related to the samples studied by emotion-oriented coping strategies and the least one is related to the task-oriented coping method of the testees.

Table 2- The descriptive data of three groups with coping strategies of task-oriented, avoidance-oriented and emotion-oriented in the procrastination variable

Groups	N	M	S D
Task-oriented coping	148	55.96	10.967
Avoidance-oriented coping	59	62.41	8.236
Emotion-oriented coping	103	62.83	10.493
Sum	310	59.47	10.844

One way ANOVA analysis was used to test whether academic procrastination differentiates in three different groups with task-oriented, avoidance-oriented, and emotion-oriented coping strategies (table3). The results indicate that academic procrastination differs in 3 groups [F (2,307) = 16.320, p<.0005]. In order to determine the source for this difference, Shefe test analysis was applied.

Table 3: Variance analysis to study the meaningfulness of procrastination amount in three groups with task-oriented, avoidance-oriented, and emotion-oriented coping strategies

Group criterion	df	SS	MS	F	P	levenF	P
Inter-groups	2	3492.329	1746.165	16.320	.000	3.834	.023
Intra-groups	307	32846.848	106.933				
Sum	309	36339.177					

The results of Shefe test analysis showed that there is a meaningful difference between procrastination in task-oriented group whit emotion-oriented and avoidance-oriented groups (table4).

Table 4: Shefe test analysis among grades of testees' procrastination

Groups (I)	Groups (J)	M	SD	P
Task-oriented coping	Avoidance-oriented coping	*-6.447	1.593	.000
	Emotion-oriented coping	*6.866	1.327	.000
Avoidance-oriented coping	Task-oriented coping	*6.447	1.593	.000
	Emotion-oriented coping	-0.418	1.689	.970
Emotion-oriented coping	Task-oriented coping	*6.866	1.327	.000
	Avoidance-oriented coping	0.418	1.689	.970

The second hypothesis of the research was that there is a meaningful difference in academic procrastination between boys and girls.

In order to examine gender difference on academic procrastination, an independent sample t test was performed. The findings of independent t-test ($P = 0.506$, $t = 0.665$) showed that there is not any meaningful difference between the average of procrastination grades of girl and boy students (table5).

Table 5: The results of independent t-test to compare procrastination average of the two groups of boys and girls

Variable criterion	N	M	SD	df	T	P	Leven F	P
Girls	153	59.05	11.187	308	.665	.506	.256	.613
Boys	157	59.87	10.520					

To study the forecasting ability of procrastination by procrastination predictor variables, first multi-variable regression test with a simultaneous method without regarding the study course of the students was administrated. The linear form was meaningfully related with procrastination ($F(5,303) = 7.056$, $P = 0.000$). The multiple co-efficient correlation of the sample was almost 0.34 which shows that almost 0.12 percent of academic procrastination variance can be explained by using linear form of predictor variables ($R^2 = 0.115$, $R = 0.339$). In our sample group, without regarding study course, from among the different variables mentioned, task-oriented coping variable and emotion-oriented coping were the highest predictor (Table 6).

Table 6: Meaningful variables to predict academic procrastination resulted from regression test by using simultaneous method

Model	SS	df	MS	F	P	R	R ²	SE
Regression	3778.878	5	755.776	7.056	.000	.329	.115	10.303
Remainder	32560.300	303	107.106					

Method	Criterion variable	Predictor variable	B	SE	Beta	T	P
Simultaneous	Procrastination	Gender	-2.131	1.201	.098	-1.77	.077
		Age	-3.66	.196	.102	1.866	.063
		Task-oriented coping	-.251	.064	.232	-3.934	.0001
		Avoidance-oriented coping	.080	.066	.074	1.211	.227
		Emotion-oriented coping	.161	.054	.172	2.989	.003

Task-oriented coping variable can conversely predict more academic procrastination than other variables in the two groups under study, but in interaction with course of study, emotion-oriented variable can not be a meaningful predictor of academic procrastination (Table 7).

Table 7: Regression analysis for predictor variables of academic procrastination among humanities and engineering students

Humanities group	Standard coefficient					F	R	R ²
	Gender	Age	Task-oriented coping	Avoidance-oriented coping	Emotion-oriented coping			
	.055 (.695)	.012 (.159)	-.191 *(-2.254)	.154 (.442)	.017 (.151)	*2.654	.308	.095
Engineering group	.177 (2.245)	.062 (.812)	-.218 *(-2.558)	.036 (1.706)	.061 (.561)	**5.174	.421	.177
*P<0.005						**P<0.001		

5. DISCUSSION

One of the principle tasks of new applied psychology in our country, Iran, is to diagnose the problems on time and give correct guidelines for training responsible and developed individuals for our society. Regarding what we explained earlier, it seems that learning about the present and future results of academic procrastination, helps individuals to think and supply resolutions for some outcomes which are usually impossible to remedy and by doing the tasks on time, step towards development in different periods of life.

The found results from one-way variance analysis and Shefe test determined that students show less academic procrastination by using task-oriented coping strategies compared with those of emotion-oriented and avoidance-oriented ones ($P < 0.001$). This result accords with findings of Holloway (2009) and some other researches (Walters, Oysa & et al, Ram, Otken, cited in Steel, 2007). On the whole it became clear that coping strategies of procrastinators are not fully developed and they can not be adopted. Those who use task-oriented strategies analyze the situation when they encounter problems and by using problem-solving strategies and try to remove the obstacles. These people program properly for doing tasks when they face

deadlines and do everything step by step. The present study showed that procrastinator students mostly use emotion-oriented coping strategies which accords with Oysa & et al's study (2004). Whereas, Walters (2003) and Merford (2008) findings show that procrastination is mostly observed among individuals who use avoidance-oriented coping strategies.

Findings resulted from t-test related to the second hypothesis of the research showed that there is not any meaningful relationship between the procrastination grade averages of boy and girl students ($P > 0.001$). Also findings resulted from multi-variable regression did not show any meaningful relationship between gender and strategies procrastination ($P > 0.001$). So, we can conclude that gender does not have any effect on habitual procrastination. Thus, we can state that there are some factors in creating procrastination which can affect both genders. This finding accords with the research results of Solomon & Rothblum (1984); Ann Wegbuzzy (2004); Akin Sola & et al (2007), Özer & Ferrari (2011) in which there is no difference between the genders in academic procrastination. But it differs from the research results of Hampton (2005); Flatt & et al (1992); Balix & Doru (2009), in which strategies procrastination has been more common among boys as students.

The findings resulted from multi-variable regression test accompanied by ignoring course of study and in interaction with the two groups of humanities and engineering sciences showed that in all cases task-oriented coping strategy was a conversely meaningful predictor for academic procrastination. But no meaningful relationship between gender, avoidance-oriented coping strategy and academic procrastination was observed.

Thus, there is no interaction between course of study and academic procrastination because the results in both engineering and humanities courses were almost the same. The peripheral findings resulted from one-way variance analysis ($P = 0.672$, $F = 0.515$) and Shefe tracing test showed that there is no meaningful difference in average procrastination grade of students in 7 engineering courses and humanities courses ($P > 0.001$). Thus we can conclude that study course can not affect creating procrastination and procrastinator students can be seen in all study courses. This finding does not agree with the research results of Akinsola & et al (2007) in which there is a meaningful relationship between academic procrastination and mathematics course and Onwuegbuzie (2004) in which there is a meaningful relationship between academic procrastination and statistics course.

It is worthy to note that, the negative outcomes of procrastination in school life and social life of students have been apparent and also a lot of students have encountered lots of problems because of their thoughts and behaviors about procrastination. Most of graduate students report that they want to reduce their tendencies to procrastinate when writing a term paper, studying for examinations, and undertaking reading assignments, so researches should find ways to help them accomplish this.

practical implications can be derived from the results of the present study. Also regarding the fact that academic procrastination among students using task-oriented coping strategies has been less than the other two methods, it is suggested that some programs should be devised and executed to teach task-oriented coping strategies to students. Regarding the results of the research, it is suggested that in future studies other variables such as personality characteristics and stress should be investigated along with academic procrastination.

This study was only administrated among students in Universities of Mashad and thus we can not generalize the results to other universities of the country. Also it was impossible to study the relationship between academic procrastination and other variables.

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