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Emotional Intelligence, Goal Orientation, and Academic Achievement: The Mediating Role of Academic Engagement and the Moderating Role of Academic Procrastination

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**BAHIR DAR UNIVERSITY
COLLEGE OF EDUCATION
SCHOOL OF EDUCATIONAL SCIENCES
DEPARTMENT OF PSYCHOLOGY**

**EMOTIONAL INTELLIGENCE, GOAL ORIENTATION, AND
ACADEMIC ACHIEVEMENT: THE MEDIATING ROLE OF ACADEMIC
ENGAGEMENT AND THE MODERATING ROLE OF ACADEMIC
PROCRASTINATION**

**BY
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**OCTOBER 2025
BAHIR DAR**

**BAHIR DAR UNIVERSITY
COLLEGE OF EDUCATION
SCHOOL OF EDUCATIONAL SCIENCES
DEPARTMENT OF PSYCHOLOGY**

**Emotional Intelligence, Goal Orientation, and Academic Achievement:
The Mediating Role of Academic Engagement and the Moderating Role
of
Academic Procrastination**

**A Dissertation Submitted in Partial Fulfilment of the Requirements for
Degree of Doctor of Philosophy in Educational Psychology**

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**October 2025
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DEPARTMENT OF PSYCHOLOGY

DECLARATION

I declare that this proposal entitled **“Emotional Intelligence, Goal orientation and Academic Achievement: The Mediating role of Academic Engagement and The Moderating Role of Academic Procrastination”** is my own work, has not been previously presented for a degree in any other universities and that all sources of materials have been acknowledged properly.

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Approval of Dissertation for Defense

We hereby certify that we have supervised, read, and evaluated this dissertation titled **“Emotional Intelligence, Goal orientation and Academic Achievement: The Mediating role of Academic Engagement and The Moderating Role of Academic Procrastination”** by Derib Gosim Bereded, prepared under our guidance. We recommend the dissertation be submitted for oral defense.

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As members of the the board of examiners, we hereby certify that we have examined this dissertation entitled **“Emotional Intelligence, Goal orientation and Academic Achievement: The Mediating role of Academic Engagement and The Moderating Role of Academic Procrastination”** by Derib Gosim. We hereby certify that the dissertation is accepted for fulfilling the requirements for the award of the degree of “Doctor of Philosophy in Educational Psychology.”

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ABSTRACT

Emotional intelligence and goal orientation have received significant attention in the educational context due to their positive impact on learning outcomes. However, the underlying mechanisms through which these variables influence academic achievement have not been fully explored. This study aims to investigate the relationship among emotional intelligence, goal orientation and academic achievement using academic engagement as a mediator and academic procrastination as a moderator. To address this objective, a correlational research design was utilized. First-year undergraduate students enrolled at Wollo University during the 2023/2024 academic year were the target population. 1351 students were selected using stratified random sampling. The TEIQue-SF, Goal orientation scales, UWES-S and Academic procrastination scales were used to collect data. First semester Grade Point Average was used as a measure of academic achievement. Partial Least Squares Modeling was used to test the hypothesized relationship. The findings revealed significant direct positive effect of Trait EI and goal orientation on academic achievement. Academic engagement partial mediated the relation between Trait EI, goal orientation and academic achievement. Both passive and active academic procrastination significantly moderated the relationship between Trait EI and academic achievement, while passive procrastination moderated the relationship between goal orientation and academic achievement. These imply that the positive influence of Trait EI and goal orientation on academic achievement is strengthened by academic engagement and also depends on students' procrastination habits. It is suggested that interventions that promote students' EI skills, mastery and performance approach goals and students' academic engagement need due attention to improve students' academic achievement

Keywords: Academic achievement, Academic engagement, Emotional intelligence, Goal orientation, Procrastination

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ABBREVIATIONS AND ACRONYMS

AA	Academic Achievement
AE	Academic Engagement
AMOS	Analysis of Moment Structures
AP	Academic Procrastination
EI	Emotional Intelligence
GO	Goal orientation
GPA	Grade Point Average
MSCEIT	Mayer-Salovey-Caruso Emotional Intelligence Test
OECD	Organization for Economic Co-operation and Development
SAT	Scholastic Aptitude Test
SEM	Structural Equation Modelling
SPSS	Statistical Package for Social Sciences

CHAPTER 1: INTRODUCTION

1.1. Background of the Study

Research evidences indicate that factors that influence academic achievement span across cognitive and non-cognitive domains. Numerous studies have identified cognitive abilities such as previous academic performance and standardized test scores as a valid predictor of academic success at various levels of education (Adebayo, 2008; Parker et al., 2004; Schmitt et al., 2009). For example, Komarraju et al. (2013) reported that 13% and 11% of the variance in college GPA was explained by standardized test scores and high school performance respectively. Naderi et al. (2010) also found correlation of ($r = 0.50$ to 0.70) between intelligence score and academic achievement.

However, other studies have shown that the predictive power of cognitive variables considerably drops as students proceed to higher levels of education (Parker et al., 2004; Rulida et al., 2024; Tikhomirova et al., 2020). For example, Anastasia as cited in Ackerman et al. (2011) indicated that the correlations between intelligence and academic achievement decline from $r = .70$ in elementary school to $r = .50$ in secondary school and to $r = .40$ in college. In their meta- analysis studies, Richardson et al. (2012) found a correlation of .21 between cognitive ability and academic achievement across 35 studies among university students. Other studies have reported a maximum correlation of $r = 0.50$, indicating that the predictive power of cognitive ability has never exceeded 25% (Bergold & Steinmayr, 2018; Rohde & Thompson, 2007). Research findings suggest that students may need other factors along with cognitive abilities to succeed and thrive

academically, especially in demanding context of higher education (Babamba et al., 2024; MacCann et al., 2020; Sultanova et al., 2024).

Among these factors, emotional intelligence has emerged as a robust predictor of academic performance in higher education (Ferrando et al., 2011; MacCann et al., 2020; Martínez et al., 2019). Emotional intelligence plays a paramount role in students' academic achievement, as it influences their ability to manage and regulate emotions and successfully navigate challenges in educational settings (MacCann et al., 2020).

Emotional intelligence is broadly defined as non-cognitive competencies that include both emotionally and socially intelligent behaviours (Goleman, 2001). Others describe EI as a personality trait that highlight individuals' perceived ability to identify, interpret, and use emotion-laden information (Petrides & Furnham, 2001). Furthermore, several scholars view EI as a subset of social intelligence, emphasizing individuals' capacity to recognize and manage their own emotions, as well as those of others, and use emotional information to guide thoughts and action (Mayer et al., 2008).

The contribution of emotional intelligence to academic performance in higher education was supported by many scholars citing a number of reasons (MacCann et al., 2020; Rode et al., 2007). For instance, academic life at the university level is diverse and is often stress-inducing, requiring students to develop self-management and self-control skills (Rode et al., 2007). Emotional intelligence equips students with the skills to manage negative emotions and cope with stressful events that arise in the academic settings of higher education (MacCann et al., 2020). Students with high EI are more resilient,

adapting more easily to changes, reacting better under stressful conditions, and coping with challenges (Schneider et al., 2013).

Students with higher EI are better able to manage the social world around them, forming strong relationships with teachers and peers, which may directly or indirectly influence academic performance (MaCconn et al., 2020). Intrapersonal related skills such as motivation and self-regulation, along with interpersonal abilities such as building social networks and working in teams are important skills at the level of higher education (Sánchez-álvarez et al., 2020).

However, despite the potential benefits of EI, there is lack of consensus among educators regarding the link between EI and academic performance (Estrada et al., 2021). For instance, while some evidences have supported the direct effect of emotional intelligence on students' academic achievement (Ferrando et al., 2011; Martínez et al., 2019; Petrides et al., 2004), others have argued that, as an affective trait, EI may not directly influence academic achievement (Chang & Tsai, 2022;; Maguire et al., 2017; Mavroveli & Sánchez-Ruiz, 2011; Thomas & Allen, 2021). Instead, EI may enhance academic success by facilitating the various factors that positively influence academic achievement through different mechanisms (Thomas & Allen, 2021).

One of the mechanisms through which EI influences academic achievement is academic engagement. For example, higher levels of EI among learners can lead to increased effort, attention, and persistence, as well as the effective completion of academic tasks (Thomas & Allen, 2021). Emotional intelligence has also emerged as a valuable personal asset to promote academic engagement (Akhtar et al., 2015; Maguire et al., 2017), thereby

enhancing academic performance by encouraging students to actively engage in academic tasks (Thomas & Allen, 2021).

Academic engagement, often described as an affective and motivation-related variable, functions as an important mediator between personal resources and performance outcomes (Nieto-Carracedo et al., 2024; Schaufeli et al., 2002). However, few studies have examined the mediating role of academic engagement in the relationship between EI and academic achievement. These studies have demonstrated that there is no direct relationship between EI and academic achievement (Perera & DiGiacomo, 2015). Nevertheless, EI has been shown to significantly impact academic success by increasing students' engagement in academic tasks (Dehyadegary et al., 2012). In other words, EI affects students' academic performance by influencing their involvement in academic activities (Maguire et al., 2017).

However, this type of mediation analysis has been carried out in Western countries, and the issue has not been thoroughly explored in non-Western cultures (Estrada et al., 2021; Maguire et al., 2017). Furthermore, studies investigating the relationship between EI and academic achievement, as well as the mediating role of academic engagement in this relationship, are notably scarce in the Ethiopian context. Therefore, this study aims at addressing this gap by exploring the relationship between these two variables, with academic engagement serving as a mediator among undergraduate university students.

Another variable that affects the relationship between EI and academic achievement is academic procrastination (Wasim et al., 2021). Procrastination is the tendency to postpone works and tasks that can be done today to the following day (Deniz et al.,

2009). Specifically, academic procrastination involves the act of delaying academic tasks until the last period of examination time or submission date of assignments (Harriot & Ferrari, 2015).

Many researchers consider procrastination as dysfunctional and maladaptive behaviour that leads to negative outcome such as lower academic performance, reduced well-being and higher stress and anxiety (Gareau et al., 2019; Hen & Goroshit, 2014). On the other hand, researchers have begun to argue that procrastination is not always negative (Choi & Moran, 2009; Chu & Choi, 2005; Kim & Seo, 2015; Schraw et al., 2007). For example, Chu and Choi (2005) proposed two distinct types of procrastination- passive and active- to challenge the traditionally held view that procrastination is entirely maladaptive.

Passive procrastination, in its traditional sense, indicates individuals' failure to guide their thinking and actions (Zohar et al., 2019). Individuals exhibiting passive procrastination tend to struggle with negative emotional states such as stress, guilt, and depression (Chua et al., 2025). Passive procrastination is a self-destructive process in which self-doubt, anxiety, and distress accompany with failure in completing tasks and meeting deadlines (Zohar et al., 2019). It is derived from poor self-regulation, impulsiveness and less effective coping strategies with negative emotions and stress (Sanecka, 2020).

Hence, individuals' emotional state and their capacities to regulate it are key factors in understanding their procrastination tendencies. For example, Hen and Gohrist (2014) explained that EI abilities can function as an emotional self-regulatory mechanism that may serve to decrease passive academic procrastination. Evidence also suggests that

students with higher level of emotional intelligence tend to show lower procrastination tendencies, whereas lower levels of EI are linked to higher levels of passive procrastination (Rumahlewang & Latar, 2020; Klassen et al., 2008).

On the other hand, active procrastination is considered as an adaptive and productive coping strategy and a motivational resource (Zohar et al., 2019). Active procrastinators are more aware of their own emotions and those of others, and are better able to manage themselves and avoid distress. They also tend to be more goal-oriented, responsible, resourceful, and self-accepting (Zohar et al., 2019).

Active procrastinators are more similar to non-procrastinators in terms of purposful use of time, control of time, self-efficacy belief, coping styles, and academic performance (Chu & Choi, 2005). Active procrastination can be viewed as a planned, purposeful time and self-management strategy (Zohar et al., 2019). Schraw et al. (2007) stated that working within tightly controlled time limits fosters concentrated effort and eliminates distractions. They also indicated that working in short intervals enhances motivation, makes boring academic tasks more engaging and challenging, and promotes a sustained state of flow.

Emotional intelligence may contribute to active procrastination while reducing the effect of passive procrastination (Zohar et al., 2019). Students with high EI are more likely to approach tasks with confidence, are better at stress management, and are more likely to perform better academically (Villegas-Puyod et al., 2021). Conversely, students with low EI may struggle with self-regulation and engage in passive procrastination, which leads to poor learning outcomes (Chua et al., 2025). Students with high procrastination

tendencies tend to use self-handicapping strategies such as avoiding a task or setting lower goals. They tend to struggle to regulate their behaviour and subsequently fail to complete their academic tasks effectively (Park & Sperling, 2012).

By addressing both emotional intelligence and academic procrastination together, educational institutions can better support students in achieving their academic goals (Pathak & Kumari, 2024). However, despite numerous studies exploring the effects EI and academic procrastination on academic achievement independently, the specific mechanisms underlying the interactions between EI and academic procrastination have not yet been clearly understood. Recent studies have suggested further exploration of the underlying mechanism through which EI and academic procrastination influence academic performance (Zhang et al., 2024). Therefore, this study aims to explore the moderating role of academic procrastination in the relationship between emotional intelligence and academic achievement.

Furthermore, investigating the association between EI and academic procrastination using the theoretical model developed by Chu and Choi (2005) may provide insights into the adaptive and maladaptive aspects of procrastination in relation to academic achievement.

Goal orientation that students adopt in the learning process also plays a significant role in students' academic achievement (Alasqah, 2022). It can guide, direct and maintain students' behaviour when they are involved in academic work (Elliot & McGregor, 2001; Kaplan & Maehr, 2007; Kavitha & Suthanthiradevi, 2022). Goal orientation theory has become the most influential theory to explain and predict the direction and intensity of individuals' behaviour in achievement-related situations (Chen & Wong, 2014). It

reflects the underlying motives that drive students' academic achievement (Luo et al., 2024).

Since its conception, several theoretical models have been developed to interpret goal orientation. Initially, a two-factor model consisting of mastery and performance goal orientation was proposed (Dweek, 1986). Later, Elliot and Church (1997) proposed a three-factor model of goal orientations, which includes mastery goals, performance approach, and performance avoidance goal orientations. Lastly, Elliot and McGregor (2001) proposed a four-factor model which includes mastery approach, performance-approach, performance-avoidance, and mastery-avoidance goals.

The model developed by Elliot and Church (1997) was adopted for this study for several reasons. Research evidence indicates that the three-factor model, which consists of mastery, performance-approach, and performance-avoidance goal orientations, is one of the most empirically tested and validated models of goal orientation (Gong, 2024; Bong, 2008). Moreover, this model is well-developed in terms of its assessment instruments (Costa et al., 2022). Consequently, the three-factor model became and continues to be one of the most frequently applied frameworks to study achievement motivation (Dinger et al., 2013).

Students with mastery-approach goals are motivated by the desire to learn, understand, develop competencies, and acquire skills, while performance-approach oriented students are primarily motivated by the derive to outperform others and demonstrate superior performance relative to others (Datu & Park, 2019). Performance avoidance-oriented

students are motivated to avoid demonstrating incompetence to others and to prevent performing poorer than others (Darnon et al., 2022).

Several studies have investigated the relationship between goal orientation and academic achievement. However, the empirical evidence regarding this relationship seems less clear. For example, while some researchers have reported a positive association between mastery approach goals and academic achievement (Chen & Wong, 2014; Dinger et al., 2013; Frumos et al., 2024; Li et al., 2021), others have failed to identify mastery approach goals as a significant predictor of academic performance (Neroni et al., 2018). Similarly, mixed findings have emerged regarding performance-approach goal orientation: some studies found a positive associations between performance-approach goals and academic achievement (Darnon et al., 2022; Neroni et al., 2018; Dinger et al., 2013), while others found no correlation (King & Mcinerney, 2014) or negative association between these two variables (Hsieh & Sullivan, 2007; Luo et al., 2013)

Moreover, although performance-avoidance goals are generally regarded as negative predictors of achievement (Dinger et al., 2013; Luo et al., 2013; Neroni et al., 2018), recent studies have revealed that these goals were positively and significantly related to academic achievement (Frumos et al., 2024).

Such inconsistent results may be attributed to the presence of potential mediator and moderator variables between goal orientation and academic achievement (Darnon et al., 2022; Frumos et al., 2024; Honicke et al., 2019; Yperen et al., 2014). In particular, the specific mechanism through which goal orientation influences academic achievement is

not always straightforward; instead, there may be other intervening variables between goal orientation and academic achievement (Dull et al., 2015).

For example, Dupeyrat and Mariné (2005) demonstrated that mastery goals had a positive influence on academic achievement through deep cognitive engagement and effort expenditure. Greene and Miller (1996) in their study reported that mastery goals influenced meaningful cognitive engagement. Similarly, Harackiewicz et al. (2000) demonstrate that mastery-approach orientation has been linked to several adaptive learning behaviors, such as task engagement, and deep processing of course material, which are supposed to enhance academic performance. Students with mastery goals engage longer and work harder in academic tasks (Mih et al., 2015). That is, students who strongly adopted mastery-approach goals were more involved and engaged in their academic task, which subsequently led to higher academic achievement among primary school students (Putwain et al., 2018).

Moreover, because students with a mastery goal orientation are more intrinsically motivated to learn, they are less likely to engage in maladaptive behaviors such as academic procrastination (Dehghani et al., 2024; Howell & Watson, 2007). Individuals with mastery-approach goals consider effort as the most important means to achieve success and exhibit high self-regulation (Dehghani et al., 2024). Thus, any factor facilitating self-regulation reduces procrastination (Klassen et al., 2008). Therefore, it is important to encourage students to adopt mastery approach goal orientations to decrease the negative effect of academic procrastination on academic performance (Dikmen & Bahadir, 2021).

Performance-approach goals have been associated with both positive and negative outcomes. For example, performance-approach oriented students strive more to outperform their counterparts (Bipp & van Dam, 2014; Elliot & McGregor, 2001). They will work hard and put a lot of effort into academic activities to surpass their peers (Dehghani et al., 2024; Pintrich et al., 2000). Performance approach goals positively predicted adaptive learning variables, such as use of deep cognitive strategies (Barzegar, 2012), academic engagement (Dehghani et al., 2024; Putwain et al., 2018), and graded performance (Barzegar, 2012; Elliot et al., 1999; Gonida et al., 2009). In other studies, performance approach goal orientations are linked with maladaptive learning behaviors, such as preference for less challenging tasks, using more surface-level processing strategies, and giving up when faced with difficulty, which adversely affect academic achievement (Barzegar et al., 2012; Wolters, 2003).

Conversely, performance-avoidance goals have been correlated with a host of negative outcomes such as disorganized and surface-level processing strategies (Howell & Watson, 2007; Wang et al., 2017), effort withdrawal (Gonida et al., 2009), and reduced learning engagement (Wang et al., 2017), and more procrastination behaviors (Dikmen & Bahadir, 2021; Howell & Watson, 2007).

From the aforementioned empirical evidence, it appears that the relationship between goal orientation and academic achievement depends on other intervening variables. Therefore, it is plausible to examine the mediating role of academic engagement (Dikmen & Bahadir, 2021; Putwain et al., 2018) and the moderating role of academic procrastination (Dikmen & Bahadir, 2021) in the relationship between goal orientation and academic performance.

1.2. Statement of the Problem

Academic achievement is a key outcome of instruction that equip students with the desired knowledge, skills, and attitudes (Babamba et al., 2024). Students who excel academically are more likely to be selected for advanced studies and have greater employment opportunities and career prospects (Ramothonyana et al., 2024). It serves as an index of performance directly relevant to training and employment opportunities (Hongum et al., 2024). For example, graduates with outstanding academic records are highly demanded by governmental and non-governmental organizations (Tadess, 2020). Therefore, students' academic performance has remained as the top priority for all stakeholders (Jan & Anwar, 2019).

Despite these benefits, low academic achievement has become a concern among educators, teachers, families, and the general public in many countries, including Ethiopia. For example, OECD (2016) stressed that significant numbers of students across the world were trapped in a vicious circle of poor academic performance. Due to personal, social, academic, and institutional factors, poor academic performance has become a growing concern among many countries in Africa (Olatumji et al., 2016). For example, it remains a pressing issue in Kenya where many students consistently perform poorly in public examinations both at primary and secondary school levels (Karimi et al., 2020). Similarly, in South Africa, more than 70% of students did not achieve the minimum result required for University entrance in the national senior certificate (NSC) examinations (Adebayo et al., 2020).

Similarly, in Ethiopia, low academic achievement has been consistently observed from the primary to the tertiary level. For example, the successive national learning assessment of grades 10 and 12 confirmed that the mean score of students' achievements was below 50% (below the minimum expected score) (MoE, 2010, 2014, 2017). According to MoE (2023), most students scored below 50% in secondary school leaving examination (the minimum score expected to enter higher education).

Correspondingly, a significant number of students in higher education did not perform well in their academics (Animaw et al. 2022). For example, evidence from Jimma University showed that of the 2006 first-year sample students, about 28 % of them failed and 13 % of them were academically dismissed during first semester (Aemero & Kinde, 2011). Recently, a study conducted by Mesfin et al. (2022) revealed that only two-thirds (66%) of university students score good academic grades, while an increasing number of students did not perform well academically in Hawassa University. According to Mickiale et al (2024), one - third of students in eastern Universities (Dire Dawa, Haromaya, and Jigjiga University) demonstrated poor academic performance

In identifying factors contributing to poor academic achievement, cognitive-related factors such as standardized test scores and GPAs have long been used as important indicators of academic success (Afridi et al., 2021). However, educators recently recognized the potential contribution of emotional intelligence and motivation-related variables such as goal orientation, in enhancing students' learning outcomes (Afridi et al., 2021; Alasqah, 2022; MaCcann et al., 2020). Therefore, this study aims to explore the potential effects of emotional intelligence and goal orientation on the academic achievement of first-year undergraduate university students.

Emotional intelligence includes a wide range of emotional and interpersonal abilities that allow learners to sustain high levels of academic achievement (Brackett et al., 2011). Emotionally intelligent students demonstrate enhanced interpersonal, intrapersonal, and stress management capabilities vital for academic success (Villegas-Puyod et al., 2021). They demonstrated higher achievement motivation, improved problem-solving and planning skills, and had a positive attitude toward learning, all of which contribute to academic success (Jan & Anwar, 2019).

Accordingly, several studies have been conducted to examine the relationship between EI and academic achievement. However, the empirical evidence regarding this relationship remains unclear. For example, some researchers demonstrated a strong positive association between the two variables (Fallahzadeh, 2011; Suleman et al., 2019), while others reported no significant relationship between EI and academic achievement (Abu Alkhayr et al., 2022; Zirak & Ahmadian, 2015). Some studies reported a negative relationship between EI and academic achievement (Bilimale et al., 2024; Shah et al., 2014), whereas others claimed that, being an emotional trait, EI is not directly associated with academic achievement (Mavroveli & Sánchez-Ruiz, 2011). Instead, EI may contribute to academic success by facilitating various factors that positively affect academic achievement through different mechanisms (Thomas & Allen, 2021).

One such mechanism by which EI exerts its influence on academic achievement is academic engagement, which serves as a key mediator between these two variables (Maguire et al., 2017; Estrada et al., 2021). For example, the role of EI in students' academic achievement becomes more evident when mediated by academic engagement (Maguire et al., 2017). EI is a significant personal factor that plays a crucial role in

maintaining positive attitudes and fostering academic engagement, thereby enhancing academic performance (Akhtar et al., 2015). EI may influence academic performance because the dispositional tendencies of EI, such as positive emotionality, self-control, and self-motivation, may serve as adaptive mechanisms that contribute to sustained and directed effort to achieve academic goals (Perera & DiGiacomo, 2015).

In addition to fostering academic engagement, EI also plays a critical role in influencing academic procrastination which is another key factor that influences students' academic performance. For instance, the emotional knowledge and skills empower students to stay motivated and engaged in their academic activities by helping them to manage and overcome procrastination tendencies (Heward, 2010). In this regard, enhancing emotional intelligence can help students become more productive and achieve more academically by reducing their procrastination behaviour (Sureka & Nethravathi, 2020). On the other hand, students with lower emotional intelligence are more prone to academic procrastination; as a result they achieve low course grades (Mazhar et al., 2021).

Emotional intelligence equips students with the skills to manage negative emotions associated with academic tasks, such as anxiety and stress, thereby reducing the likelihood of resorting to procrastination as a coping mechanism (Duru & Balkis, 2017). Conversely, an increase in procrastinated behaviours tends to reduce an individual's ability to regulate negative emotion (Eckert et al. 2016). Procrastination is highly linked to a lower level of self-control and self-regulation (Hen & Goroshit, 2014; Sirois, 2014) and to a higher level of anxiety, stress, and depression (Gareau et al, 2018). Students who struggle to regulate their emotions may procrastinate as a way to avoid the negative feelings associated with academic tasks (Pathak & Kumari, 2024).

Therefore, examining the connection among EI, academic engagement, academic procrastination, and academic achievement could help educators, curriculum designers, and teachers develop comprehensive and evidence-based interventions and instructional strategies to enhance students' academic achievement (Hen & Goroshit, 2018; Maguire et al., 2017; Pathak & Kumari, 2024).

However, except for a few previous studies that have examined the mediating role of academic engagement in the relationship between EI and academic achievement (Maguire et al., 2017, Estrada et al., 2021), most previous studies have primarily focused on investigating either the direct relationship between EI and academic achievement (Bilimale et al., 2024; Fallahzadeh, 2011; Suleman et al., 2019; Shah et al., 2014; Zarak & Ahmadian, 2015) or the link between EI and academic engagement (Bandi & Mishra, 2021; Zhoc et al., 2020).

Similarly, in the Ethiopian context, studies have been carried out on the direct correlation between EI and academic achievement, giving little attention to the processes that facilitate this relationship (Dagne & Belay, 2024; Wossen, 2021; Melese, 2018). Hence, further research into the mediating role of academic engagement in the relationship between EI and academic achievement is essential.

Moreover, existing studies on EI and academic procrastination have predominantly focused on investigating the overall effect of emotional intelligence on procrastination behaviour. Possessing high emotional intelligence provides individuals with the skills to navigate and cope with the negative emotions accompanying academic procrastination. In support of this, Hen and Gohrist (2014) depicted that EI abilities can function as an

emotional self-regulatory mechanism that may serve to decrease academic procrastination. Similarly, Eckert et al. (2016) indicated that individuals with the ability to regulate negative emotions could reduce subsequent procrastination behaviour.

On the other hand, evidence has suggested that lower levels of self-regulation are linked to higher levels of procrastination (Klassen et al., 2008). An increase in procrastinated behaviours also reduced an individual's ability to regulate negative emotion (Eckert et al. 2016). In this context, students who struggle to regulate their emotions may procrastinate as a way to avoid the negative feelings associated with academic tasks (Pathak & Kumari, 2024).

More recently, researchers have begun to explore the different roles of EI for passive and active procrastinators (Kim et al., 2017; Zohar et al, 2019). Specifically, while passive procrastination is a failure to guide one's thinking and actions, active procrastination is considered as a strategic behaviours grounded in a strong understanding of one's own emotional, motivations and other personal resources (Zohar et al, 2019). Thus, due to multifaceted nature of academic procrastination, the relationship between emotional intelligence and academic procrastination appears to be more complex than previously assumed (Pathak & Kumari, 2024). Therefore, to advance this issue, testing the relationship between emotional intelligence, academic procrastination and academic achievement warrants future investigation.

The way students approach their academic goals also plays a significant role in influencing their academic achievement (Chen & Wong, 2014). Goal orientations as motivational variables that students adopt in learning contexts have emerged as a critical

variable that significantly affects students' academic achievement (Alasqah, 2022). In line with this, a growing body of research has explored the interplay between goal orientation and academic achievement (Frumos et al., 2024; Duchesne et al., 2017; Diaconu-gherasim & Măirean, 2016; Luo et al., 2024; Suprayogi et al., 2019). However, findings remain inconclusive. For example, Luo et al. (2024) emphasized that since goal orientations represent the underlying purposes and motivations for engaging in academic tasks, they have a significant influence on academic performance. In contrast, Diaconu-Gherasim and Măirean (2016) reported an insignificant association between goal orientation and academic achievement. Others, such as Suprayogi et al. (2019) and Frumos et al. (2024) have also found a significant relationship, but with only a small effect size.

Similarly, studies on the effect of different dimensions of goal orientation have produced mixed results. For example, in some studies, the relationships between mastery goal orientation and academic achievement have been found to be positive (Suprayogi et al., 2019; Chen & Wong, 2014), while several other studies failed to report any significant relationship between these two variables (Harackiewicz et al., 1997; Neroni et al., 2018). Furthermore, some others claimed that mastery goals may not be directly associated with academic achievement (Mih et al., 2015; Senko & Mile, 2008). The effect of performance goals on academic achievement is also debatable. For example, while Neroni et al. (2018) found performance approach goal orientation to be a positive predictor of academic performance, Mattern (2005) and Keys et al. (2012) reported that performance approach goals were not significantly related to course grades. Similarly, several studies have examined performance-avoidance goals in relation to academic

achievement and have also reported inconsistent results. For example, Barzegar (2012) reported that performance-avoidance goals negatively predicted academic achievement. In contrast, Keys et al. (2012) reported that performance-avoidance goal orientations did not significantly predict academic achievement. Li et al. (2021) found a negative correlation between performance avoidance goal orientation and academic performance. However, contradicting these findings, Frumos et al. (2024) reported a positive and significant relationship between performance avoidance and academic achievement.

On the other hand, some researchers have argued that goal orientations as a motivational variable may not directly predict academic achievement; their effect are often influenced by other motivational and engagement-related factors (Gonida et al., 2009; Frumos et al., 2024; Mih et al., 2015). For example, students with mastery goals engage longer and work harder in academic tasks (Mih et al., 2015). Similarly, Dupeyrat and Mariné (2005) demonstrated that mastery goals positively influenced academic achievement by mediating effort expenditure. Furthermore, Gonida et al. (2009) indicated that students with mastery goals develop behaviours such as spending more time on a task, preferring challenging tasks, persisting in the face of difficulties, and greater effort expenditure. Students pursuing these goals, due to their high level of academic engagement, perform well in exams and assignments, assessing at a deeper level of understanding of the material (Midgley et al., 2001). In contrast, students with performance avoidance tend to display work avoidance and effort withdrawal behaviours, which are negatively associated with graded performance (Gonida et al., 2009). Therefore, investigating the underlying mechanism by which goal orientation influences academic achievement remains worthwhile.

Procrastination is also another outcome variable that may be associated with motivational factors such as goal orientation in the academic domain (Cao, 2012). Students who reported higher levels of procrastination were less likely to adopt mastery-approach goals and use metacognitive strategies (Corkin et al., 2011). Conversely, students who are less likely to procrastinate endorsed a strong mastery goal orientation and are more likely to achieve academically (Van Eerde & Klingsieck, 2018). On the other hand, students who are more likely to procrastinate tend to avoid putting forth effort on their academic tasks, which consequently affects their graded performance (Howell & Buro, 2009).

Research suggests that mastery and performance goals are negatively correlated with procrastination, as they promote effective self-regulation, while performance-avoidance goals are positively linked to procrastination, as they involve self-regulatory processes that are incompatible with task engagement and academic achievement (Afrashteh & JanJani, 2024).

Moreover, goal orientations as motivational factors also differ between passive and active procrastinators (Corkin et al., 2011). For instance, mastery-approach goals positively predict non-procrastination behavior, while performance avoidance goals and performance approach goal orientation positively predict passive procrastination and active procrastination, respectively (Morale, 2021). Mastery-approach goal orientation is also found as a negative predictor of both passive and active procrastination (Corkin et al., 2011; Howell & Buro, 2009; Howell & Watson, 2007). That is, both passive and active procrastinators are not primarily motivated by the desire to enhance their knowledge. According to Corkin et al. (2011), students who actively delayed were less

likely to adopt performance avoidance goals (the goal of avoiding the demonstration of appearing inferior to others). In other words, students who engage in active procrastination tend to exhibit low avoidance tendencies.

As already noted, considerable research has established the direct relationship between goal orientation and academic achievement as well as goal orientation and academic procrastination. However, there is a critical dearth of studies regarding academic engagement as a potential mediator between goal orientation (mastery, performance approach, and performance avoidance) and academic achievement. Moreover, it is not clear whether academic procrastination influences the relationship between goal orientation and academic achievement.

Studies conducted in Ethiopia have focused on exploring the relationship between goal orientation and academic achievement by including additional variables such as learning strategies, classroom goal structure, and intrinsic motivation. For instance, Mohammed (2012) assessed the relationship between achievement goal orientations, approaches to learning and academic achievement. Kifle and Melese (2017) explored goal orientation as a predictor of academic achievement of college students. Abebe (2015) examined how classroom goal structure and students' goal orientation relate to students' academic effort and intrinsic motivation of middle school students.

Similarly, several studies on academic procrastination have been conducted in Ethiopia. For example, Yared et al. (2022) investigated academic procrastination behavior among public university students. Tiruwork (2008) examined the relationship between academic procrastination and causal perception in the context of Ethiopian high school students. Abera (2010) conducted a study to assess the prevalence of academic procrastination and

its correlation with academic performance. But the investigations of goal orientation in relation to academic engagement, academic procrastination, and academic achievement are very scanty. Therefore, the present study is designed to investigate the relationship between goal orientation, academic engagement, procrastination, and academic achievement among first-year undergraduate University students.

1.3. Research Objectives

The major aim of the study was to investigate the mediating role of academic engagement and the moderating role of academic procrastination in the relationship between Trait EI and academic achievement and between goal orientation and academic achievement among first- year undergraduate university students.

More specifically, this study was conducted to:

1. Examine the role of Trait EI (self-control, sociability, well-being and emotionality), goal orientation (mastery, performance-approach and performance-avoidance) and academic engagement on academic achievement of first year undergraduate university students?
2. Examine the role of Trait EI (self-control, sociability, well-being and emotionality) and goal orientation (mastery, performance-approach and performance-avoidance) on academic engagement of first year undergraduate university students?
3. Examine the mediating role of academic engagement in the relationship between Trait EI (self-control, sociability, well-being and emotionality) and academic achievement of first-year undergraduate university students.

4. Examine the mediating role of academic engagement in the relationship between goal orientation (mastery, performance-approach and performance-avoidance) and academic achievement of first-year undergraduate university students.
5. Examine the moderating role of academic procrastination (passive and active) in the relationship between Trait EI (self-control, sociability, well-being and emotionality) and students' academic achievement.
6. Examine the moderating role of academic procrastination (passive and active) in the relationship between goal orientation (mastery, performance-approach and performance-avoidance) and students' academic achievement.

1.4. Research Questions

To achieve the study objective, the following research questions were formulated:

1. Do Trait EI (self-control, sociability, well-being and emotionality), goal orientation (mastery, performance-approach and performance-avoidance) and academic engagement have an independent contribution to academic achievement of first year undergraduate university students?
2. Do Trait EI (self-control, sociability, well-being and emotionality) and goal orientation (mastery, performance-approach and performance-avoidance) have an independent contribution to academic engagement of first year undergraduate university students?
3. Does academic engagement mediate the relationship between Trait EI (self-control, sociability, well-being and emotionality) and academic achievement of first-year undergraduate university students?

4. Does academic engagement mediate the relationship between goal orientation (mastery, performance-approach and performance-avoidance) and academic achievement of first-year undergraduate university students?
5. Does academic procrastination (passive and active) moderate the relationship between Trait EI (self-control, sociability, well-being and emotionality) and academic achievement of first-year undergraduate university students?
6. Does academic procrastination (passive and active) moderate the relationship between goal orientation (mastery, performance-approach and performance-avoidance) and academic achievement of first-year undergraduate university students?

1.5. Operational Definition of Terms

Trait Emotional Intelligence: refers to a group of interrelated social and emotional competencies students possess (as listed below) that can be measured using the Trait Emotional Intelligence Questionnaire (TEIQue-SF) on the following factors.

- **Sociability:** refers to students' ability to establish effective relationships with their peers and teachers.
- **Well-being:** refers to students' abilities to lead a happy and successful university life
- **Self-control:** refers to students' ability to control their emotions and impulses
- **Emotionality:** refers to students' ability to sense and express emotion.

Goal orientation: In the present study, goal orientation is defined in terms of mastery, performance-approach and performance-avoidance goal, as measured by students' responses to these dimensions.

- **Mastery goal orientation:** Refers to the extent to which students rate themselves as being motivated to develop their knowledge, understanding, or skill level.
- **Performance-approach goal orientation:** Refers to the extent to which students indicate that they are motivated to perform better than their peers.
- **Performance-avoidance goal orientation:** Refers to the extent to which students focus on avoiding the perception of incompetence in front of others.

Academic engagement: is defined as the level of energy, commitment, and immersion that students have with their academic work, and it is measured using the UWES-S self-report, which includes:

- **Vigor:** Refers to the extent to which students exert a high level of mental strength and energy to work hard while studying.
- **Dedication:** Refer to the extent students are committed to their academic work as indicated by their passion, feeling of purpose, and sense of inspiration.
- **Absorption:** Refers to the extent to which students are fully concentrated and completely immersed in their academic work.

Academic Procrastination: refers to students' tendency to delay academic tasks such as studying for exams and submitting assignments.

- **Passive academic procrastination:** Refers to procrastination in the traditional sense in which students show tendencies to delay academic tasks due to their failure to begin their tasks.

- **Active academic procrastination:** Refers to students' tendencies to delay academic tasks to save their energy for working under time pressures.

Academic achievement: Refers to students' first-year Cumulative Grade Point Average (GPA)

1.6. Delimitation of the Study

The present study focuses on exploring the effect of emotional intelligence, goal orientation, academic engagement, and academic procrastination on the academic achievement of first-year regular undergraduate students at Wollo University. To get comprehensive data, it would have been better if the study had included participants from public universities across the Amhara region. However, due to time and budget constraints, the study is limited to Wollo University. The reason why the researcher selected Wollo University is that the researcher is a staff member, which would make the data gathering procedures easier and facilitate the possible design of intervention strategies (if any) based on the findings of the study. Moreover, only first-year students were selected because freshman year is emotionally- challenged and represents a period of emotional, social, and academic adjustment to the university environment that could adversely affect academic achievement. Given the different perspectives on the study variables, the present study delimited its focus to: the model of trait emotional intelligence developed by Petride (2009) which comprises four dimensions (well-being, self-control, sociability and emotionality); the academic engagement that comprises three dimensions (vigor, dedication, and absorption) developed by Schaufeli et al (2002); the three types of goal orientation (mastery, performance and avoidance) proposed by Elliot & Church (1997); and academic procrastination as proposed by Choi and Moran (2009).

1.7. Significance of the Study

This study aims at shedding light on the relationships among emotional intelligence, goal orientations, academic engagement, procrastination, and academic achievement among undergraduate University students, as well as the potential mediating role of academic engagement and the moderating effect of academic procrastination on these relationships. The findings of this study may be beneficial to students, teachers, universities, and educational planners and developers at large.

The knowledge that students gain from this study will enable them to make effective use of emotional information. This study equips students with better tools to deal with emotionally driven factors that may interfere with their ability to learn. The study can help students recognize their own and others' emotions, thereby fostering their ability to adjust to the academic environment of higher education. In addition this will help students in acquiring social skills necessary for effective intrapersonal and interpersonal communication.

This study also provides teachers with useful information on the important role that emotional intelligence plays in student learning. For example, when developing and choosing instructional methods, assessment and evaluation techniques, teachers may consider incorporating the concept of emotional intelligence, goal orientations, academic engagement, and academic procrastination.

The study also urges academic institutions and curriculum designers to design intervention strategies that emphasize the importance of emotional intelligence, goal orientations and academic engagement in enhancing academic performance. With the aid

of this study, higher education institutions can create intervention programs such as workshops, seminars, and training sessions, to help students develop their emotional intelligence, thereby improving their academic performance.

Furthermore, this study will contribute to the existing body of literature by examining the mediating role of academic engagement and the moderating role of procrastination in the relationship between emotional intelligence and academic achievement, as well as between goal orientation and academic achievement. Finally, the results of this study will provide some directions for future research in the area.

CHAPTER 2: LITERATURE REVIEW

This section presents the review of previous studies on the role of emotional intelligence (EI), goal orientation, academic engagement, and academic procrastination on academic achievement. The review started with conceptualization and presentations of theoretical models of study variables (EI, academic engagement, goal orientation, academic procrastination and academic achievement). This is followed by review of the empirical studies that have explored the roles of emotional intelligence, goal orientations, academic engagement and procrastination on students' academic achievement as well as the relationship of these factors with academic achievement.

2.1. Academic Achievement

Academic achievement is used to describe performance results in intellectual domains covered in instructional settings (Lamas, 2015). Some educators used grade point average (GPA) as the most commonly used indicator to measure academic achievement among college students (Zheng & Mustapha, 2022 ;Yogendra & Andrew, 2017).

Others described academic achievement as multifaceted construct that comprises different domains of learning linked to human development, including cognitive, emotional, social, and physical growth, that represent the whole child (Preeti, 2013). Zheng and Mustapha (2022) used emotional development of students in addition to their own cognitive and practical abilities to describe academic achievement. However, because students are frequently evaluated based on their performance and grades, emotional aspect is frequently overlooked in schools and society at large (De Lazzari, 2001). As a result, cognitive capacity has been the subject of a substantial body of

empirical study in the prediction of academic achievement (Sánchez-álvarez et al., 2020). Academic achievement, however, is recognized as a complex outcome variable that depends on a number of other social and emotional factors (Zheng & Mustapha 2022). Accordingly, the significance of social and emotional abilities to predict academic performance has become the subject of a number of recent studies (Alhadabi & Karpinski, 2020; Perera & DiGiacomo, 2013 ; Zheng & Mustapha 2022).

2.2. Emotional Intelligence: Theoretical Models

2.2.1. Emotional Intelligence

Since range of variables such as emotional competence, skills and other non-cognitive factors have been described under emotional intelligence; scholars interested in the area conceptualized it differently (Palmer et al., 2008). Some use very broad definitions of emotional intelligence that include non-cognitive capability, competency, and emotionally and socially intelligent behavior (Bar-On, 2006). Others define it based on dispositions from the personality domain (Petrides & Furnham, 2001), while some others defined emotional intelligence as way of processing emotional information and use it to enhance thinking and problem solving (Mayer et al., 2008; Salovey & Mayer, 1990).

For example, Bar-On (2006) defined emotional intelligence through identifying an array of emotional and social abilities that help individuals to cope effectively with the demands and challenges of everyday life. This array includes the ability (a) to aware, understand and express oneself; (b) to relate to others; (b) to deal with and control one's impulses; and (c) to adapt to change and to solve problems of a personal or a social nature (Bar-On, 2006). Goleman (2001) on the other hand, explained that emotional

intelligence is any underlying personal characteristic that is not represented by cognitive intelligence. For him emotional intelligence encompasses self-awareness, self-regulation, and social-awareness and relationship management.

Petrides and Furnham (2001) defined emotional intelligence as a personality trait refer to a constellation of behavioral dispositions and self-perceptions concerning one's ability to recognize, process, and use emotion-laden information. Other researchers described emotional intelligence focusing particularly on how individual processes information about emotion and emotional responses, and use emotion to enhance thought (Alle et al., 2010). In this line, for instance Mayer et al. (2008) defined emotional intelligence as the ability to a) accurately identify and express emotions, b) generate emotions and use them to help think, c) understand emotions and their causes, and d) manage emotions during decision-making process. Similarly, Salovey and Mayer (1990) defined emotional intelligence as a subset of social intelligence that involves individuals' ability to monitor their own and others' emotions, and to use emotional information to guide their thinking and behavior.

Despite the variation in how emotional intelligence is conceptualized, several commonalities can be observed across the major frameworks. For instance, Bar-On's (2006) focus on emotional awareness aligns with individuals' ability to accurately identify emotions in Mayer et al.'s (2008) and with the recognition of emotional information in Petrides and Furnham's (2001) conceptualization. Furthermore, aspects of emotion regulation appear consistently across definitions. For example, the emphasis of Bar-On (2006) on impulse control and adaptation corresponds to Goleman's (2001) focus on self-regulation as a key emotional competence. Similarly, the interpersonal aspects,

such as relating to others, described in Bar-On's (2006) model also correspond to Goleman's (2001) social awareness and relationship management components. Overall, emotional intelligence as a multidimensional concept involves aspects such as emotional perception, emotional understanding, emotion regulation, and the use of emotion to guide thinking and action are recognized as core elements of emotional intelligence across all major conceptualizations.

2.2.2. Models of Emotional Intelligence

The variation in the definition of emotional intelligence proposed by scholars, leads to the development of the ability and trait type model of emotional intelligence. Ability model of emotional intelligence is concerned with individual's actual ability to recognize and utilize emotion-laden information (Petrides et al., 2004). Zhoc et al. (2018) described ability model of emotional intelligence as individual mental capacities in processing of emotional information to identify, express, and regulate emotions of the self and others. In the ability models of emotional intelligence a person need an ability to identify and process emotions, just like person need ability to grasp mathematical and other concepts (Allen et al., 2010). Emotional intelligence in the ability model measured through maximum performance tests, that is, tests with item having correct and incorrect responses(i.e., that is asking people to demonstrate how they perceive an emotional expression accurately) (Brackett et al., 2011; Petrides & Furnham, 2001; Zhoc et al., 2018).

Salovey and Mayer (1990) who was the first to coin the term “emotional intelligence”, proposed a model of emotional intelligence that consists of adaptive abilities such as the

ability of a) appraising and expressing of emotion in self and others, b) regulating of emotion in self and others and c) using emotions in adaptive ways to solving problems. Later Mayer and Salovey (1997) revised the previous model and developed a model called the four-branch hierarchical model by dividing the skills and abilities of emotional intelligence into four areas such as the ability a) to perceive emotion (ability to identifying emotions accurately in physical states and thoughts); b) use emotion to facilitate thought (skills needed to use emotional states to facilitate problem-solving); c) understand emotion (an awareness of how emotions relate to situations and time courses); and d) manage emotions.

Unlike ability models, trait models of emotional intelligence refers to of behavioral tendencies and self-perceived abilities, measured via self-report questionnaires, that ask people to judge and report how good they are at perceiving emotions accurately (Brackett et al., 2011; Zhoc et al., 2018). For example, Bar-On (2006) proposed a model called Emotional-Social Intelligence (ESI) based on an array of interrelated emotional and social competencies and skills that influence one's ability to 1) recognize, understand and manage emotions, 2) relate with others, 3) adapt to change and solve problems of a personal and interpersonal nature, and 4) efficiently cope with daily demands, challenges and pressures.

Specifically this model comprises five domains of abilities and skills, which in turn are subdivided into 15 sub domains: 1) Intrapersonal Skills refers to the ability of being aware and understand emotions, feelings, and ideas in the self (self-regard, emotional self-awareness, assertiveness, independence, and self-actualization) 2) Interpersonal Skills refers to the ability of being aware and understanding emotions, feelings, and ideas in the

others(empathy, social responsibility, and interpersonal relationships); 3) Adaptability refers to the ability of being open to change our feelings depending on the situations(reality testing, flexibility, and problem solving); 4) Stress Management refers to the ability to cope stress and control emotions 5) General mood refers to the ability of feeling and expressing positive emotions, and being optimistic (optimism and happiness (Bar-On, 2006).

Goleman (2001) also proposed a four dimensional model with twenty emotional intelligence competencies. The dimensions in his model includes (a) self-awareness (ability to recognizing one's feeling and make accurate self- assessment);(b) self-management (ability to manage internal states & impulses include being unfazed in stressful situations, remain comfortable with the anxiety, being optimistic & proactive); (c) social-awareness (ability to understand people and group accurately, astute awareness of others' emotions, concerns, and needs); and (d) relationship management (ability to handle and manage emotions effectively in other people and sense others' reactions and fine-tune their own responses to move interaction in the best direction.

Petrides et al. (2004), for their part developed a model that comprises four interconnected dimensions such as 1) Emotionality: the ability to sense, expresses, and connects with one's own and others' emotions. 2) Sociability: the ability to establish oneself socially, manage the emotions of others, and participate in social relationships.3) Well-Being: a sense of happiness and fulfillment based on a sense of self, achievement, and positive expectations. 4) Self-Control: the ability to effectively deal with impulses, emotions, and stress.

The Trait Emotional Intelligence model developed by Petrides et al. (2004) was adopted for this study, recognizing the importance of trait EI competencies in supporting learning, particularly during students' transitions into unfamiliar learning environments of higher education (Saklofske et al., 2012; Zhoc et al., 2018).

2.3. Achievement Goals

2.3.1. The Concept of Motivation

Motivation involves the processes that energize, direct, and sustain behavior (Santrock, 2018). The motivational process is described in several ways according to various psychological views. For instance, the behavioral viewpoint focuses a lot of emphasis on determining a student's motivation by employing rewards and punishments that come from outside sources. The desire for affiliation with or relatedness to others is strongly stressed in social perspectives on motivation. According to the cognitive viewpoint, students' motivation is governed by their thoughts (Santrock, 2018).

Recent motivational theories place more emphasis on social-cognitive perspectives. For example, Gredler (2009) identified three main approaches to conceptualize achievement-related motivation. The first one is expectance- value theory that link achievement-related behavior to individual expectancy and value perception. Individuals are more likely to engage in a certain achievement task when they have high expectations for themselves and the task has some value to them. The motivation of students to engage in achievement-related behaviors is significantly influenced by their expectations of success and by the value they place on the task (Eccles & Wigfield, 2002). When students believe that learning or performance is important, they are motivated to do so (Schunk, 2012).

The second is the attribution theories in which motivation is relate to how individuals see their successes and failures in achievement related setting. The goal-orientation models place a focus on how a students' intention or purpose affects how they approach and engage in learning activities (Gredler, 2009).

2.3.2. Achievement Goal Theory

Achievement goals have been referred to as goal orientations (Wirthwein et al., 2013). Goal theorists have argued that goal orientation play a significant role in shaping how students approach, experience, and react to achievement situations (Harackiewicz et al., 2000). They focused on students' intentions or reasons for engaging, choosing, and persisting in different learning activities (Meece & Anderman, 2006). According to goal orientation theory, it is possible to understand students' motivation and achievement behaviors by taking into account the reasons or the purposes they have for engaging on their academic task (Wolters, 2004). Goal orientation guides and motivates students within the academic setting (Wolters, 2004). Goal orientation theory has become the dominant framework used to explain and study academic motivation (Anderman & Patric, 2012). Students can approach their coursework with a variety of goals. Some might be motivated to improve their knowledge of a topic, others to outperform classmates. Some other students may strive to avoid exposing to others their inability to do something (Matern 2005). The different goals students pursue can shape the framework for how they interpret, experience, and perform their achievement pursuits (Alhadabi & karpinski, 2020).

2.3.3. Models of Achievement Goal Theory

There is disagreement regarding the number and nature of achievement goal orientation dimensions. Since its inception, several goal orientation theorists have developed two (mastery and performance), three (mastery approach, performance approach, and performance avoidance), or four (mastery approach, performance approach, performance avoidance, and mastery avoidance) dimensions.

For example, Dweck and Leggett (1988) originally developed a model of goals with two dimensions: mastery goals (i.e., learning goals) in which individuals are concerned with increasing their competence and performance goals in which individuals are focused on getting positive judgments of their competence. Students with mastery goal orientation focus on learning, understanding, and developing competence (Wang et al., 2017). In contrast, students endorsed performance goal orientations concerned on outperforming others, striving to do better relative to others, and emphasize social comparison and the attainment of recognition and status (Luo et al., 2024). Students who adopt mastery goals (i.e., learning goals) are motivated to understand the materials and develop their competences, while students who exhibit performance goal orientations are motivated by their desire to demonstrate their ability and achievements publically (Barzegar, 2012).

However, in the late of 1990s, several researchers argued that the distinction between approach and avoid orientations also should be considered within a goal orientation framework (Anderman & Patrick, 2012). For example, the development of a three factor model suggests the distinction between performance approach and performance-avoid goals, in addition to mastery goals (Elliot & Church, 1997). Performance-approach goals

were conceptualized as individuals striving to demonstrate better performance than others, while performance-avoid goals were operationalized in terms of wanting to avoid demonstrating worse performance than others and looking incompetent (Elliot & Church, 1997).

By applying the approach and avoidance distinction of performance goals to mastery goal orientation, Elliot and McGregor (2001) proposed a 2×2 framework of goal orientation which includes mastery approach, performance-approach, performance-avoidance and mastery-avoidance goals (Elliot & McGregor, 2001). In this model, the new addition was the mastery-avoid goal orientation. A student who endorses mastery-avoid goals wants to avoid misunderstanding or losing a sense of competence (Barzegar, 2012).

2.4. Academic Engagement

2.4.1. Meaning of Academic Engagement

There is little agreement among educators and researchers about the terminologies and definitions of engagement. For example researchers used terms such as students engagement (Finn & Zimmer 2012; Harper & Quaye ,2009), school engagement (Fredericks et al., 2004; Jimerson et al., 2003; Furlong et al., 2003), academic engagement (Alrashidi et al., 2016), students engagement in academic work (Marks, 2000;Newmann, et al., 1992),course engagement (Handelsman et al.,2010) and leaning task engagement (Chapman, 2003) to denote the concept of engagement.

Likewise, various definitions have been suggested. Some writers focused on student participation to define engagement. For example, Hu and Kuht (2002) define engagement as the quality of effort students devote to educationally purposeful activities that

contribute directly to desired outcomes. Similarly, Krause and Coates (2008) defined engagement as the extent to which students are engaging in activities which are linked with high-quality learning outcomes. Harper and Quaye (2009) define student engagement as participation in educationally effective practices, both inside and outside the classroom, which leads to a range of measurable outcomes.

Other writers based the benchmark of National Survey of Student Engagement (NSSE) and the facet of Australasian Survey of Student Engagement (AUSSE) to define the concept of engagement. For example, Coates (2007) defined engagement as a broad construct encompass salient academic as well as non-academic aspects of students' experience such as participating in active and collaborative learning; participating in challenging academic activities, involving in enriching educational experiences, feeling legitimated and supported by university learning communities. Moreover, Krause and Coates (2008) described student engagement as student involvement in activities that generate high-quality learning outcomes. They labeled such activities as activities that promote academic challenges (e.g., analyzing, synthesizing ideas, applying theories and concepts), collaborative learning (e.g., contributing to class discussion, working with peers), student-faculty interaction (e.g., discussing ideas from assignment and reading with faculty outside of class), enriching educational experience (e.g., participating in community service, internship) and supportive campus environment (e.g., thrive socially, cope with non-academic matter).

On the other hand, since institutions are responsible for creating environments that make learning possible, the concept of engagement embraces what the institutions deliberately do to empower students' participation in the learning process (Krause & Coates, 2008). In

this line, Kuh (2009) defined student engagement as the time and effort students devote to activities that are empirically linked to desired outcomes of college and what the institutions facilitate to induce students to participate in academic activities. Engagement is concerned with the interaction among the time, effort and other relevant resources devoted by both students and their institutions to enhance the learning outcomes. Engagement is not only determined by individual motivation and learning skills but also by organizational and educational practices (e.g., classroom management and instructional strategies) that maximize the quantity of quality time for learning (time effectively used for learning) (Gettinger & Walter, 2012).

Engagement is generally viewed as multidimensional construct rooted in students' behavior and emotion or affect (Grier-Reed et al., 2012). Viewed in this light, Alrashidi et al. (2016) defined engagement as proactive term that refers to students' quality of participation, investment, commitment, and identification with school and school-related activities to enhance students' performance. Marks (2000) defined engagement as a psychological process that includes the attention, interest, investment, and effort that students expend in academic work.

The term academic engagement is explained as a disposition in which all learners are motivated and committed to learning, have a sense of belonging and accomplishment and have relationships with peers, adults and parent that support learning (Babatunde & Olanrewaju, 2014). Others argued that engagement is a complex construct, encompassing observable behavior (e.g., attending class,), unobservable psychological events such as effort, persistent, investment and positive emotions such as enjoyment, hope (Scheroff, 2013). In this line several authors also have defined engagement as multidimensional

construct that encompass components such as behavioral, emotional and cognitive aspects (Fredricks et al., 2004; Jimerson et al., 2003; Lovelace et al., 2014, Reschly & Christenson, 2012).

2.4.2. Models of Academic Engagement

Engagement is viewed as a multidimensional construct and incorporates different aspects (Fredricks et al., 2004; Finn & Zimmer, 2012; Handelsman et al., 2010; Grier-Reed et al., 2012; Schaufeli et al., 2002; Sinclair et al., 2003). However, there is lack of consensus on the types and number of the dimensions of engagement (Reschly & Christenson, 2012). Thus two, three, four or five dimensional models of engagement are common in the literature (Alrashidi et al., 2016; Appleton et al., 2006; Finn & Zimmer, 2012; Fredricks et al., 2004; Reeve & Tseng, 2011; Reschly & Christenson, 2012; Skinner et al., 2016).

For example, Finn (1993) and Marks (2000) proposed a two-dimensional model of engagement that comprises the behavioral and psychological (affective) components. Behavioral engagement is viewed as student participation in academic and social activities (Reschly & Christenson, 2012). Kellm and Connel (2004) further listed behavior such as time students spent on work, intensity of concentration and effort, tendency to stay on task, persistency and focus, asking for questions and contributions to class discussions and propensity to initiate action when given the opportunity as indicators of behavioral engagement

The psychological (affective) component refers to the emotional experience that accompanied behavioral participation in the learning process (Skinner et al., 2016). The affective components of engagement shows the level of emotional response toward

schooling such as feelings of affection, enjoyment, liking, belonging, bonding, and attachment, the presence of interest and lack of boredom, sadness and anxiety (Furlong et al., 2003). It also includes the heightened levels of positive emotion during the completion of an activity, demonstrated by enthusiasm, optimism, curiosity and interest (Adena & Connell, 2004).

Many researchers added the cognitive component (e.g., thoughtfulness and willingness to master difficult tasks, self-regulation, learning goals, investment in learning) to develop the three-dimensional model of engagement (Adena & Connell, 2004; Fedricks et al 2004; Jimerson et al., 2003; Reschly & Christenson, 2012).

Focusing on positive and work-related state of mind Schaufeli et al.(2002) developed a three dimensional model of academic engagement and they labelled the engagement components as vigor (characterized by high levels of energy & mental resilience while doing academic activities willingness and ability to exert & invest effort in academic related activities, persistence in the face of obstacles & positive approach to learning), dedication (characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge for engaging in activities and perceiving school-related activities as meaningful) and absorption (characterized by full concentration and deep immersion in academic work to the point that one has difficulty detaching oneself from it (Schaufeli et al., 2002).

Later, researchers have started to propose four or five dimension model of engagement. For example, Finn and Zimmer (2012) proposed a four-dimension model of engagement, which includes: academic (e.g., attentiveness, the completion of assignments), social

(e.g., appropriate interaction with teachers and peers), cognitive (e.g., reading more than the material assigned) and affective (e.g., feeling of belongingness) engagement. Reschly and Christenson (2006) also conceptualized engagement as having four dimensions: academic (e.g., time on task and homework completion), behavioral (e.g., attendance and extracurricular participation), psychological (e.g., feelings of identification or belonging), and cognitive (e.g., self-regulation, value of learning, personal goals, and autonomy) engagement.

In addition Appleton et al. (2006) and Reeve and Tseng (2011) have proposed fourth aspect of engagement to develop four dimensional model of engagement. Appleton et al. (2006) called the fourth dimension an academic engagement, which includes aspects such as completing assignments and time on task, attentiveness. However, in the previous two- and three-component models of engagement academic engagement was subsumed under behavioral engagement (Appleton et al. 2006). On the other hand, Reeve and Tseng (2011) proposed the agentic which refers to students' constructive contribution into the flow of the instruction they receive as the fourth dimensions of engagement construct. Currently Zhoc et al (2019) after refining the model of Finn and Zimmer (2012) developed five facet model of academic engagement that include academic(e.g., class attendance, coming to class prepared, showing effort and persistence), cognitive (e.g., the desire to go beyond requirement, preference for challenge, enduring commitment),social engagement with peers(e.g., discussing content with peers, working in group project), social engagement with teachers(e.g., supportive and positive student-faculty relationship),affective engagement(e.g., sense of belonging, identification with school, sense of relatedness) for higher institution.

2.5. Academic Procrastination

Though there is variation in the definitions of procrastination, all definitions marked postponing, delaying, or putting off of a task as the common expression of procrastination (Steel, 2007). For example, procrastination according to Deniz et al. (2009) refers to the conditions of postponing of works and tasks that are better to be done today to the following day. It refers to the frequent delay in starting or completing of tasks (Ferrari, et al., 2005). Steel (2007) described procrastination as the voluntarily, irrational postponement of course of action in spite of the knowledge that this delay will bring negative consequences. It is the act of postponing the performance of activities either deliberately or inadvertently (Kim et al., 2017). Typically it involves delaying the start of a task until one experiences distress about not having performed the activity earlier (Senécal et al., 1995).

Therefor academic procrastination can be understood as such expressions prevail in academic setting (Wolters, 2003). Harriot and Ferrari (2015) explained academic procrastination as the behavior of delaying academic tasks (such as: doing homework, preparing for exams, or working on paper assignments) until the last period of examination time or submission date of assignments (Harriott & Ferrari, 1996).

Academic procrastination refers to an irrational tendency of university students to delay at the beginning or completion of an academic task, homework, project work and co-curricular activities (Bashir & Gupta, 2019). In education and training, the term academic procrastination is commonly used to denote the deliberate delay in academic activities by a student to another time (Tardi & Oyintonyo, 2019).

Whatever the kind of procrastination is, however, it slows down the performance of students making them careless, lazy, passive and academically stagnant and irresponsible. The negative impacts of procrastination, such as low academic achievement, depression, anxiety, inferiority complex, and dropout, are well documented in the literature (Hussain & Sultan, 2010). When students indulge in procrastination, it leads them to search for shortcuts, unfair means for passing examinations such as cheating, hostile attitude, immoral practices, addiction and a sense of demotivation (Akinsola et al., 2007).

On the other hand, procrastination can be viewed in positive and negative sense. However the positive form of procrastination secondary in usage (Steel, 2007). Many researchers repeatedly mentioned procrastination in a negative light (Tice & Baumeister, 1997). For example, Gareau et al. (2019) claimed that since time is a limited resource academic procrastination can minimize the amount of time and effort that students can invest toward their academic tasks and negatively their subsequent academic achievement.

In contrast researchers described both the adaptive and maladaptive aspects of procrastination (Schraw et al., 2007). Procrastination could enhance cognitive efficiency and peak experience that is, maximizing learning in a minimal amount of time through strategic planning, increased focus through concentrated effort, and reducing start-up time by working in one large block of time rather than numerous small blocks (Schraw et al., 2007). Chu and Choi (2005) also claimed that not all procrastination behaviors have negative effects. They conceptually distinguished two different types of procrastinators: passive and active procrastinators. Passive procrastination is a traditional form of procrastination in which individuals delay tasks due to indecision, avoidance, and lack of

self-regulation (Chu & Choi, 2005). Cognitively, passive procrastinators do not intend to procrastinate, but they often end up postponing tasks because of their inability to make decisions quickly and to thereby act on them quickly. On the other hand active procrastinators are capable of acting on their decisions in a timely manner. They suspend their actions deliberately and focus their attention on other important tasks at hand. They prefer to work under pressure. They feel challenged and motivated when they are faced with last-minute tasks. Different cognitive pathways and affective responses interact to produce different behavioral patterns: They are persistent and able to complete tasks at the last minute. Active procrastination includes behavioral characteristic that encompasses a person's affective preference for time pressure, cognitive decision to procrastinate, behavioral capacity to meet deadlines, and ability to achieve satisfactory outcomes. On the other hand, passive procrastinators are more likely to give up and fail to complete tasks (Chu & Choi, 2005).

2.6. Emotional Intelligence, Academic Engagement, Academic Procrastination and Academic Achievement

2.6.1. Emotional Intelligence and Academic Achievement

The empirical evidence on the relationship between emotional intelligence and academic achievement is equivocal. Some studies show a positive relationship between academic achievement and emotional intelligence, while other research shows a negative relationship between emotional intelligence and academic achievement (as measured by GPA). Others claimed that no links existed between emotional intelligence and academic achievement (Bastian, et al., 2005, O'Connor & Little, 2003).

In order to determine whether emotional intelligence could predict college students' academic success in their first year of study, Schutte et al. (1998) undertook a longitudinal study. When the results of an emotional intelligence test taken during the first month of college were compared to students' cumulative grade point averages at the end of the year, researchers have found a substantial correlation between EI scores and academic achievement. Similarly, Afridi and Ali (2019) conducted a study to find the relationship between emotional intelligence and academic achievement using a sample of the secondary school student population. They found a significant correlation between emotional intelligence and academic scores ($r = 0.130$). It was suggested that an individual with a high level of emotional intelligence could have a strong, stable, and positive state of emotional well-being, which would lead to more learning. Banat and Rimawi (2018) conducted a study to identify the impact of emotional intelligence on academic achievement of undergraduate university of students and reported emotional intelligence as a significant predictor of academic achievement. Saksena (2018) investigates relationship between emotional intelligence and academic achievement among undergraduate students and discovered a positive relationship between intelligence and academic achievement. Fallahzadeh (2011) examined the relationship between perceived emotional intelligence and academic achievement and revealed that emotional intelligence skills are significantly associated and predictive of academic achievement for the university students' population.

Yelkikalan et al (2012) studied the relationship between emotional intelligence of students and their academic achievements and concluded that there is a significant relationship between the emotional intelligence and academic achievements and that

almost 11 % of change in academic achievements can be explained by emotional intelligence. According to Parker et al (2004) emotional intelligence was found to be a significant predictor of academic success. The EQ-i: Short variables were found to predict 8–10% of the variability in 1st year university academic performance (GPA for the year in all courses).

On the other hand a study conducted by Bastian et al. (2005) found that a correlation between EI and academic achievement were small and not statistically significant, although higher EI was correlated with higher life satisfaction, better perceived problem-solving and coping ability and lower anxiety. Using both self-report and ability-based measures of emotional intelligence, O'Connor and Little (2003) examined the relationship between academic achievement (as measured by GPA) and emotional intelligence in university students. Regardless of the type of measure used, they discovered that emotional intelligence was not demonstrated to be a major predictor of academic achievement. Similar to this, Newsome et al. (2000) used a sample of 180 first-year college students enrolled in a psychology course to perform a study to investigate the relationship between emotional intelligence, cognitive ability, personality, and academic achievement. Their study's findings do not support the claim that EQ-i, a test of emotional intelligence, could predict academic achievement.

2.6.2. Emotional Intelligence and Academic Engagement

Researchers have recognized the roles of emotional intelligence for students' academic engagement in higher education. For example Zhoc et al, (2020) conducted a study to examine the effects of emotional intelligence on student engagement and to determine how emotional intelligence and student engagement contribute to key learning outcomes

in higher education using a sample of 560 first-year students in Hong Kong University. The finding of the study revealed that emotional intelligence had significant associations with all dimensions of student engagement (academic engagement ($\beta=.14$, $p<.05$), cognitive engagement ($\beta=.23$, $p<.05$), social engagement with peer ($\beta=.22$, $p<.05$), social engagement with teachers ($\beta=.11$, $p<.05$) and affective engagement ($\beta=.11$, $p<.05$)).

Similarly, Maguirea et al. (2017) carried out a study to explore whether emotional intelligence could predict cognitive and affective engagement among a sample of 91 undergraduate psychology students in Ireland. They reported that emotional intelligence was significantly related with both cognitive ($r=.40$, $p<.001$) and affective ($r=.35$, $p<.01$) engagement at college. Their finding confirmed that trait emotional intelligence had strong predictive effect on cognitive and affective engagement of college students.

Dehyadegary et al. (2012) also conducted a study to determine the relationship between emotional intelligence, academic engagement and academic achievement among 382 randomly selected adolescents, in Iran. The result of the study showed that there was a significant positive relationship ($r=.59$, $p<.01$) between emotional intelligence and academic engagement of adolescents. This suggests that respondents with higher emotional intelligence, reported higher academic engagement. The result of their study further indicated that there was a significant positive relationship between academic engagement and academic achievement of adolescents ($r=.69$, $p<.01$). The result of the mediation analysis indicated that academic engagement mediate relationship between emotional intelligence and academic achievement.

2.6.3. Emotional Intelligence and Academic Procrastination

A number of studies have been conducted to investigate the relationship between emotional intelligence and academic procrastination. For example, Deniz et al. (2009) carried out a study to examine how university students' emotional intelligence influences their academic procrastination and internal locus of control using a sample of 435 randomly selected university students. Their finding demonstrated the five sub factors of emotional intelligence together accounted 6.2% variance in academic procrastination. They also found that the two subscales of emotional intelligence, adaptation and coping with stress are significantly predictive factors for academic procrastination, while intrapersonal, interpersonal, and general mood subscales are not.

Likewise, Heward (2010) also conducted a study to explore the relations between the components of emotional intelligence and procrastination on sample composed of 125 undergraduate students (104 female and 21 male). His research finding revealed that while the self-control sub-factor of trait emotional intelligence significantly related to both the general and academic procrastination scores, academic procrastination was significantly related to the well-being sub-factor. His further analysis indicted that of the fifteen characteristics of the trait emotional model, seven characteristics, two from the well-being sub-factor self-esteem, and optimism, one from the self-control sub-factor that is low impulsivity, another two from the emotionality sub factor emotion perception, and emotion expression self-motivation and adaptability had significant negative correlations with total procrastination. Conversely sociability did not have any characteristics related with overall procrastination. The result of linear regression analysis of the study also indicted that all the four components of trait emotional intelligence account for

approximately eleven percent of the total variance ($R^2 = .11$, $p < .01$) in procrastination, where only self-control significantly predicted the total procrastination.

Furthermore, Chow (2011) conducted a study to explore the determinants of procrastination in a sample of 350 University students in Italy. The study indicated the 10 predictor variables (age, sex, religious affiliation, socio economic status, emotional intelligence, academic aspiration, emotional well-being, self- evaluation, self-efficacy and satisfaction with school life) together accounted for 21.7% of the variation in procrastination, $F(10,339) = 10.646$, $p < .001$). Socioeconomic status, self-evaluation self-efficacy, emotional intelligence and satisfaction with school life were found to be significantly related to procrastination. His finding revealed that student who worried more about their financial situation, evaluated themselves more negatively, deprived of task or domain specific confidence and the ability to understand, use, and express emotions in healthy and productive ways were more likely to procrastinate.

Recently, Rumahlewang and Latar (2020) conducted a study to analyze if self-efficacy and emotional intelligence had a direct negative effect on academic procrastination among 302 senior high school students selected through simple random sampling. The result indicated that self-efficacy, emotional intelligence, and self-determination together contributed 45.5% of the variance in academic procrastination, $F(3,299) = 83.305$, $p < .05$, where self-efficacy emotional intelligence and self-determination significantly predicted academic procrastination. The result showed that emotional intelligence had a direct negative effect on academic procrastination, which means the higher the value of emotional intelligence, the lower the student's academic procrastination and conversely

the lower the emotional intelligence, the higher the student's academic procrastination value

A study carried out by Mappakaya et al. (2016) to determine the influence of emotional intelligence and spiritual intelligence on academic procrastination using a sample of 101 medical student indicted that 25.5% of the variance of academic procrastination was accounted by both emotional intelligence and spiritual intelligence nonetheless emotional intelligence had more influence than spiritual intelligence in predicting academic procrastination.

On the other hand, Hen and Goroshit (2014) examined the relationship between emotional intelligence, academic procrastination and academic performance (GPA) as mediated by self-efficacy in a sample of 287 undergraduate students. They found that emotional intelligence had a significant negative indirect effect on academic procrastination. That is higher emotional intelligence leads to lower academic procrastination and a significant positive indirect effect on GPA (higher emotional intelligence indicates higher GPA). Besides, emotional intelligence had no significant direct effect on academic procrastination and GPA. The findings of this study showed that the relationship between emotional intelligence and academic procrastination, as well as the relationship between EI and academic performance was fully mediated by academic self-efficacy. Furthermore, Kamran and Fatima (2013) conducted a study to examine the relationship of emotional intelligence and anxiety with procrastination with a sample of 102 female intermediate final year pre- medical and pre-engineering students selected using convenient sampling strategy. The study revealed that emotional

intelligence and procrastination had no significant relationship and emotional intelligence had no significant predictive effect on academic procrastination.

These differences in finding might be due to variation in the sampling procedures and measurement issues utilized in the study. For example, Kamran and Fatima (2013) conducted their study on intermediate final year pre- medical and pre-engineering female students selected through convenient sampling strategy. They used passive procrastination scale developed by Chu and Choi (2005) with $\alpha = .67$ to measure the procrastination and Schutte self-report emotional intelligence test developed by Schutte et al. (1998) with $\alpha = .90$ used to measure the four factors of emotional intelligence (the appraisal of emotion in self and others, the expression of emotion, the regulation of emotion in self and others, and the application of emotion in problem solving). Similarly, Hen and Goroshi (2014) based their study on a sample of 287 undergraduate college students selected using convenience sample techniques (14% males & 86% females). They used the Schutte self- report emotional intelligence test to measure trait such as appraisal and expression of emotions, regulation of emotions, and utilization of emotions to solve problems.

On the other hand, Denize et al (2009) used randomly selected samples and the Emotional Intelligence Scale, developed by Bar-On (1997) that measure skills such intrapersonal, interpersonal, adaptability, and stress management(copy stress and control emotions) and general mood in their study.

2.6.4. Academic Engagement and Academic Achievement

It is a well-known fact that students who engage in school activities perform better academically (Fredricks et al., 2004). Academic engagement has been shown to be a strong predictor of academic achievement (Appleton et al., 2008). For instance, Sirin and Rogers-Sirin (2005) investigation showed that students with high academic engagement obtained high academic performance and achievement. Finn and Rock (1997) indicated that disengagement behaviors such as being inattentive and disruptive, predicted low academic achievement. Casuso-Holgado et al. (2013) proved that academic engagement is one of many factors that have positively influenced the academic achievement of the students. Similarly, Lei et al. (2018) indicated a medium positive correlation of all facets of student engagement (overall, behavioral, emotional, and cognitive) with academic achievement. In other words, a higher level of overall, behavioral, emotional, and cognitive engagement was associated with higher academic achievement. In addition, Lie et al. (2018) proved that the different aspects of student engagement have different relationships with academic achievement. For example, Sukor et al. (2021) identified emotional engagement as only significant factor to academic performance, which contributed to 41.5% of the variance in academic achievement. On the other hand, compared to emotional and cognitive engagement, the positive correlation between behavioral engagement and academic achievement is more obvious (Furrer & Skinner, 2003). Pietarinen et al. (2014) reported a positive association between cognitive engagement and academic achievement. These findings were supported by Perry et al. (2010) where a combination of emotional and behavioral engagement significantly predicted students' grades. Lei et al (2018) found the average effect size was highest

between behavioral engagement and academic achievement, which is followed by the effect size for cognitive engagement, with emotional engagement being the lowest

2.7. Goal Orientation, Academic Engagement, Procrastination and Academic Achievement

2.7.1. Goal Orientation and Academic Achievement

Goal orientation has emerged as the leading framework to explain and predict the direction and intensity of individuals' behaviour in achievement -related situations (Chen & Wong, 2014). Specifically, Alasqah (2021) noted that the goals adopted by learners in different learning contexts have become one of the most influential factors that affect student academic achievement.

Accordingly, a number of studies have tested the correlations between goal orientation and academic achievement. However, the findings regarding this relationship remain inconclusive. For example, due to their high intellectual engagement and deep processing of course material, students pursuing mastery goals perform well in exams and assignments, which assesses at a deeper level of understanding of the course materials (Midgley et al., 2001). Supporting this, Chen and Wong (2014) reported a positive and significant correlation between mastery goal orientation and GPA among college students in Hong Kong. Suprayogi et al. (2019) also revealed that mastery goal orientation has a significant and positive impact on students' academic achievement. Frumos et al. (2024) reported a significant and positive correlation between mastery approach goal orientation and academic achievement, although the effect size was relatively small. Similarly, Dull

et al. (2015) reported a marginally significant positive correlation between mastery goals and course grades.

Yet, other studies have failed to demonstrate the expected significant direct relationships between mastery goals and academic achievement. For example, Senko and Mile (2008) indicated that mastery goals were not predictors of academic achievement despite their ability to promote high topic interest and use deep learning strategies. Daniel, et al. (2009) reported absence of a direct relationship between mastery goals and academic achievement. Others studies conducted by Neroni, et al. (2018) and Bipp and van Dam (2014) failed to obtain a significant association between mastery goals and course grade. Mastery goals were unrelated to exam performance (Elliot et al., 1999).

According to Elliot and Church (1997), performance-approach goals positively correlated with graded performance. Performance-oriented students obtain good grades if college evaluation procedures do not assess for deep processing or thoughtful synthesis and integration of the course materials (Harackiewicz et al. 2000). On the other hand, Barron and Harackiewicz (2003) identified that students who adopted performance-approach goals also earned higher grades when assessment procedure required students to process course materials at a much deeper level (assessment based on papers, presentations, group projects, and essay exams). Performance- approach goals were positively linked to exam performance (Elliot et al., 1999). Much empirical evidence supports the view that adopting performance-avoidance goals has negative association with academic achievement. For example, Hsieh et al. (2007) indicated the negative correlation between performance-avoidance goals and GPA. Wigfield et al. (2015) linked performance-avoidance goals with poor academic performance. Performance avoidance goals was

found to be a significant negative predictor of academic performance, indicating that those students who wanted to prevent obtaining a lower score than other students (i.e., avoiding looking bad), in fact had lower exam grades (Neroni et al., 2018). Performance-avoidance goal contributed negatively to GPA (Chen & Wong, 2014).

2.7.2. Goal Orientation and Academic Engagement

Academic engagement is related to many factors. Goal orientations are among these factors that determine students' engagement in academic tasks (Zhang et al 2022; Alhadabi & karpinski, 2020). Grounded in social-cognitive theory of motivation, achievement goal orientations play an important role in promoting academic development among students (Li et al, 2021; Duchesne et al., 2017). Goal orientations have been identified as important factors for students to ensure quality learning experiences in the school environment (Bipp & van Dam, 2014).

For example, Dehghani et al (2024) reported a positive and significant association between both mastery and performance approach goal orientation and academic engagement. When students pursue mastery goals, they enjoy the learning process, which enhances their willingness to invest time and effort in understanding the course materials (Luo et al. 2024). Students who employ a mastery-approach orientation are more likely to partake in a variety of engagement indicators, such as reflective and integrative learning, higher-order learning, and student–faculty interaction (Miller et al., 1999).

Mastery oriented students were more likely to persist in the face of difficulties and to engage in deep learning strategies, which ultimately led to better academic outcomes (Elliot & Church, 1997). Mastery approach goals enable students to retain and trigger

resources such as interest and, motivation to learn, and willingness to invest greater psychological effort (Zhang et al., 2022) as well as to dedicate more time to learning (Jafari et al., 2024). Senko and Dawson (2016) showed that mastery goals were significantly and positively related to deep strategy but negatively related to surface strategy in learning. Master oriented individuals tend to exhibit a desirable profile of academic engagement such as higher involvement, persistence, preference for challenging tasks (Wang et al., 2017), greater effort expenditure and deep cognitive processing (Wang et al., 2017; Dupeyrat & Mariné, 2005).

2.7.3. Goal Orientation and Academic Procrastination

A number of studies have been conducted to test the relationships between goal orientations and academic procrastination. Findings consistently revealed a negative correlation between mastery approach goal orientation and academic procrastination (Dehghani et al., 2024; Dikmen & Bahadır, 2021; Howell & Buro, 2009; Howell & Watson, 2007) and a positive correlation between performance avoidance goal orientation and academic procrastination (Dikmen & Bahadır, 2021; Lin et al. 2021). For example, Dehghani et al. (2024) explained that students with mastery-approach goals are intrinsically motivated, consider effort at the center of success and demonstrate strong self-regulation—variables that are negatively related to procrastination. Students with mastery goal orientation can offset the avoidant tendencies triggered by negative emotions, helping them maintain the motivation to pursue their goals by reducing the likelihood of procrastination (Chen et al., 2024).

On the other hand, performance-avoidance oriented individuals might be more likely to procrastinate due to fear of failure and to avoid unfavorable judgment and feedback from others (Lin et al., 2021).

However, the findings regarding relationship between performance approach goals and academic procrastination were rather mixed. Some researchers reported a positive correlation between performance approach goals and academic procrastination (Deemer et al., 2017; Ganesan et al., 2014; Howell & Watson, 2007), whereas several other researchers have failed to find a significant relationship (Dikmen & Bahadır, 2021, Lin et al., 2021; Ariani & Susilo, 2018) or reported a negative correlation between performance approach goals and academic procrastination (Dehghani et al., 2024; Howell & Buro, 2009). This discrepancy may stem from the exact nature of the procrastination tendencies. For example, although most previous studies that explored the relationship between goal orientation and procrastination considered procrastination as maladaptive for student learning and academic performance), some researchers began to provide evidence on the adaptive and beneficial aspects of procrastination that could possibly lead to desirable learning outcome (Chu & Choi, 2005; Kooren et al., 2024, Zohar et al., 2019). Chu and Choi (2005) proposed two different forms of procrastination to describe academic procrastination. Passive procrastination, the standard and traditional type of procrastination, occurs when individuals postpone their tasks until the last minutes because of a failure to make decision to act in a timely manner. In contrast, active procrastinators make intentional decision to postpone their tasks to use their strong motivation under time pressure and complete tasks before deadlines with satisfactory outcomes (Chu & Choi, 2005). Researchers argued that although behavioral delay is

apparent in both active and passive procrastination, the motivational variables in active procrastination are completely different from those in passive procrastination (Zohar et al., 2019). Therefore, for better understanding and to develop sound intervention strategies it is worthwhile to further explore the relationship between goal orientation and academic procrastination.

2.8. The Mediating Effect of Academic Engagement

Students' academic engagement is the function of both individual and contextual factors (Fredricks et al., 2004). However, self-variables directly influence students' level of engagement (Dehyadegary et al., 2012). Academic engagement has been identified as one potential mediating factor for the relationship between EI and academic achievement (Dehyadegary et al., 2012). It is thus likely that those exhibiting higher EI are better placed to regulate their behavior leading to enhanced cognitive engagement and investment in their learning (Maguire et al, 2017). High levels of EI affect students' academic achievement in two ways a: by reducing a barrier to learning and by promoting a positive attitude towards learning commitment and dedication. Through both pathways it would be promoting an advantageous situation for academic success (Serrano & Andreu, 2016).

Maguire et al (2017) showed that EI was a better predictor of cognitive engagement than prior academic performance, which supports the idea that emotional intelligence is crucial for academic success at the third level. The role emotional intelligence plays in academic performance is reflected through its effect on academic engagement (Maguire et al., 2017).

Students who recognize and successfully control their emotional states: (a) become more involved and focused in academic tasks; (b) demonstrate a higher level of energy and willingness to put forth effort; and (c) persist more diligently in the face of challenges that may arise during the development of academic tasks (Serrano & Andreu, 2016). Students with highly developed EI showed the greatest capacity to engage more with their academic tasks and therefore achieve better academic outcomes (Estrade et al., 2021). The mediating role of academic engagement in the link between EI and academic achievement has been also documented by other studies (Dehyadegary et al., 2012; García-Martínez et al., 2021; Perera & DiGiacomo, 2015).

Similarly, academic engagement also mediates the link between goal orientation and academic achievement. For instance, Greene and Miller (1996) in their study revealed that learning goals promoted meaningful cognitive engagement, which in turn influenced midterm academic achievement, while performance goals were connected to shallow cognitive engagement which in turn negatively related to academic achievement. Dupeyrat and Mariné (2005) argued that the direct effect of mastery goals on achievement was not significant after controlling for effort. Accordingly, the positive impact of being oriented towards mastery goals on achievement seems to be mediated by effort expenditure (Dupeyrat & Mariné, 2005).

2.9. The Moderating Role of Academic Procrastination

There are theoretical grounds supporting the notion that procrastination behavior interferes with the pathways linking emotional and motivational variables to academic achievement. For example, academic procrastination may negatively affect academic

achievement due to failures in self-regulation and reduced motivation (Steel & Klingsieck, 2016). Procrastinating students have difficulty regulating negative emotions, such as anxiety and stress, which in turn undermine their academic achievement (Eckert et al., 2016; Klassen et al., 2008; Wasim et al., 2021).

Moreover, the influence of academic procrastination on academic achievement manifested among students with low emotion regulation ability (Eckert et al. 2016; Mazhar et al., 2021). As a result, procrastinators experience greater difficulty adapting to academic demands, further disrupting their capacity to utilize emotional resources in support of academic achievement (Hen & Goroshit, 2014). In addition, research shows that procrastinators often attend to their emotion in maladaptive ways. They may become overwhelmed by negative feeling, unable to concentrate on the academic task at hand or unable to tolerate the negative emotion that can undermine academic performance (Mohammadi Bytamar et al., 2020).

Procrastination also interferes with goal-driven behaviors (Wolters, 2003). For example, procrastinating students are less likely to adopt mastery-approach goals and use metacognitive strategies (Corkin et al., 2011), and they tend to avoid exerting effort on academic tasks, which in turn negatively affects their graded performance (Howell & Buro, 2009). Conversely, students who procrastinate less tend to endorse stronger mastery goal orientation and achieve higher academic performance (Van Eerde & Klingsieck, 2018). Individuals with mastery-approach goals exhibit self-regulation capacities that facilitate reduction of academic procrastination (Dehghani et al., 2024). In contrast, individuals with weak goal orientation may lack the drive to counteract the negative emotions, leading them to procrastinate or abandon their goal-directed tasks

(Chen et al., 2024). Furthermore, the negative effect of academic procrastination on academic achievement was stronger for students who had a performance-avoidance goal orientation (McGregor & Elliot, 2002).

Although many researchers characterize procrastination as a maladaptive or self-handicapping behavior that undermines optimal performance (Gareau et al., 2019; Hen & Goroshit, 2014), others argue that procrastination are not necessarily harmful to learning (Chu & Choi, 2005; Choi & Moran 2009; Schraw et al. 2007). In line with this perspective, Chu and Choi (2005) introduced the concept of active procrastination, a deliberate form of delay that differs from traditional or passive forms of procrastination. Passive procrastination is negative type of procrastination in which individuals postpone tasks until the last minute because of their inability to initiate action in a timely manner. In contrast, active procrastination is positive type of procrastination in which individual make intentional decisions to procrastinate, rely on strong motivation under time pressure to complete tasks with satisfactory results (Choi & Moran 2009).

Importantly, the emotional and motivational variables underlying passive and active procrastination are different (Zohar et al., 2019). For example, students who engage in passive procrastination often experience negative emotional states such as stress, guilt, and depression (Chua et al., 2025). On the hand, active procrastination is considered as a strategic behaviors based on individuals' understanding of their own emotions, motivations and other personal resources (Zohar et al, 2019). Consequently, active procrastination positively contributes to academic achievement while passive procrastination can have a negative effect (Zohar et al, 2019).

Overall, the existing evidence suggests that academic procrastination may affect how students effectively utilize their emotional and motivational resources in academic context. However, despite these theoretical foundations, empirical studies examining the moderating role of academic procrastination (passive and active) in the relationship between emotional intelligence, goal orientation and academic achievement remain limited. Therefore, this study is design to explore the moderating role of academic procrastination in the relationships between emotional intelligence, goal orientation, and academic achievement.

2.10. Theoretical Framework of the Study

The Broaden-and-Build Theory of emotion (B&B) developed by Fredrickson (2001) and the Social Cognitive Theory (SCT) introduced by Bandura (1986) were used as the guiding frameworks in the present study. The Broaden-and-Build Theory proposes that positive emotions broaden individuals' thought–action repertoires and contribute to the development of enduring personal resources that support optimal functioning (Fredrickson, 2001). Positive emotions are viewed as catalysts for expanding students' cognitive and behavioral repertoires as well as cultivating long-lasting intellectual, social, and psychological resources (Fredrickson, 2001; Oriol-Granado et al., 2017). The promotion of positive emotions in students is relevant for building psychological capital and academic engagement which, in turn, may lead to higher academic performance (Carmona-Halty et al., 2019). Students with higher levels of emotional intelligence (EI) are more likely to experience positive emotions during learning, enabling them to employ a wider range of strategies for effective task engagement and enhanced academic performance (Perera, 2016; Zirak & Ahmadian, 2015).

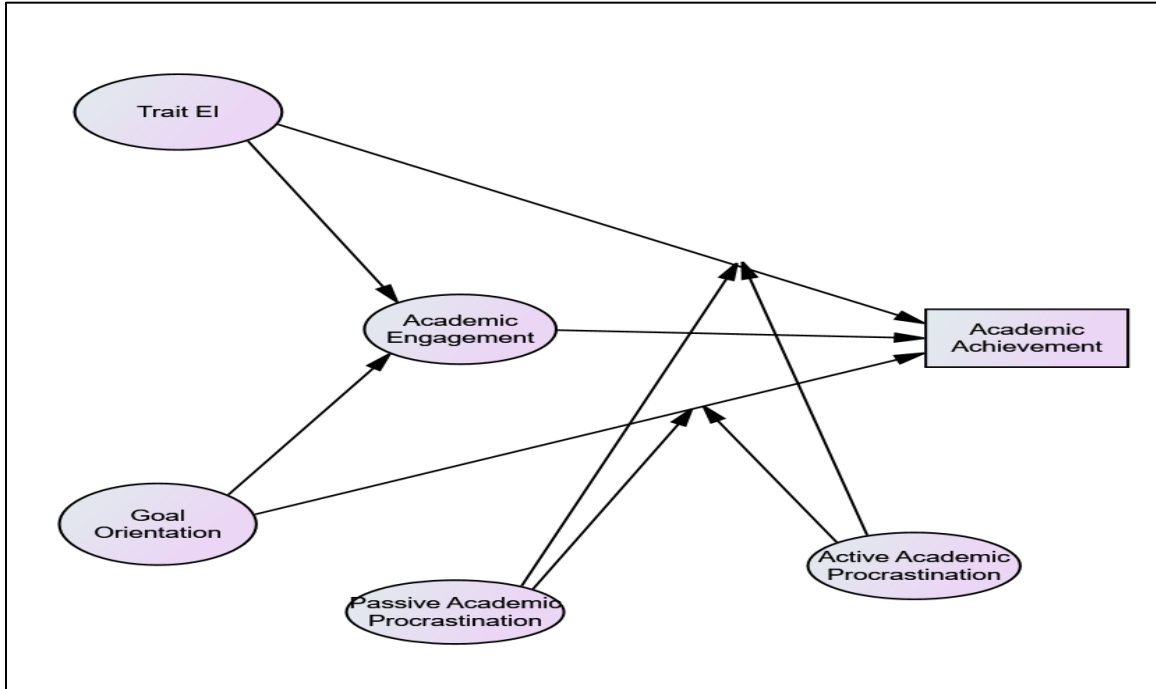
The Broaden-and-Build theory also provides a theoretical framework for understanding how goal orientation particularly mastery leads to academic achievement through the cultivation of positive emotions and the development of enduring personal resources for academic engagement (Hoferichter & Schlesier, 2025).

From a social cognitive perspective, learning outcomes such as academic achievement arise from the dynamic interplay among personal characteristics, behavioral processes, and environmental conditions in shaping learning outcomes (Bandura, 1986). The notion how individuals actively shape their learning experiences through self-regulation, beliefs, and emotional processes, make SCT well-suited for examining how goal orientations and positive emotions influence engagement (Zhao & Ma, 2025). For instance, positive emotions expand cognitive resources that promote deeper engagement with academic tasks (Fredrickson, 2001) Students experiencing positive emotions exhibit optimism and intrinsic motivation, which drive both affective and behavioral engagement (Oriol-Granado et al., 2017). Moreover, students with positive emotion are more likely to adopt mastery goals, which foster intrinsic motivation and affective engagement while performance goals may undermine engagement by amplifying negative emotions such as stress and fear of failure (Oriol-Granado et al., 2017).

2.11. Conceptual Framework

Figure 1

Conceptual Framework of the Study



The conceptual framework illustrates the hypothesized relationships among Trait EI, Goal Orientation, Academic Engagement, Academic Procrastination (both Passive and Active), and Academic Achievement. As indicated in the diagram Trait EI and goal orientation was proposed as the main predictor variables of academic achievement which influences academic success both directly and indirectly through academic engagement, which serves as the mediating variable. Moreover, procrastination (passive and active) was conceptualized as moderator variable between Trait EI and academic achievement and between goal orientation and academic achievement.

CHAPTER 3: RESEARCH APPROACH AND METHODS

This section presents the description of the research paradigm, approach, design, as well as the sampling techniques, data collection and analysis procedures.

3.1. Research Paradigm

The study adapted a post-positivism paradigm, which acknowledges the existence of an objective and measurable reality that can never be fully explained but can only approximate (Cohen et al., 2018). The study adopted a post-positivist epistemology which recognizes the importance of empirical data and testing hypotheses, but also acknowledges the potential influence of researcher biases and values on the research process (Creswell, 2015).

3.2. Research Approach

A quantitative research approach is extremely pertinent to the current study due to the following reasons.

Firstly, since this study aimed at exploring the direct and indirect effects of emotional intelligence and goal orientation on academic achievement using academic engagement as a mediator and academic procrastination as a moderator variable, a quantitative research approach provides a robust method for establishing such kind of relationships. As noted by Creswell (2015), quantitative research is useful for answering questions of how one variable influences another and assessing whether certain factors predict an outcome variable

Secondly, the use of a quantitative approach allows for the generalization of results from the sample to the population. Quantitative research enables researchers to make inferences about a larger population based on the data collected from a smaller sample (Creswell, 2015).

Thirdly, a quantitative method such as SEM is a powerful statistical method that helps to examine relationships among numerous variables simultaneously. SEM allows for modeling multiple of independent and dependent variables, mediation, interaction, and correlation (Collier, 2020). Additionally, SEM provides a clear framework for path analysis, which is useful for the researcher to examine the direct and indirect effects of the predictor variables on the outcome variables (Byrne, 2016).

3.3. Research Design

The main intention of this research is to investigate the relationship among variables such as emotional intelligence, goal orientation, student engagement, academic procrastination, and academic achievement. In this research, a correlational research design was considered relevant because it systematically investigates and explains the nature of relationships that exist among the independent and dependent variables. According to Creswell and Guetterman (2019) correlational designs provide an opportunity for researchers to predict scores and explain how the various variables relate to one another. Additionally, it assists researchers in examining a range of independent variables to identify those that have the most impact on the dependent variable under study (Roni et al., 2020).

3.4. Study Population

First-year regular undergraduate students attending at Wollo University during the 2023/2024 academic year were the target population of the study. The total number of students was 3,566 (2,315 males and 1,251 females), of which 2,003 were attending natural science, and the rest 1,563 were pursuing social science programs.

3.5. Sample Size Determination

The sample size was determined using the guidelines proposed to establish the minimum sample size necessary for conducting structural equation modeling (SEM). It is generally accepted that SEM requires a larger sample size compared to other statistical techniques (Collier, 2020; Kline, 2016). In terms of sample size, the ratio of cases to variables is the most commonly used method for determining the required sample size (Hair et al., 2019). Researchers suggest larger sample sizes (200 or more) as the number of variables and expected factors increases (Collier, 2020; Hair et al., 2019). Consequently, numerous recommendations have been made to ascertain the necessary sample size for SEM (Kline, 2016). For example, it has been suggested that a minimum of 20 cases per variable is needed to estimate the sample size required to achieve sufficient statistical power (Jackson, 2003). Another rule of thumb suggests at least 15 cases per indicator variable as a lower limit for an adequate sample size (Stevens, 2009).

Therefore, the rule of thumb suggested by Stevens (2009) was employed to determine the sample size for this study. Since the study comprises 85 observed variables or indicators, the minimum sample size requirement is 1,275 participants ($15 \times 85 = 1,275$).

Considering the 10% non-response rate, a sample of 1,403 students was drawn from the target population.

3.6. Sampling Technique

Using the above-mentioned rule of thumb and considering a 10% non-response rate, 1,403 students were selected through stratified random sampling technique, recruiting participants from natural and social science fields in proportion to their overall student enrollment. However, due to non-returns and missing data, 52 questionnaires were excluded from the sample, leading to a response rate of 96.3%. Thus, 1,351 participants were included, of whom 759 (56%) were from natural sciences and 592 (44%) from social sciences. In terms of gender, 880 (65%) of the participants were males, and 471 (35%) of them were females

3.7. Data Collection Instruments

The instruments used to measure the variables of the study were all adapted from the following standardized scales.

3.7.1. Trait Emotional Intelligence Questionnaires-Short Form (TEIQue-SF)

TEIQue-SF, developed by Petrides (2009), was used to assess students' emotional intelligence. The TEIQue-SF consisted of 30 items, of which 26 items were used to measure the four-factor structure (six items for each of well-being, self-control, and sociability; and eight items for emotionality). The other four items contribute directly to the global trait EI score without being scored to any one factor. The TEIQue-SF was a seven-point Likert-scale form ranging from 1 (completely disagree) to 7 (completely

agree). TEIQue-SF had reported an Alpha value (α) ranging from .51 to .76 for its subscale and $\alpha = .85$ for Total EI (Zirak & Ahmadian, 2015).

3.7.2. Personal Achievement Goal orientation Questionnaire (PAGQ)

The personal achievement goal orientation scale section of the Pattern of Adaptive Learning Scales (PALS) developed by Midgley et al. (2000) was used to measure students' goal orientation. It is a five-point Likert-type scale ranging from 1 (not at all true for me) to 5 (very true for me). The scale was composed of 17 items, of which 6 items were for mastery approach, 5 items for performance approach, and 6 items for performance avoidance goal orientation. The original instrument has good reliability, and the developer reported the reliability statistics $\alpha = .83$ for mastery, $\alpha = .86$ for performance approach and $\alpha = .74$ for performance avoidance scale.

3.7.3. The Utrecht Work Engagement Scale-Student Version (UWES-S)

The UWES-S, developed by Schaufeli et al. (2002) rated on seven-point Likert scale ranging from 1 (never) to 7 (always) form, was used to assess student engagement in academic work. UWES-S consists of 14 items with five items for vigor, five items for dedication, and four items for absorption. Originally the instrument has a reliability of $\alpha = 0.78$ for vigor, $\alpha = 0.91$ for dedication, and $\alpha = 0.73$ for absorption

3.7.4. The Passive Procrastination Measure

The procrastination scales developed by Yockey (2016) were used to assess the level of passive academic procrastination. It consists of 5 items with a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). An individual who answers strongly agree such items as "I have found myself waiting until the day before to start a

project” and “I get distracted by other, more fun, things when I am supposed to work on schoolwork” is indicative of more academic procrastination. This measure exhibited a high reliability, $\alpha = .95$.

3.7.5. Active Procrastination Scale

Active procrastination scales, developed by Choi and Moran (2009), were used to measure aspects of purposeful and beneficial procrastination (e.g., “In this course, I intentionally put off work to maximize motivation”). The scale consists of sixteen items with 7-point Likert scale ranging from 1(Not at all true) to 7 (Very true) to measure four defining characteristics of active procrastinators: (a) four items for preference for pressure (e.g., I tend to work better under pressure), (b) four items for intentional procrastination (e.g., I intentionally put off work to maximize my motivation), (c) four items for ability to meet deadlines (e.g., Since I often start working on things at the last moment, I have trouble finishing assigned tasks most of the time), and (d) four items for outcome satisfaction (e.g., I feel that putting work off until the last minute does not do me any good). A composite score of these four sub-scales was used to assess the overall tendency toward active procrastination. The overall reliability of the items reported $\alpha = .80$, and for the four dimensions ranging from $\alpha=.70$ to $\alpha=.83$.

3.7.6. Students' Academic Achievement

The students' first-year first-semester GPA was used to obtain data regarding students' academic achievement

3.8. Procedures of Translation, Adaptation, and Validation of Measures

Cross-cultural studies claimed that psychometrically sound and meaningful psychological instruments in one context may not be applicable in another context (Feher et al., 2019). This is because the way individuals interpret and respond to these instruments is influenced by the difference in cultures, languages, beliefs, values, and norms of the society (Feher et al., 2019). Consequently, when instruments are used in study populations different from the language and culture in which they were originally developed and validated, adapting and validating using rigorous procedures is essential in the research process (Banville et al., 2000). Therefore, the instruments used in this study were adapted and translated using the procedures suggested by Banville et al. (2000).

Initially, the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF), the Personal Achievement Goal Orientation Questionnaire (PAGQ), the Utrecht Work Engagement Scale-Student Version (UWES-S), and academic procrastination scales were translated from the source language (English) into the target language (Amharic) using two translators: one from English and the other from Psychology department. They were selected for their expertise in both languages and extensive experience in instrument development and research. Next, two additional translators synthesized the forward-translated materials. The main purpose of this stage was to ensure that the content and meanings of the TEIQue-SF, UWES-S, the personal achievement goal orientation measures, and academic procrastination scales were accurately captured in the original scales. In the third stage, the synthesized Amharic version of the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF), the Utrecht Work Engagement

Scale-Student Version (UWES-S), the personal achievement goal orientation measures, and academic procrastination scales were translated back into English, and the congruence between the original English versions and the back-translated version of these instruments was checked. In the fourth stage, to identify if there are any inconsistencies in the translation process, the original English versions, the Amharic versions, and the back-translated English versions were reviewed. Finally, the adaptation process was ended with the administration and validation of the study instruments for a pilot study to ensure their suitability and reliability in the Ethiopian context.

3.8.1. Pilot Study

A pilot study provides the researcher with an opportunity to further identify any ambiguities and to ensure the clarity and adequacy of the instruments for the main data collection phase (Thabane et al., 2010). Before the actual data collection commenced, the instruments were administered for pilot testing to 100 randomly selected freshman students from Woldiya University. Cronbach's alpha coefficient was used to compute the internal consistency of items both at the global and factor level. As a rule of thumb, 0.70 is suggested as a minimum threshold value for an acceptable level of reliability (Collier, 2020). Moreover, based on the feedback obtained, certain word changes were made in some items to make them suitable for the Ethiopian context. As can be seen in Table 1 all the scales demonstrated a sufficient level of reliability ($\alpha > 0.70$) at both the global and factor level. Therefore, these instruments are deemed suitable for collecting data in the main study.

Table 1

Pilot Study Reliability Index of Scales and Sub-scales as Measured with Cronbach's Alpha Coefficient

Scales/Subscales	no. of items	Cronbach's alpha coefficient (α)
Trait Emotional Intelligence Questionnaires- Short Form TIEQue-SF	30	.72
Well being	6	.74
Self-control	6	.73
Sociability	6	.83
Emotionality	6	.89
Personal Achievement Goal Orientation Questionnaire	17	.90
Mastery goal orientation	5	.79
Performance approach goal orientation	6	.80
Performance avoidance goal orientation	6	.76
The Utrecht Work Engagement Scale-Student Version (UWES-S)	14	.93
Vigor	5	.87
Dedication	5	.91
Absorption	4	.90
Active Academic Procrastination Scale	16	.75
Outcome satisfaction	4	.83
Pressure preference	4	.76
Intentional decision to procrastination	4	.90
Ability to meet deadline	4	.77
Passive Academic Procrastination Scale	5	.77

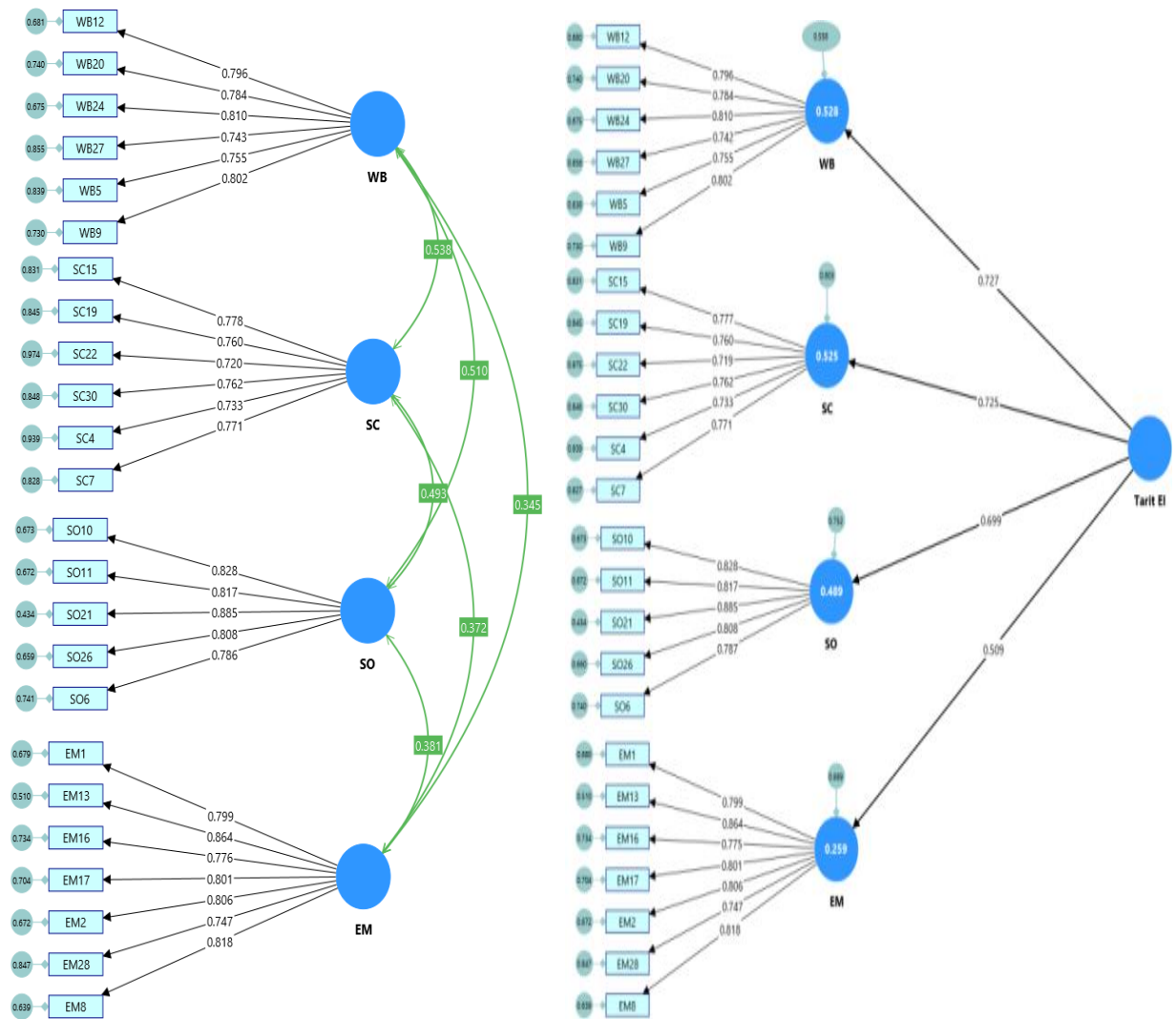
3.8.2. Validation of Instruments

Ensuring the validity and reliability of the construct used in the study is the first step in SEM (Subhaktiyasa, 2024). Hence, the instruments used in the study were evaluated using confirmatory factor analysis (CFA).

Trait Emotional Intelligence Questionnaires-Short Form (TEIQue-SF)

The fit indices of the TEIQue-SF: ($\chi^2/df = 3.446$, TLI = 0.968, CFI = 0.971, SRMR= 0.027, RMSEA =0.043) for the first-order construct, and ($\chi^2/df = 3.230$, TLI = 0.971, CFI = 0.974, SRMR= 0.027, RMSEA =0.043) for the second- order construct indicated that both model had a reasonably good fit to the data.

Except for item EM23 and SO25, all other items were significantly loaded onto the respective factors above the recommended threshold of 0.708 (Hair et al., 2019). Specifically, the remaining items in the measurement model revealed a factor loading of 0.720 for the first-order model and 0.719 or higher for the second-order model (see Figure 2) accounted for a satisfactory proportion of variance in the underlying latent construct. As a rule of thumb, factor loading above 0.708 indicates that the construct explains more than 50% of the indicator's variance, exhibiting a satisfactory level of reliability (Hair et al., 2019). Therefore, items SO25 and EM23, which had factor loading below 0.708, were excluded from further analysis.

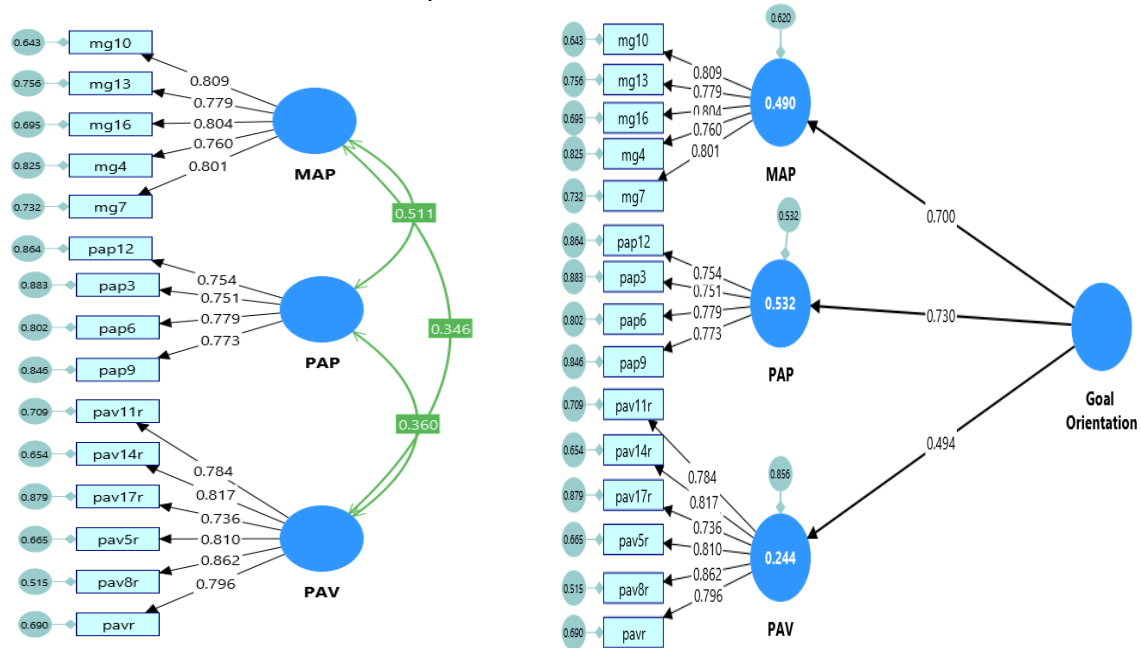
Figure 2*First and Second Order Model of TEIQue-SF***Personal Achievement Goal Orientation Questionnaire (PAGQ)**

Results of the indices of the PAGQ: ($\chi^2/df = 4.027$, TLI = 0.979, CFI = 0.983, SRMR = 0.024, RMSEA = 0.047) for the first-order construct and, ($\chi^2/df = 4.106$, TLI = 0.980, CFI = 0.984, SRMR = 0.025, RMSEA = 0.048) for the second-order construct confirmed that the models had a good fit to the data. Except items MAP1 and PAP15, all other items consistently loaded to their respective factors, with factor load above 0.732 for both first

and second-order constructs (see Figure 3) indicating factor structure reliability. Hence, items MAP1 and PAP15 were deleted from the main analysis.

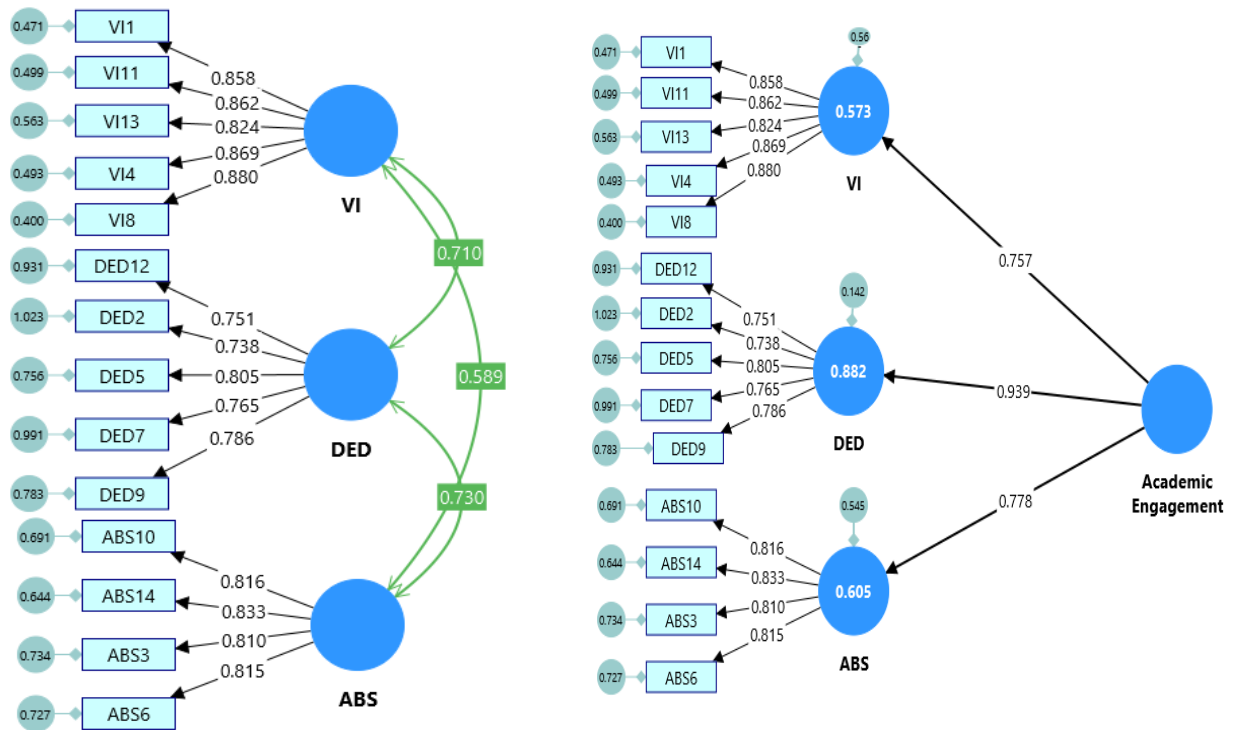
Figure 3

First and Second Order Model of PAGQ

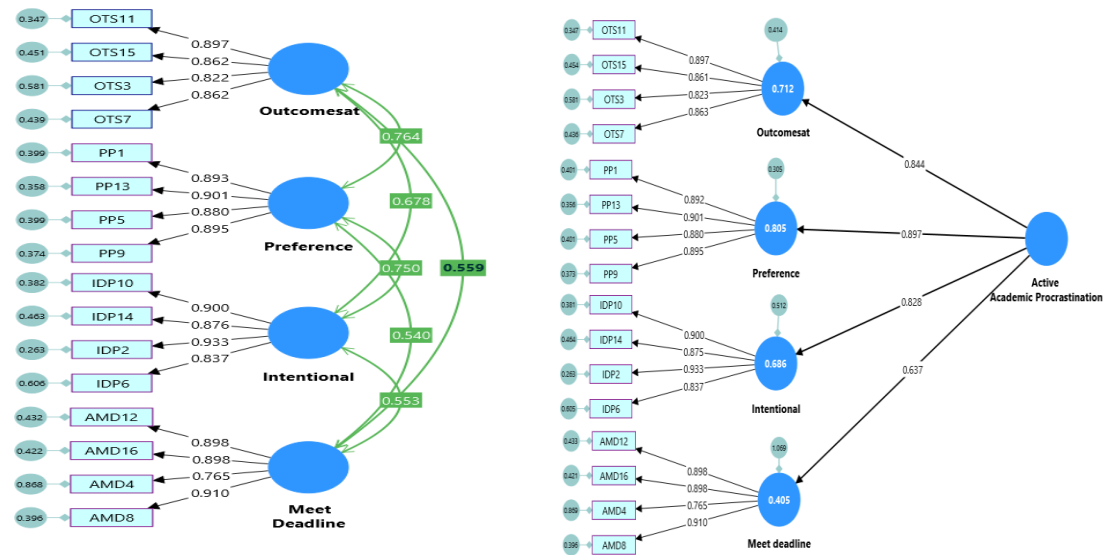


The Utrecht Work Engagement Scale-Student Version (UWES-S)

The fit indices of the first-order construct ($\chi^2/df = 3.500$, TLI = 0.983, CFI = 0.986, SRMR = 0.023, RMSEA = 0.044), and for the second-order construct ($\chi^2/df = 3.500$, TLI = 0.983, CFI = 0.986, SRMR = 0.023, RMSEA = 0.044) demonstrated that the model of UWES-S had an adequate fit. Each item loaded into their respective factors, with a factor loading exceeding the recommended threshold of 0.708 (Hair et al., 2019) (see Figure 4).

Figure 4*First and Second Order Model of UWES-S***Active Academic Procrastination Scale**

The result of Confirmatory factor Analysis (CFA) for the first-order factor construct ($\chi^2/df = 4.921$, TLI = 0.977, CFI = 0.981, SRMR= 0.033, RMSEA = 0.054), and for the second-order construct ($\chi^2/df = 5.023$, TLI = 0.977, CFI = 0.981, SRMR= 0.036, RMSEA = 0.055) confirmed an acceptable level of data fit.

Figure 5*First and Second Order Model of Active Academic Procrastination Scale***Table 2***CFA Model Fit Summary of the Study Variables*

No	Constructs	Models	χ^2 /df	TLI	CFI	SRMR	RMSEA
1	Trait EI	First-order	3.446	0.968	0.971	0.027	0.043
		Second-order	3.230	0.971	0.974	0.027	0.041
2	Goal Orientation	First-order	2.767	0.979	0.983	0.019	0.036
		Second-order	2.767	0.979	0.983	0.019	0.036
3	Academic Engagement	First-order	3.00	0.983	0.986	0.023	0.044
		Second-order	3.500	0.983	0.986	0.023	0.043
4	Active Academic Procrastination	First-order	4.921	0.977	0.981	0.033	0.054
		Secon-order	5.023	0.977	0.981	0.036	0.055

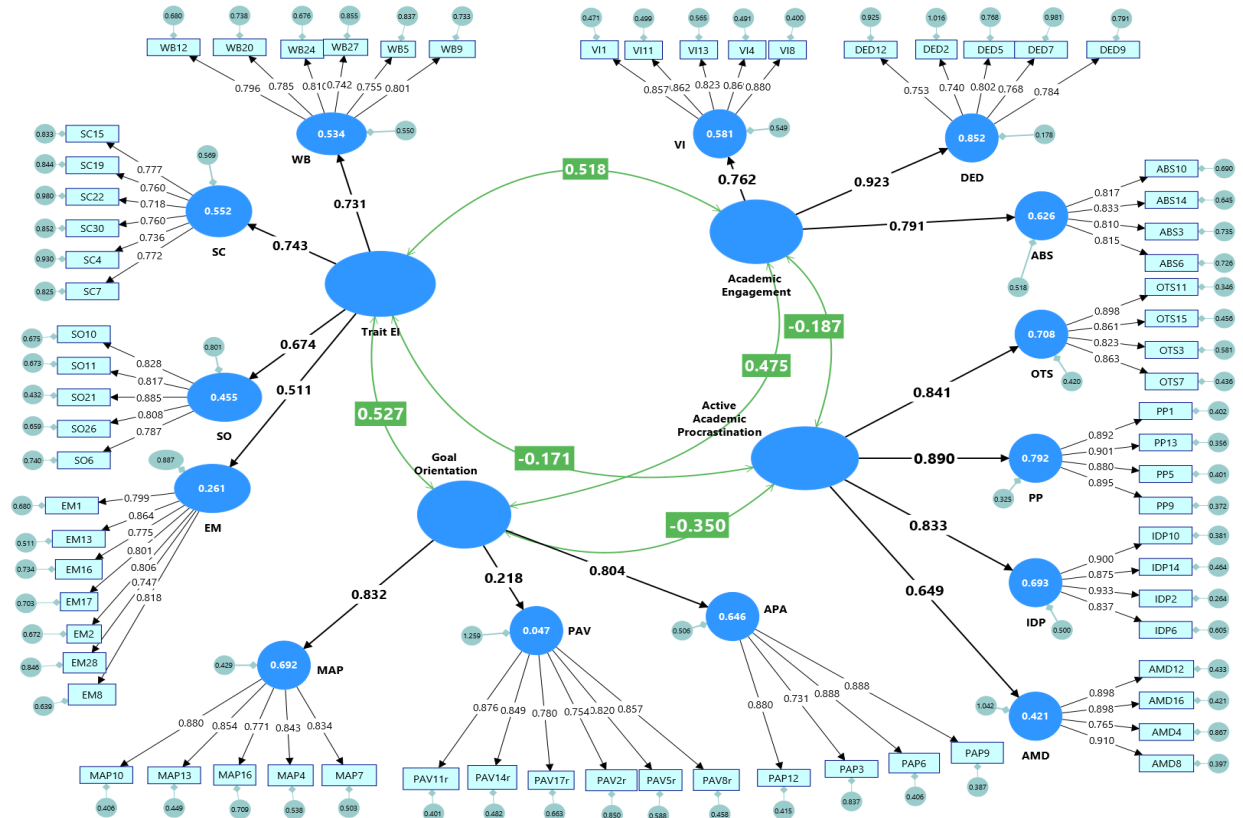
Note: **p<0.001, χ^2 =chi-squared, df = degrees of freedom, TLI = Tucker Lewis index, CFI = comparativefit index, RMSEA = root mean error square of approximation, SRMR = Standardized Root Mean Square Residual

Finally, the fit indices comprising the fourteen second-order constructs: Trait EI (WB, SC, SO, EM); goal orientation (MAP, PAV, PAP); academic engagement (VI, DED, ABS), active academic procrastinationand (AMD, IDP, PP, OTS) and their 70 respective

items ($\chi^2/df = 1.843$, $TLI = 0.972$, $CFI = 0.973$, $SRMR = 0.045$, $RMSEA = 0.025$) indicates a well-fitted model (see Figure 6).

Figure 6

Second Order CFA for Integrated Measurement Model



Reliability and Validity Evidence of the Constructs

Regarding the reliability and validity evidence, the study variables achieved an acceptable level of reliability of above 0.70 (Hair et al., 2011) for both the Cronbach's Alpha (α) and Composite Reliability (CR). The Cronbach's Alpha (α) values ranging from 0.879 - 0.940 for the first-order construct and from 0.895 - 0.937 for the second-order construct. Similarly, the values of Composite Reliability (CR) ranging from 0.878 - 0.940 for the

first-order construct and from 0.908 - 0.944 for the second-order construct. Thus, the reliability of the construct was confirmed.

The AVE value for the first and second order constructs exceeded the recommended threshold of 0.50. For example, the AVE values ranging from 0.612-0.796 for the first-order construct and from 0.510-0.678 for the second-order construct. These results confirmed the establishment of convergent validity of the study variables.

Table 3

Reliability and Validity Indices of the Study Variables

First order construct	Second order construct	No.of indicators	Factor load	α >0.70 *)	CR	AVE (>0.50*)
EM		7	0.747-0.806	0.926	0.927	0.643
WB		6	0.743-0.810	0.904	0.904	0.612
SC		6	0.720-0.770	0.887	0.888	0.569
SO		5	0.786-0.885	0.914	0.915	0.682
MAP		5	0.760-0.809	0.921	0.921	0.701
PAP		4	0.751-0.779	0.909	0.912	0.722
PAV		6	0.736-0.862	0.918	0.917	0.693
VI		5	0.824-0.880	0.933	0.934	0.737
DED		5	0.738-0.805	0.879	0.878	0.592
ABS		4	0.810-0.833	0.891	0.890	0.670
OTS		4	0.862-0.879	0.920	0.937	0.742
PP		4	0.880-0.895	0.940	0.940	0.796
INT		4	0.837-0.933	0.935	0.937	0.787
AMD		4	0.765-0.898	0.923	0.926	0.756
	Triat EI	EM	0.732			
		WB	0.721	0.924	0.932	0.678
		SC	0.676			
		SO	0.507			
	Goal Orientation	MAP	0.700			
		PAP	0.730	0.895	0.908	0.510
		PAV	0.494			
	Academic Engagement	VI	0.757			
		DED	0.939	0.936	0.944	0.547
		ABS	0.779			
	ActiveAcademic Procrastination	OTS	0.844			
		PP	0.897	0.937	0.947	0.619
		INT	0.828			
		AMD	0.637			

Note: ABS=Absorption, DED= Dedication, EM=Emotionality, PAP= Performance-approach, PAV =Performance-avoidance, SC = Self-control, SO = Sociability, WB = Well-being, MAP= Mastery approach, VI =Vigor, OTS=Outcome satisfaction, PP=Pressure preference, INT=Intentional decision, AMD=Ability to meet deadline

Furthermore, the discriminant validity analysis, based on the Heterotrait-Monotrait Ratio (HTMT), indicated that all HTMT values for the second-order construct (see Table 4) and the first-order constructs were below the threshold of 0.85 (see Table 4&5). This supports that discriminant validity is adequately established.

Table 4

Discriminant validity based on HTMT (Second-Order Construct)

Constructs	1	2	3	4	5	6
1 Academic Achievement						
2 Academic Engagement	0.669					
3 Active Procrastination	0.321	0.185				
4 Goal Orientation	0.681	0.440	0.202			
5 Passive Procrastination	0.105	0.097	0.165	0.132		
6 Trait EI	0.529	0.142	0.142	0.442	0.079	

Table 5*Discriminant Validity Based on HTMT (First-Order Construct)*

Constructs	ABS	AMD	APA	DED	EM	IDP	MAP	OTS	PAV	PP	SC	SO	VI	WB
ABS														
AMD	0.217													
APA	0.311	0.333												
DED	0.729	0.232	0.356											
EM	0.246	0.122	0.234	0.248										
IDP	0.139	0.581	0.284	0.125	0.068									
MAP	0.339	0.357	0.693	0.349	0.229	0.274								
OTS	0.116	0.575	0.212	0.112	0.049	0.684	0.210							
PAV	0.214	0.121	0.139	0.256	0.043	0.053	0.165	0.052						
PP	0.121	0.561	0.219	0.107	0.042	0.754	0.227	0.765	0.042					
SC	0.365	0.169	0.369	0.358	0.375	0.140	0.313	0.077	0.234	0.068				
SO	0.273	0.173	0.276	0.303	0.391	0.081	0.236	0.057	0.149	0.082	0.505			
VI	0.591	0.212	0.280	0.713	0.248	0.141	0.299	0.123	0.157	0.131	0.298	0.256		
WB	0.306	0.195	0.330	0.337	0.347	0.153	0.346	0.117	0.216	0.113	0.544	0.515	0.269	

Note: ABS=Absorption, DED= Dedication, EM=Emotionality, PAP= Performance-approach, PAV =Performance-avoidance, SC = Self-control, SO = Sociability, WB = Well-being, MAP= Mastery approach, VI =Vigor, OTS=Outcome satisfaction, PP=Pressure preference, INT=Intentional decision, AMD=Ability to meet deadline

3.8.3. Testing Common Method Bias

Researchers suggested that studies that employ self-report measures need to examine common method bias (CMB) before conducting structural equation modeling (Podsakoff et al., 2003). Since the data for the present study were collected using self-reported measures, Harman's single-factor test and common method factor approach were utilized to assess the presence of common method bias. In Harman's single-factor test, all 70 items were forced to load onto a single un-rotated factor, and the results indicated that the single factor accounted for only 20% of the total variance, which is well below the recommended threshold of 50% (Podsakoff et al., 2003).

In addition, the common method factor approach was applied by comparing the chi-square values of the confirmatory factor analysis (CFA) model without the common method construct and the CFA model with the common method construct. The chi-square values for the model without and with the common method construct $\chi^2 = 317.745$ and $\chi^2 = 314.591$, respectively. The difference between the two models was $\Delta\chi^2 = 3.154$ with $df = 1$, which is below the critical chi-square value of 3.84 for 1 degree of freedom at the $p = .05$ significance level. Collectively, these results suggested that common method bias was not a concern in the present study (Collier, 2020).

3.8.4. Testing Measurement Invariance

One of the necessary preconditions for conducting SEM is testing the measurement invariance. Henseler et al. (2016) proposed a three-step procedure to assess measurement invariance of composite models, which involves evaluating configural invariance, compositional invariance, and the equality of composite mean values and variances

across groups. Measurement invariance is established at the configural level when identical models are identified across groups; at the compositional invariance level when all permutation p-values for the original correlations exceed 0.05; and at the equality of means and variances level when the p-values are greater than 0.05. Therefore, to determine the measurement invariance of the study constructs, the above procedures were employed. Since all the steps were satisfied, measurement invariance was established across gender and stream among the study variables (see Table 11).

Table 6

Measurement Invariance of Composite Model

	Constructs	CI p-value	MD p-value	VD p-value
Gender	Trait EI	0.654	0.792	0.891
	GO	0.685	0.638	0.609
	AE	0.512	0.246	0.679
	PSP	0.517	0.900	0.691
	ACP	0.922	0.938	0.776
Stream	Trait EI	0.437	0.902	0.936
	GO	0.619	0.769	0.412
	AE	0.519	0.523	0.671
	PP	0.823	0.851	0.791
	ACP	0.569	0.923	0.590

Note: Trait EI=Trait Emotional intelligence, GO=Goal Orientation, AE=Academic Engagement, PSP=Passive Procrastination, ACP=Active Procrastination, CI=Compositional invariance, MD= Mean Difference, VD= Variance Difference

3.9. Procedures of Data Collection

Before administering the data collection tools, the concerned bodies were consulted for permission to carry out the research and to let students to take part in it. In addition, the purpose of the study and the ethical guidelines to be considered in the study were explained properly.

The researcher adhered to the following steps when collecting data. First, the appropriate class time for administering the questionnaires was observed from the academic program office, and if the classes are already in session, the researcher asked the teachers for permission to use some of their class time to administer the questionnaires. Once the researcher got free time, the first few minutes were used for the introduction and to ask participants' consent verbally. They were told about the purpose of the questionnaire and were assured about the confidentiality of the data they will give in the questionnaire. Once the consent of the participants assured, the questionnaire booklets were given to the participants to work on. Before they started filling in the questionnaires, students were oriented on how to fill in the items, and the participants were asked to put their field of study and ID number (which will be used to collect their respective SGPA from the office of the registrar) without writing their names on the questionnaires.

The data about students' academic achievement (GPA) was collected from the registrar by requesting permission from the registrar's office. Students' GPA scores were collected by using their corresponding ID numbers.

3.10. Methods of Data Analysis

Both IBM SPSS 23.0 and Smart PLS (version 4) were used to process the data during the analysis. Negatively worded items in Scales were reversely encoded.

Before conducting the main analyses, preliminary data screening was carried out to ensure the accuracy of data entry and to examine missing values, multivariate outliers, and the assumption of normality and linearity. Moreover, descriptive statistics such as minimum and maximum values, means, standard deviations, and correlation among study variables were analyzed.

Confirmatory factor analysis (CFA) was conducted to determine whether the present data could confirm the adapted scales.

Lastly, Structural equation modeling (SEM) with Partial Least Squares Structural Equation Modeling (PLS-SEM) using Smart-PLS (version 4) was conducted to test the direct and indirect effects of exogenous variables on the outcome variable.

The analysis followed a two-step process as suggested by Subhaktiyasa (2024) for assessing the measurement and structural models. Initially, the measurement model, which examines the relationships between latent variables and their indicators, was assessed to ensure the reliability and validity of the study variables. This analysis of the measurement model included evaluating factor loadings, internal consistency, and both convergent and discriminant validity.

Subsequently, the structural model assessment was conducted to test the hypothesized relationships between the study variables. The overall findings of the study were derived from the subsequent sequential phases of analysis.

3.10.1. Assessment of Statistical Assumptions

The linearity assumption was checked by examining the scatter plots of the independent and dependent variables. Both Mahalanobis distance and Cook's Distance (CD) were used to detect outliers in the data values. Skewness and kurtosis indices were used to assess the normality of the distribution. A perfectly normal data distribution is achieved when both the skewness and kurtosis values are zero (Field, 2009). However, since achieving an exact zero value for skewness and kurtosis is rare, acceptable thresholds must be established to assess normality (Demir, 2022). For the given data, kurtosis values

exceeding ± 7 and skewness values exceeding ± 2 indicate a deviation from a normal distribution (Byrne, 2016).

3.10.2. Factor Analysis

Both first-order and second-order factor model analyses were conducted to test the construct validity of the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF), Personal Achievement Goal Ordination Questionnaire (PAGQ), The Utrecht Work Engagement Scale-Student Version (UWES-S), and active academic procrastination scales. The Chi-square value (χ^2), χ^2/df , CFI, TLI, RMSEA, and SRMR were used to evaluate the fit of the model. To assess the adequacy of the model fit, the following thresholds were used: CFI, IFI, TLI $> .95$, RMSEA $< .06$, and SRMR $< .08$ (Hu & Bentler, 1999), the non - significant chi-square (χ^2) index, the χ^2/df value below 3 or (up to 5 for acceptable) were also considered indicative of a good model fit (Collier, 2020). However, as the Chi-square test is more sensitive to sample size and may not be the best indicator of model fit (Barrett, 2022), alternative fit indices such as χ^2/df , CFI, TLI, RMSEA, and SRMR were emphasized in evaluating the model fit.

3.10.3. Reliability and Validity Evidence of the Construct

Both Cronbach's alpha and composite reliability were employed to assess the reliability of the instruments used in the study. Generally, a value of 0.70 or higher indicates an acceptable standard for both Cronbach's alpha and composite reliability (Collier, 2020).

Average variance extracted (AVE) is a widely used method for assessing the convergent validity of a construct (Subhaktiyasa, 2024). When the AVE values of a construct are 0.50 or higher, the items effectively converge to measure the underlying construct,

thereby confirming convergent validity (Riou et al., 2015). Both the heterotrait-monotrait ratio (HTMT) and the Fornell–Larcker criterion can be used to assess the discriminant validity of the construct. HTMT examines the correlations of indicators across constructs to the correlations of indicators within a construct (Collier 2020). HTMT values below 0.85 indicate that discriminant validity is established, confirming that the constructs are distinctly different (Collier, 2020). According to the Fornell–Larcker criterion, discriminant validity is achieved when the square root of a construct’s AVE exceeds its correlations with all other constructs (Riou et al., 2015). Heterotrait–Monotrait (HTMT) ratio was employed in this study because it is a more stringent method for assessing discriminant validity (Collier, 2020).

3.10.4. Structural Equation Model Testing

A structural equation model was employed to test the hypothesized relationship among the study variables. The direct and indirect relationships between exogenous and endogenous variables were evaluated following the steps recommended by Hair et al. (2019).

- i. Examining Multicollinearity: Multicollinearity occurs when there is a high degree of linear correlation among the study variables. Tolerance and variance inflation factor (VIF) values were analyzed to detect potential multicollinearity issues among the predictor variables. When the VIF exceeds 10, or the tolerance value falls below 0.10, a multicollinearity issue may exist (Pallant, 2010; Byrne, 2016). As a general rule, VIF values should be 5 or lower (Hair et al., 2011) and tolerance values should be 0.10 or higher (Kline, 2016) to ensure the absence of multicollinearity problems.

- ii. Assessing Model Fit: Criteria such as the normed fit index (NFI), standardized root mean square residual (SRMR), the coefficient of determination (R^2) were used to evaluate the fit of structural model (PLS SEM). An SRMR value below 0.08 and NFI values above 0.90 indicate a well-fitting model (Hair et al., 2011). Moreover, the higher the value of R^2 , the better to achieve an acceptable model fit. For example, when the R^2 value close to 0.50 the model has a moderate fit, and when the R^2 value is close to 0.75 the model has substantial fit (Huang, 2021). Conversely, an R^2 value of 0.90 or higher may suggest overfitting (Hair et al., 2019).
- iii. Assessing R^2 : To estimate the model's predictive power, it is essential to examine the coefficient of determination (R^2) for the endogenous variable. Generally, a higher R^2 value indicates greater explanatory power and improved predictions of endogenous constructs (Hair et al., 2019). Specifically, R^2 values of 0.75, 0.50, and 0.25 can be interpreted as the substantial, moderate, and weak predictive power of the model, respectively (Hair et al., 2011).
- iv. Evaluating the Significance of Structural Path Relationships: Path analysis was conducted to evaluate the significance of the hypothesized direct and indirect effects of exogenous variables (trait EI and goal orientation, academic engagement) on endogenous variables (academic achievement), as well as the mediating effects of academic engagement and the moderating effect of academic procrastination between trait EI, goal orientation and academic achievement using the bootstrap method. The standardized coefficients and the bias-corrected 95% confidence intervals derived from bootstrapping for the structural model were used to test the significant effects.

3.11. Ethical Consideration

This study adhered to ethical guidelines for research involving human subjects and was conducted in compliance with the Declaration of Helsinki. Ethical approval was granted by the Institutional Research Review Committee (IRRC) of the College of Education and Behavioral Science, Bahir Dar University, on July 23, 2024 (Reference No. 003/2024). Informed consent was obtained from all participants before their involvement in the study by explicitly stating that the collected data will solely be used for research purposes. The objectives of the study were clearly communicated to the participants. Participants were assured of their anonymity and confidentiality throughout the study. They were assured that their participation is voluntary, and both the researcher and assistant data collectors are obligated to respect their right to withdraw at any time, without any intrusion into their personal affairs. Ethical standards effectively uphold throughout the research process, safeguarding the well-being of the participants and maintaining the privacy and the confidentiality of the information obtained.

CHAPTER 4: RESULTS

This chapter begins by presenting the results of descriptive statistics pertaining to the study variables and correlations among study variables. This is followed by testing the hypothesized relationship between the study variables.

4.1. Results of Preliminary Analysis

Due to non-returns and missing data, of the 1,403, 52 questionnaires (3.7%) were excluded from the initial sample, leading to a response rate of 96.3%. Thus, 1,351 participants were included in the analysis. Results of the assumption testing indicated that basic assumptions were not violated. For example, the scatter plot results indicated a linear relationship among the study variables. Both Mahalanobis distance and Cook's Distance (CD) were used to detect the outliers in the data value. Since values of the Mahalanobis distance were below the critical threshold (20.515) and the Cook's Distance is below one multivariate outliers were not a concern in the data. To assess the normality distribution the values of skewness and kurtosis were also presented. A data set is normally distributed if the skewness is $\leq +2$ and kurtosis is $\leq +7$ (Byrne, 2016). As shown in Table 2, the skewness and kurtosis values for each construct fall within the acceptable range. Therefore, the assumption of normality was satisfied.

4.1.1. Descriptive Statistics

Table 6 indicates descriptive statistics such as minimum and maximum values, means, and standard deviations of the study variables. The results revealed that the global mean score of 3.80 with the standard deviation of .811 for trait emotional intelligence, 4.07 with the standard deviation of 1.57 for academic engagement, 3.69 with the standard

deviation of .780 for goal orientation, 3.79 with the standard deviation of .951 for passive procrastination, 4.11 with the standard deviation of 1.066 for active procrastination and 2.71 with the standard deviation of 0.584 for academic achievement indicated an average level of students' score on the study variables.

Table 7

Descriptive Statistics for the Study Variables

Variables	Min	Max	Mean	Std. Dev	Skewness	Kurtosis
Trait EI	1.50	6.32	3.80	0.811	0.27	0.340
Well-being	1.00	6.67	3.82	1.154	-.275	-.485
Self-control	1.00	6.67	3.82	1.142	-.076	-.772
Emotionality	1.00	6.86	3.75	1.155	-.405	-.595
Sociability	1.00	7.00	3.75	1.204	-.324	-.523
Goal orientation	1.00	5.88	3.69	.780	-.505	.113
Mastery Approach	1.00	6.00	3.80	1.164	-.972	-.088
Performance Approach	1.00	5.60	3.71	1.179	-.804	-.507
Performance Avoidance	1.00	6.00	3.80	1.164	-.377	-1.069
Academic Engagement	1.07	6.43	4.01	1.057	-.093	-.437
Vigor	1.00	7.00	4.02	1.208	-.132	-.242
Absorption	1.00	7.00	4.06	1.264	-.273	-.663
Dedication	1.00	7.00	3.96	1.215	.072	-.405
Passive procrastination	1.00	5.00	3.79	.951	-.583	-.382
Active procrastination	1.00	6.25	4.11	1.066	-.713	1.133
Academic Achievement	0.16	4.00	2.71	0.584	-.280	.222

Notes: EI= Emotional intelligence; Max = Maximum; Min = Minimum; Std. Dev = Standard deviation

4.1.2. Correlation among the Study Variables

. The results of correlational analysis revealed that trait EI had a significant positive correlation with AE ($r = 0.410$, $p < 0.001$) and AA ($r = 0.505$, $p < 0.001$) and a significant negative correlation with PSP ($r = -0.054$, $p < 0.01$) and ACP ($r = -0.153$, $p < 0.001$). Similarly a significant positive correlation was observed between GO and AA ($r = 0.276$, $p < 0.001$) and GO and AE ($r = 0.198$, $p < 0.001$) and a negative significant correlation

between GO and ACP ($r = -.290, p < 0.001$) and GO and PAS ($r = -.125, p < 0.001$). Furthermore, result indicated that AE had significant positive correlation with AA ($r = .649, p < 0.001$) (see Table 7).

Table 8*Pearson Correlations among Study Variables*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 WB																
2 SC	.487**															
3 SO	.470**	.473**														
4 EM	.317**	.340**	.368**													
5 VI	.247**	.272**	.242**	.231**												
6 DED	.301**	.316**	.275**	.224**	.645**											
7 ABS	.275**	.324**	.251**	.223**	.539**	.645**										
8 MAP	.315**	.281**	.209**	.210**	.273**	.312**	.302**									
9 PAV	-.191**	-.205**	-.146**	-.045	-.152**	-.232**	-.203**	-.128**								
10 PAP	.301**	.331**	.249**	.213**	.254**	.317**	.276**	.641**	-.110**							
11 PSP	-.057*	-.057*	-.023	-.039	-.060*	-.045	-.095**	-.055*	-.135**	-.037						
12 ACP	-.158**	-.124**	-.113**	-.079**	-.170**	-.157**	-.162**	-.296**	-.001	-.292**	.128**					
13 AE	.318**	.352**	.298**	.263**	.857**	.894**	.826**	.343**	-.227**	.328**	-.076**	-.189**				
14 GO	.192**	.181**	.140**	.182**	.171**	.174**	.166**	.732**	.467**	.744**	-.125**	-.290**	.198**			
15 Trait EI	.727**	.743**	.732**	.737**	.336**	.371**	.354**	.334**	-.187**	.357**	-.054*	-.153**	.410**	.231**		
16 AA	.392**	.508**	.339**	.287**	.513**	.593**	.574**	.518**	-.391**	.507**	-.089**	-.340**	.649**	.276**	.505**	

Note: **p<.001, *p<.00, TEI=Trait Emotional Intelligence, AA=Academic Achievement, AE= Academic Engagment ABS=Absorption,GO= Goal Oreintation,DED= Dedication, EM=Emotionality, PAP= Performance-approach, PAV =Performance-avoidnace, SC = Self-control, SO = Sociability, WB = Well-being, MAP= Mastery approach, PSP = Passive academic procrastination, VI =Vigor,ACP=Aactive Procrastination

4.2. Structural Model Testing

Once the appropriate level of validity and reliability coefficient of measurements is determined, the next step is to evaluate the hypothesized links between the study variables in the structural model. Since multicollinearity can have a considerable impact on the accuracy of model estimation, the first step in structural model estimation is to address the multi-collinearity issue among predictor variables (Hair et al., 2019).

4.2.1. Multi-collinearity

Tolerance and Variance Inflation Factor (VIF) values were used to test if there is a multicollinearity issue among predictor variables. When the tolerance value falls below 0.10 and the VIF value is 5 or higher, multicollinearity issue may exist in the study variables (Hair et al., 2011; Kline, 2016). Since the tolerance value ranged from 0.807 (Trait Emotional Intelligence) to 0.974 (Passive academic procrastination) and VIF value ranged from 1.027 (Passive academic procrastination) to 1.240 (Trait Emotional Intelligence (see Table 8) were within the required threshold, multicollinearity was not a concern in this study.

Table 9

Tolerance and VIF Value of the Trait Trait EI, Academic Engagement, Goal Orientation, and Active and Passive procrastination on Academic Achievement

Models	Standardized Coefficients			Collinearity Statistics	
	Beta	t	Sig.	Tolerance	VIF
Trait Emotional Intelligence	.258	12.451	.000	.807	1.240
Academic Engagement	.495	23.884	.000	.809	1.237
Goal Orientation	.063	3.144	.002	.868	1.152
Active academic procrastination	-.188	-9.525	.000	.889	1.125
Passive academic procrastination	.012	-.307	.759	.974	1.027

Note: VIF: Variance Inflation Factor

4.2.2. Structural Model Fit (PLS-SEM)

Smart PLS provides NFI, SRMR and R^2 a criteria for model goodness evaluation Subhaktiyasa (2024). The NFI value above 0.90 and the SRMR values below 0.08 indicate a well-fitting model (Hair et al., 2011). Moreover, an R^2 value close to 0.75 suggests substantial model fit (Huang, 2021), while an R^2 value of 0.90 or higher may suggest overfitting (Hair et al., 2019). As indicated in Table 9 the NFI and the SRMR values for structural model were 0.945 and 0.057, respectively, meeting the criteria for acceptable model fit (Hair et al., 2011). Moreover, the model account for 64% of the variance on the outcome variable, indicating the data fit the model well (Hair et al., 2019)

Table 10

Model fit for Structural Model

Models	Evaluation criteria		
	NFI	SRMR	R^2
Saturated model	0.945	.057	.63.80

4.2.3. Coefficient of Determination (R^2 Values)

To estimate the predictive power of the model, there should be a need to examine the coefficient of determination (R^2) for the endogenous variable in the model. In general, the higher the value of R^2 , the greater the explanatory power and the better the predictions of endogenous constructs (Hair et al., 2019). For example, when R^2 values become as high as to 0.75, the explanatory power of the model becomes higher, while the model with a value close 0.50 has moderate explanatory power (Huang, 2021). More specifically, if the model R^2 values close to 0.75 it has substantial predictive power and the value of 0.50, and 0.25 can be interpreted moderate and weak predictive power of the model, respectively (Hair et al., 2011). As indicated in Table 10, the coefficient of determination (R^2) is 0.638 for academic achievement and 0.236 for academic engagement. This means that the three latent variables (Trait EI, goal orientation and Academic engagement) together accounted for 63.8 % of the variance in academic achievement in which the model has moderate predictive power (Hair et al., 2019). In addition, trait emotional intelligence and goal orientation also explain 23.6 % of the variance of academic engagement in this case the model has weak predictive power (Hair et al., 2019).

Table 11:

R^2 values

Path Analysis	R^2
Trait EI-> Academic Engagement	
Goal orientation ->Academic Engagement	23.50
Academic Engagement ->Academic Achievement	63.80
Trait EI ->Academic Achievement	
Goal orientation -> Academic Achievement	

4.3. Testing the Hypothesized Relationship between Variables

To evaluate the significance of the hypothesized direct and indirect relationship of exogenous variables (Trait EI, goal orientation, and academic engagement) on the endogenous variables (academic achievement) Partial Least Square Structural Equation Modeling (PLS-SEM) was employed. Path analysis with bootstrapping methods was utilized to examine the mediating role of academic engagement and the moderating effect of academic procrastination in the relation between trait emotional intelligence, goal orientation and academic achievement. Moreover, the direct and indirect relationships of each dimension of trait EI (well-being, self-control, sociability and emotionality) and goal orientation (mastery approach, performance approach and performance avoidance) with academic achievement were examined. The mediating and moderating effects of academic engagement in the relation between each dimension of trait EI and goal orientation with academic achievement were also reported. The standardized coefficients and corresponding 95% confidence intervals derived through bootstrapping for the structural model were reported.

4.3.1. The Role of Trait EI, Goal Orientation and Academic Engagement on Students' Academic Achievement

The direct effect of trait EI on students' academic achievement was positive and significant ($\beta=0.158$, 95%, CI [0.119, 0.194], $p=0.000$). However, among the dimensions of trait EI, only self-control had a significant and direct positive effect on academic achievement ($\beta=0.205$, 95%, CI [0.166, 0.247], $p=0.000$). This was not the case for well-being ($\beta=0.008$, 95%, CI [-0.031, 0.048], $p=0.703$), sociability ($\beta=-0.002$, 95%, CI [-

0.039, 0.036], $p = 0.934$) and emotionality ($\beta = 0.027$, 95%, CI [-0.008, 0.061], $p = 0.132$) which revealed non-significant effect (see Table 13).

The study also identified a significant and positive direct effect of goal orientation on students' academic achievement ($\beta = 0.344$, 95%, CI [0.306, 0.382], $p = 0.000$). Regarding the dimensions of goal orientation, as indicated in Table 13 mastery approach goal orientation had a significant positive effect on students' academic achievement ($\beta = 0.182$, 95%, CI [0.137, 0.227], $p = 0.000$). Likewise performance approach goal orientation had a significant direct positive effect on students' academic achievement ($\beta = 0.156$, 95%, CI [0.111, 0.201], $p = 0.000$). On the other hand, performance avoidance goal orientation had a significant negative effect on academic achievement ($\beta = -0.213$, 95%, CI [-0.246, -0.180], $p = 0.000$).

The study further revealed a significant direct positive effect of academic engagement on students' academic achievement [$\beta = 0.528$, 95% CI (0.490, 0.564), $p = 0.000$].

4.3.2. The Role of Trait EI and Goal Orientation on Academic Engagement

Trait EI had a direct positive impact on students' academic engagement ($\beta = 0.294$, 95%, CI [0.246, 0.344], $p = 0.000$). As indicated in Table 13 each dimension of trait EI had a positive significant effect on students' academic engagement. For example, well-being ($\beta = 0.073$, 95%, CI [0.015, 0.133], $p = 0.000$), emotionality ($\beta = 0.101$, 95%, CI 0.052, 0.153], $p = 0.000$), self-control ($\beta = 0.139$, 95%, CI [0.078, 0.197], $p = 0.000$) and sociability ($\beta = 0.081$, 95%, CI [0.022, 0.197], $p = 0.000$) had a significant positive direct effect on academic engagement.

Similarly, goal orientation had a significant direct positive effect on academic engagement ($\beta = 0.282$, 95%, CI [0.229, 0.332], $p=0.000$). As shown in Table 13 both mastery approach goal orientation ($\beta=0.161$, 95%, CI [0.100, 0.218], $p=.000$) and performance approach goal orientation ($\beta=0.103$, 95%, CI [0.043, 0.165], $p=0.001$) had a significant positive effect on academic engagement. On the other hand, performance avoidance goal orientation had a significant negative effect on students' academic engagement ($\beta=-0.125$, 95%, CI [-0.173,-0.074], $p= 0.000$).

Table 12

Direct effect of Trait EI, Goal Orientation and Academic Engagement on Academic Achievement

	Beta	t-statistics	Bootstrap 95% CI		
			LBC	UBC	p-value
Standardized Direct Effect					
Trait EI ->AA	0.158	8.160	0.119	0.194	0.000
Trait EI->AE	0.294	11.945	0.246	0.344	0.000
AE->AA	0.383	19.124	0.343	0.421	0.000
GO -> AA	0.344	17.740	0.306	0.382	0.000
GO -> AE	0.282	10.651	0.229	0.332	0.000

Note: EI = Emotional intelligence, AE=Academic engagement, AA= Academic achievement, GO=Goal orientation

Table 13

Direct effect of the Dimensions of Trait EI and Goal Orientation on Academic Achievement

	Beta	t-statistics	Bootstrap 95% CI		
			LBC	UBC	p-value
Standardized Direct Effect					
Emotionality -> AA	0.027	1.508	-0.008	0.061	0.132
Self-control ->AA	0.205	10.093	0.166	0.247	0.000
Sociability ->AA	-0.002	0.083	-0.039	0.036	0.934
Well-being ->AA	0.008	0.381	-0.031	0.048	0.703
Mastery ->AA	0.182	7.868	0.137	0.227	0.000
Performance avoidance -> AA	-0.213	12.743	-0.246	-0.180	0.000
Performance approach ->AA	0.156	6.373	0.111	0.201	0.000
Eotionality -> AE	0.101	3.913	0.052	0.153	0.000
Self-controlle -> AE	0.139	4.564	0.078	0.197	0.000
Sociability -> AE	0.081	2.701	0.022	0.139	0.000
Well-being ->AE	0.073	2.435	0.015	0.133	0.000
Mastery ->AE	0.161	5.301	0.100	0.218	0.000
Performance-avoidance ->AE	-0.125	3.310	-0.173	-0.074	0.000
Performance approach ->AE	0.103	4.941	0.043	0.165	0.001

Note: AE= Academic engagement, AA= Academic achievement

4.3.3. The Mediating Role of Academic Engagement in the Realtionship between the Predictor Variables (Trait EI and Goal Orientation) and Academic Achievement

The results of the mediation analysis revealed that academic engagement significantly mediated the relationship between Trait EI and students' academic achievement ($\beta=0.113$, 95%, CI [0.093, 0.134], $p=0.000$). Furthermore, the standardized indirect path from each dimension of trait EI on students' academic achievement through academic engagement were also significant: well-being ($\beta=0.030$, 95%, CI [0.006, 0.055], $p=0.016$), self-control ($\beta=0.051$, 95%, CI [0.031, 0.080], $p=0.000$), sociability ($\beta=0.033$, 95%, CI [0.009, 0.057], $p=0.008$) and emotionality ($\beta=0.041$, 95%, CI [0.021, 0.063], $p=0.000$).

Similarly, academic engagement played a significant mediating role in the relationship between goal orientation and academic achievement ($\beta=0.108$, 95%, CI [0.086, 0.131], $p=0.000$). The indirect path from the dimensions of goal orientation such as mastery approach ($\beta=0.065$, 95%, CI [0.040, 0.089], $p=0.000$), performance-approach ($\beta=0.042$, 95%, CI [0.017, 0.067], $p=0.001$) and performance-avoidance ($\beta=-0.050$, 95%, CI [-0.071,-0.030], $p=0.000$) on students' academic achievement through academic engagement was also significant (see Table 15). These results revealed that the direct effects of trait EI and goal orientation on academic achievement remained significant with the inclusion of academic engagement as a mediating variable. This demonstrates that the influence of trait EI and goal orientation on students' academic achievement was partially mediated by academic engagement.

Table 14

Indirect Effect of Trait EI and Goal Orientation on Academic Achievement

	Beta	t-statistics	Bootstrap 95% CI		
			LBC	UBC	p-value
Standardized Direct Effect					
Trait EI -> AE ->AA	0.113	10.515	0.093	0.134	0.000
GO -> AE ->AA	0.108	9.476	0.086	0.131	0.000

Note: EI = Emotional intelligence, AE=Academic engagement, AA= Academic achievement, GO=Goal orientation

Table 15

The Indirect Effect of the Dimension of Trait EI and Goal Orientation on Academic Achievement

	Beta	t-statistics	Bootstrap 95% CI		
			LBC	UBC	p-value
Standardized Direct Effect					
Emotionality -> AE->AA	0.041	3.846	0.021	0.063	0.000
Self-control -> AE ->AA	0.056	4.531	0.031	0.080	0.000
Sociability -> AE-> AA	0.033	2.666	0.009	0.057	0.000
Well-bieng ->AE-> AA	0.030	2.418	0.006	0.055	0.016
Master oriented->AE-> AA	0.065	2.232	0.040	0.089	0.000
Performance avoidance->AE-> AA	-0.050	8.830	-0.071	-0.030	0.000
Performance approach -> AE-> AA	0.042	3.266	0.017	0.067	0.001

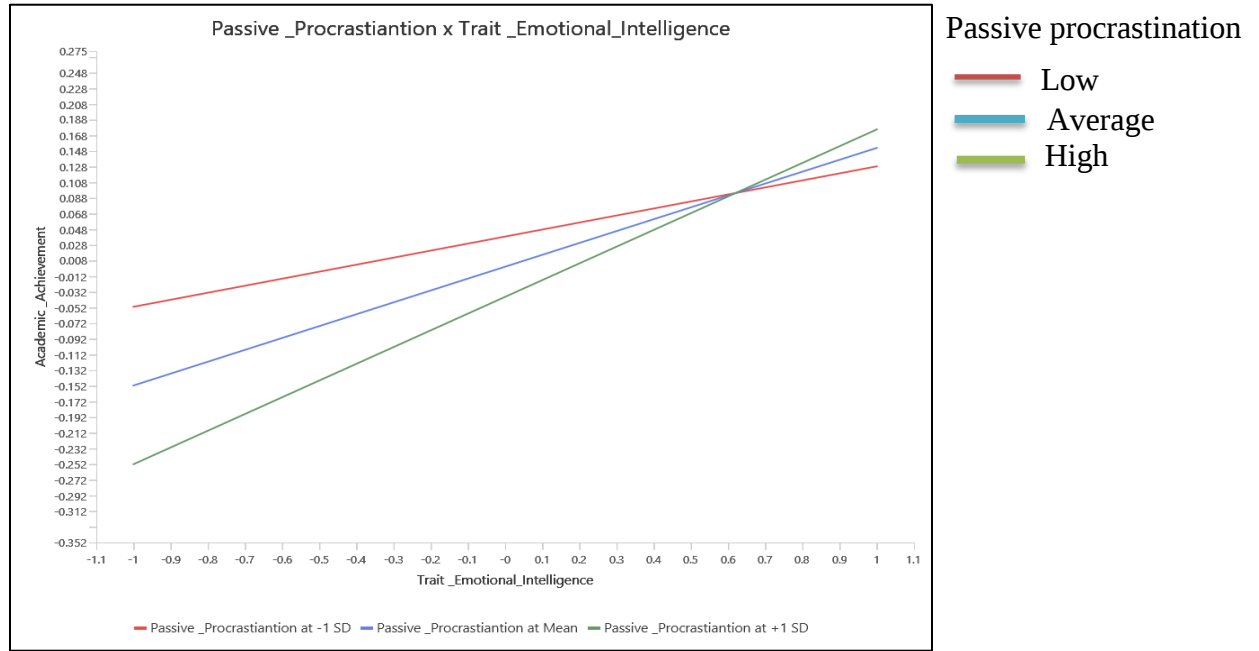
Note: AE =Academic Engagement, AA= Academic Achievement

4.3.4. The Moderating Role of Academic Procrastination in the Relationship between Trait EI and Academic Achievement

The results of the moderation analysis demonstrated revealed that the direct effect trait EI on academic achievement was significantly moderated by passive academic procrastination ($\beta = 0.062$, 95% CI [0.028, 0.095], $p = 0.000$). This result suggests that the lower the level of passive academic procrastination, the weaker the effect of trait EI on academic achievement. This implies that the positive effect of trait EI on academic achievement becomes stronger when the level of passive academic procrastination is high. Students with high level of passive procrastination tendencies benefit more form trait EI (see Figure 7).

Figure 7

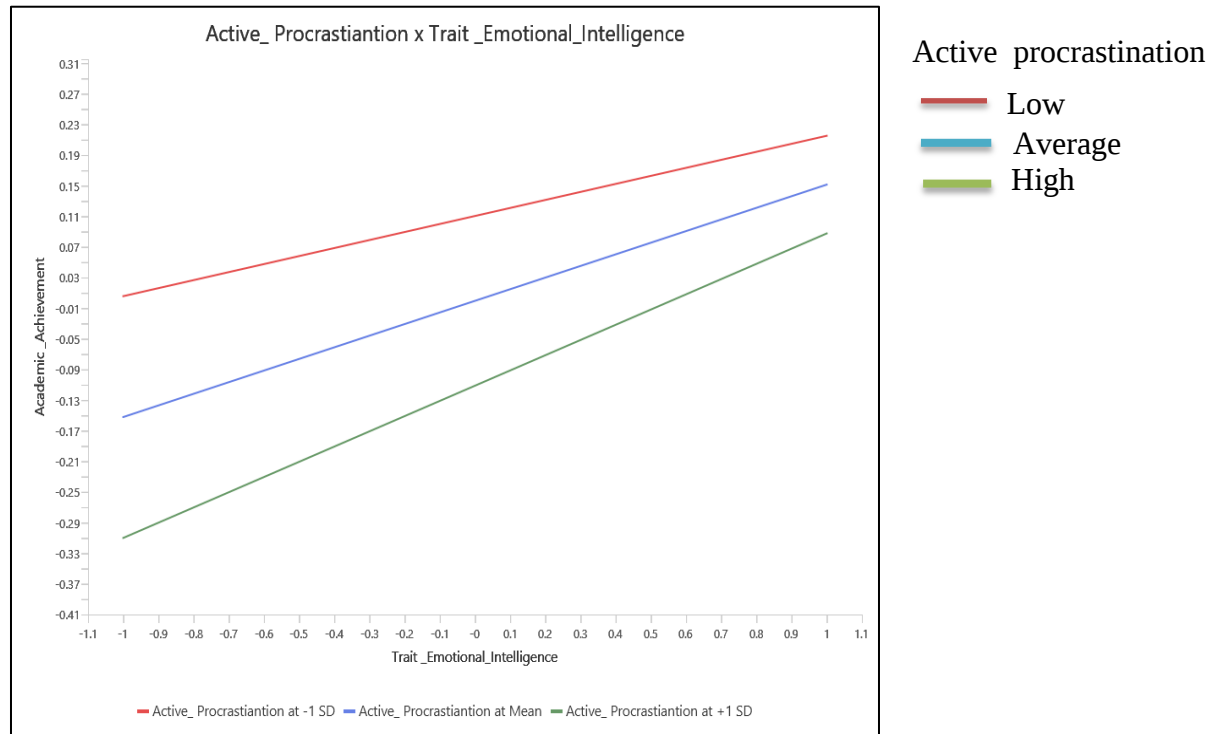
The Moderating Effect of Passive Academic Procrastination on the Relationship between Trait EI and Academic Achievement



The result also indicated that active academic procrastination significantly moderated the relationship between Trait EI and academic achievement ($\beta = 0.047$, 95% CI [0.007, 0.084], $p < 0.005$). This implies that when the level of active academic procrastination increases, the positive impact of trait EI on academic achievement becomes stronger (see Figure 8). In other words, students who engaged more in active procrastination tend to use their emotional resources to achieve academically.

Figure 8

The Moderating Effect of Active Academic Procrastination on the Relationship between Trait EI and Academic Achievement

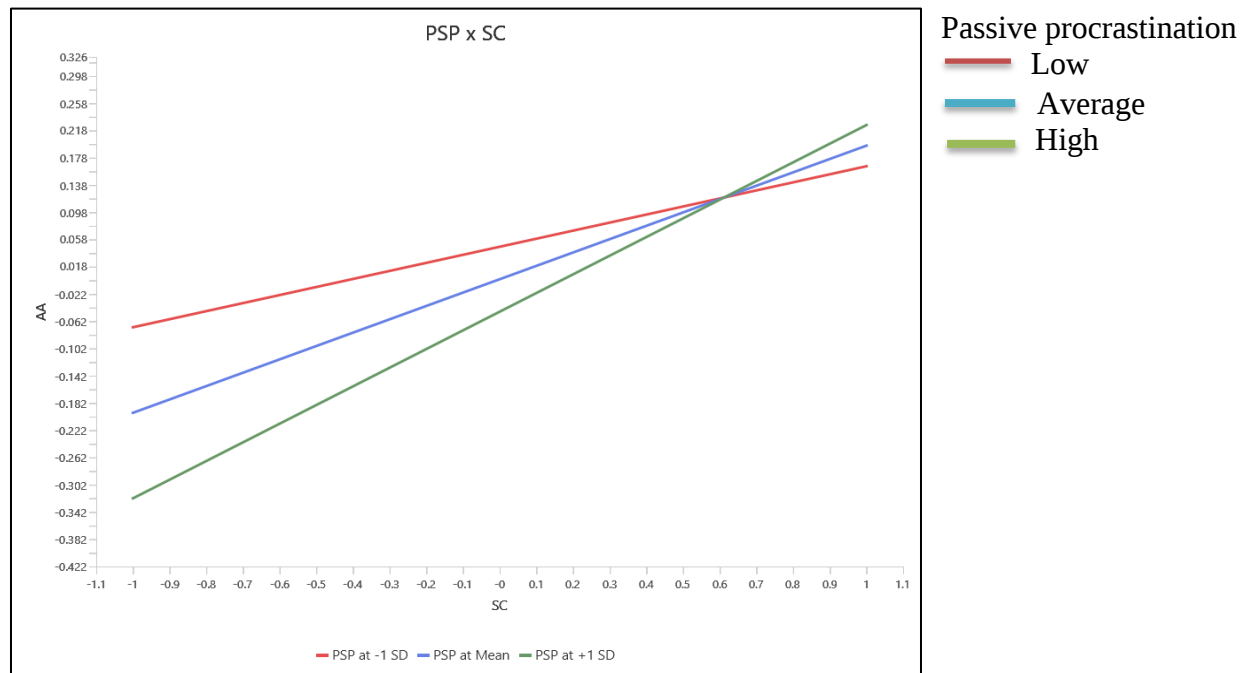


Similarly, moderation analyses were also conducted to examine whether academic procrastination (passive and active) significantly moderated the relationship between each dimension of trait EI and academic achievement. The result revealed that passive academic procrastination significantly moderated the relationship between self-control and academic achievement ($\beta = 0.078$, 95% CI [0.044, 0.112], $p < .001$). This result suggests at higher level of passive procrastination the positive effect of self-control on academic achievement becomes stronger (see Figure 9). In other words, though students procrastinate passively they are more likely to perform academically as far as they have high self-control ability. However, the effect other dimensions of trait EI (well-being,

emotionality and sociability) on academic achievement was not significantly moderated by passive and active academic procrastination.

Figure 9

The Moderating Effect of Passive Academic Procrastination on the Relationship between Self-control and Academic Achievement

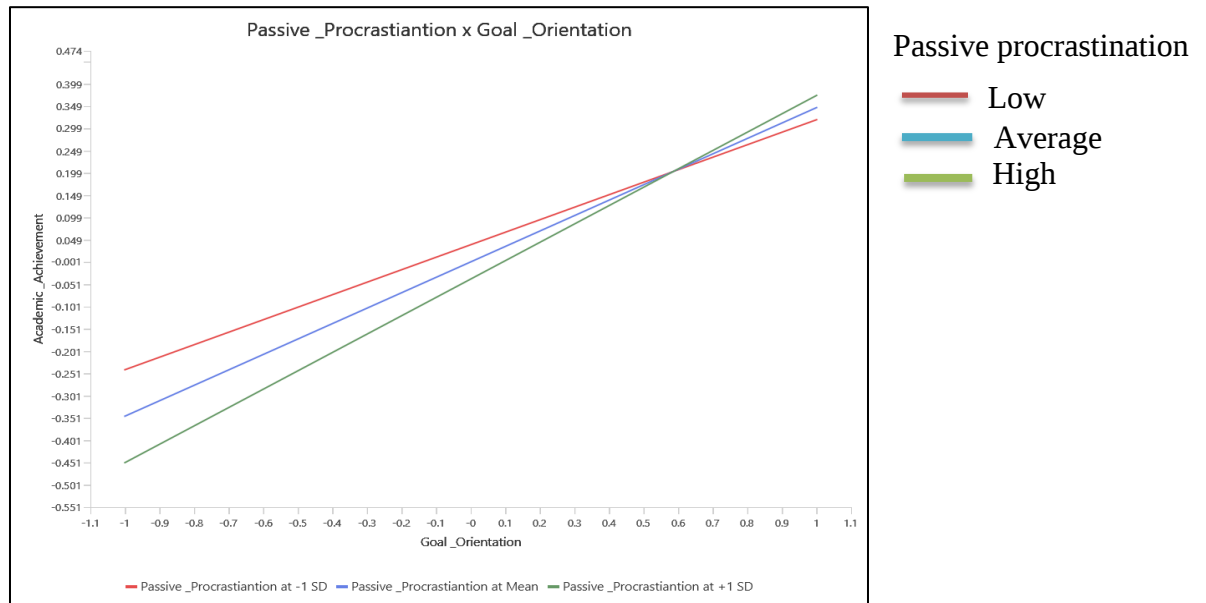


4.4.4. The Moderating Role of Academic Procrastination in the Relationship between Goal Orientation and Academic Achievement

The relationship between goal orientation and academic achievement was significantly moderated by passive academic procrastination ($\beta = 0.066$, 95% CI [0.030, 0.101], $p = 0.000$). This finding suggest that at the low level of passive academic procrastination the impact of goal orientation on academic achievement become weaker, whereas at high level of passive procrastination the impact of goal orientation on academic performance becomes stronger (see figure 10).

Figure 10

The Moderating Role of Passive Procrastination between Goal Orientation and Academic Achievement



Among the dimensions of goal orientation the relationship between performance-avoidance goals and academic achievement was negatively moderated by passive academic procrastination ($\beta = -0.046$, 95% CI $[-0.079, -0.011]$, $p = .008$), while the relationship between mastery approach goals and academic achievement was significantly and positively moderated by active procrastination ($\beta = 0.063$, 95% CI $[0.020, 0.109]$, $p = .005$). These findings revealed that while higher level of passive academic procrastination strengthens the negative impact of performance-avoidance goal orientations on academic achievement, a higher level of active procrastination strengthens the positive impact of mastery goal orientation on academic achievement. In other words, passive procrastination worsens the negative impact of performance avoidance goals on academic achievement, while active procrastination strengthens the

positive relationship between mastery goals and academic achievement (see Figure, 11&12).

Figure 11

The Moderation Effect of Passive Academic Procrastination in the Relationship between Mastery Approach goal and Academic Achievement

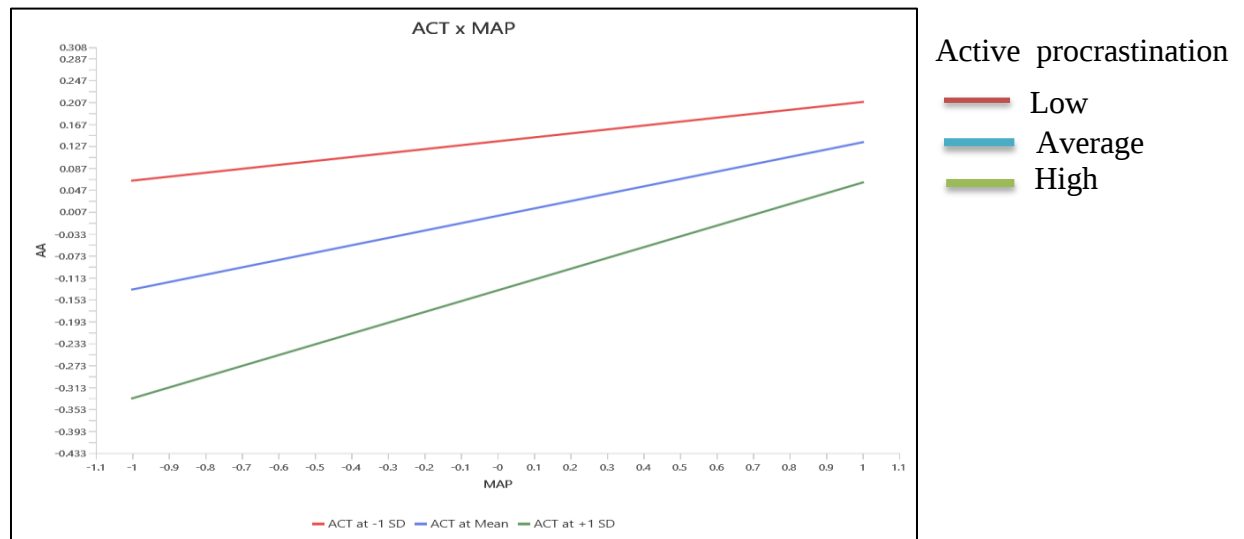


Figure 12

The moderation effect of passive academic procrastination on the relationship between mastery avoidance goal orientation and academic achievement

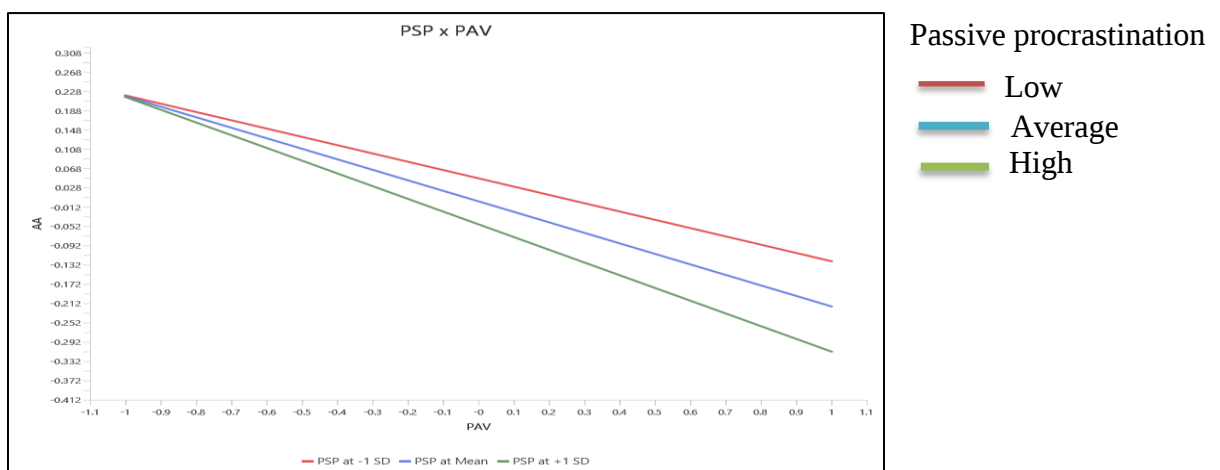


Table 16

The Moderation Effect of Academic Procrastination (Passive and Active) in the Relationship between Traits EI, Goal Orientation and Academic Achievement

	Beta	t-statistics	Bootstrap 95% CI		
			LBC	UBC	p-value
Interaction Effect					
PSP x Trait EI -> AA	0.059	3.406	0.025	0.092	0.000
ACT x Trait EI -> AA	0.051	2.283	0.010	0.089	0.010
PSP x GO -> AA	0.066	3.614	0.028	0.100	0.000
ACT x GO -> AA	0.013	0.666	-0.027	0.050	0.505

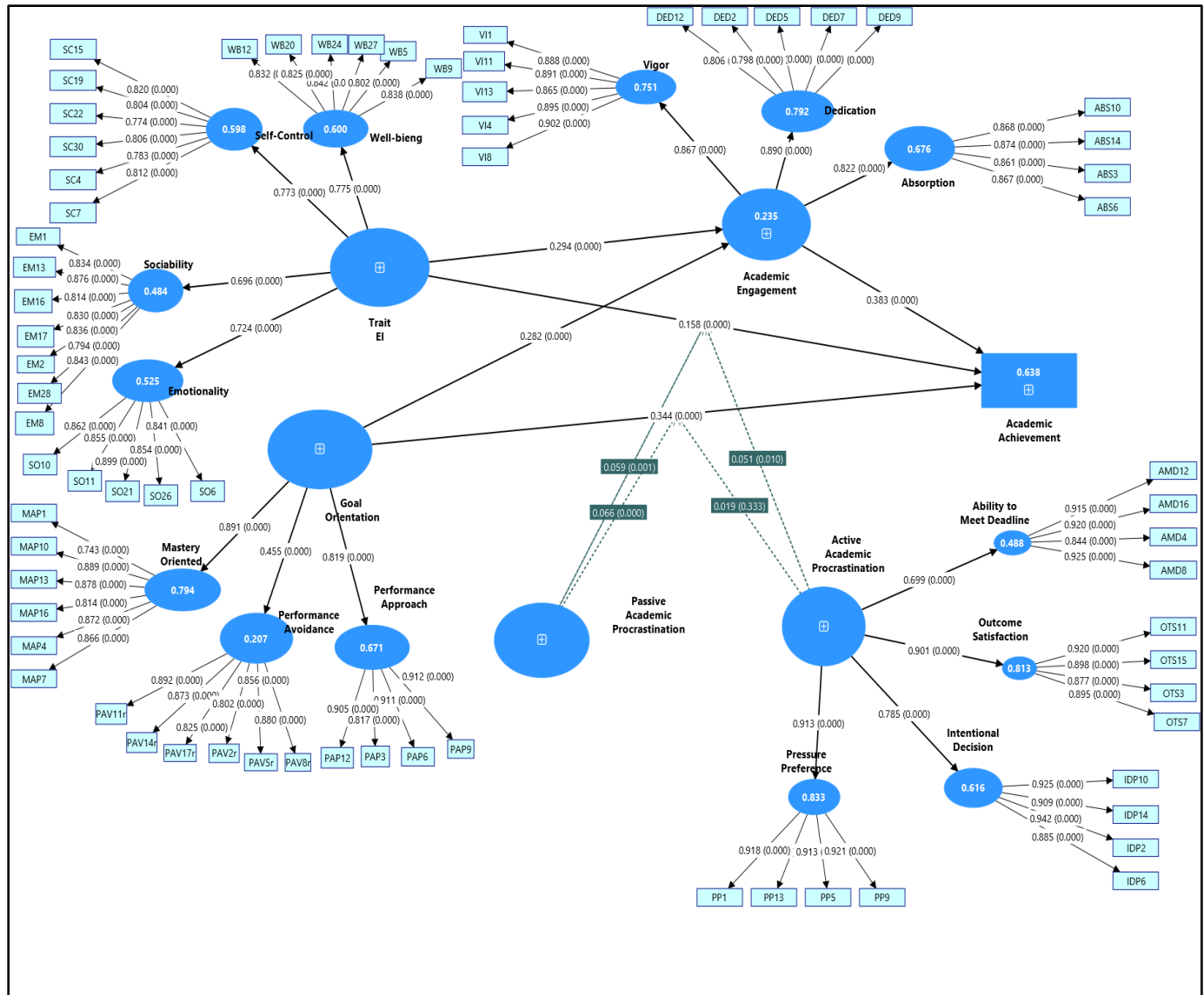
Note: PSP=Passive procrastination, EI=Emotional intelligence, AA=Academic achievement, Go= Goal orientation, ACT=Active procrastination

Table 17

The Moderation Effect of Academic Procrastination (Passive and Active) in the Relationship between Dimensions Trait EI and Goal Orientation and Academic Achievement

	Beta	t-statistics	Bootstrap 95% CI		
			LBC	UBC	p-value
Standardized Direct Effect					
PSP x SC -> AA	0.078	4.412	0.044	0.112	0.000
ACT x WB -> AA	0.033	1.748	-0.004	0.072	0.081
ACT x SO -> AA	0.029	1.662	-0.006	0.064	0.097
ACT x EM -> AA	0.016	0.880	-0.020	0.052	0.379
ACT x SC -> AA	0.002	0.115	-0.033	0.039	0.909
PSP x EM -> AA	-0.009	0.554	-0.041	0.023	0.580
PSP x SO -> AA	0.013	0.861	-0.018	0.043	0.389
PSP x WB -> AA	-0.011	0.620	-0.044	0.024	0.535
PSP x PAV -> AA	-0.046	2.640	-0.079	-0.011	0.008
ACT x MAP ->AA	0.063	2.792	0.020	0.109	0.005
PSP x PAP -> AA	0.027	1.360	-0.013	0.065	0.174
ACT x PAV -> AA	0.031	0.880	-0.027	0.056	0.089
PSP x MAP -> AA	0.479	0.708	-0.027	0.056	0.479
ACT x PAP -> AA	-0.028	1.260	-0.072	0.014	0.208

Note: AA=Academic Achievement, EM=Emotionality, PAP= Performance-approach, PAV =Performance-avoidance, SC = Self-control, SO = Sociability, WB = Well-being, MAP= Mastery approach, PSP = Passive academic procrastination, ACP=Active Procrastination

Figure 13*The Overall Relationship of the Study Variables*

CHAPTER 5 DISCUSSION

The major focus of this study was to investigate the mediating role of academic engagement and the moderating role of academic procrastination in the relationship between emotional intelligence and academic achievement and between goal orientation and students' academic achievement.

The finding of the study that states trait EI has a significant direct positive effect on academic achievement of university students are consistent with the finding that confirmed emotional intelligence has a substantial positive connection with academic performance (Suleman et al., 2019; Sanchez-Ruiz et al. ,2012; Jaeger & Eagan, 2007). This finding further corroborated by the findings of Fallahzadeh (2011) and Chew et al. (2013), who identified a notable link between emotional intelligence and academic performance. However, the findings of the current study differ from the findings of Alkhayr et al. (2022), and Zirak & Ahmadian (2015) who concluded that there is no significant relationship between emotional intelligence and academic achievement, and from of Bilimale et al. (2024), Shah et al. (2014) and Shipley, et al. (2010) who reported a negative relationship between emotional intelligence and academic performance.

The present study also found that only self- control component of trait EI had a significant and direct positive effect on academic achievement. This finding is aligned with the study of Vidal Rodeiro et al. (2012), who reported that self-control skills were the strongest predictors of academic performance. In the current study, although not statistically significant, the sociability component of trait EI had a negative influence on students' academic achievement. This finding is consistent with the study conducted by

Abu Alkhayr et al. (2022), who found that sociability had a negative correlation with GPA and contradicts to the study conducted by Zafar et al. (2019), who reported that sociability subscale of trait EI had significant positive relationship and significantly predicted academic achievement of students at undergraduate level.

Moreover, the direct link between emotional intelligence and academic engagement of this study aligns with findings from previous studies. For instance, the construct of emotional intelligence plays a significant role in predicting both the cognitive and affective aspects academic engagement among college students (Maguire et al., 2017). Enhanced levels of EI, along with broader emotional resources, serve as valuable assets for fostering vigor, dedication, and absorption during academic tasks (Silva & Almeida, 2023). Furthermore, individuals with elevated trait EI are more likely to develop positive emotions, like interest in learning tasks and enjoyment of the learning process which broaden a range of strategies for task engagement and academic performance (Zirak & Ahmadian, 2015; Perera, 2016). Likewise, the significant direct impact of well-being, emotionality, self-control and sociability subscales of trait EI on academic engagement is supported by McEown et al. (2024), who indicated that students with higher sociability, self-control, well-being, and emotionality appear more able to handle stressors and report significantly higher level of emotional and cognitive engagement in academic tasks. Supporting this, Drummond (2014) also found that students who exhibited high scores in global trait EI and its four sub-domains (well-being, self-control, emotionality and sociability) were better able to manage their academic workload, allowing them more effectively engage in their academic studies and the academic environment. Moreover, Silva and Almeida (2023) indicated that students who participated in emotional

intelligence training programs exhibited higher vigor and dedication, greater concentration and energy during academic activity and were fully absorbed and immersed in their academic work.

In this study, academic engagement has been identified as positively related to academic achievement. This result aligns with Martínez et al. (2019) who reported significant direct associations between academic engagement and performance. Furthermore, the result of the present study is consistent with the finding of Nieto-Carracedo et al. (2024) and Lei et al. (2018) who found a positive correlation between overall students' academic engagement (and its dimensions: vigor, dedication, and absorption) and academic achievement.

Another finding of the present study showed that goal orientation had a significant and positive direct effect on academic achievement and academic engagement. This finding is consistent with many previous studies (Gidado et al 2025; Luo et al 2024; Li et al 2021; Suprayogi et al., 2019) that reported goal orientation as a significant predictor of academic achievement of college students/ a statistically significant correlation between goal orientations and academic achievement of university students. However, in contrast to finding of the current study Morisano et al. (2010) found no significant correlation between goal orientation and academic achievement among college students.

Regarding the dimensions of goal orientation, the result of this study revealed that both mastery and performance approach goal orientation has a significant direct positive impact on students' academic engagement and academic achievement while performance avoidance goal orientation has significant negative effect on students' academic

engagement) and their academic achievement. These findings are in agreement with Bipp and van Dam (2014), Diseth and Kobbeltvedt (2010), Suprayogi, et al., (2019), who reported that mastery and performance approach goal orientation had a positive and significant relationship with academic performance and with Wang et al. (2017) and Dehghani et al. (2024) who demonstrated a positive and significant relationship between the variables of mastery-approach and performance approach and academic engagement. However, the positive correlation of performance approach goal orientation with academic engagement is in contrast with the previous studies, which have found that performance approach goals were consistently linked to negative outcomes, such as higher withdrawal, avoidance of challenges and lower involvement in academic tasks (Wang et al 2017). On the other hand, the negative effect of performance avoidance goal orientation on academic achievement was corroborated by the work of Chen and Wong (2014), Dinger and Dickhäuser (2013) and Luo et al. (2013).

The result of the mediation analysis revealed that academic engagement significantly mediated the relationship between Trait EI and academic achievement. Furthermore, the indirect effect of each dimension of trait EI (well-being, self-control, sociability, and emotionality) on academic achievement through academic engagement was significant. Though very limited, there is empirical evidence that supports these findings. For example, a study conducted by Dehyadegary et al. (2012) and (Maguire et al., 2017) revealed academic engagement as a mediator variable that partially carries the influence of emotional intelligence on academic achievement. The finding of this study also concurred with Zirak & Ahmadian (2015) and Perera (2016) who reported that students with high EI are more likely to show positive emotions such as interest for learning tasks

and enjoyment of the learning process with range of techniques for harnessing their focus and increased engagement on academic activities, which ultimately lead to improved academic achievement. Moreover the significant indirect effect of well-being, emotionality, self- control and sociability subscales of trait EI on academic achievement is also supported by McEown et al. (2024) and Perera and DiGiacomo (2015) who indicated that students with higher sociability, self-control, well-being, and emotionality appear more able to handle stressors and report significantly higher level of emotional and cognitive engagement in academic tasks.

The results of the mediation analysis further revealed that academic engagement played a significant mediating role on the relationship between goal orientation and academic achievement. More specifically, mastery and performance-approach goals exerted (positive) and performance avoidance (negative) effect on academic achievement through academic engagement. This finding is in agreement with the findings of Dupeyrat and Marin (2005), who argued that goal orientations had more indirect impact on academic achievement through the mediation of other factors like deep cognitive engagement and effort expenditure. Since goal orientation is a key driver of academic engagement and academic engagement tends to be the direct antecedent of academic achievement, it is plausible to expect that academic engagement mediates the relationships between achievement goals and subsequent academic performance (Duchesne et al., 2017; Putwain et al., 2018). Supporting this previous studies indicate that students pursuing mastery goals, due to their high level of academic engagement, perform well in exams and assignments assessing at a deeper level understanding of the material (Midgley et al., 2001). Students with mastery goals engage longer and work harder in academic tasks and

the more students engaged their academic activities; the better they succeed academically (Mih et al., 2015). Adopting performance-approach goal orientation also leads to increased students' academic engagement and earn better grade (Putwaina et al., 2018). Performance-avoidance goals have been found to undermine intrinsic motivation, to be positively correlated to avoidance behaviors and effort withdrawal, and negatively to graded performance (Gonida et al 2009).

Regarding the moderation analysis, the present study found that passive academic procrastination significantly moderated the relationship between Trait EI and academic achievement. This suggests that the benefit of trait emotional intelligence for academic performance becomes weaker for students with a low level of passive academic procrastination and stronger for students with high level of passive academic procrastination. This result is aligned with the previous findings that indicate high trait EI characterized by self-awareness, emotion regulation and adaptability skills help to buffer the negative emotions such as anxiety, stress and low academic outcomes evoked by academic procrastination (Klassen et al., 2008; Wasim et al.,2021). Trait EI enables students to manage emotional distress and anxiety and help them to stay motivated and engaged in their academic activities despite procrastination tendencies (Hen & Gohrist, 2014; Heward, 2010). On the other hand, students with low level of academic procrastinations may already demonstrate self- regulation and time management skills may not relay on emotional knowledge and skills for their academic performance (Kim & Nembhard, 2019).

In the current study, the finding that states the association between trait EI and academic procrastination become stronger for students with higher level of active academic

procrastination also align with Choi and Moran (2009), Schraw et al. (2007) and Chu and Choi (2005), who differentiate between passive and active procrastination, thereby challenging the traditional view of procrastination as universally maladaptive. Students with higher trait EI may possess self-regulatory skills that enable them to manage stress, maintain motivation, and make effective decisions under time pressure (Cao, 2012; Schraw et al., 2007). Supporting this, Cao (2012) found that students with high EI could use their emotion regulation skills to turn time pressure into a motivating force, thereby performing well even when they delay starting tasks. Therefore, active procrastinators, who suspend their actions deliberately, enjoy working under pressure and feel challenged and motivated by last-minute tasks can better leverage their emotional skills to achieve academic success (Cao, 2012).

The relationship between self-control and academic achievement was significantly moderated by passive academic procrastination. This result suggests that at a higher level of passive academic procrastination the positive effect of self-control on academic achievement becomes stronger. In other words, though students procrastinate passively they are more likely to perform academically as far as they have high self-control ability. This finding is consistent with the work of Sirois and Pychyl (2013), who found that self-regulatory failure is central to procrastination, and students with stronger self-control are less vulnerable to the negative consequences of task delay. Self-control help students to manage the negative emotions such as anxiety and stress, associate with passive procrastination (Duru & Balkis, 2017). On the other hand, students with low level of academic procrastinations may already demonstrate self-regulation and time

management skills may not rely on self-control skills to perform well academically (Kim & Nembhard, 2019).

This finding is consistent with the work of Sirois and Pychyl (2013), who found that self-regulatory failure is central to procrastination, and students with stronger self-control are less vulnerable to the negative consequences of task delay. Self-control helps students manage the negative emotions such as anxiety and stress, associated with passive procrastination (Duru & Balkis, 2017). On the other hand, students with low level of academic procrastinations may already demonstrate self-regulation and time management skills may not rely on self-control skills to perform well academically (Kim & Nembhard, 2019).

This suggests that students with higher self-control are better equipped to mitigate the negative effects of passive procrastination on students' academic achievement, whereas those with lower self-control tend to suffer more when they procrastinate passively. This finding is consistent with the work of Sirois and Pychyl (2013), who found that self-regulatory failure is central to procrastination, and students with stronger self-control are less vulnerable to the negative consequences of task delay. Similarly, Wang and Sun (2023) observed that students with high self-control can balance the speed of performing a task and the time of completing the task by adjusting and controlling learning behaviors, which resulted in a lower risk of procrastination. On the other hand, students with low self-control have difficulty managing the learning process and are not good at balancing the speed of performing a task with the completion time (Wang & Sun, 2023).

The analysis also demonstrated that passive academic procrastination significantly moderated the relationship between goal orientations and academic achievement. This indicates the positive influence of goal orientations on students' academic achievement was stronger among students with high levels of passive procrastination, while their influence diminishes for those with low passive academic procrastinators. This finding contradicts with Senécal et al. (1995) who demonstrated procrastination as a motivational problem that involves more than poor time management skills which counteract the benefits of strong achievement goals for academic success. Even highly goal-oriented students may struggle to translate their intentions into action and performance when procrastination interferes with task initiation (Howell & Watson, 2007). Wolters (2003) also observed that students with mastery or performance goals who procrastinate tend to show lower academic outcomes than similarly motivated peers who manage time more effectively. Kim and Seo (2015) meta-analysis also highlighted that procrastination moderates the effect of goal orientation on academic performance, with passive procrastination in particular reducing effectiveness.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusions

Based on the findings, the following conclusions were drawn.

The relationship between Trait EI and academic achievement was significantly mediated by academic engagement and moderated by academic procrastination. This implies that consistent with Broaden-and-Build Theory (B&B (Fredrickson, 2001), Trait EI helps students to experience positive emotions that can expand thought-action repertoires and enduring personal resources essential for optimal task engagement while also mitigating the negative emotions associated with academic procrastination.

Similarly, the relationship between goal orientation and academic achievement was significantly mediated by academic engagement and moderated by academic procrastination. This implies students with approach goal orientation are more likely to translate their intention in to task engagement while academic procrastination (passive) worsens the negative impacts of performance avoidance goals on academic achievement.

6.2. Recommendations

Based on the findings and the conclusions drawn, the following recommendations were proposed. The result of this study indicated that trait EI had a significant direct positive effect on academic achievement. Trait EI also had a significant indirect positive effect on students' academic achievement through academic engagement in higher education. These suggests that when students are equipped with emotional intelligence skills, they are better able to recognize, regulate and manage their own emotions and those of others which can contribute to high level of academic achievement. Moreover, students will

high emotional intelligence perform better academically, in part because they are more engaged in their academic activities. The positive effect of EI on academic achievement is further strengthened by academic engagement. Thus higher education institution need to implement emotional intelligence training program to cultivate students' ability to perceive, interpret, and regulate emotional information. This could be achieved by integrating emotional intelligence skills to the course of higher education as well as the development of short term targeted intervention program such as seminars, workshop, and conference. Moreover, embedding emotional intelligence training into first-year student orientation program may lay the foundation for effective emotional intelligence training program in higher education. Various programs on emotional intelligence need to be arranged for educators and teachers as well to equip them with the necessary knowledge and skills for enhancing their students' emotional intelligence. The findings of this study also highlight the need for higher education institutions to allocate adequate resources and materials to establish and strengthen guidance and counseling centers as well as academic advisory services that explicitly focus on the development of emotional intelligence. By integrating emotional intelligence into student support system, universities can foster students' positive emotional experience and a range of techniques for harnessing their attention and increased engagement on academic activities, which ultimately lead to improved academic achievement. Trait EI also facilitate positive social interactions and collaboration among students, which are important for effective learning and academic achievement. Therefore, teachers need to create a classroom culture that promotes EI which are essential for the cultivation of collaborative and supportive classroom atmosphere.

The present investigation indicates that both mastery and performance- approach goal orientations exhibited a direct and positive association with academic achievement, while performance avoidance goal orientations had a negative effect on academic achievement. Furthermore, both mastery and performance-approach goals orientation had an indirect positive impact, and performance-avoidance goals had an indirect negative impact on academic achievement through the mediating effect of academic engagement. These findings urge policy makers and curriculum designers to consider the concept of goal orientation in higher education and to launch intervention strategies aimed at helping students focus more on mastery and performance approach goal orientation rather than avoidance achievement goal orientation. In addition, teachers need to encourage students to adopt mastery approach and performance approach goal orientation, while creating conditions that minimize the tendency to adopt performance avoidance goal orientations. When developing and choosing instructional methods, assessment and evaluation techniques, teachers could take the concept of emotional intelligence, goal orientations, and academic engagement into consideration.

6.3. Limitations of the Study and Suggestions for Future Research

While this study has notable strengths, such as shedding light on the role of affective and psychological resources such as EI, goal orientation, students' academic engagement and academic procrastination as important predictors of academic achievement, it also has several limitations. The first limitation is that the sample was drawn from only one university, which may limit the generalizability of the results to students at other universities. Future research could address this issue by including students from various

universities to enhance the representativeness of the sample. Additionally, the study focused exclusively on first year students, a decision justified by the importance of high EI during the transition from high school to higher education, a time when students must navigate a new socio-emotional environment and face unfamiliar academic challenges. However, previous research (Saklofske et al., 2012) suggests that the influence of emotional intelligence (EI) may diminish once the initial adjustment period is effectively managed. Further studies are needed to explore whether the relationship between EI and academic outcomes remains consistent across various year levels of university students using longitudinal design.

Additionally, students from diverse academic disciplines may not face unique challenges in college, and those in the social sciences may benefit more from EI-related skills, as competencies in EI, such as understanding human emotions, may overlap with the skills required to master certain subjects such as history, geography, and languages (Maccann et al., 2020). Similarly, motivational orientations are discipline-specific, that is what fosters success for one student in one field may not necessarily yield the same results for him or her in another (Laitinen et al., 2025). Therefore, future studies could investigate whether the impact of goal orientation on students' academic engagement and achievement varies across academic fields. Although the current study shed some light on the adaptive nature of academic procrastination tendencies using Chu and Chio (2005) future researchers could also examine academic procrastination in relation emotional and motivational related concept. Finally, this study relied on self-reported measures which are vulnerable to response biases. To address this issue, future studies should consider

other data collection methods such interview, observation and other objective measures like ability-based measures of EI.

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APPENDIX A: QUESTIONNAIRE (ENGLISH VERSION)

BAHIR DAR UNIVERSITY COLLEGE OF EDUCATION SCHOOL OF EDUCATIONAL SCIENCES DEPARTMENT OF PSYCHOLOGY

QUESTIONNAIRES TO BE COMPLETED BY STUDENTS

GENERAL OBJECTIVE: The main purpose of these questionnaires is to collect information about students' emotional intelligence, goal orientations, academic engagement and their academic procrastination tendencies. The information is used to check whether the effect of emotional intelligence and goal orientation on students' academic achievement is mediated by academic engagement and moderated by academic procrastination.

GENERAL DIRECTION: The questionnaire has five sections. Section one is deals about the demographic information of students. Section two aims to assess the emotional intelligence of the students. Section three is designed to explore students' goal orientation in their learning context. Section four is prepared to collect information about student's engagement to their academic activities. The last section is designed to measure students' academic procrastination tendencies towards their academic work. Each section has statements and response alternative that needs to be completed. The statements have no right or wrong answers rather the right answer for each of the statements will be to what extent each statement describes your behaviour. Since your participation in this study and your genuine responses are extremely useful for the success of this study, I kindly request you to complete the questionnaires carefully and genuinely. The information you will provide is confidential and will be used for scientific research only.

Thank you in advance for you cooperation.

SECTION ONE: DEMOGRAPHIC INFORMATION

Direction: Please give appropriate information through indicating an "X" and by writing the required information.

1. Sex: Male _____ Female _____ 4. Age _____
2. Field of study: Natural science _____ Social Science: _____
3. Identification Number (ID.No.): _____

SECTION TWO: TAIT EMOTIONAL INTELLIGENCE QUESTINNAIRE (TIEQue-SF)

Direction: in the following table different statements are presented to describe how you feel in most situations. Please read each statement and encircle one of the numbers in the table that best describe your behavior. The number in the table indicates: 1= Completely Disagree, 2= Disagree, 3= Slightly Disagree, 4= Neither agree nor disagree, 5 = Slightly agree, 6= Agree, 7=completely agree.

No.	Statements that describe your feeling and action in different situations. Indicate your level of agreement or disagreement for each statement.	Completely disagree	Disagree	Slightly Disagree	Neither agree nor	Slightly agree	Agree	Completely agree
1	Expressing my emotions with words is not a problem for me.	1	2	3	4	5	6	7
2	I often find it difficult to see things from another person's viewpoint.	1	2	3	4	5	6	7
3	On the whole, I'm a highly motivated person	1	2	3	4	5	6	7
4	I usually find it difficult to regulate my emotions.	1	2	3	4	5	6	7
5	I generally don't find life enjoyable.	1	2	3	4	5	6	7
6	I can deal effectively with people	1	2	3	4	5	6	7
7	I tend to change my mind frequently.	1	2	3	4	5	6	7
8	Many times, I can't figure out what emotion I'm feeling.	1	2	3	4	5	6	7
9	I feel that I have a number of good qualities	1	2	3	4	5	6	7
10	I often find it difficult to stand up for my rights	1	2	3	4	5	6	7
11	I'm usually able to influence the way other people feel.	1	2	3	4	5	6	7
12	On the whole, I have a gloomy perspective on most things	1	2	3	4	5	6	7
13	Those close to me often complain that I don't treat them right	1	2	3	4	5	6	7
14	I often find it difficult to adjust my life according to the circumstances	1	2	3	4	5	6	7
15	On the whole, I'm able to deal with stress	1	2	3	4	5	6	7
16	I often find it difficult to show my affection to those close to me.	1	2	3	4	5	6	7

17	I'm normally able to understand and experience emotions of others	1	2	3	4	5	6	7
18	I normally find it difficult to keep myself motivated	1	2	3	4	5	6	7
19	I'm usually able to find ways to control my emotions when I want to.	1	2	3	4	5	6	7
20	On the whole, I'm pleased with my life	1	2	3	4	5	6	7
21	I would describe myself as a good negotiator.	1	2	3	4	5	6	7
22	I tend to get involved in things I wish.	1	2	3	4	5	6	7
23	I often pause and think about my feelings.	1	2	3	4	5	6	7
24	I believe I'm full of personal strengths.	1	2	3	4	5	6	7
25	I tend to "back down" even if I know I'm right.	1	2	3	4	5	6	7
26	I don't seem to have any power at all over other people's feelings.	1	2	3	4	5	6	7
27	I generally believe that things will work out fine in my life.	1	2	3	4	5	6	7
28	I find it difficult to bond well even with those close to me.	1	2	3	4	5	6	7
29	Generally, I'm able to adapt to new environments.	1	2	3	4	5	6	7
30	Others admire me for being relaxed.	1	2	3	4	5	6	7

SECTION THREE: THE GOAL ORIENTATION MEASURES

Direction: in the following table different statements are provided to describe your goal orientation. So you are required to read each statements and decide which alternative best describes your behaviour and mark your answer through encircling on one of the alternative number in front of each statement. The number in the table indicates: 1= Not at all true,

2= Moderately not true, 3= Somewhat true, 4= Moderately true, 5 = Very true.

No.	Statement that describe your motivation and intention to guide your behavior in academic setting. Decide how much of each statement is true for you.	Not at all true	Moderately not true	Somewhat true	Moderately true	Very true
1	I like academic work that I'll learn from even if I make a lot of mistakes.	1	2	3	4	5
2	It's very important to me that I don't look stupid in my class.	1	2	3	4	5
3	I would feel really good if I were the only one who could answer the questions in class.	1	2	3	4	5
4	The reason why I do my academic activities is	1	2	3	4	5

	because I like to learn new things.					
5	An important reason I do my class work is so that I don't embarrass myself.	1	2	3	4	5
6	I want to do better than other students in my class.	1	2	3	4	5
7	I like class work best when it really makes me think.	1	2	3	4	5
8	The reason I do my class work is so my teacher doesn't think I know less than others.	1	2	3	4	5
9	I would feel successful in class if I did better than most of the other students.	1	2	3	4	5
10	An important reason why I do my work in class is because I want to get better at it.	1	2	3	4	5
11	The reason I do my work is so others won't think I'm dumb.	1	2	3	4	5
12	I'd like to show my teacher that I'm smarter than the other students in my class.	1	2	3	4	5
13	An important reason I do my academic work is because I enjoy it most	1	2	3	4	5
14	One of my main goals is to avoid looking like I can't do my work.	1	2	3	4	5
15	Doing better than other students in class is important to me.	1	2	3	4	5
16	I do my class work because I'm interested in it.	1	2	3	4	5
17	One of my main goals is to avoid looking like I can't do my work.	1	2	3	4	5

SECTION FOUR: THE UTRECHT WORK ENGAGEMENT SCALE— STUDENT VERSION (UWES-S)

Direction: in the following table different statements are provided to describe how much you are engaged in your academic work. So you are required to read each statements and decide which alternative best describes your behavior and mark your answer through encircling on one of the alternative in front of each statement. For each statements the number in the table indicates: 1=Never,2=Almost never,3=Rarely,4=Sometimes,5=Often,6=Very Often, 7=Always

No.	Statements that describe your engagement in your academic work. Indicate your level of engagement for each statement.	Never	Almost never	Rarely	Sometimes	Often	Very Often	Always

1	When I get up in the morning, I feel motivated and excited about attending my classes.	1	2	3	4	5	6	7
2	I find my academic coursework to be challenging and intellectually stimulating.	1	2	3	4	5	6	7
3	When I am studying, I forget everything else around me.	1	2	3	4	5	6	7
4	I feel energized and fully immersed in academic tasks.	1	2	3	4	5	6	7
5	My study inspires me.	1	2	3	4	5	6	7
6	Time flies when I am studying.	1	2	3	4	5	6	7
7	I am enthusiastic about my studies.	1	2	3	4	5	6	7
8	I can stay engaged in studying for extended periods without feeling burnt out.	1	2	3	4	5	6	7
9	I feel a sense of accomplishment and pride in the progress I make in my studies.	1	2	3	4	5	6	7
10	It is difficult to detach myself from my studies.	1	2	3	4	5	6	7
11	I am very resilient mentally, as far as my studies are concerned.	1	2	3	4	5	6	7
12	I find my studies full of meaning and purpose.	1	2	3	4	5	6	7
13	I feel strong and vigorous when I'm studying or going to class.	1	2	3	4	5	6	7
14	I feel happy when I am studying intensely.	1	2	3	4	5	6	7

SECTION FIVE: ACADEMIC PROCRASTINATION MEASURES

A. Passive Academic Procrastination

Direction: in the following table different statements are provided to describe your habit of delaying or postponing academic work. So you are required to read each statement and encircled one of the alternatives numbers indicated in the table that best describe your agreement or disagree with the statements. The numbers in the table represents: 1=Completely Disagree, 2= Disagree, 3 = Moderately agree, 4= Agree and 5= Completely Agree.

No.	Statement that describe your habit of delaying the academic activities or tasks.	Completely Disagree	Disagree	Moderately agree	Agree	completely agree
1	I usually put off assignments and projects until the last minute.	1	2	3	4	5

2	I know I should work on school work, but I just don't do it	1	2	3	4	5
3	I get distracted by other, more fun, things when I am supposed to work on academic work	1	2	3	4	5
4	When given an assignment, I usually put it away and forget about it until it is almost due	1	2	3	4	5
5	I frequently find myself putting important deadlines off.	1	2	3	4	5

B. Active Academic Procrastination

Direction: in the following table different statements are provided to describe your intents to delay academic tasks. So you are required to read each statement and decide how frequently describes your behavior and mark your answer through encircling on one of the alternative number in front of each statement. The numbers in the table represents: 1= Not at all true, 2=Slightly true, 3= Somewhat true, 4= Moderately true, 5= Mostly true, 6=True, 7=Very true.

No	Statements that describes the intentions you have for delaying the academic tasks	Not at all true	Slightly true	Somewhat true	Moderately true	Mostly true	True	very true
1	It's really a pain for me to work under upcoming deadlines	1	2	3	4	5	6	7
2	To use my time more efficiently, I deliberately postpone some tasks.	1	2	3	4	5	6	7
3	My performance for academic tasks tends to suffer when I have to race against deadlines.	1	2	3	4	5	6	7
4	I often start things at the last minute and find it difficult to complete them on time.	1	2	3	4	5	6	7
5	I'm upset and reluctant to act when I'm forced to work under pressure.	1	2	3	4	5	6	7
6	I intentionally put off work to maximize my motivation.	1	2	3	4	5	6	7
7	I don't do well if I have to rush through a task.	1	2	3	4	5	6	7
8	I often fail to accomplish goals that I set for myself.	1	2	3	4	5	6	7
9	I feel tense and cannot concentrate when there's too much time pressure on me.	1	2	3	4	5	6	7
10	In order to make better use of my time, I intentionally put off some tasks.	1	2	3	4	5	6	7
11	If I put things off until the last moment, I'm not	1	2	3	4	5	6	7

	satisfied with their outcomes.							
12	I'm often running late when getting things done.	1	2	3	4	5	6	7
13	I'm frustrated when I have to rush to meet deadlines.	1	2	3	4	5	6	7
14	I finish most of my assignments right before deadlines because I choose to do so.	1	2	3	4	5	6	7
15	I achieve better results if I complete a task at a slower pace, well ahead of a deadline.	1	2	3	4	5	6	7
16	I have difficulty finishing activities once I start them.	1	2	3	4	5	6	7

APPENDIX B: QUESTIONNAIRE (AMHARIC VERSION)

ባህር ዳር ዩኒቨርሲቲ የምህርት ሳይንስ የሳይኒሎጅ ትምህርት ክፍል

የመጠይቁ ዓላማ

የዚህ መጠይቅ ዋና ዓላማ የተማሪዎች ስሜት ብስለት፣ ግብ ተኮር የትምህርት ተነሳሽነት፣ የትምህርት ተግባራትን ማዘግየትና በትምህርት ስራ ላይ መጠመድ በተማሪዎች የትምህርት ውጤት ላይ ያላቸውን ተጽዕኖ ለማወቅ የሚያስችል መረጃ ለመሰብሰብ ነው።

አጠቃላይ መመሪያ፡ ይህ መጠይቅ ሶስት ክፍሎች አሉት። እነሱም ከፍል አንድ አጠቃላይ የተማሪዎችን ደራዊ መረጃ ለማግኘት የተዘጋጀ ነው። ሁለተኛው ክፍል ደግሞ የተማሪዎችን የስሜት ብስለት በተመለከተ መረጃ ለመሰብሰብ የተዘጋጀ ሲሆን ሶስተኛው ክፍል የተማሪዎችን ግብ ተኮር የትምህርት ተነሳሽነትን የተመለከተ መረጃ ለማግኘት የተዘጋጀ ነው። አራተኛው ክፍል የተማሪዎች በትምህርት ስራ ላይ የላቸውን ተሳትፎ አስመልክቶ መረጃ ለማግኘት የተዘጋጀ ነው። የመጨረሻው ክፍል የተማሪዎች የትምህርት ተግባራትን የማዘግየት ሁኔታ ጋር የተያያዘ መረጃ ለማግኘት የተዘጋጀ ነው። በእያንዳንዱ መጠይቅ ስር መጠይቁን ለመሙላት የሚያስችሉ መመሪያዎች ተግላጭዋል። የቀረቡት ሀሳቦች ትክክል ወይም ስህተት የሚባል መለስ የላቸውም። ትክክለኛ መልስ የሚባለው አንተ /አንቺ ራስህን/ራስሽን በመገምገም እኔን ይገልጻል የምትለው /የምትይው ነው። ስለዚህ የቀረቡትን ሀሳቦች በጥንቃቄ በማንበብ ከተሰጡት አማራጮች ውስጥ እኔን በትክክል ይገልጻል የምትለውን/ ይውን በጥንቃቄ እንድትሞላልኝ/ ይልኝ አደራ እላለሁ። በየትኛውም የመጠይቁ ክፍል ላይ ስም መፃፍ አያስፈልግም።

ጊዜህን/ሽን ስጥተህ/ሽ ስለተባበርከኝ/ሽኝ በቅድሚያ በጣም አመሰግናለሁ።

ክፍል አንድ፡ ዳራዊ መረጃ መግለጫ

መመሪያ፡ ቀጥሎ ለቀረቡት ሀሳቦች ተገቢውን መረጃ በባዶ ቦታው ላይ የ"X" ምልክት በማድረግ ወይም በመፃፍ መልስ/ሽ

1. ፆታ፡ ወንድ _____ ሴት _____ 4. እድሜ _____
2. የተህርት መስክ፡ ተፈጥሮ ሃይነስ _____ ማህበራዊ ሳይንስ _____
3. በዩኒቨርሲቲው የተሰጠህ/ሽ መታወቂያ ቁጥር (ID.No.) _____

ክፍል ሁለት፡ የስሜት ብስለት መለኪያ

መመሪያ፡ እባክትን ከዚህ በታች ያለውን ስምምነትን ወይም አለመስማማትን በሚያንፀባርቅ ቁጥር ዙሪያ ክብ በማድረግ ለእያንዳንዱን መግለጫ መልስ ይስጡ። ስለ መግለጫዎቹ ትክክለኛ ትርጉም ብዙም አይጨለቁ። በተቻለ መጠን ፈጠን መባለት በትክክል ለመመለስ ይሞክሩ። ለእያንዳንዱ መግለጫ ከ'ሙሉ በሙሉ አልስማማም' (ቁጥር 1) እስከ 'ሙሉ በሙሉ እስማማለሁ' (ቁጥር 7) ያሉ ሰባት ሊሆኑ የሚችሉ አማራጮች አሉ 1=ሙሉ በሙሉ አልስማማም፣ 2= አልስማማም፣ 3=በትንሹ አልስማማም፣ 4=ለመወሰን እቸረገራለሁ፣ 5= በትንሹ እስማማለሁ 6=እስማማለሁ 7= ሙሉ በሙሉ እስማማለሁ

ተ.ቁ	ስሜትዎን ሊገልፁ የሚችሉ ዐረፍተ ነገሮች	ሙሉ በሙሉ አልስማማም	አልስማማም	በትንሹ አልስማማም	ለመወሰን እቸረገራለሁ	በመካከል እስማማለሁ	እስማማለሁ	ሙሉ በሙሉ እስማማለሁ
1	ስሜቴን በቃላት መግለጽ ለእኔ ችግር አይደለም።	1	2	3	4	5	6	7
2	ነገሮችን ከሌላ ሰው እይታ አንፃር ማየት ብዙ ጊዜ ይከብደኛል።	1	2	3	4	5	6	7
3	በአጠቃላይ እኔ ከፍተኛ ተነሳሽነት ያለው ሰው አይነት ነኝ።	1	2	3	4	5	6	7
4	አብዛኛውን ጊዜ ስሜቴን መቆጣጠር ይከብደኛል።	1	2	3	4	5	6	7
5	በአጠቃላይ ህይወት አስደሳች ሆኖ አላገኘሁትም።	1	2	3	4	5	6	7
6	ከሰዎች ጋር ውጤታማ በሆነ መንገድ መደራደር እችላለሁ።	1	2	3	4	5	6	7
7	ሃሳቤን በተደጋጋሚ የመቀየር ዝንባሌ አለኝ።	1	2	3	4	5	6	7
8	ብዙ ጊዜ፣ የሚሰማኝን ስሜት ማወቅ አልችልም።	1	2	3	4	5	6	7
9	በርካታ ጥሩ ባሕርያት እንዳሉኝ ይሰማኛል።	1	2	3	4	5	6	7
10	ብዙ ጊዜ ለመብቴ መቆም ይከብደኛል።	1	2	3	4	5	6	7
11	ብዙውን ጊዜ በሌሎች ሰዎች ስሜት ላይ ተጽዕኖ ማድረግ እችላለሁ።	1	2	3	4	5	6	7
12	በአጠቃላይ፣ በአብዛኛዎቹ ነገሮች ላይ የጨለመ እይታ አለኝ	1	2	3	4	5	6	7
13	ከእኔ ጋር የሚቀራረቡ ሰዎች በትክክል እንደማልረዳቸው ብዙ ጊዜ ያማርራሉ።	1	2	3	4	5	6	7
14	ሕይወቴን ከሁኔታዎች አንፃር ማስተካከል ብዙ ጊዜ ይከብደኛል።	1	2	3	4	5	6	7

15	በአጠቃላይ, ውጥረትን መቋቋም እችላለሁ።	1	2	3	4	5	6	7
16	ብዙ ጊዜ ለእኔ ቅርብ ላለቸው ሰዎች ያለኝን ፍቅር መግለፅ ይከብደኛል።	1	2	3	4	5	6	7
17	የሌሎችን ስሜት በቀላሉ መረዳት እና መጋራት እችላለሁ።	1	2	3	4	5	6	7
18	በተለምዶ እራሴን ማነሳሳት ይከብደኛል።	1	2	3	4	5	6	7
19	ስሜቴን ለመቆጣጠር የተለያዩ መንገዶችን እከተላለሁ።	1	2	3	4	5	6	7
20	በአጠቃላይ, በህይወቴ ደስተኛ ነኝ።	1	2	3	4	5	6	7
21	ራሴን እንደ ጥሩ ተደራዳሪ አድርጌ እቆርላለሁ።	1	2	3	4	5	6	7
22	ራሴን በምመኘው ነገር ውስጥ እገባለሁ።	1	2	3	4	5	6	7
23	ብዙ ጊዜ ቆም ብዬ ስለ ስሜቴ አስባለሁ።	1	2	3	4	5	6	7
24	በግላዊ ጥንካሬዎች የተሞላሁ እንደሆንኩ ይሰማኛል።	1	2	3	4	5	6	7
25	ትክክል እንደሆንኩ ባውቅም ወደ ወደ ኋላ እመለሳለሁ።	1	2	3	4	5	6	7
26	በሌሎች ሰዎች ስሜት ላይ ምንም አይነት ኃይል ያለኝ አይመስለኝም።	1	2	3	4	5	6	7
27	በአጠቃላይ ነገሮች በህይወቴ ውስጥ ጥሩ ይሆናሉ ብዬ አምናለሁ።	1	2	3	4	5	6	7
28	ከቅርብ ሰዎች ጋር እንኳን በደንብ መግባባት ይከብደኛል።	1	2	3	4	5	6	7
29	በአጠቃላይ፣ ከአዳዲስ አካባቢዎች ጋር መላመድ እችላለሁ።	1	2	3	4	5	6	7
30	ሌሎች ዘና ያለኩ ሰው መሆኔን በማይት ያደንቁኛል።	1	2	3	4	5	6	7

ክፍል ሶስት፡ የተማሪዎችን ግብ ተኮር የትምህርት ተነሳሽነት መለኪያ

መመሪያ፡ ከዚህ በታች በሰንጠረዥ ውስጥ የቀረቡት ሀሳቦች ለትምህርት ተግባራት ያለህን/ያለሽን የተነሳሽነት ሁኔታን የሚገልፁ ናቸው። ሀሳቦችን በጥሞና ካነበብክ/ሽ በ ኋላ ከፊት ለፊት ከተቀመጡት አማራጮች ውስጥ እናንተን ወይም አንቺን ባህሪ ይወክላል የምትለውን/የምትደውን ቁጥር በማክብብ መልስ እንድትሰጡ/ጭ/ በአክብሮት እጠይቃለሁ። በሰንጠረዥ ውስጥ የተመለከቱት ቁጥሮች የሚወክሉት፡፤ 1 = ሙሉ በሙሉ አውነት አይደለም ፣ 2 = በመጠኑ እውነት አይደለም ፣ 3 = በጥቂቱ እውነት ነው ፣ 4 = በመጠኑ እውነት ነው ፣ 5 = በጣም እውነት ነው።

ተ. ቁ	ምን ዓይነት የትምህርት ተግባራት ተነሳሽነት እንዳለህ/ሽ ለሚገልፁ የቀረቡ መገለጫዎች።	ሙሉ ስም አይደለም	ባለሙያ አይደለም	የትምህርት የቀዳሚነት	የትምህርት የቀዳሚነት	የትምህርት የቀዳሚነት
1	ምንም እንኳን ብዙ ስህተቶችን ብሰራም ትምህርት የምቀስምበት ከሆነ የትምህርት ሰራጭን አወዳለሁ።	1	2	3	4	5
2	በክፍል ውስጥ የማይችል መስሎ አለመታየት ለኔ ጠቃሚ ነው።	1	2	3	4	5
3	በክፍል ውስጥ የመምህሩን ጥያቄ መመለስ የምችል ብቸኛው ተማሪ ስሆን ጥሩ ስሜት ይሰማኛል።	1	2	3	4	5
4	የትምህርት ተግባራትን የምሰራው በዋናነት አዲስ ነገር ስለማግኘት ነው።	1	2	3	4	5
5	የትምህርት ተግባራትን የምስራበት ዋናኛ ምክንያት ራሴን ለማሻሻል ነው።	1	2	3	4	5
6	በክፍል ውስጥ ከሌሎች ተማሪዎች የበለጠ መስራት አፈልጋለሁ።	1	2	3	4	5
7	እንዳስብና እንደመራመር የሚያደርጉኝን የትምህርት ተግባራትን እመርጣለሁ።	1	2	3	4	5
8	የክፍል ስራ የምስራበት ዋና ምክንያት መምህሩን ከሌሎች ተማሪዎች ያነሰ አውቀት አለው እንዳይሉኝ ነው።	1	2	3	4	5
9	በትምህርቱ ከክፍል ዳደሾች የተሻለ ከሰራሁ ስኬታማ እንደሆንኩ ይሰማኛል።	1	2	3	4	5
10	ትምህርታዊ ተግባራትን የምሰራው የተሻለ እውቀት ለማግኘት ነው።	1	2	3	4	5
11	የትምህርት ስራን የምስራው ሌሎች እኔን ደካማ እንዳይሉኝ ነው።	1	2	3	4	5
12	ለመምህሩ ከሌሎች የክፍል ዳደሾች በትምህርት የተሻልኩ መሆኔን ማሳየት አፈልጋለሁ።	1	2	3	4	5
13	ትምህርታዊ ተግባራትን የምከውነው መማር ስለሚያስደስተኝ ነው።	1	2	3	4	5
14	ዋናው ግብ በሌሎች ዘንድ በራሱ መስራት አይችልም ለመመላለስ ነው።	1	2	3	4	5
15	ከሌሎች የክፍል ተማሪዎች የተሻለ መስራት ለኔ ጠቃሚ ነው።	1	2	3	4	5
16	የክፍሉ ስራን የምሰራው ፍላጎቴ ስላለኝ ነው።	1	2	3	4	5
17	በክፍል ትምህርት ላይ የማልሳተፈው ድክመቴን/አለመቻሌን/ ለማሳወቅ ነው።	1	2	3	4	5

ክፍል አራት፡ የዩኒቨርሲቲ የስራ ተሳትፎ ልኬት—የተማሪ ስሪት

መመሪያ፡ በሚቀጥለው ሰንጠረዥ ውስጥ ምን ያህል በትምህርት ስራ/ተግባር ላይ የተጠመዱ መሆኑን የሚገልፁ የተለያዩ ሀሳቦች ቀርበዋል። የቀረቡትን ሀሳቦች በጥሞና ካነበብክ/ሽ በ ቋላ ክፊት ለፊት ከተቀመጡት አማራጮች ውስጥ የአንተን ወይም አንቺን ባህሪ ይወክላል የምትለውን/ የምትይውን ቁጥር በማክብብ መልስ እንድትሰጡ/ጭ/ በአክብሮት እጠይቃለሁ። ለእያንዳንዱ መግለጫ የለህን/ሽን ሁኔታ ለማመልከት የሚከተሉት አማናጮች ቀርበዋል። 0= በፍፁም ፣1 = በፍፁም ማለት ይቻላል ፣2 = በጣም አልፎ አልፎ፣ 3= አልፎ አልፎ፣ 4= በተደጋጋሚ፣ 5 = ሁልጊዜ ማለት ይቻላል፣ 6= ሁል ጊዜ ።

ተ.ቁ	በትምህርት ስራ/ተግባር ላይ ምን ያህል የተጠመዱ/የተሳተፉ መሆኑን ለመግለፅ የቀረቡ ሀሳቦች።	በፍፁም	በፍፁም ማለት ይቻላል	በጣም አልፎ አልፎ	አልፎ አልፎ	በተደጋጋሚ	ሁልጊዜ ማለት ይቻላል	ሁል ጊዜ
1	ሁል ጊዜ ጠዋት ስነ ሳ ትምህርቴን ለመከታተል የተነቃቃሁና ደስተኛ ሆኜ ነው።	0	1	2	3	4	5	6
2	የትምህርት ተግባራቶቼ ለእኔ ፈታኝ እና በጥለቀት ማሰብ የሚያስችሉ ሆነው አግኝቼዋለሁ።	0	1	2	3	4	5	6
3	በጥናት ጊዜ ሁሉን ረስቼ ወደራሴ አተኩራለሁ።	0	1	2	3	4	5	6
4	የትምህርት ተግባራትን የማከናውነው በላቀ ጉልበትና ሙሉ በሙሉ ትኩረት በመስጠት ነው።	0	1	2	3	4	5	6
5	ትምህርቴ እጅጉን ይስበኛል ።	0	1	2	3	4	5	6
6	በጥናት ወቅት ጊዜ በጣም ያንሰኛል።	0	1	2	3	4	5	6
7	በትምህርታዊ ስራዎቼ ደስተኛ ነኝ።	0	1	2	3	4	5	6
8	ሳልሰለች ለረጅም ጊዜ ትምህርቴን ማጥናት እችላለሁ።	0	1	2	3	4	5	6
9	በትምህርት ስራዎቼ በማሳየው ለውጥ ኩራትና የስኬታማነት ስሜት ይሰማኛል።	0	1	2	3	4	5	6
10	ራሴን ከትምህርቴ ማለቀቅ ለኔ ከባድ ነው።	0	1	2	3	4	5	6
11	ለትምህርት ስራዎቼ በመንፈስ ጠንካራ እንደሆንኩ ይሰማኛል።	0	1	2	3	4	5	6
12	ትምህርቴ ትርጉምና ዓላማ ያለው ሆኖ አግኝቼዋለሁ።	0	1	2	3	4	5	6
13	በክፍል ውስጥ ትምህርቴን ስከታተልና	0	1	2	3	4	5	6

	በጥናት ጊዜ የጥንካሬና የብርታት ስሜት ይሰማኛል።							
14	በሰፊው ሳጠና የደስታ ስሜት ይሰማኛል።	0	1	2	3	4	5	6

ክፍል አምስት፡ የተማሪዎች የትምህርት ተግባራትን ማዘግየት መለኪያዎች

ሀ. ተለምዷዊ የትምህርት ስራ ማዘግየት ልኬት

መመሪያ፡ ከዚህ በታች በሰንጠረዥ ውስጥ የቀረቡትን ሀሳቦች በጥምና ካነበብክ/ሽ በቋላ ክፊት ለፊት ከተቀመጡት አማራጮች ውስጥ እናንተን ወይም አንቺን ባህሪ ይወክላል የምትለውን/ የምትይውን ቁጥር በማክብብ መልስ እንድትሰጡ/ጭ/ በአክብሮት እጠይቃለሁ። በሰንጠረዥ ውስጥ የተመለከቱት ቁጥሮች የሚወክሉት፡ 1= ሙሉ በሙሉ አልስማም ፣ 2= አልስማም፣ 3=እርግጠኛ አይደለሁም ፣ 4= እስማማለሁ ፣ 5= ሙሉ በሙሉ እስማማለሁ የሚሉ ናቸው።

ተ.ቁ	የትምህርት ተግባራትን የማዘግየት ሁኔታን የሚገልፅ ሁኔታዎች	ሙሉ በሙሉ አልስማም	አልስማም	እርግጠኛ አይደለሁም	እስማማለሁ	ሙሉ በሙሉ እስማማለሁ
1	የቤትና የፕሮጀክት ስራዎችን በአብዛኛው ማሰረከቢያ ቀን እስከሚደርስ በማግየት ቀኑ ሲደርስ እሰራለሁ።	1	2	3	4	5
2	የትምህርት ቤት ሥራን መሥራት እንዳለብኝ አውቃለሁ፣ ግን ዝም ብዬ አላደርገውም።	1	2	3	4	5
3	ትምህርታዊ ስራዎችን ለመስራት ስነሳ ለጊዜው ደስታ በሚፈጥሩና መሰል ነገሮች ሀሳቤ ይሰረቃል።	1	2	3	4	5
4	የትምህርት ሥራ ሲሰጠኝ ለረጅም ጊዜ አስቀምጬ ከረሳሁት በ=ላ ጊዜው ሲደርስ አነሳዋለሁ።	1	2	3	4	5
5	ብዙ ጊዜ እራሴን አስፈላጊ የሆኑ የግዜ ገደቦችን የማልጠቀም ሆኜ አግኝቻለሁ	1	2	3	4	5

ለ. ንቁው የትምህርት ተግባራትን ማዘግየት ልኬት

መመሪያ፡ ከዚህ በታች በሰንጠረዥ ውስጥ የቀረቡትን ሀሳቦች በጥምና ካነበብክ/ሽ በ=ላ ክፊት ለፊት ከተቀመጡት አማራጮች ውስጥ እናንተን ወይም አንቺን ባህሪ ይወክላል የምትለውን/ የምትይውን ቁጥር በማክብብ መልስ እንድትሰጡ/ጭ/ በአክብሮት እጠይቃለሁ። በሰንጠረዥ ውስጥ የተመለከቱት ቁጥሮች የሚወክሉት፡ 1= በፍፁም አውነት አይደለም፣ 2= በጥቀቱ እውነት ነው፣ 3= በተወሰነ ደረጃ እውነት ነው፣ 4= በመካከለኛ ደረጃ እውነት ነው፣ 5= በአብዛኛው እውነት ነው፣ 6= እውነት ነው ፣ 7 በጣም እውነት ነው።

ተ.ቁ	የትምህርት ተግባራትን የማዘግየት ሁኔታን የሚገልፁ ሁኔታዎች	በፍጹም እውነት አይደለም	በጥቂቱ እውነት ነው	በተወሰነ ደረጃ እውነት ነው	በመካከለኛ ደረጃ እውነት ነው	በአብዛኛው እውነት ነው	እውነት ነው	በጣም እውነት ነው
1	ለእኔ የትምህርት ተግባራትን በጊዜ ገደቡ ውስጥ መስራት ምችነት አይሰጠኝም።	1	2	3	4	5	6	7
2	ጊዜዬን በብቃት ለመጠቀም ስል ሆን ብዬ አንዳንድ ስራዎችን ለሌላ ጊዜ አስተላልፋለሁ።	1	2	3	4	5	6	7
3	የጊዜ ገደቡ ሲቃረብ የምሰራው የትምህርት ስራ ውጤታማ አይደለም።	1	2	3	4	5	6	7
4	እኔ ብዙ ጊዜ ነገሮችን በመጨረሻው ደቂቃ እጀምራለሁ እና እነሱን በሰዓቱ ማጠናቀቅ ይከብደኛል።	1	2	3	4	5	6	7
5	በጫና ውስጥ ሆኜ ለመስራት ስገደድ ራሴን ተቆጣጥሬ ወደ ስራ ለመግባት እችላለሁ።	1	2	3	4	5	6	7
6	ተነሳሽነቴን ከፍ ለማድረግ ሆን ብዬ ሥራዬ ቀን ገደቡ እስኪደርስ ወደፊት አገፋለሁ።	1	2	3	4	5	6	7
7	ብዙ ጊዜ ተጣድፌ ስሰራ ስራውን በጥሩ ሁኔታ አልሰራውም።	1	2	3	4	5	6	7
8	ብዙ ጊዜ ለራሴ ያዘጋጀኝቸውን ግቦች ማሳካት ያዳግተኛል።	1	2	3	4	5	6	7
9	ብዙ ጊዜ ጫና ሲፈጠር ውጥረት ይሰማኛል ፤ እናም በስራ ላይ ማተኮር አልችልም።	1	2	3	4	5	6	7
10	ጊዜዬን በተሻለ ለመጠቀም ሆን ብዬ አንዳንድ ሥራዎችን በይደር አቆያለሁ።	1	2	3	4	5	6	7
11	ብዙ ጊዜ ስራዎችን በይደር አቆይቼ ስሰራ በውጤቱ አልረካም።	1	2	3	4	5	6	7
12	ብዙ ጊዜ ነገሮችን በምሰራበት ጊዜ ዘግይቼ እጀምራለሁ።	1	2	3	4	5	6	7
13	ለስራው የተሰጠኝ ቀን ገደብ እንዳይደርስብኝ ስጣደፍ ፍርሐት ይሰማኛል።	1	2	3	4	5	6	7
14	አብዛኛዎቹን ስራዎቼን የምጨርሰው ቀን-ገደብ ሳይደርስ ቀድሜ ነው ምክንያቱም ይህን ለማድረግ	1	2	3	4	5	6	7

	ስለመረጥኩ ነው።							
15	አንድን ተግባር ተረጋግቼ ከቀነ ገደቡ በፊት ከሰራሁ የተሻለ ውጤት አገኛለሁ።	1	2	3	4	5	6	7
16	እንደ ጊዜ ስራዎችን ከጀመርኩ በኋላ መጨረስ ይቸግረኛል።	1	2	3	4	5	6	7