

## Certificate

This is to certify that the dissertation entitled, "Influence of decision-making styles on academic procrastination among college students ", is a bonafide record submitted by Ancy Martin, Reg.no SB21PSY037 , of St. Teresa's College, Ernakulam under the supervision and guidance of Ms. Hajira KM, and that it has not been submitted to any other university or institution for the award of any degree or diploma, fellowship, title or recognition before.

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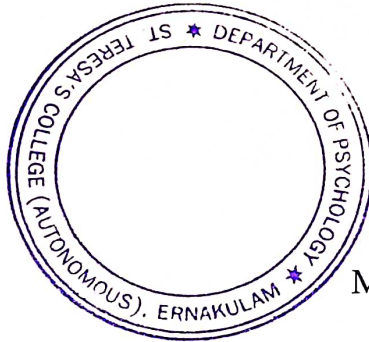


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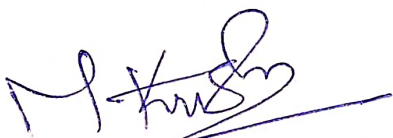


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# **Influence Of Decision-Making Style And Academic Procrastination Among College Students**

Dissertation submitted in partial fulfilment of the requirements for the award of

Bachelor of Science in Psychology

By

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**ST. TERESA'S COLLEGE (AUTONOMOUS), ERNAKULAM**

Nationally Re-accredited at 'A++' level (4th cycle)

Affiliated to: Mahatma Gandhi University

**MARCH 2024**

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## **Declaration**

I, Ancy Martin , do hereby declare that the work represented in the dissertation embodies the results of the original research work done by me in St. Teresa's College, Ernakulam under the supervision and guidance of Ms. Hajira KM , Assistant Professor, Department of Psychology, St. Teresa's College, Ernakulam, it has not been submitted by me to any other university or institution for the award of any degree, diploma, fellowship, title or recognition before.

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## **Acknowledgement**

It is not possible to prepare a project report without the assistance and encouragement of other people. This one is certainly no exception. I would like to express my deep heartfelt gratitude to the Department of Psychology, St. Teresa's College, Ernakulam for providing me with the opportunity to undertake the research.

I would like to express my sincere gratitude to Ms. Bindu John, the Head of the Department of Psychology, for her guidance and support throughout the duration of my project. I am truly thankful for her expertise, unwavering encouragement, patience, and mentorship, which have been pivotal in my academic journey.

I acknowledge my indebtedness and deep sense of gratitude to my research guide, Ms.Hajira KM , Assistant Professor, Psychology, for encouraging and guiding me throughout all the phases of my research.

I extend my sincere thanks to my parents, teachers and my friends who all have supported me throughout the time. I am grateful to each and every one who has given me guidance, encouragement, suggestions and constructive criticisms which has contributed immensely for this project.

Above all, I thank God Almighty for blessing me in all the stages of the project and for helping me complete the project successfully.

Thanking you

Ancy Martin

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## **Abstract**

The current study investigated the relationship between decision-making styles on academic procrastination among college students. The sample consisted of 300 college students. Academic Procrastination Scale (APS) and General Decision-Making Styles Questionnaire (GDMSQ) were used as the instruments of the research. Procrastination is a tendency to delay in initiating or completing an overall performance for other unnecessary activities, resulting in poor performance, never completing tasks on time, and often late in attending meetings (Solomon and Rothblum, 1984). Scott & Bruce (1995) defined decision-making style as a pattern of responses from the habits shown by a person when faced with a situation to decide. Spearman's rank correlation coefficient was used for data analysis. the results revealed that there is weak positive correlation between rational DMS and academic procrastination insignificantly, weak but significant positive correlation between intuitive, dependent, spontaneous DMS and academic procrastination There was more positive correlation about ( $r=0.295$ ) between avoidant decision-making style and academic procrastination. Mann Whitney test showed that there is no significant difference between academic procrastination among male and female student participants.

**Keywords:** Decision-making styles, academic procrastination, college students, Rational decision-making, Intuitive decision-making, Dependent decision-making, Spontaneous decision-making Avoidant decision-making

*“If we wait for the moment when everything, absolutely everything is ready, we shall never begin.” (Ivan Turgenev, 1877)*

The term "procrastination" refers to delaying planned duties even though one expects to suffer consequences for the delay. It originates from the two Latin terms *pro*, which means "forward, forth, or in favor of," and *crastinus*, which means "of tomorrow" (Steel, 2007). Delays can range from somewhat innocuous tasks like putting off cleaning the dishes or laundry to more significant ones like not paying bills on time or putting off getting the essential medical attention. Most people periodically put off doing both significant and insignificant activities, but procrastination turns into more than just a hassle when it becomes a habit. Some people may face major repercussions if they put off crucial duties, such as losing their work because they can't fulfill their obligations on time.

Academic procrastination, also known as task delaying, is the act of students putting off activities like preparing for exams, writing term papers, and keeping up with weekly assignments. The irrational nature of procrastination—delaying work despite superior judgment telling one not to—is one of its irritating features (Neenan, 2008). Nearly a fifth of the general population (Steel & Ferrari, 2013) and half or more of students (Ellis & Knaus, 1977, cited in Steel, 2007) still struggle with procrastination, which has significant negative effects on relationships, the individual, and society as a whole.

Undergraduate students today frequently encounter a phenomenon in their quest to seem as intellectual prospects. According to the observation and the interviews, undergraduate students tend to put off doing assignments in an academic environment. Procrastination results in low levels of income, health, and life happiness as well as poor performance, late assignment collection, and lower academic achievement. (Balkis & Duru, 2007; Steel & Ferrari, 2013; Paola, 2014; Wulan, Diah. A.N. & Abdullah, Sri. M., 2014;

Radiator, 2016; Schubert & Stewart, 2000).

Undergraduate students frequently exhibit both direct and indirect procrastination in academic or educational settings. Ferrari et al. (1995) state that academic procrastination can be shown as specific traits and indicators, such as being lazy, starting a task too late, starting a more enjoyable task before finishing the one at hand, and a lag between the planned action and the actual task completion. Procrastinators are often unable to manage time wisely and fail in setting or prioritizing goals, thus ignoring responsibility which is needed in a timely manner (Balkis & Duru, 2007)

### **Academic Procrastination**

Senecal, Koestner, and Vallerand (1995) defined it as delaying the start of a job until stress arises from being unable to complete it sooner. Sirois, Gordon, and Pichel (2003) described it as putting off beginning or finishing a job and found that it is associated with greater levels of stress. It is defined by Knaus (1998) as putting off doing a task that is important. The theories often imply that one prefers to work on a task that is less important than another. While procrastination may appear to be a means of achieving temporary respite, the psychological health of the individual engaging in procrastination may suffer because of this postponing inclination. (Friend & Krause, 2014).

### ***Theories of academic procrastination***

There are currently two main academic theories regarding the psychological causes of procrastination:

**Emotion-regulation theory :** According to the emotion-regulation theory (sometimes also called the temporal mood-repair theory), procrastination occurs when

people prioritize their short-term mood over long-term goal achievement and wellbeing. (S Itamer ,2015)

This primarily happens when people postpone a task that they find aversive—because it is boring, frustrating, confusing, frightening, or unpleasant in some other way—to postpone the associated negative emotions, a behaviour commonly described as “giving in to feel good” (or mood repair). However, this can also happen when people postpone tasks because of affective styles. (S Itamer ,2015)

The emotion-regulation theory aligns with other models of self-regulation and self-control, where hedonistic impulses and desires are pitted against long-term goals. However, it focuses on procrastination as a form of mis regulation, where people procrastinate because they mistakenly believe that this will make them feel better, rather than under regulation, where people procrastinate because they fail to exert necessary self-control, though both issues can cause procrastination. (S Itamer ,2015)

A significant component of the emotion-regulation theory is temporal disjunction, where people feel disconnected from their future self, which leads them to prioritize the desire and needs of their present self (S Itamer ,2015). For example, this can involve procrastinating on an important task to improve the mood of the present self, while ignoring or downplaying the consequences that the future self will have to deal with because of this.

The emotion-regulation theory captures key aspects of procrastination, and can therefore explain and predict it well in some cases.

**Temporal motivation theory:**The Temporal Motivation Theory (TMT), developed by Steel and König (2006), is currently the most thorough theory on procrastination. In order to explain why we aspire for particular objectives, TMT takes into account well-established components of motivated behavior (such as expectation and value). More crucially, however,

it takes into account two elements that are especially pertinent to procrastination: impulsivity (sensitivity to delay) and delay (time to goal attainment). The temporal discounting principle—which states that shorter-term, immediate temptations are prioritized over longer-term, more ambitious goals—is incorporated into this model (e.g., König & Kleinmann, 2004).

The most consistent finding among studies using both quantitative and qualitative methodologies, as well as the overarching theme in all viewpoints, is that procrastination is a "quintessential self-regulatory failure" (Steel, 2007). From the standpoint of time discounting,

TMT summarizes this phenomenon (Gröpel & Steel, 2008; Steel & König, 2006; Steel & Weinhardt, in press). The main determinants of procrastination in this integrative theory are anticipation (e.g., self-efficacy), value (e.g., task aversiveness), and time sensitivity (e.g., impulsiveness), which are all proven constructs of major motivational theories.

In its most parsimonious expression, these three constructs are organised into an equation:

$$\text{Motivation} = (\text{expectancy} \times \text{value}) / (1 + \text{impulsiveness} \times \text{delay}).$$

When the magnitude or value of an outcome increases along with its expectation, motivation rises as well. As time passes before this result and a person's impulsivity rises, motivation declines. On the other hand, preference reversal leads to procrastination. A prior intention (the dashed line) is drawn or distracted from by a temptation that is close by or readily available (the solid line). This theory states that procrastination is more likely to happen when the result of an unpleasant task at hand, like writing an essay, promises rewards—even large ones—in the far off future, like higher grades (Steel & König, 2006).

### ***Types of academic procrastination***

Schouwenburg (2004) pointed out that there are two types of academic procrastination: sporadic and chronic. Sporadic academic procrastination refers to a one-off behaviour. Chronic academic procrastination is the generalized habit of delaying studying.

### ***Factors Affecting Academic Procrastination***

Individuals who engage in procrastination often find themselves in a cycle of stress, anxiety, and underachievement, affecting their long-term academic success and personal development. The internal dimensions include individual characteristics, such as personality traits, self-regulatory skills, self-efficacy, and motivational factors (Howell, Watson, Powell, & Buro, 2006; Steel, 2007). According to Ferrari (2001), procrastination tendencies can also result in worry, low self-esteem, low public and personal awareness, and concern over one's public image. Procrastination is associated with self-awareness, freedom, and responsibility, according to the existentialist model (Sherry, Sherry, Hewitt, Musquash & Flett, 2015). A person lacking self-awareness will put off doing things because they cannot accept accountability for their actions. In order for the independence of an individual would have restrictions.

The external dimensions that encompass environmental and situational influences. These may include the characteristics of academic tasks, workload demands, peer pressure, faculty support, and institutional policies. Some researchers have identified that procrastination as a disposition of characteristic that has cognitive, behavioural, and emotional components (Aremu et al., 2011; Schubert & Stewart, 2000).

There is little evidence in the procrastination study literature linking environmental factors to procrastination. Environmental influences that are discussed in academic settings

can be divided into three main categories: effects of instructors/teachers (includes ways that can directly or indirectly influence student procrastination. Examples include choice of syllabus and term papers, exam forms, teaching style, as well as personal suitability and subject matter knowledge (Grunschel, Patrzek, & Fries, 2013), task attributes (The degree to which a task is unpleasant or unenjoyable to execute is the standard definition of task aversiveness (e.g., Lay, 1992). Generally speaking, tasks that are more unpleasant are delayed more (Steel, 2007), as well as classmates and the social environment. Many of these elements—if not all of them—fall within the general heading of social psychology theories like Social Comparison Theory (Festinger, 1954) and Social Learning Theory (Bandura, 1977), where people compare and learn about themselves and their behavior in terms of procrastination.

### **Decisions Making Style**

A person's decision-making style encompasses more than merely recognizing possibilities; it also includes choosing the optimal option while taking their values, goals, preferences, and way of life into account. It can also be defined as minimizing uncertainty when choosing among multiple possibilities; this explanation focuses on gathering information at the time of decision-making.

Decision making style was defined by Scott & Bruce (1995) as a person's habitual pattern of reactions when faced with a decision. Decision-making style is viewed as a fundamental inclination of habit in reacting with certain approach, including how to decide in certain scenarios, rather than as a personality feature. Decision-making types based on Scott and Bruce (1995)—rational, intuitive, dependent, spontaneous, and avoidance—dispersed more clearly. Rational decision-making, according to Scott & Bruce (1995), is the logical nature of search or traceability and alternative appraisal. A propensity to believe in

sentiments is characterized as an intuitive decision. (Scott & Bruce ,1995). Seeking assistance from others prior to making a decision is indicative of dependent decisions (Scott & Bruce ,1995). Those who avoidant decision-making style often assign decision-making to others (Scott & Bruce ,1995). When faced with deadlines and pressure, people with spontaneous decision-making style tend to make decisions swiftly Scott & Bruce (1995).

### ***Theories of decision-making style***

**Subjected Expected Utility Theory:** This theory is an approach in which decisions are taken under risk, allowing for the subjective evaluation of variables under different options and the associated probabilities. Expected utility refers to the fact that the value of any commodity is different for one person than another due to external conditions. The decision maker should take a decision only after evaluating every factor and piece of information available to them. It was introduced by the US decision theorist Leonard Jimmie Savage (1917–71) in his book *The Foundations of Statistics* (1954).

**Prospect Theory:** This theory states that decision-making depends on choosing between various alternatives, but the decision depends on biased judgments. Kahneman proposed this, who stated that heuristics and biases affect the assessment of the consequences and frequency of decision-making. Such judgments involve evaluations of the external world; decisions involve more fundamental internal choices across values. Prospect theory was first introduced in 1979 by Amos Tversky and Daniel Kahneman , who later developed the idea in 1992. The pair said that the prospect theory was better at accurately describing how decisions are made, compared to the expected utility theory.

**Satisficing Theory:** In this theory, the decision maker chooses the option that satisfies the problem. Simon,(1956) proposed the concept of bounded rationality, in which the decision maker has limited or bounded information and resources to make a decision.



The decision maker makes a compromised choice, satisfying the bare minimum of the problem, and does not improvise or try to expand the scope of decision-making. The decision maker will choose any option that satisfies the minimum without exploring all the options.

**Attribution Theory:** Attribution refers to explaining the reasons behind any action or motive. Fritz Heider (20<sup>th</sup> century) proposed a thesis, on which other researchers expanded. There are two types of attribution: internal and external. Internal attribution will refer to the qualities of the person, personality, and attitudes, whereas external attribution will refer to environmental factors as a reason. Weiner (1974) proposed a three-stage process that underlies an attitude: (a) the person must perceive or observe the behavior; (b). the person has to decide if the behavior was intentional; (c). the person has to decide if the action was forced. Weiner confined the theory to the most important factors affecting the attribution of achievements, such as ability, effort, task difficulty, and luck. Weiner further divided causal attribution into three categories: locus of control, stability, and controllability. The locus of control is further classified as internal or external. The stability dimension examines if there are variations in time that can be linked to causes. For example, we can have an unstable internal ability and effort. Controllability refers to the causes one can control (e.g., skill and efficacy) and those ones cannot control (Jones et al, 1972; Weiner, 1974, 1986)

**Heuristic Theory:** Heuristics are efficient cognitive processes that ignore part of the information, conscious or unconscious (Simon, 1950). Because using heuristics saves effort, the classical view has been that heuristic decisions imply greater errors than "rational" decisions defined by logic or statistical models. Due to heuristics, the decision maker would be able to make an effective decision in a novel and short time. Heuristics are efficient cognitive processes that ignore part of the information, conscious or unconscious. Because using heuristics saves effort, the classical view has been that heuristic decisions imply greater

errors than "rational" decisions defined by logic or statistical models ( Tversky .A& Kahneman ,1970)

### ***Types of decision-making style***

A rational decision-making style is characterized by the comprehensive search for information, inventory of alternatives and logical evaluation of alternatives. In another word, rational decision-making style is ascribed by use of reasoning and logical and structured approaches to decision making (Scott and Bruce, 1995; Thunholm 2004; Rehman and Waheed, 2012).

An intuitive decision-making style is characterized by attention to details in the flow of information rather than systematic search for and processing of information and a tendency to rely on premonitions and feelings. That is, decision-making style is defined by dependence upon hunches, feelings, impressions instinct experience and gut feelings (Scott & Bruce ,1995).

The dependent decision-making style is characterized by getting direction and support of others before deciding. In a different word, a dependent style is defined by a search for advice and guidance from others before making important decisions (Scott & Bruce ,1995).

Avoidant decision-making style is defined by withdrawing, postponing, moving back and negating the decision scenarios. That is, an avoidant style is characterized by attempts to avoid decision making whenever possible (Scott & Bruce ,1995).

Spontaneous decision-making style is characterized by making rapid, quick, impulsive, and prone to making “snap” or “spur of the moment” decisions. A spontaneous style is characterized by a feeling of immediacy and a desire to come through the decision-

making process as quickly as possible (Scott and Bruce, 1995; Spicer and Sadler-Smith, 2005; Thunholm 2004; Rehman and Waheed, 2012).

### ***Factors Affecting Decision Making Style***

Several factors influence decision making. These factors, including experience (Juliussen, Karlsson, & Gerling, 2005), cognitive biases (Stanovich & West, 2008), age and individual differences (Bruin, Parker, & Fischhoff, 2007), belief in personal relevance (Acevedo, & Krueger, 2004), and an escalation of commitment, influence what choices people make. Heuristics serve as a framework in which satisfactory decisions are made quickly and with ease (Shah & Oppenheimer, 2008). Maladaptive decision-making styles, often associated with negative parenting approaches, can have detrimental effects on children's development (Davids, 2016). Specifically, negative parental rearing attitudes and communication can lead to dependent decision-making in adolescents (Heo, 2010)

### **Statement of the problem**

Whether decision making styles such as rational , intuitive ,dependent ,avoidant, spontaneous styles influence the academic procrastination among college students .And to identify whether there will be a significant difference between academic procrastination in both male and female college students.

### **Rationale of the study**

The rationale for conducting this study lies in addressing the existing research gap regarding the relationship between decision-making style and academic procrastination among college students, particularly with a focus on larger sample sizes and gender differences. Limited studies have explored this relationship comprehensively, with many existing studies having smaller sample sizes, thereby potentially limiting the generalizability

of their findings. For instance, In earlier research has primarily focused on smaller sample sizes, failing to capture the full breadth of variability in decision-making styles and procrastination behaviors among college students. By conducting a study with a larger sample size, this research seeks to provide more robust and generalizable findings that can better inform interventions and support services for students.

Furthermore, existing research has often overlooked gender differences in academic procrastination, with few studies specifically examining procrastination tendencies among male and female participants. The studies were predominantly focused on a small sample of female participants, neglecting to thoroughly investigate potential gender differences in procrastination behaviors. Similarly, other studies Nanguru.L,(2023) primarily explored procrastination tendencies among male participants. Consequently, there is a notable gap in the literature regarding the examination of procrastination tendencies among both male and female college students. By addressing this gap, this study aims to provide a more comprehensive understanding of how decision-making styles influence academic procrastination across different gender groups.

The literature review is a written overview of major writings and other sources on a selected topic. Sources covered in the review may include scholarly journal articles, books, government reports, Web sites, etc. The literature review provides a description, summary and evaluation of each source.

Procrastination has been linked to mood control, according to recent studies. Decision-making is also a factor that is influenced by emotion or a person's affect. The study titled "The influence of affective styles and decision making styles on academic procrastination". The study aims to find whether affective styles and decision making influence academic procrastination and result indicates that weak inverse correlation between adjusting affective style and academic procrastination (KS, V. M., Rajkumar, E., Rao, L., John, R., Sunny, S. M. N. A., George, A. J., Pawar, S., & Abraham, J. (2023). The study titled "Gender Difference Study on the Effects of locus of control and decision-making style on Procrastination". Findings revealed that, Decision-making styles and locus of control may be the consequences of decisional procrastination rather than its antecedents, i.e., high procrastination in an academic context could generate maladaptive decision-making styles and an external locus of control (Indiana.M & Sogona,2021)

In a study titled "Relationship of adaptive perfectionism and self-determining motivation as mediating factors on procrastination ".The factors that are connected to thoughts like perfectionism, illogical self-beliefs, and self-efficacy were included into procrastination research (Sirois, 2014). Findings from a study that examined whether or not adaptive perfectionism and self-determined motivation among college students improves academic procrastination showed that students with better self-determined because they have higher personal standards, they are

more motivated, procrastinate less, and have higher GPAs (Burnam, Komarraju, Hamel & Nadler, 2014).

Ulukaya (2014) conducted a study “Effects of parental attitudes on procrastination with university students from both public and private universities” about parental attitudes and procrastination. The findings indicated that age, mother's tight supervision, and the type of university predicted academic procrastination. Additionally, it was discovered that there was a substantial difference in the procrastination tendencies of students regarding perceived mother attitudes for both genders; however, procrastination tendencies only differed for female students with perceived parental attitudes.

The study titled “Arousal, avoidant and decisional procrastinators: Do they exist?” A competing tripartite model has divided procrastination into avoidance, arousal, and decisional. There is a strong case to be made that procrastination is irrationally putting tasks off that it is “to voluntarily delay an intended course of action despite expecting to be worse off for the delay” (Steel, 2010)

In a Deniz et al. (2009) study “An investigation of academic procrastination, locus of control, and emotional intelligence”, found that the impact of emotional intelligence on academic procrastination and locus of control was examined. In the. According to the study's findings, there was a significant association between academic procrastination scores and the Emotional Intelligence Scale subscales measuring "adaptability" and "coping with stress." Moreover, there was a negative correlation found between emotional intelligence skill and locus of control and academic procrastination.

Research on “The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure” procrastination among undergraduate students revealed a

correlation between increased academic procrastination and reduced levels of self-efficacy, self-esteem, and self-regulation as well as elevated stress and anxiety (Howell, Watson, Steel, 2007) However, researcher(Steel, 2007) discovered that procrastination is a behavior that can affect people's lives in both positive and negative ways, and that it is a more complex issue than previously believed. Also, Steel (2007) revealed that impulsivity was one of the strongest correlates of procrastination

Although, procrastination has negative consequences, it may sometimes motivate people in some cases. For instance, in the study of Chu and Choi (2005) “Rethinking Procrastination: Positive Effects of “Active” Procrastination Behavior on Attitudes and Performance”, it was found that some participants claimed that they intentionally procrastinate because time pressure motivates them. Also, it was in the study “Longitudinal Study of Procrastination, Performance, Stress, and Health” revealed in another study that university students who procrastinate have less stress than students who do not procrastinate in academic settings (Tice & Baumeister, 2000).

Milgram (2000) conducted a study “Personality correlates of decisional and task avoidant procrastination” identified personality factors associated with decisional and task avoidant procrastination, with neuroticism being linked to decisional procrastination and conscientiousness to task avoidance procrastination. In a study of “Decisional and behavioral procrastination: How they relate to self-discrepancies” Orellana-Damacela (2000) also found that self-discrepancies can influence both decisional and behavioural procrastination. These studies collectively suggest that procrastination is associated with specific decision-making styles and personality traits.

A different study “Research on subjective well-being and decision making of teacher candidates” (Dilmaç & Bozgeyikli, 2009) investigated the connection between decision-making

styles and subjective well-being results suggested that head teachers prioritize the rational decision-making style. Effective decision-making contributes to institutional achievements and overall management success. Additionally, “. Adolescent self-esteem and decision-making style of the decision with the perceived level of social support, social competence and level of expectation in terms of some variable treated as a comparative analysis” Kaşık (2009) looked into adolescents' self-esteem, hope, and perceived level of social support when making decisions and the found that perceived social support plays a vital role in shaping adolescents' self-esteem and hope, with parental support being particularly influential. In a study “Examination of the irrational beliefs of university students and decision-making styles” reflects an individual's ability to decide in healthy way is related with his/her cognitive process and all irrational beliefs interfere his/her decision-making process in negative way (Can, 2009).

The relationship between decision-making styles and other factors in Turkey has been the subject of numerous studies. Such as “An examination of the relationship between test anxiety and decision making styles of elementary school 8th grades students” ,Bacanlı and Sürücü (2006), examined the career development and gender of eighth-grade elementary school pupils as indicators for Self-efficacy in making career decisions founded that Prudent selectivity was the strongest predictor of career progress, followed by self-esteem and panic in decision-making, respectively.

In the study of Pychyl, Lee, Thibodeau and Blunt (2000) named “Procrastination, Emotion Regulation, and Well-Being”, students were inquired about what they do when there are five days to deadline of a task and it was revealed that when students procrastinate, they prefer



more enjoyable tasks to unpleasant activity of the task that needed to be completed. People typically have illogical interpretations, which cause them to put off doing their academic work .

In a study “Decision-Making Style: The Development and Assessment of a New Measure” “Decision-making styles have been described by Scott and Bruce (1995) as an acquired habit. This irrationality includes overestimating or underestimating the amount of work needed to do a task, overestimating the inspiration needed to finish a task, and believing that being in the right frame of mind is necessary for task completion success. Found a positive correlation between an individual's rational decision-making style and internal locus of control. The study did not find any association between intuitive style and locus of control. It has been observed that dependent and avoidant decision making is positively connected with external locus of control .Finally, a weak negative association was discovered between the spontaneous decision-making style and internal locus of control(Scott &Bruce,1995).

This chapter describes the aim, objectives, hypothesis, study design, sample and sampling design, tools and statistical analysis of the study.

## **Aim**

To investigate if there is a significant association between decision making styles and academic procrastination. And to identify if there is a significant difference in academic procrastination among male and female participants

## **Objectives**

- Assess the difference in academic procrastination among male and female student participants
- To determine how different decision-making styles effect on academic procrastination

## **Hypothesis**

H1: There is no significant correlation between rational decision-making style and academic procrastination

H2: There is no significant correlation between intuitive decision-making style and academic procrastination

H3: There is no significant correlation between dependent decision-making style and academic procrastination

H4: There is no significant correlation between avoidant decision-making style and academic procrastination

H5: There is no significant correlation between spontaneous decision-making style and academic procrastination

H6: There is no significant difference of academic procrastination between male and female participants.

### **Operational Definitions**

Academic procrastination: academic procrastination is operationally defined as the sum total of scores assessed in 25 item Academic procrastination scale developed by McCloskey.

Decision making style: decision making style is operationally defined as the sum of the scores assessed in 25 item General Decision-Making style by Scott and Bruce.

Rational decision-making style: The domain rational decision-making style can be operationally defined as sum of total scores obtains in respective items

Intuitive decision-making style: The domain intuitive decision-making style can be operationally defined as sum of total scores obtains in respective items

Depended decision making style: The domain depended decision making style can be operationally defined as sum of total scores obtains in respective items

Avoidant decision-making style: The domain avoidant decision-making style can be operationally defined as sum of total scores obtains in respective items

Spontaneous decision-making style: The domain spontaneous decision-making style can be operationally defined as sum of total scores obtains in respective items

## **Research Design**

Correlational Research Design and Mann-Whitney U test was opted for the study. Correlational research design was opted for the study. A correlational research design investigates relationships between variables without the researcher controlling or manipulating any of them. A correlation reflects the strength and/or direction of the relationship between two (or more) variables. The direction of a correlation can be either positive or negative. The Mann-Whitney U test is a non-parametric test used to compare two independent groups that might not be normally distributed. It analyses the ranks of the data, not the raw numbers, making it good for uneven data. It's useful to see if the medians (centre points) of two groups are statistically different.

## **Sample**

A sample of 300 college students (150 males and 150 females) within the age group of 18-25 participated in the study.

## **Sampling Design**

The sample design opted for this study was random and convenience sampling.

## **Population**

College students from Ernakulam.

## **Inclusion criteria**

- College students (males and females) within the age group of 18-25.

### **Exclusion criteria**

- Individuals who are mentally retarded.
- Individual who are physically disabled.
- Participants outside Ernakulam district.

### **Tools Used**

Informed consent was provided.

Socio-demographic data sheet was provided ..

#### **The Academic Procrastination Scale (APS)**

The Academic Procrastination Scale (APS), developed by McCloskey in 2011, is a valuable tool for assessing procrastination specifically related to academic tasks. It focuses on behaviors such as delaying term papers, exams, and projects within the academic setting. The APS consists of 25 items that participants rate on a 5-point Likert scale, ranging from “strongly disagree” (1) to “strongly agree” (5). Researchers and educators use this scale to explore behavioral factors related to academic achievement and its antecedents and consequences. The APS demonstrates high internal consistency, with a Cronbach’s alpha ( $\alpha$ ) coefficient of 0.94.

#### **General Decision-Making Style (GDMS)**

The GDMS is a 25-question self-report measure that assesses decision making style. The five styles included on the measure are rational, intuitive, dependent, spontaneous, and avoidant. The GDMS has good validity and reliability ratings. Content and face validity range from .68 to .95, internal reliability ranges from .67 to .87, and test-retest reliability ranges from .58 to .67 (Spicer & Sadler-Smith, 2005). Scott and Bruce (1995) have validated each of the five scales on the GDMS. Internal reliability for the rational scale is reported to be between .77 and .85, the

intuitive scale, .78-.84, the avoidant scale, .93-.94, the dependent scale, .68- .86, and the spontaneous scale, .87.

## **Procedure**

The data in the present study has been collected from the population by giving out questionnaires. An informed consent form was provided at the beginning of the questionnaire to make sure that the confidentiality of the participants data will be maintained. This was followed by a few questions that collected the demographic details of the participant. General decision-making style (GDMS) was followed by Academic procrastination scale (APS) The questionnaires were scored according to the scoring guidelines given in them and the final results was obtained using SPSS software version 29.0.2.0

## **Ethical considerations**

- Research participants were not subjected to harm in any ways whatsoever.
- Respect for the dignity of research participants was prioritized.
- Full consent was obtained from the participants prior to the study.
- Confidentiality of research were ensured .
- Anonymity of individuals and organizations participating in the research was ensured.
- Any deception or exaggeration about the aims and objectives of the research was avoided.
- Any type of communication in relation to the research was done with honesty and transparency.
- Any type of misleading information, as well as representation of primary data findings in a biased way were avoided

## Statistical analysis

The data collected from the participants was analyzed using SPSS software version 29. As the population is non parametric distribution, the correlation analysis was done using Spearman correlation. Mann-Whitney U test was done to compare the male and female population.

## Normality test

**Table 1**

*Summary of Kolmogorov-Smirnov test of Normality of General Decision-making style and Academic Procrastination*

Variables	sig
Rational decision-making style	0.126
Intuitive decision-making style	0.111
Dependent decision-making style	0.130
Avoidant decision-making style	0.088
Spontaneous decision-making style	0.100
Academic procrastination	0.055

The Kolmogorov-Smirnov test of Normality of shows that the variables General Decision-making style and Academic Procrastination are not normally distributed in the sample ( $p < 0.05$ ).

The aim of the study was done to find the role of decision-making styles on academic procrastination as well as to find out is there any difference between academic procrastination between female and male students. A total of 300 participants within the age range of 18-25 were recruited for the research. The selection criteria included individuals who fell within the specified age and were willing to participate in the study voluntarily. Participant recruitment will be carried out through university settings or other social settings. Findings of this study reveal that decision-making styles and its sub-dimensions are related to procrastination. As expected, students who are persevere in making decisions have little possibility to procrastinate tasks. Demographic Data Form, Academic procrastination scale and General Decision-Making Style Inventory (GDMS) were administered to participants. In the present study, descriptive and inferential statistics were used and analysis was done by IBM (Statistical Packages of Social Sciences 22 (SPSS) computer program version 29.0.2.0 . Before using statistical analysis, the data were explored by checking certain assumptions to be satisfied.



## Descriptive statistics

**Table2**

*Mean and std deviation of decision-making styles and academic procrastination among 300 college participants*

	Mean	Std.Deviation	N
Rational decision-making style	19.16	3.465	300
Intuitive decision-making style	19.22	3.372	300
Dependent decision-making style	18.13	3.694	300
Avoidant decision-making style	15.57	3.939	300
Spontaneous decision-making style	16.43	4.016	300
Academic procrastination	79.09	16.075	300

Here, the mean and standard deviation of rational, intuitive, dependent, avoidant, spontaneous decision-making style and academic procrastination is depicted. The mean and Std deviation of Rational decision-making style found to be 19.16 and 3.465. The mean and Std deviation of intuitive decision-making style was found to be 19.22 and 3.372. Mean and Std. deviation of dependent decision-making style are 18.13 and 3.694, Avoidant decision-making style found to be having 15.57 as its mean and with std deviation 3.393. Spontaneous decision-making style has 16.43 and 4.016 as its mean and std deviation. The other variable called academic procrastination has 79.06 as mean and 16.075 as std deviation.

## Correlation analysis

**H1:** There is no significant correlation between rational decision-making style and academic procrastination

**Table 3**

*Indicates the correlation between rational decision-making style and academic procrastination*

	Academic procrastination
Rational decision-making style	0.11

Table 3 shows a correlation between rational decision-Making style and academic Procrastination's test results showed that association between the rational decision-making style and the level of academic procrastination indicate very weak positive correlation but insignificantly ( $r = 0.11$ ). therefore, H1 hypothesis is rejected.

Procrastination is a complex psychological and behavioral construct that is strongly influenced by certain personality traits.(Hussin, W. a. S. W., & Matore, M. E. E. M,2023)There is positive correlation between the personality style Conscientiousness and GDMS Rational style (Cook, C., & Gonzales, H.,2016).In a study of "Procrastination: A result of rational or irrational decision style" it was found that although rational decision style or goal-orientation style were negatively correlated with procrastination, when controlling for goal-orientation, an opposite link was revealed: with higher rational decision predicting higher levels of procrastination (Rave.H,2020). The logical explanation of findings was described by the fact that decisionmakers who prefer a rational approach to decision-making have a sense of personal responsibility and control (Scott & Bruce, 1995; Thunholm, 2004). Responsible behavior which is very exhausting and chaotic has a less positive relation with procrastination (Balkis, 2007; Dilmac & Bozgeyikli, 2009). The rational decision-making process requires careful consideration and deliberation of data; this takes time, making this method unsuitable for quick-

decisions. In the age of fast-paced changes, seizing the opportunity at the spur of the moment plays a big part in success, and the rational model does not live up to this task.

**H2:** There is no significant correlation between intuitive decision-making style and academic procrastination

**Table 4**

*Indicates the correlation between intuitive decision-making style and academic procrastination*

	Academic procrastination
Intuitive decision-making style	0.126*

\*. Correlation is significant at the 0.05 level (2-tailed).

This table 4 shows the relationship between intuitive decision-making style and academic procrastination. The relationship between the intuitive decision-making style and the level of academic procrastination showed significantly weak positive relationship ( $r=0.126$ ;  $p<0.05$ ). As a result reject H2 hypothesis

This study discovered a weak positive, statistically significant association between procrastination and intuitive decision making style. . Intuitive style was positively correlated with general procrastination among adults in the study of Ugurlu (2013) To put it another way, academic procrastination is more likely to be lower in those who tend to make decisions based on intuition, however this relationship was not statistically significant in Ugurlu's study. Previous literature shows a mixed relationship for both study variables i.e. the significant positive relationship between intuitive DMS and procrastination (Ugurlu, 2013) as well as negative but insignificant results (Santosa, 2017). Research demonstrating a strong positive association

between these variables was conducted in European culture, whereas research indicating a weak or no correlation but insignificant relationship was conducted in Asian society. These cultural variations may account for the discrepancies in the findings between the prior and current studies. The results may be explained by the fact that, in contrast to western student leaders, leaders in Asian cultures place a higher value on intuition and view it as a positive construct (Lagerberg, 2014). As a result, the construct's positive assumption reverses its association with decisional-procrastination.

**H3:** There is no significant correlation between dependent decision-making style and academic procrastination

**Table 5:**

*Indicates the correlation between dependent decision-making style and academic procrastination*

	Academic procrastination
Dependent decision-making style	0.275**

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

This table 5 above shows relationship between the dependent decision-making style and the level of academic procrastination showed positive weak relationship significantly ( $r=0.275$ ;  $p<0.01$ ). Therefore H3 hypothesis was rejected.

The results from the study shows that the variables can have a positive association. This style emphasizes seeking guidance and advice from those having sheer comprehension of the

matter before making a worthy and valuable decision. Although in certain cases it becomes inevitable to gain help from others in various forms in this style of decision individuals are not ready to take personal responsibility for a decision so they try to shift responsibility to someone else by seeking the advice of others (Argyropoulou & Sidiropoulou, 2003). When individuals are incapable of carrying (Mohsin A, 1937) out a deliberate thinking process and are preoccupied with disturbing thoughts during decision-making they tend to adopt a dependent style (Scoot & Bruce, 1995). This can lead to decision fatigue resulting in procrastination, which is when you're so exhausted from making many decisions that you put off even tiny choices (Boyes .A,2019). You might hesitate to take action until you receive input or approval from others. This delay can lead to procrastination, especially if the decision is critical or time-sensitive and relying on others for decisions can make you feel less autonomous. When you don't have control over the outcome, you may become passive and delay taking action. This lack of ownership can contribute to procrastination (Jakucionis.D,2024).

**H4:** There is no significant correlation between avoidant decision-making style and academic procrastination

**Table 6**

*Indicates the correlation between avoidant decision-making style and academic procrastination*

	Academic procrastination
Avoidant decision-making style	0.292**

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

The table 6 indicate the association between the avoidant decision-making style and the level of academic procrastination showed more positive relationship significantly than other styles ( $r=0.295$ ;  $p<0.01$ ). Therefore, reject the H4 hypothesis

Chronic indecision (decisional procrastination) (Ferrari et al., 1995) is similar with avoidant decision-making style since in both giving decisions are delayed for some reason. The relationship of avoidant decision-making style and procrastination can also be explained by the previous results of the link between indecisiveness and procrastination. A significant positive correlation between avoidant decision-making and academic procrastination was found. Through regression analysis avoidance, decision-making has been found as a positive predictor of academic procrastination in a study conducted by V. M., Rajkumar et.al (2023). Avoidant decision-making style is characterized by indecision, postponing, avoiding, and delaying the decision and keeping oneself away from making a decision (Scoat & Bruce, 1995) and procrastination is also characterized by a similar underlying structure because both of these styles involved the sidestepping or withdrawal from the situation therefore that two variables having symmetry and cohesiveness in nature tend to correlate. People who are tense about making minor decisions are more uncomfortable about their procrastinating on life routines and people who are tense about making major decisions are more uncomfortable about their academic procrastination than people not tense about making major decisions (Milgram, 2000). Arslan (2013) in which avoidant decision making style was a predictor for academic procrastination on students. This means that, people who uses more avoidant decision-making style in their decision-making process, shows more procrastination tendencies. Also, avoidant decision-making style explained variance (5%) in academic procrastination in the some study. An explanation of the present finding for the link and predictive relationship between avoidant decision-making style and

academic procrastination consistent with the different studies related to these variables (Ferrari, 1991; Ferrari, 1992; Ferrari & Patel, 2004). Since the maladaptive mechanism of avoiding tasks by delaying it (avoidant procrastination) give the person short term relief, people prefer to postpone rather than completing tasks. Similarly, people who use avoidant decision making style also avoid decision making as a result they ignore to start a task. From the analysis of sub-dimensional decision-making styles, which is closely related that avoidant decision-makers will be more likely to indicate procrastination (Santosa,2017).

**H5:** There is no significant correlation between spontaneous decision-making style and academic procrastination

**Table 7**

*Indicates the correlation between Spontaneous decision-making style and academic procrastination*

	Academic procrastination
Spontaneous decision-making style	0.218**

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

The table 7 shows the relationship between the spontaneous decision-making style and the level of academic procrastination showed weak positive relationship significantly ( $r=0.218$ ;  $p<0.01$ ), thereby rejecting the H5 hypothesis

The link of these can be explained by referring the studies. For instance, in a study Balkis (2007), students who use spontaneous decision-making style found to have more procrastination

behavior. Also, Arslan (2013) found spontaneous decision-making style as predictor for academic procrastination among students. Since in spontaneous style, alternatives were not evaluated properly and decision was given without considering values or priorities as in rational style, individual may prefer spontaneous satisfaction in short term rather than satisfaction in long term. Therefore, postponing behavior continues. Impulsive people need to meet their needs immediately (Eysenck & Eysenck, 1977; as cited in Boyer, 2006) and they did not consider other options, so they do not have desire to wait. Similar with people high in impulsivity, people who use spontaneous decision-making style also do not search for alternatives or evaluate them before giving decisions, so they prefer to do other tasks spontaneously before the tasks that will result in long term (Scott & Bruce, 1995). When this similarity is taken into account, the result of the present study becomes more reasonable in terms of the positive correlation between impulsivity and procrastination in the previous research (Ferrari, 1993; Steel, 2007). Both evolutionary explanations for the link between procrastination and impulsivity and genetic relations of impulsivity (spontaneous) and procrastination mentioned above (Loehlin & Martin, 2014) may be a support for the positive correlation between these two variables.



## Mann Whitney Test

**H6:** There is significant no difference of academic procrastination between male and female participants.

**Table 8**

*Indicates the relationship between academic procrastination among male and female participants*

Variable	Mean Rank		U	z	P
	Male	Female			
Academic procrastination	144.42	156.58	10338.50	-1.214	.225

The table 8 indicates there is no significant difference between academic procrastination in male and female participants thereby retaining the hypothesis

Even though this finding is inconsistent compared to other research studies reflecting that males tend to procrastinate more than females in general and academic profiles, and further indicates that procrastination tendencies do not vary based on sociodemographic situations, including socioeconomic status, multiculturalism, nationality, family size, and educational background (De-Sheng, L., He, Y., & Tan, Y. W. ,2022.). The other literature concerning gender differences on academic procrastination is somewhat inconsistent. Although some studies have indicated no significant gender difference in the incidence of procrastination (Hess et al., 2000;

Johnson & Bloom, 1995; Schouwenburg, 1992; Watson, 2001), others have suggested that women are at more risk for being procrastinators than are men (Doyle & Paludi, 1998; Kutlesa, 1998; Solomon & Rothblum, 1984). However, the present findings were consistent with studies conducted by Milgram et al. (1994) and Senecal et al. (1995), in both male and female students reported procrastinating more on academic tasks. Making inferences from the aforementioned studies, one could argue that the difference in the results was attributed to cultural differences too. These results showed that gender had moderation role in the relationships between academic procrastination (Balkis & Duru,2017).

## Conclusion

The research findings on the influence of academic procrastination among college students reveal several key insights. While a weak and statistically insignificant positive correlation was observed between rational decision-making style and procrastination, intuitive, dependent, and spontaneous decision-making styles showed significant positive correlations with academic procrastination. Particularly noteworthy is the more positive correlation between avoidant decision-making style and procrastination than other styles, suggesting a robust association between avoidance tendencies and procrastination behavior. Moreover, the study indicates that both male and female college students exhibit similar tendencies towards academic procrastination, highlighting the gender-neutral nature of procrastination in academic settings. These findings emphasize the importance of tailored interventions aimed at addressing avoidant decision-making tendencies to mitigate procrastination among college students. Additionally, future research should explore the underlying mechanisms and effectiveness of intervention strategies targeted at different decision-making styles and social comparison orientation to further enhance our understanding and support in combating academic procrastination.

## Findings

- There is a very weak insignificant positive correlation between rational decision making style and academic procrastination
- There is a weak positive significant correlation between intuitive decision making style and academic procrastination
- There is a weak positive significant correlation between dependent decision making style and academic procrastination

- There is a positive significant correlation between avoidant decision making style and academic procrastination
- There is no significant difference between academic procrastination in male and female participants.

### **Limitations**

- Reliance on self-report measures for decision-making styles and procrastination tendencies. There is a chance that subject show response bias and social desirability.
- Study's design is cross-sectional so it limits ability to establish causality or examine long-term effects of decision-making styles on procrastination behavior.
- The sample size and demographics may not fully represent the diverse population of college students therefore potential limitation on the generalizability of findings.
- Future research could employ longitudinal designs to track changes over time and establish causal relationships.
- Incorporating objective measures of decision-making styles and procrastination to supplement self-report data.
- Recruiting more diverse samples of college students to enhance the generalizability of findings.
- Despite limitations, the study contributes valuable insights to the literature on academic procrastination.
- Highlights avenues for further investigation and intervention in understanding and addressing academic procrastination among college students.

## Implications

- The study's implications extend to academia and student support services.
- Understanding the relationship between decision-making styles and academic procrastination can guide the development of targeted interventions.
- Interventions tailored to addressing avoidant decision-making tendencies may be particularly effective in reducing procrastination behaviors.
- Both male and female college students exhibit similar tendencies towards academic procrastination, highlighting the need for gender-neutral intervention approaches.
- Educators, counselors, and policymakers can utilize these findings to design proactive strategies for fostering effective decision-making skills and minimizing procrastination.
- Evidence-based interventions informed by this research can better support students in overcoming procrastination and achieving academic success.

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## **Appendix A**

### ***Informed Consent Form***

You are invited to participate in a research study on “Influence of decision-making styles on academic procrastination among college students”. Before deciding to participate, please read the information given below and ask any questions you may have.

#### ***Purpose:***

The purpose of this study is to explore the influence of decision-making styles on academic procrastination among college students. Your contribution will help to an understanding of these aspects.

#### ***Procedure:***

You will be asked to complete 2 questionnaires. Please ensure you answer the questions according to your true feelings and experiences. Your honest and open responses are crucial for the success of this study. There are no right or wrong answers, everyone possesses their views. Your participation is valued and your Candor will contribute to the meaningfulness of the research.

#### ***Confidentiality and Voluntary Participation:***

Your responses will be strictly confidential. No personally identifiable information will be disclosed in any reports or publications resulting from this research. Your participation is entirely voluntary, and you have the right to withdraw at any time without consequence.

#### ***Consent:***

I have read and understood the information provided above. I voluntarily agree to participate in this research.

Participant's Name/ Initials:

Signature:

By signing this form, you acknowledge that you have been allowed to ask questions and that you voluntarily consent to participate in this study.

***Sociodemographic Data:***

Name (Initials only) :

Age :

Gender :

Institution name :

## Appendix B

### *General decision-making style scale (GDMS)*

Listed below are statements describing how individuals go about making important decisions. Please indicate whether you agree or disagree (1=Strongly Disagree, 2= Somewhat Disagree, 3=Neither agree or disagree, 4=Somewhat Agree,5=Strongly Agree) with each statement:

- 1.I double check my information sources to be sure I have the right facts before making a decision.
- 2.When making a decision, I rely upon my instincts.
3. I often need the assistance of other people when making important decisions.
4. I avoid making important decisions until the pressure is on.
5. I generally make snap decisions .
6. I make decisions in a logical and systematic way .
7. When I make decisions, I tend to rely on my intuition .
8. I rarely make important decisions without consulting other people.
9. I postpone decision-making whenever possible .
10. I often make decisions on the spur of the moment.
11. My decision-making requires careful thought .



12. I generally make decisions that feel right to me.
13. If I have the support of others, it is easier for me to make important decisions .
14. I often procrastinate when it comes to making important decisions .
15. I make quick decisions .
16. When making a decision, I consider various options in terms of a specific goal .
17. When I make a decision, it is more important for me to feel the decision is right than to have a rational reason for it .
18. I use the advice of other people in making my important decisions .
19. I generally make important decisions at the last minute.
20. I often make impulsive decisions .
21. I explore all of my options before making a decision .
22. When I make a decision. I trust my inner feelings and reactions .
23. I like to have someone to steer me in the right direction when I am faced with important decisions .
24. I put off making many decisions because thinking about them makes me uneasy .
25. When making decisions, I do what seems natural at the moment.

## Appendix C

### *Academic Procrastination Scale (APS)*

The following questions assess your habits and routines as a student. Please answer the following as they apply to yourself. How much do you, yourself agree to the following statements: (Scored on a 1 to 5 scale where 1= Disagree and 5= Agree)

1. I usually allocate time to review and proofread my work.
2. I put off projects until the last minute
3. I have found myself waiting until the day before to start a big project.
4. I know I should work on school work, but I just don't do it.
5. When working on schoolwork, I usually get distracted by other things.
6. I waste a lot of time on unimportant things.
7. I get distracted by other, more fun, things when I am supposed to work on schoolwork.
8. I concentrate on school work instead of other distractions.
9. I cant focus on school work or projects for more than an hour until I get distracted.
10. My attention span for schoolwork is very short.
11. Tests are meant to be studied for just the night before.
12. I feel prepared well in advance for most tests
13. “Cramming” and last minute studying is the best way that I study for a big test.
14. I allocate time so I don't have to “cram” at the end of the semester.

15. I only study the night before exams.
16. If an assignment is due at midnight, I will work on it until 11:59.
17. When given an assignment, I usually put it away and forget about it until it is almost due.
18. Friends usually distract me from schoolwork.
19. I find myself talking to friends or family instead of working on school work.
20. On the weekends, I make plans to do homework and projects, but I get distracted and hang out with friends.
21. I tend to put off things for the next day.
22. I don't spend much time studying school material until the end of the semester.
23. I frequently find myself putting important deadlines off.
24. If I don't understand something, I'll usually wait until the night before a test to figure it out
25. I read the textbook and look over notes before coming to class and listening to a lecturer teacher