



Social Sciences & Humanity Research Review



Impact of Teacher-Student Bond and Self-Efficacy on Classroom Engagement and Academic Procrastination Among University Students

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ARTICLE INFO	ABSTRACT
Keywords: Teacher-Student Bond, Self-Efficacy, Classroom Engagement, Academic Procrastination, University Students Corresponding Author: Ms. Dawra, Lecturer Department of Psychology, Thal University Bhakkar Email: dawramehmood@gmail.com	This study investigates the teacher-student bond and self-efficacy influence classroom engagement and academic procrastination among university students. A sample of ($N=200$ students $n=100$ males, $n=100$ females) participated using purposive sampling. Validated instruments measured each variable include the student-instructor relationship scale, general self-efficacy scale, university student engagement inventory, and academic procrastination scale. Correlational research design and purposive sampling techniques were used Correlation, regression and other multiple analyses revealed that both teacher-student bond and self-efficacy positively predicted classroom engagement and negatively predicted academic procrastination.

INTRODUCTION

In the current educational landscape student success depends not only on curriculum and teaching methods but also on relational and psychological variables. Particularly in higher education, students often experience various psychological and emotional pressures that influence their academic performance. Among the prominent factors that play a critical role in students' learning and behavioral outcomes are the quality of the teacher-student bond and the students' belief in their own academic abilities, referred to as self-efficacy. The teacher-student bond is a fundamental relational construct that reflects the emotional, communicative, and professional connection between a teacher and a student. The significance of the learning environment in ensuring the well-being of children and adolescents has long been established (Bronfenbrenner & Morris, 2006). Positive relationships among students, teachers, and parents are crucial for enhancing self-evaluation

and promoting positive adaptation (Marini, 2023). Classrooms provide a setting for active engagement and the development of constructive teacher-student relationships (Hammer & Pinata, 2001), which nurture academic achievements and aspirations (OECD, 2018).

University education requires students to govern their own knowledge acquisition processes which can be obstructed by various factors (Londono, 2009). Students must develop methods to enhance learning quality and guide their learning independently (Pozo & Echevarria, 2009). Early academic achievement has far-reaching implications for positive development (Lewis et al., 2011; Shogren et al., 2017). Intellectual and behavioral aspects that facilitate or interrupt student performance are of significant concern in educational psychology (Contreras et al., 2005).

Education aims to provide knowledge and abilities, fostering mental and physical growth (Sewell & George, 2000). Beyond theoretical concepts, education involves building trust and rapport between educators and students. Positive teacher-student communication establishes a secure educational environment (Ainsworth, 1982; Bowlby, 1969), and a warm, trusting relationship is essential for effective instruction (Baker et al., 2008). The quality of instruction is directly impacted by student-teacher interactions (Liu, 2013), and these bonds are complex and context-dependent (Hagenauer & Volet, 2014). Student-teacher bonds at the university level have received less attention compared to earlier education stages (Hagenauer & Volet, 2014). This research investigates the effect of teacher-student bond and self-efficacy on classroom engagement and academic procrastination among university students. Teacher practices have effects beyond cognitive outcomes (Blazar & Kraft, 2017). In higher education, relationships are characterized by positivity, integrity, esteem, reliance, security, compassion, and assistance (Komarraju et al., 2010).

Student achievement is strongly associated with motivation, particularly self-efficacy and classroom engagement (Boekaerts, 2016; Fredricks et al., 2004). Both factors play significant roles in fostering positive learning outcomes (Lavasani et al., 2009; Ucar & Sungur, 2017; Nese, 2019). Teachers who engage students have a significant impact on their educational path (Silver et al., 2005). Classroom engagement, a multidimensional concept, encompasses behavioral, cognitive, and emotional involvement (Christenson et al., 2012) and is pivotal for academic success (Wang & Eccles, 2012a).

Academic procrastination is associated with self-efficacy, stress, physical ailments, and anxiety (Hen & Goroshit, 2014; Ferrari et al., 2005; Howell et al., 2006; Schraw et al., 2007; Tice & Baumeister, 1997; Wolters, 2003). It involves postponing academic tasks, leading to negative consequences on well-being and achievement (Zhang et al., 2010; Przepiorka et al., 2019; Stead et al., 2010; Klingsieck, 2013).

Research Gape

While previous studies have investigated the separate effects of self-efficacy and teacher-student relationships on the academic performance of students, fewer studies have examined the combined effects of the two variables on classroom engagement and academic procrastination among university students. Most of the previous studies on these variables are stand-alone or on different levels of studies, leaving a knowledge gap regarding their combined direct effects at the university level. Therefore, very little is known about the effects of combining a strong teacher-student relationship with high self-efficacy on increased classroom engagement and decreased academic procrastination among university students. Filling the knowledge gap can guide teachers and policymakers interested in enhancing the motivation and academic performance of students at the tertiary level.

Significance

The significance of this research on the impact of teacher-student bond and self-efficacy on classroom engagement and academic procrastination among university students is that it has the potential to help us better understand the complex relationships between these factors and how they can be influenced to promote student success. This information could be used to develop targeted interventions to support these students. It also has the potential to

make a significant contribution to the field of education by helping us to better understand how to promote student success. It could help develop training programs to help teachers build stronger relationships with their students, interventions to boost students self-efficacy such as self-efficacy workshops or mentoring programs and to increase classroom engagement such as active learning strategies or cooperative learning activities.

Hypotheses

1. There is a positive relationship between teacher-student bond and classroom engagement among university students.
2. There is a negative relationship between teacher-student bond and academic procrastination among university students.
3. There is a positive relationship between self-efficacy and classroom engagement among university students.
4. There is a negative relationship between self-efficacy and academic procrastination among university students.
5. The male students tend to show more self-efficacy as compared to female students.
6. The male students tend to show more classroom engagement as compared to female students.
7. The male students tend to show more academic procrastination as compared to female students.
8. Teacher-student bond positively predicts classroom engagement among university students.
9. Teacher-student bond negatively predicts academic procrastination among university students.
10. Self-efficacy positively predicts classroom engagement among university students.
11. Self-efficacy negatively predicts academic procrastination among university students.

Conceptual Framework

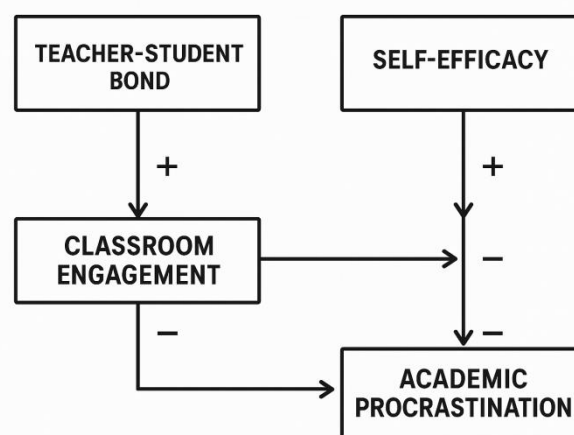


Fig 01. Description of study variables relationship.

LITERATURE REVIEW

The concept of teacher-student bonding has been extensively studied in educational psychology. It encompasses elements such as mutual respect, emotional closeness, trust, and open communication. Hamer and Pianta (2001) investigators found that students who boom a positive and expressive bond with their teachers display higher academic achievement, emotional regulation, and lower failure rates. Students particularly those facing academic or personal difficulties by providing a sense of stability and support in the academic environment. Furrer and Skinner (2003) students who sense emotionally associated to their teachers likely to be engaged in classroom actions. Presence of a sincere and approachable teacher offers students with the emotional safety to take risks ask questions, and engage deeply with knowledge resources. Research has shown that teacher-student bonding can act as a safeguard beside academic procrastination. Students who perceive their tutors as friendly and helpful are more likely to encounter limits and achieve academic responsibilities successfully. A well relational active can decrease fear of failure and rise students' self-assurance in looking for aid when desirable (Prewett et al., 2019).

Self-efficacy is a critical forecaster of academic engagement and procrastination, Bandura (1997) persons with good self-efficacy are more likely to take on stimulating responsibilities, persevere in the expression of trouble, and improve rapidly from delays. In academic surroundings, self-efficacy has been related with greater inspiration, superior knowledge strategy usage and advanced accomplishment. Students with a robust logic of efficacy are more attentive, ambitious, and practical (Pajares, 1996).

Academic procrastination is inversely related to self-efficacy Steel (2007) conducted a meta-analysis revealing that low self-efficacy was one of the strongest predictors of procrastination. Students who doubt their ability to succeed often avoid academic tasks, resulting in chronic procrastination and performance deficits. Thus, interventions designed to increase self-efficacy may serve a dual purpose enhancing engagement and minimizing procrastination. Together teacher-student bonding and self-efficacy form a powerful combination in promoting positive academic outcomes. While the former addresses external relational support, the latter reflects internal belief systems. A student with high self-efficacy and a strong bond with teachers is more likely to be emotionally and cognitively engaged in academic tasks and less likely to engage in procrastination. This study attempts to integrate these findings into a cohesive framework by examining how both constructs teacher-student bond and self-efficacy jointly predict classroom engagement and academic procrastination among university students in Pakistan.

METHODOLOGY

Present study embraced a quantitative, correlational research design to inspect the associations between teacher-student bond, self-efficacy, classroom engagement and academic procrastination.

Participants

Sample included ($N=200$) university students including ($n=100$ males, $n=100$ females) aged among 18-26 years. Participants were enlisted via purposive sampling from numerous departments of a public-sector university in Bhakkar city South Punjab Pakistan. Full-time students who currently enrolled in undergraduate programs and eager to contribute willingly become the part of this study.

Measures

Student-Instructor Relationship Scale (SIRS)

Creasey et al. (2009) measures the quality of the bond between students and their teachers. Includes 30 items rated on a 5-point Likert scale reaching from 1 (SD) to 5 (SA). Greater marks mirror solid interactive connections.

General Self-Efficacy Scale (GSE)

Schwarzer and Jerusalem (1995) involve 10 items assesses a person's belief in their ability to manage with challenging situations and achieve goals. Scored on a 4 point Likert scale where higher scores designate greater self-efficacy.

University Student Engagement Inventory (USEI):

Maroco et al. (2016) consists of 15 items covering behavioral, emotional, and cognitive engagement, a 5-point Likert scale to regulate the degree to which students are involved in academic activities.

Academic Procrastination Scale Short Form

Yockey (2016) a 5-item scale assesses the degree of academic delay in completing tasks measures the students' procrastination level. It is scored on a 5-point Likert scale, with higher scores indicating greater procrastination.

Ethical Considerations

This study was conducted in accordance with the ethical standards of the institutional research committee. Prior to data collection, ethical approval was obtained from the different departments and officials of universities. All participants were informed about the purpose and voluntary nature of the study. Written informed consent was obtained from each

participant. Confidentiality and anonymity of responses were assured, and participants were informed of their right to withdraw from the study at any time without penalty.

Procedure

After obtaining institutional ethical clearance the researcher contacted various university departments for permission to conduct the study. Students were informed about the purpose, confidentiality and voluntary nature of the research. After informed consent was secured, participants completed the questionnaires in a classroom setting.

Reliability of Instruments

To assess the internal consistency of the tools, Cronbach's alpha coefficients were calculated. The reliability scores were as follows:

- SIRS: $\alpha = .88$
- GSE: $\alpha = .80$
- USEI: $\alpha = .89$
- APS: $\alpha = .77$

These values indicate that all instruments used in the study demonstrated acceptable to high internal consistency.

RESULTS

Data Analysis

Data were entered and analyzed using SPSS version 20. Descriptive statistics were used to explore the mean, standard deviation, skewness, and kurtosis. Pearson's correlation coefficient assessed the relationships among variables. Independent sample t-tests examined gender-based differences, and multiple regression analyses were performed to explore the predictive power of teacher-student bond and self-efficacy on classroom engagement and academic procrastination. The analysis began with the examination of descriptive statistics to understand the distribution of variables.

Table 1

Frequencies and percentages of participants (N=200)

Demographic variables	<i>f</i>	%
Gender		
Male	100	50%
Female	100	50%
Socio Economic Status		
Lower Class	66	33%
Middle Class	66	33%
Upper Class	68	34%
Age		
18-29	100	50%
30-40	100	50%
Education		
BA/BSc	50	25%
MA/MSc/BS	50	25%
MPhil	50	25%
PhD	50	25%
Area		
Rural	100	50%
Urban	100	50%
Institute		
Private	100	50%
Government	100	50%

Table 1 shows the frequencies and percentages of participants involved. Results show that male ($f=100$, 50%) and female students ($f=100$, 50%) were equal. Socio-economic status (Lower class=65, 32.5%; Middle class=67, 33.5%; Upper class=68, 34%), Students having age range between 18-29 year old ($f=100$, 50%) were equal to students having age range between 30-40 year old ($f=100$, 50%). Students enrolled in BA/BSc ($f=50$, 25%), MA/MSc/BS ($f=50$, 25%), MS/MPhil ($f=50$, 25%) and PhD program ($f=50$, 25%) were also equal. Rural university students ($f=100$, 50%) were equal to urban university students ($f=100$, 50%). Private university students ($f=100$, 50%) were equal to government university students ($f=100$, 50%).

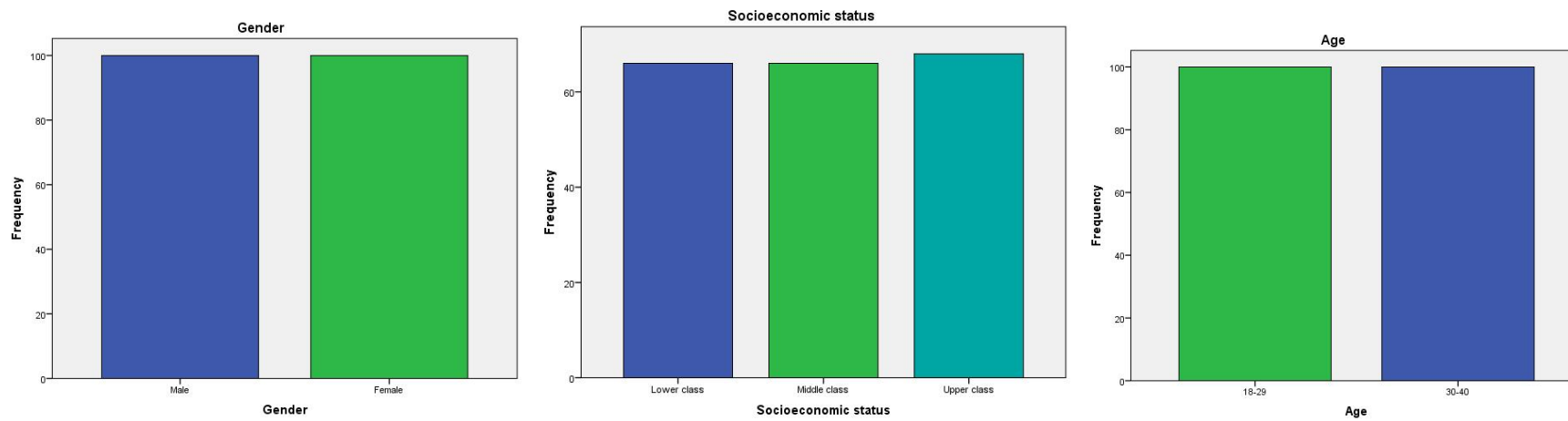


Fig 2: Bar graph of gender male female and frequencies of lower, middle and upper class university students and age classifications.

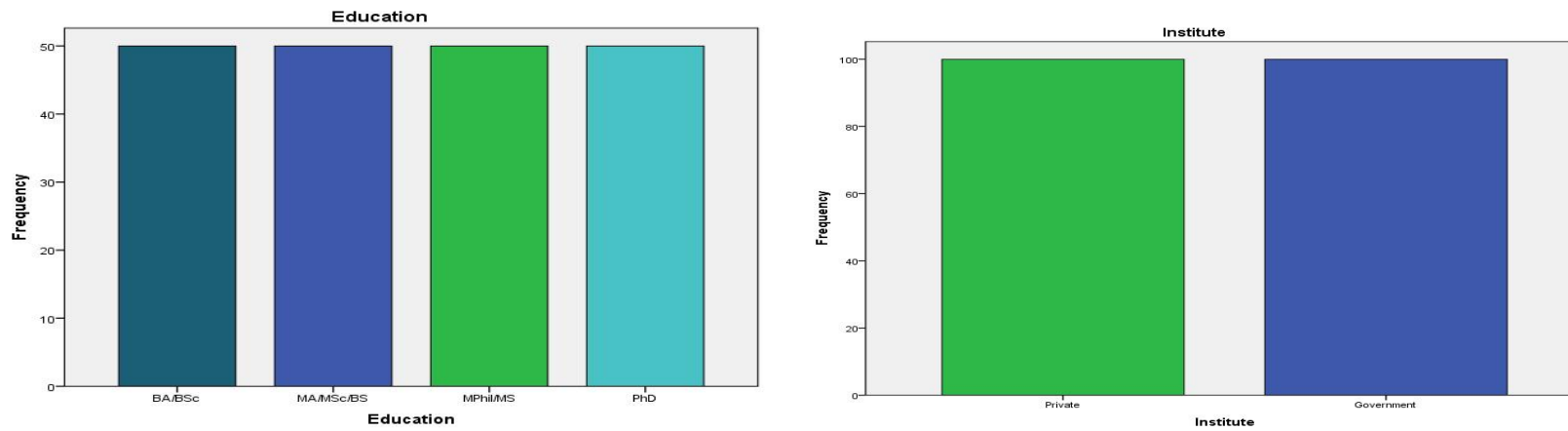


Fig 3: Bar graph of education and institution classification of university students.

Table 2 Descriptive Statistics of Study Variables
Descriptive Statistics

Variable	Mean	SD	Skewness	Kurtosis
Teacher-Student Bond	3.79	0.55	-0.26	0.13
Self-Efficacy	3.42	0.61	-0.34	-0.18
Classroom Engagement	3.71	0.58	-0.29	0.10
Academic Procrastination	2.83	0.66	0.45	-0.32

Table 2 presents the means, standard deviations, skewness, and kurtosis for teacher-student bond, self-efficacy, classroom engagement, and academic procrastination. All variables showed approximately normal distributions, as indicated by skewness and kurtosis values within acceptable ranges. This supports the use of parametric statistical analyses in subsequent tests.

Table 3 Correlation Matrix

Variables	1	2	3	4
1. Teacher-Student Bond	—	.39**	.45**	-.38**
2. Self-Efficacy		—	.42**	-.41**
3. Classroom Engagement			—	-.36**
4. Academic Procrastination				—

Note: $p < .01$

Table 3 displays Pearson's correlation coefficients among the four study variables. Teacher-student bond and self-efficacy both showed significant positive correlations with classroom engagement, and significant negative correlations with academic procrastination. These results suggest that stronger teacher-student relationships and higher self-efficacy are associated with greater engagement and less procrastination among university students.

Table 4 Gender Differences in Key Variables (Independent Samples T-Test)

Variable	Males (M)	Females (M)	T	p
Self-Efficacy	3.51	3.32	2.05	.042*
Academic Procrastination	2.91	2.74	2.12	.035*

*Significant $p < .05$

Table 4 summarizes the results of independent samples *t*-tests comparing male and female students on the study's main variables. Male students reported significantly higher self-efficacy and academic procrastination scores than females.

Table 5 Multiple Regression Predicting Classroom Engagement

- Predictors: Teacher-Student Bond, Self-Efficacy
- $R = .66$, $R^2 = .43$, $F(2,197) = 26.78$, $p < .001$

Predictor	B	SE B	B	t	p
Teacher-Student Bond	0.34	0.07	.33	4.86	<.001
Self-Efficacy	0.29	0.06	.31	4.63	<.001

Table 5 reports the results of a multiple regression analysis examining the predictive value of teacher-student bond and self-efficacy on classroom engagement. Both variables were significant positive predictors, jointly accounting for 43% of the variance in classroom engagement ($R^2 = .43$). This indicates that students with stronger teacher-student bonds and higher self-efficacy are more likely to be engaged in classroom activities.

Table 6 Multiple Regression Predicting Academic Procrastination

- Predictors: Teacher-Student Bond, Self-Efficacy
- $R = .61$, $R^2 = .37$, $F(2,197) = 21.45$, $p < .001$

Predictor	B	SE B	B	<i>t</i>	<i>p</i>
Teacher-Student Bond	-0.26	0.08	-.28	-3.75	<.001
Self-Efficacy	-0.31	0.07	-.33	-4.21	<.001

Table 6 presents the results of a multiple regression analysis predicting academic procrastination from teacher-student bond and self-efficacy. Both predictors were significant negative predictors, together explaining 37% of the variance in procrastination ($R^2 = .37$). Advocates that students with robust teacher student connections and advanced self-efficacy are less likely to procrastinate academically.

DISCUSSION

Teacher-student bond and self-efficacy is crucial in academic performance which plays a vital role. Positive associations between teacher-student bond and classroom commitment bring into line with past research (Furrer & Skinner, 2003) firming the argument that communicative understanding and shared respect in teacher-student connections approve academic contribution, and the negative correlation between teacher-student bond and academic procrastination highpoints how a protected interactive atmosphere may reduce anxiety, upsurge responsibility, and discourage task escaping. Self-efficacy was shown to meaningfully improve classroom engagement and condense procrastination supports Bandura's (1997) theory of self-efficacy and its title role in self-regulation and determination.

Students with strong confidence in their academic capabilities incline to hold academic trials and complete academic chores on time. Results are stable with the meta-analytic conclusions of Steel (2007) who resolute that self-efficacy is a trustworthy forecaster of academic procrastination. Regression analysis proven that both teacher-student bond and self-efficacy were noteworthy forecasters of commitment and procrastination. Both relational and personal factors equally sway students' academic behavior. Findings approve that fostering strong relational bonds and increasing self-efficacy can produce a dual benefit cultivating academic engagement while shortening procrastination tendencies. Gender-based conclusions also discovered that male scholars had higher levels of self-efficacy and procrastination, although the modifications were statistically noteworthy they were modest. Results reflect changing gender socialization designs in assurance and coping approaches. They propose the essential for gender-responsive educational support structures. The study's responses also carry applied implications for instructor's academic institutions and policy creators. Instructors must highlight relationship building through dynamic listening, optimistic reinforcement and open communication. Curricula must embrace exercise components that aim self-efficacy as time management workshops, problem solving everyday jobs and feedback in rich surroundings.

Suggestions for Future Research

Future research should deliberate employing longitudinal or experimental designs to better inaugurate causal relationships between teacher-student bond, self-efficacy, commitment, and procrastination. Expanding the sample to include students from multiple universities and various academic disciplines would improve the generalizability of consequences. Moreover integrating qualitative approaches, such as interviews or focus groups, could deliver deeper insights into students' skills and insights. Future studies may also discover the role of other issues, such as teaching styles, peer relations, or official support, in shaping academic engagement and procrastination. Interventions meant at firming

teacher-student relations and increasing self-efficacy might be advanced and appraised for their usefulness in decreasing academic procrastination.

CONCLUSION

This study highlights the noteworthy characters of teacher-student bond and self-efficacy in endorsing classroom engagement and reducing academic procrastination among university learners. Mutually relational and personal issues jointly impact academic behaviors, highlighting the rank of nurturing helpful educational surroundings and empowering students' self-beliefs. Conclusions recommend that instructors and organizations should arrange relationship-building and self-efficacy improvement plans to recover student engagement and academic outcomes. Factors may add to reducing procrastination and backup students' generally academic achievement. Optimistic impact on classroom engagement and the decrease in academic procrastination reproduce the importance of mixing psychological and relational builds into informative preparation and rehearsal. Teacher exercise programs should highlight the significance of construction relational rapport with students while institutional guidelines must support self-efficacy development complete academic support facilities and skill-building creativities. These conclusions also open paths for future investigation predominantly in discovering longitudinal effects cultural changes and the intervening characters of other psychological variables. Growing our understanding of the aspects that effect academic functioning educational organizations can healthier support their students in realizing both academic achievement and personal growth.

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