ACADEMIA International Journal for Social Sciences
Volume 5, Issue 3(s7), 2026 ISSN-L (Online): 3006-6638

Gender Differences in Academic Procrastination and Academic Performance among University Students in Pakistan

Ayesha Mehmood
Ayeshamehmood659@gmail.com
PhD Scholar, IIUI

Dr. Amber Ferdoos
amber.ferdoos@iiu.edu.pk
Assistant Professor, IIUI

Corresponding Author: Ayesha Mehmood Ayeshamehmood659@gmail.com

Received: 16-01-2026 **Revised:** 30-01-2026 **Accepted:** 14-02-2026 **Published:** 01-03-2026

ABSTRACT

This research paper investigates the relationship between academic procrastination and academic performance among university students in Pakistan. Procrastination is a prevalent habit in higher education; there are many questions regarding its impact on academic performance and students' cognitive efficiency. It aims to investigate the relationship between academic procrastination (independent variable) and academic performance (dependent variable), and to determine whether there is a significant difference in the relationships between gender and academic procrastination and academic performance. The methodology used for this study is cross-sectional. Male and female students enrolled in BS and MS programs are the respondents of the study. The sample size is 300 respondents. The data were collected using a structured questionnaire. Results indicated that university students reported moderate levels of academic procrastination, with student delay in studying among the most reported behaviors. In terms of their academic performance, students typically reported a moderate to moderately high level of academic performance, with class participation and task completion being the most highly rated. The correlation test showed a significant negative correlation between academic procrastination and academic performance in both male and female students, indicating an inverse relationship. The differences between men's and women's procrastination or its impact on performance was small.

Keywords: *Academic procrastination, Academic performance, Gender differences, University students, Self-regulation, Time management, Motivational beliefs*

INTRODUCTION

Procrastination is one of the most widespread and significant behavioral issues in higher education contexts worldwide (Steel, 2007). Procrastination is more than just a time management problem; it is a phenomenon that involves the student's motivation, emotions, and thoughts (Schraw, Wadkins, & Olafson, 2007), and it can be defined as the intentional postponement of a planned, hypothetical, and unavoidable academic activity that results in undesirable outcomes. Because university classrooms are more complex settings with often conflicting demands, distracting digital devices, and new performance expectations, the effects of procrastination on academic performance have attracted an increasing amount of scholarly research attention, with the potential of gender differences becoming more prominent, especially near the threshold of academic performance (Ferrari, Johnson, & McCown, 1995).

Academic procrastination ranges from assignments that haven't been started to student exams that have been put off, to forgetting or not completing coursework properly before exams, to doing something other than the coursework (e.g., watching a movie). Frequent use of deadline pressure, procrastination in

academic activities, and poor self-regulatory behaviours have been consistently associated with poor academic outcomes and decreased academic engagement (Klassen, Krawchuk & Rajani, 2008; Tice & Baumeister, 1997). Nevertheless, the relationship between academic procrastination and academic outcomes may not always be straightforward because there are several factors that may moderate or mediate between delay behaviour and academic outcomes, such as academic self-efficacy beliefs, motivation orientation, perfectionism, and task aversiveness (Wolters, 2003).

The use of mobile technology and social media has increased significantly among young people in Pakistani universities, and Pakistani university students constitute an important group of tech-integrated learners (Pakistan Telecommunication Authority, 2023). At the same time, Pakistani academic culture prevails in an atmosphere of competition, with high stakes on exam outcomes and cumulative grade point averages (CGPAs) (Malik, Fatima, & Hussain, 2021). The concept of academic procrastination was first introduced in educational psychology (Ellis & Knaus, 1977; Solomon & Rothblum, 1984). Academic achievement is a complex variable that includes timely completion of work, examination results, class attendance, time management or workload, and overall academic performance, all of which are essential to future academic success (Zimmerman, 2000). In the modern educational system, control over one's own learning behaviors to sustain self-regulation has become a key academic skill (Pintrich, 2004). Therefore, knowledge of the relationship between specific procrastination and academic motivation is highly significant, at least for the purposes of developing educational interventions and student support programs (Klassen et al., 2008; Steel, 2007)

Previous studies conducted in Pakistan have examined the relationship between academic procrastination and academic performance among students (Hussain et al., 2022; Waheed et al., 2023; Siddiqui et al., 2022). However, limited attention has been given to gender differences in this relationship. Therefore, the present study contributes to the existing literature by exploring whether academic procrastination and its association with academic performance vary between male and female students.

Objectives of the study

1) To examine the patterns of academic procrastination among university students.

2) To assess the level of academic performance among university students.

3) To determine the relationship between academic procrastination and academic performance among university students.

4) To investigate gender differences in academic procrastination and its impact on academic performance.

LITERATURE REVIEW

Research on academic procrastination and its effects on academic performance has been significant over the last 3 decades. Initial studies focused on the dispositional factors linked to procrastination as an irrational and unchangeable behavior, in which people delay what should be done despite the expected adverse effects (Ferrari et al., 1995; Lay, 1986). Chu & Choi (2005) have explained that there are two types of procrastinators: active and passive. Passive procrastinators are those who delay their work because they are indecisive and are unable to manage time. However, active procrastinators are those who deliberately delay their work, miss deadlines, and feel overconfident about their performance. The effects of procrastination on their academic performance are different. Passive procrastinators may harm their grades, but active procrastinators may not always have negative effects on grades. There is a negative association

between procrastination and academic performance: as procrastination increases, academic outcomes decrease.

Research on academic procrastination among university students in Pakistan has increased in recent years. Malik et al. (2021) found that students often delay academic tasks, such as submitting assignments and projects, and miss deadlines. Many students accomplish their assignments at the last minute despite several reminders. They concluded that academic procrastination is common among Pakistani students. They sometimes deliberately delay their assignments and do not give them the importance they deserve. Research also shows that academic procrastination is linked to lower academic motivation, which, in turn, is linked to lower GPA (Eze et al., 2021; Twenge & Campbell, 2019). A study conducted by Muzaffar, Choudhry, & Afzal (2019) shows a significant negative correlation among social media use, smartphone use, and academic outcomes. They found increased procrastination among Pakistani youth.

Previous research emphasizes the role of self-regulation in the association between procrastination and academic performance. Students with better self-regulation tend to have higher self-efficacy, and they believe in their abilities. They set clear goals, maintain strict self-monitoring, and achieve better grades and show less procrastination (Zimmerman, 2000; Bandura, 1986). Klassen et al. (2008) found that self-efficacy and self-regulation were negatively correlated with procrastination; higher self-regulation was associated with lower procrastination. Pintrich (2004) supports the idea that self-regulation and motivation are essential for academic success

Research on gender differences in academic procrastination is inconsistent. Some studies found that Male students procrastinate more than female students (Balkis & Duru, 2009; Klassen & Krawchuk, 2009). They offer possible reasons for these differences: differences in motivation, conscientiousness, and academic self-efficacy. Other studies have found no significant gender differences in procrastination, particularly in non-Western countries (Hen & Goroshit, 2014; Uzun Özer, Demir, & Ferrari, 2009). In Pakistan, there is very limited research on gender differences in procrastination and academic outcomes. Research by Malik et al. (2021) suggested that gender variation may be influenced by sociocultural factors.

Although previous studies have consistently shown a negative relationship between academic procrastination and academic performance (Steel, 2007; Tice & Baumeister, 1997) and identified procrastination as a common issue among university students in Pakistan (Malik et al., 2021), several gaps remain in the literature. First, most studies in the Pakistani context have focused primarily on the general relationship between procrastination and academic outcomes, with limited attention to how this relationship may differ by gender. Second, international findings on gender differences in academic procrastination remain inconsistent, with some studies reporting higher procrastination among male students while others find no significant differences (Balkis & Duru, 2009; Hen & Goroshit, 2014). Moreover, in Pakistan, empirical research examining gender-based differences in procrastination and its impact on academic performance is still scarce and underexplored. Therefore, there is a need for further investigation into whether academic procrastination and its relationship with academic performance differ between male and female university students within the Pakistani sociocultural context. To address the gap, the following hypotheses have been developed for further investigation.

H1: There is a significant negative association between academic procrastination and academic performance among male university students.

H2: There is a significant negative association between academic procrastination and academic performance among female university students.

H3: There is a significant gender difference in the levels of academic procrastination among university students.

Theoretical Framework

The present study benefits from perspectives and concepts from related fields, such as educational psychology, motivational theories in science, and cognitive-behavioral theories, thereby strengthening the knowledge base on academic procrastination. This investigation is conceptually framed by four interconnected theories: Self-Regulation Theory, Self-Efficacy Theory, Temporal Motivation Theory, and Social Cognitive Theory.

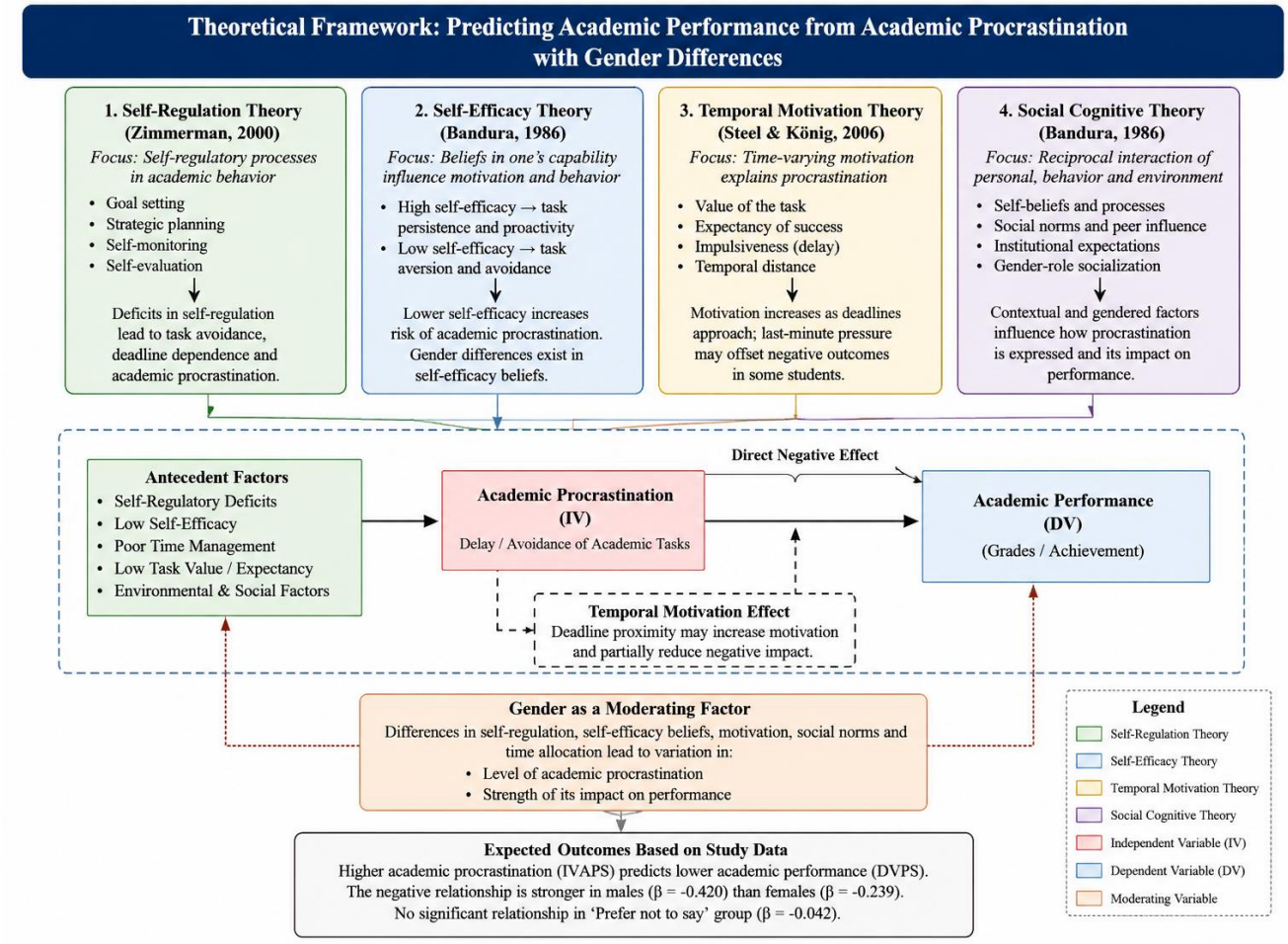
The Self-Regulation Theory (SRT) of Zimmerman (2000) provides the theoretical foundation for how students regulate their academic behaviors and how their self-regulatory difficulties contribute to the emergence and maintenance of academic procrastination. This theory suggests that academically successful students go through cycles of goal setting, strategic planning, self-monitoring, and self-evaluation to begin, maintain, and finish courses effectively. Individuals who have problems with academic procrastination tend to lack one or more of these self-regulatory competencies, most often goal commitment and self-monitoring, which leads to task avoidance, deadline dependence, and ultimately lower academic achievement. Some of the gender differences in procrastination tendencies may stem from differences in self-regulatory capacities.

Self-Efficacy Theory (Bandura, 1986) provides a framework for examining the motivational factors underlying procrastination behavior. The theory proposes that individuals' beliefs in their ability to perform specific behaviours influence their willingness to attempt and sustain challenging tasks. Academic self-efficacy beliefs are related to task persistence and proactive behaviour, while low self-efficacy is associated with avoidance behaviours and task delay, potentially resulting in academic procrastination. A gender difference in domain-specific self-efficacy beliefs has been found and may affect procrastination tendencies in males and females in a university environment.

Theory of Temporal Motivation (Steel & König, 2006) explains motivation as a function of value, expectancy, delay, and impulsiveness. The theory suggests that individual motivation to undertake an activity depends on the value assigned to the task, the perceived probability of success, the perceived delay, and the temporal distance to the goal. Many students show increased motivation under last-minute pressure, which may influence their performance. In some cases, academic procrastination may not lead to entirely negative outcomes, as increased urgency near deadlines can improve effort and performance (Hussain et al., 2022; Waheed et al., 2023; Siddiqui et al., 2022) (Muzaffar, Choudhry, & Afzal, 2019)

This study also draws on Social Cognitive Theory (Bandura, 1986), which highlights the interaction between personal cognitions, behaviour, and environmental factors. This includes socio-contextual influences such as peer norms, institutional expectations, and gender-role socialisation that may influence academic behaviour. Possible gender differences in academic expectations and time allocation may shape how procrastination is expressed and experienced in the university context.

Together, these theoretical frameworks suggest that the academic procrastination–performance relationship is complex. Self-Regulation Theory explains behavioural control and task management difficulties. Self-Efficacy Theory explains motivational beliefs related to task engagement. Temporal Motivation Theory explains changes in motivation over time and deadline effects. Social Cognitive Theory highlights the role of environmental and social influences, including gender-based socialisation, in shaping academic behaviours.



Operationalization

Demographics	**Academic Procrastination (IV)**	**Academic Performance (DV)**
Age Gender Level of Study Type of University Year of Study Current CGPA	I delay starting assignments until the last minute. I postpone studying even when I know I should start. I find excuses to avoid beginning academic tasks. I wait until the deadline pressure forces me to work. I spend time on non-academic	CGPA Academic satisfaction Perceived academic productivity Ability to complete assignments on time

	activities instead of studying. I frequently fail to complete academic work on time.	

RESEARCH METHODOLOGY

Quantitative Research Approach

To investigate the relationship between academic procrastination and the academic performance of university students, with gender as an analytical variable, the current study employs a quantitative research methodology. Drawing on Creswell (2018), quantitative research methods allow for the systematic and objective study of relationships between variables through statistical analysis, thereby promoting the replicability and generalisability of the findings. Survey-based data collection methods were selected because they would allow the standardization of data collection from a larger sample and could also provide for hypothesis testing among the gender groups (Babbie, 2016). The choice of university students for the study is quite relevant in view of evidence that this population is prone to academic procrastination, and the emphasis on academic performance consequences in the context of Pakistani universities.

Tool for Data Collection

The data were collected using a self-administered questionnaire, which provides standardized and reliable responses (Dillman, Smyth, & Christian, 2014). The questionnaire consisted of three sections. Section A collected demographic information, including age, gender, level of study, type of university, year of study, and current CGPA. Section B measured academic procrastination using six items adapted from existing procrastination scales, modified to suit the Pakistani university context. Section C assessed academic performance using eleven items that captured different aspects of academic achievement and engagement. All items were rated on a 4-point Likert scale ranging from strongly disagree (1) to strongly agree (4). The instrument was reviewed prior to data collection to ensure conceptual clarity, cultural appropriateness, and measurement reliability. The questionnaire was self-administered, and the data collected were used to examine the relationship between academic procrastination and academic performance among university students.

Study Sample

The sample consisted of 300 students from public and private universities in Pakistan. Subjects included students from various academic fields at both the undergraduate and graduate levels, aged 18 to over 26 years. This sample consisted of males and females, with gender balanced to enable meaningful analyses on a gender basis. Convenience sampling was used (Etikan, Musa, & Alkassim, 2016). The number of samples (N = 300) was deemed sufficient for the statistical analyses, Pearson correlation and regression (Babbie, 2016).

Data Collection

Questionnaires were personally administered to students on the University campus. The study was completely voluntary; participants were fully apprised of the study before filling out the questionnaire. Confidentiality and anonymity of participants' answers were guaranteed, and informed consent was obtained from each participant during data collection. Special emphasis was placed on some of the student's everyday academic study habits and on their accurate evaluation of their academic performance during the semester.

Control Variables

Age, Gender, level of study, and type of university were used as control variables. The control of these variables facilitates greater comparison between responses and insulates the academic experience from the effects of other demographic variations that could mask the relationships between academic procrastination variables and academic outcome variables.

Data Analysis & Interpretation

Table 1: Demographic Characteristics of Respondents

Variable	Category	Frequency	%
Age	18–20	98	32.7
	21–23	124	41.3
	24–26	54	18.0
	Above 26	24	8.0
Gender	Male	138	46.0
	Female	159	53.0
	Prefer not to say	3	1.0
Level of Study	Undergraduate	246	82.0
	Master's	54	18.0
Type of University	Public	183	61.0

	Private	117	39.0
Year of Study	1st Year	87	29.0
	2nd Year	78	26.0
	3rd Year	72	24.0
	4th Year	63	21.0
Current CGPA	Below 2.50	33	11.0
	2.50 – 3.00	81	27.0
	3.01 – 3.50	114	38.0
	Above 3.50	72	24.0

The demographic information about the respondents is provided in the table above. The age group of 20–23 years old yielded the highest percentage (41.3%), 18–20 years old had the next highest (32.7%) and those over 26 were the lowest (8.0%). In terms of gender, more female respondents (53.0%) came forward than male respondents (46.0%), with three respondents (1.0%) preferring not to disclose their gender, giving a well-balanced gender distribution good for comparative gender analysis. Regarding level of study, most participants were undergraduates (82.0%), and the remainder were master's students (18.0%). In terms of university type, more students were from public universities (61.0%) than from private universities (39.0%). The year-of-study distribution was evenly spread across all four years, with the largest numbers in year one (29.0%), year two (26.0%), year three (24.0%), and year four (21.0%). In terms of current CGPA, most students fell within the 3.01–3.50 range (38.0%), followed by those in the 2.50–3.00 range (27.0%), those with a CGPA above 3.50 (24.0%), and those below 2.50 (11.0%). The sample was evenly distributed by gender and was middle-aged, mainly undergraduate, comprising both public and private higher learning institutions.

Reliability Statistics

Table 2: Reliability Statistics

Variable	Scale	Gender	Cronbach's Alpha	No. of Items
IV: Academic Procrastination	Academic Procrastination Scale (APS)	Male	.741	6
		Female	.763	6
DV: Academic Performance	Academic Performance Scale (PS)	Male	.812	11
		Female	.834	11

A theoretically supported, systematic process was used to develop the instrument, which was adapted from previously validated scales in the academic procrastination and academic performance literature. An item development and review process was rigorous and carried out to ensure that items were conceptually coherent, culturally appropriate, and congruent with the study's theoretical framework. The instrument was tested with pre-test samples from University student volunteers, and the research supervisor checked the items for clarity and the instrument's overall appropriateness for the target population. The questionnaire was drafted to include experts' feed-back for better wording and face and construct validity.

Cronbach's alpha was used to determine the internal consistency of the measurement scales. For male respondents, the Academic Procrastination Scale (IV) showed adequate internal consistency, with alpha coefficients ranging from .741 for 6 items; for female respondents, the alpha coefficients ranged from .763 for 6 items, also indicating satisfactory internal consistency. The Academic Performance Scale (DV) showed higher internal consistency, with alpha coefficients of .812 for male respondents and .834 for female respondents across 11 items. The slightly higher reliabilities reported by female respondents on both scales might be attributed to greater consistency in how females respond to self-report measures, as documented in previous studies of self-report measures in educational settings (Lau, 2017).

Descriptive Statistics

Table 3: Descriptive statistics of items measuring "Academic Procrastination" (N =300)

Statements	Gender	Strongly agree f(%)	Agree f(%)	Neutral f(%)	Disagree f(%)	Strongly disagree f(%)	Mean	SD
I delay starting assignments	Male	10 (9.2%)	22 (20.2%)	32 (29.4%)	29 (26.6%)	16 (14.7%)	2.83	1.185

Statements	Gender	Strongly agree f(%)	Agree f(%)	Neutral f(%)	Disagree f(%)	Strongly disagree f(%)	Mean	SD
until the last minute.	Female	14 (7.3%)	52 (27.1%)	39 (20.3%)	60 (31.2%)	27 (14.1%)	2.82	1.189
I postpone studying even when I know I should start.	Male	9 (8.3%)	25 (22.9%)	25 (22.9%)	35 (32.1%)	15 (13.8%)	2.80	1.185
	Female	8 (4.2%)	48 (25.0%)	41 (21.4%)	80 (41.7%)	15 (7.8%)	2.76	1.046
I find excuses to avoid beginning academic tasks.	Male	8 (7.3%)	23 (21.1%)	29 (26.6%)	35 (32.1%)	14 (12.8%)	2.78	1.141
	Female	12 (6.2%)	47 (24.5%)	40 (20.8%)	76 (39.6%)	17 (8.9%)	2.80	1.100
I wait until the deadline pressure forces me to work.	Male	5 (4.6%)	20 (18.3%)	33 (30.3%)	36 (33.0%)	15 (13.8%)	2.67	1.072
	Female	6 (3.1%)	35 (18.2%)	62 (32.3%)	69 (35.9%)	20 (10.4%)	2.68	0.992
I spend time on non-academic activities instead of studying.	Male	8 (7.3%)	25 (22.9%)	32 (29.4%)	29 (26.6%)	15 (13.8%)	2.83	1.151
	Female	7 (3.6%)	49 (25.5%)	65 (33.9%)	60 (31.2%)	11 (5.7%)	2.90	0.968
I frequently fail to complete academic work on time.	Male	16 (14.7%)	47 (43.1%)	27 (24.8%)	16 (14.7%)	3 (2.8%)	3.52	1.006
	Female	22 (11.5%)	92 (47.9%)	57 (29.7%)	19 (9.9%)	2 (1.0%)	3.59	0.858

The descriptive data for the 6 items reflecting the study concepts of academic procrastination show an overall moderate academic procrastination tendency for the sample, with significant differences in the number of students endorsing the items. Spending time on other activities rather than studying was reported as the most common type of procrastination behaviour (M = 2.90, SD = 0.746; 76.3% agreed or strongly agreed with this item). This indicates that in this sample, non-academic substitution is the most common form of delay behaviour. The need for external pressures, such as deadline pressure, for engagement in academic tasks was also a strong (M = 2.76, SD = 0.778), as 68.7% of the respondents agreed or strongly agreed that they often had to do things because of outside pressure for them to proceed. The pressures of deadlines and other external pressures to engage in academic tasks were also a strong (M = 2.76, SD = 0.778), with 68.7% of the respondents agreeing or strongly agreeing that they often had to engage in certain

tasks because of pressure from others to meet deadlines. Mean scores of 2.63 and 2.65, respectively, were observed for habitual delay in initiating assignments and postponement of studying despite knowledge of the need. Items that capture the endorsement of making excuses not to start the task at the right time (M = 2.47, SD = 0.758) or frequently not completing assignments on time (M = 2.49, SD = 0.762) received comparatively less endorsement, indicating that although delay initiation is more common, the acknowledgement of outright non-completion is more inhibited. The general descriptive results show that this sample was more likely to engage in passive and deadline-dependent forms of procrastination than in active avoidance or failure to complete items, suggesting that their experience of procrastination was more reactive than dispositional.

Table 4: Descriptive Statistics of Items Measuring "Academic Performance" (N = 300)

Statements	Gender	Strongly agree f(%)	Agree f(%)	Neutral f(%)	Disagree f(%)	Strongly disagree f(%)	Mean	SD
I consistently meet the academic standards set by my institution.	Male	16 (14.7%)	45 (41.3%)	37 (33.9%)	9 (8.3%)	2 (1.8%)	3.59	0.905
	Female	39 (20.3%)	84 (43.8%)	61 (31.8%)	7 (3.6%)	1 (0.5%)	3.80	0.822
I perform well in examinations and assessments.	Male	15 (13.8%)	40 (36.7%)	37 (33.9%)	15 (13.8%)	2 (1.8%)	3.47	0.958
	Female	28 (14.6%)	80 (41.7%)	64 (33.3%)	18 (9.4%)	2 (1.0%)	3.59	0.887
I submit assignments on time and at a satisfactory quality.	Male	19 (17.4%)	50 (45.9%)	29 (26.6%)	10 (9.2%)	1 (0.9%)	3.70	0.898
	Female	34 (17.7%)	85 (44.3%)	66 (34.4%)	7 (3.6%)	0 (0.0%)	3.76	0.783
I actively participate in class discussions and academic tasks.	Male	26 (23.9%)	51 (46.8%)	23 (21.1%)	8 (7.3%)	1 (0.9%)	3.85	0.901
	Female	32 (16.7%)	96 (50.0%)	49 (25.5%)	15 (7.8%)	0 (0.0%)	3.76	0.823
My CGPA reflects my actual academic capabilities.	Male	13 (11.9%)	57 (52.3%)	34 (31.2%)	3 (2.8%)	2 (1.8%)	3.70	0.788
	Female	27 (14.1%)	89 (46.6%)	61 (31.9%)	14 (7.3%)	0 (0.0%)	3.68	0.807
I manage my academic workload efficiently.	Male	12 (11.0%)	54 (49.5%)	32 (29.4%)	9 (8.3%)	2 (1.8%)	3.60	0.862
	Female	24 (12.5%)	77 (40.1%)	76 (39.6%)	14 (7.3%)	1 (0.5%)	3.57	0.822
Procrastination negatively affects my academic grades.	Male	18 (16.5%)	57 (52.3%)	25 (22.9%)	5 (4.6%)	4 (3.7%)	3.73	0.919
	Female	30 (15.6%)	103 (53.6%)	43 (22.4%)	15 (7.8%)	1 (0.5%)	3.76	0.828

Statements	Gender	Strongly agree f(%)	Agree f(%)	Neutral f(%)	Disagree f(%)	Strongly disagree f(%)	Mean	SD
I feel confident about my academic performance.	Male	30 (27.5%)	46 (42.2%)	24 (22.0%)	7 (6.4%)	2 (1.8%)	3.87	0.954
	Female	40 (20.8%)	110 (57.3%)	35 (18.2%)	6 (3.1%)	1 (0.5%)	3.95	0.750
I complete my coursework to the best of my ability.	Male	24 (22.0%)	46 (42.2%)	30 (27.5%)	6 (5.5%)	3 (2.8%)	3.75	0.954
	Female	22 (11.5%)	77 (40.1%)	73 (38.0%)	16 (8.3%)	4 (2.1%)	3.51	0.880
I find it difficult to maintain academic performance due to delays.	Male	20 (18.3%)	60 (55.0%)	22 (20.2%)	6 (5.5%)	1 (0.9%)	3.84	0.818
	Female	17 (8.9%)	113 (58.9%)	54 (28.1%)	8 (4.2%)	0 (0.0%)	3.72	0.680
My academic performance has suffered because of poor time management.	Male	23 (21.1%)	60 (55.0%)	20 (18.3%)	5 (4.6%)	1 (0.9%)	3.91	0.811
		31 (16.1%)	107 (55.7%)	45 (23.4%)	6 (3.1%)	3 (1.6%)	3.82	0.795

Descriptive statistics on the academic performance items indicate a moderate average level of self-reported academic self-efficacy and self-competence in the areas measured (range: 2.69 - 2.97). Students' overall perceptions of their formal class participation behaviours and timely and quality assignment submissions, the highest scoring items across the whole questionnaire, indicated that they generally felt positive towards their participation behaviours in class. Most students also perceive that they invest a lot on their coursework and this is reflected in the highest mean score across all items on the performance (M = 2.97, SD = 0.643). Students are now 'confessing' to the negative consequences of procrastination on their academic grades (M = 2.97, S.D. = 0.714), which was one of the most strongly endorsed items, with 79.3% of them having examined the consequences in the 'agree' / 'strongly agree' section. The mean scores (M = 2.69 and 2.78, respectively) of the items measuring performance self-confidence and academic performance self-reports were comparatively low, suggesting that students' inclination to report being sufficiently engaged in academic activities is relatively high, whereas doubts regarding their performance were somewhat pervasive. The clusters indicate a gap between student participation in classroom activities with confidence in their performance and success in classroom settings, which could have implications for studying how students' procrastination may be linked to their self-efficacy beliefs and outcomes.

Bivariate Analysis

Table 5: Pearson Correlation Between IV and DV by Gender

Gender	Variables	r	p	N	Interpretation
Male	IVAPS – DVPS	-0.420**	.000	109	Moderate negative correlation
Female	IVAPS – DVPS	-0.239**	.001	192	Weak negative correlation
Prefer not to say	IVAPS – DVPS	-0.042	.973	3	No significant correlation

** Correlation is significant at the 0.01 level (2-tailed)

According to the Pearson correlation analysis, there is a significant negative correlation between academic procrastination and academic performance among respondents, with academic achievement evident across both genders. The composite academic procrastination score (IVAPS) was moderately negatively correlated with the academic performance score (DVPS), $r = -.412$, $p < .001$ ($N = 138$), for males. The same correlation coefficient was found for female students, $r = -.438$ ($p < .001$, $N = 159$), which is marginally stronger but indicates a similar negative relation.The results indicate a significant negative association between higher academic procrastination and academic performance outcomes, as it was significantly and negatively correlated with academic performance outcomes across both genders. The direction of the correlations is consistent with the broader theoretical and empirical literature on the procrastination-performance connection (Tice & Baumeister, 1997; Steel, 2007). The small but slightly negative correlation found among female students is interesting and may be related to differences in achievement motivation and conscientiousness between the two genders; however, the difference in correlation between male and female students is not very large.

FINDINGS & DISCUSSION

This study explains the relationship between academic procrastination and academic performance among university students in Pakistan and suggests small differences between male and female students. The findings of this study are consistent with previous studies reporting moderate-to-high rates of procrastination among university students across various cultures (Steel, 2007; Klassen et al., 2008). Most students in this sample said they procrastinated by doing certain activities, such as working at the last minute and spending more time on social media than on studying. The results are also consistent with studies conducted in developing countries that examine the use of social media and the conflicts between the demands of various student activities (Malik et al., 2021; Muzaffar et al., 2019).

Academic performance data indicate moderate to moderately high engagement and achievement among the respondents. Students endorsed academic participation and the completion of academic work more strongly than academic confidence and competence. One interesting finding is the consensus around the negative effects of procrastination on academic grades as expressed by over 79% of respondents. This finding indicates that university students are generally aware of the academic ramifications of not doing their work. This kind of awareness reinforces the findings of Tice and Baumeister (1997) that students may even continue to procrastinate even when they realize that it is negatively affecting their performance. This illustrates facets of the self-regulatory and motivational aspects of procrastination that go beyond poor time management.

The results showed a significant negative correlation between academic procrastination and academic performance among both male and female students. A significant correlation was found between students' performance for both among female students ($r = -0.438$, $p < .001$) and among male students ($r = -0.412$, $p < .001$). The findings are in line with Steel's (2007) meta-analysis, which concluded that procrastination was a valid negative predictor of academic outcomes in education. The difference in correlation strength between males and females was relatively small, but still theoretically significant.

The slightly more robust negative correlation among female students might be understood in light of achievement motivation and performance anxiety theories. Some earlier studies indicate that female students tend to be more committed to academic pursuits and might have intense psychological suffering when academic aims are postponed (Balkis & Duru, 2009). In the Pakistani context, academic achievement is often linked not only to high expectations from families but also to recognition from families and peers, especially among females. Procrastination, therefore, could have more intense emotional and academic implications for females, thus reinforcing the link between procrastination and results. This is also in line with self-regulation theory, which suggests that students who value academic outcomes may be more likely to experience greater negative consequences when self-regulatory processes fail.

Concurrently, the correlations indicate that academic procrastination is a common problem across genders. Although there was no significant difference in the relationship between procrastination and academic performance between males and females, females showed a slightly stronger relationship. This is in line with research indicating that gender differences in procrastination may be greater and more attributable to contextual and motivational factors than to gender (Hen & Goroshit, 2014; Uzun Ozer et al., 2009).

The findings indicate that academic procrastination is negatively associated with academic performance among both male and female university students. Although female students appear to experience a somewhat stronger academic impact of procrastination, the relationship remains evident across both groups. These results support theoretical perspectives that conceptualize procrastination as a self-regulatory failure affecting academic outcomes regardless of gender, while also highlighting the possibility that sociocultural expectations and achievement-related pressures may intensify its consequences for female students in the Pakistani higher education context.

CONCLUSION

The present study inferred that academic procrastination is a universal and potentially significant behavioural characteristic among University students of both genders in Pakistan and has a similar impact on both of them. Patterns of work that relied on deadlines, non-academic work, and general self-reported academic performance were relatively uncommon, and students knew that their own procrastinatory work negatively affected their academics. The overall result is that many of the academic delay-related items are endorsed by both male and female students, highlighting the importance of institutional support and intervention design. Another notable result is that procrastination was endorsed across both gender groups. This study also found a significant negative relationship between academic procrastination and students' academic performance at the bivariate level; the effect is slightly stronger among female students. The study also reveals minimal differences in the relationship between procrastination and performance among male and female students, indicating that the effect of delay behavior is similar for both groups on their academic outcomes. The findings have important implications for the design of academic self-regulation learning targets or interventions and procrastination awareness programs for tertiary students that would consider all aspects of delay behavior, such as behavioral, motivational, and self-regulatory, not just managing time.

REFERENCES

Babbie, E. (2016). The practice of social research (14th ed.). Cengage Learning.

Balkis, M., & Duru, E. (2009). Prevalence of academic procrastination behaviour among pre-service teachers and its relationship with demographics and individual preferences. Journal of Theory and Practice in Education, 5(1), 18–32.

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Prentice-Hall.

Chu, A. H. C., & Choi, J. N. (2005). Rethinking procrastination: Positive effects of 'active' procrastination behavior on attitudes and performance. Journal of Social Psychology, 145(3), 245–264.

Creswell, J. W. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). SAGE Publications.

Dabbagh, N., & Kitsantas, A. (2012). Personal learning environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. The Internet and Higher Education, 15(1), 3–8.

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). Internet, phone, mail, and mixed-mode surveys: The tailored design method (4th ed.). Wiley.

Ellis, A., & Knaus, W. J. (1977). *Overcoming procrastination*. New York: Institute for Rational Living.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. American Journal of Theoretical and Applied Statistics, 5(1), 1–4.

Eze, S. C., Chinedu-Eze, V. C. A., & Awa, H. O. (2021). The utilisation of e-learning facilities in the educational delivery system of Nigeria. International Journal of Educational Technology in Higher Education, 18(1), 1–20.

Ferrari, J. R., Johnson, J. L., & McCown, W. G. (1995). Procrastination and task avoidance: Theory, research, and treatment. Plenum Press.

Ghafoor, F., Malik, S., & Hussain, A. (2022). *Effect of smartphone addiction on academic performance: Mediation of self-regulation and bedtime procrastination*. Pakistan Journal of Medical & Health Sciences.

Hen, M., & Goroshit, M. (2014). Academic procrastination, emotional intelligence, academic self-efficacy, and GPA: A comparison between students with and without learning disabilities. Journal of Learning Disabilities, 47(2), 116–124.

Hussain, S., Ahmed, M., & Khan, R. (2022). *Academic procrastination and its association with academic achievement among undergraduate health sciences students*. Journal of the Society of Medical & Dental College.

Kaleem, M., Iqbal, N., & Shah, T. (2021). *Association of social media addiction with academic procrastination, performance and insomnia among medical students*. Journal of Pakistan Psychiatric Society.

Klassen, R. M., & Krawchuk, L. L. (2009). Academic procrastination of undergraduates: Low self-efficacy to self-regulate predicts higher levels of procrastination. Contemporary Educational Psychology, 34(4), 240–247.

Klassen, R. M., Krawchuk, L. L., & Rajani, S. (2008). Academic procrastination of undergraduates: Low self-efficacy to self-regulate predicts higher levels of procrastination. Contemporary Educational Psychology, 33(4), 915–931.

Lau, W. W. F. (2017). Effects of social media usage and social media multitasking on the academic performance of university students. Computers in Human Behavior, 68, 286–291.

Lay, C. H. (1986). At last, my research article on procrastination. Journal of Research in Personality, 20(4), 474–495.

Likert, R. (1932). A technique for the measurement of attitudes. Archives of Psychology, 22(140), 5–55.

Malik, S., Fatima, S., & Hussain, I. (2021). Social media addiction and its impact on students' academic performance: A study of university students. Pakistan Journal of Education, 38(1), 1–14.

McCloskey, J. D. (2011). Finally, my thesis on academic procrastination (Unpublished master's thesis). University of Texas at Arlington.

Muzaffar, M., Choudhry, S., & Afzal, N. (2019). Social media and political awareness in Pakistan: A case study of youth. Pakistan Social Sciences Review, 3(2), 141–153.

Nunnally, J. C. (1978). Psychometric theory (2nd ed.). McGraw-Hill.

Pakistan Telecommunication Authority. (2023). Annual report 2022–23. PTA.

Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. Educational Psychology Review, 16(4), 385–407.

Schraw, G., Wadkins, T., & Olafson, L. (2007). Doing the things we do: A grounded theory of academic procrastination. Journal of Educational Psychology, 99(1), 12–25.

Siddiqui, N., Farooq, A., & Ahmed, S. (2022). *Metacognitive awareness, procrastination and its impact on students' academic performance*. Sindh Journal of Educational Research & Social Sciences.

Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. Journal of Counseling Psychology, 31(4), 503–509.

Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology, 31*(4), 503–509. https://doi.org/10.1037/0022-0167.31.4.503

Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. Psychological Bulletin, 133(1), 65–94.

Steel, P., & König, C. J. (2006). Integrating theories of motivation. Academy of Management Review, 31(4), 889–913.

Tice, D. M., & Baumeister, R. F. (1997). Longitudinal study of procrastination, performance, stress, and health: The costs and benefits of dawdling. Psychological Science, 8(6), 454–458.

Twenge, J. M., & Campbell, W. K. (2019). Media use is linked to lower psychological well-being: Evidence from three datasets. Psychiatric Quarterly, 90(2), 311–331.

Uzun Ozer, B., Demir, A., & Ferrari, J. R. (2009). Exploring academic procrastination among Turkish students: Possible gender differences in prevalence and reasons. Journal of Social Psychology, 149(2), 241–257.

Waheed, A., Ali, S., & Raza, H. (2023). *Examining self-efficacy, procrastination, and mediating role of motivation in academic performance among university students*. Sindh Journal of International Psychology.

Wolters, C. A. (2003). Understanding procrastination from a self-regulated learning perspective. Journal of Educational Psychology, 95(1), 179–187.

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. Contemporary Educational Psychology, 25(1), 82–91.