THE IMPACT OF ACADEMIC PROCRASTINATION AND ACADEMIC PERFORMANCE ON ACADEMIC ACHIEVEMENT AMONGST UNDERGRADUATE STUDENTS AT A LOCAL UNIVERSITY

By

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ABSTRACT

This study aimed to examine academic procrastination and its relationship with academic performance among 90 students of 5th semester for the Landscape & Architecture course of the Faculty of Design and Architecture of one of the local universities. Gender was considered in this research. After analyzing the data, it was found that participants in the study exhibited moderate procrastination tendency. This study also found that academic procrastination was significantly negatively correlated with academic performance. Gender variable had no impact on academic procrastination tendency, but had some impact on the relationship between academic performance and academic achievement. At the end of the paper, limitations and implications of the paper were discussed.

Keywords: Academic Procrastination, Academic Performance and Academic Achievement.

ABSTRAK

Kajian ini bertujuan untuk menguji perhubungan antara penangguhan akademi dengan prestasi dan pencapaian akademi oleh 90 pelajar jurusan *Landscape & Architecture* semester ke 5, *Faculty of Design and Architecture* di sebuah universiti tempatan. Jantina juga telah dipertimbangkan di dalam kajian ini. Setelah menganalisa data, telah di dapati peserta-peserta menunjukan kecenderongan yang sederhana kepada sifat penangguhan. Kajian ini juga mendapati penangguhan akademi mempunyai kesan yang negatif yang besar terhadap prestasi akademi. Jantina tidak mempunyai kesan pada kecenderungan kepada penangguhan akademi, namun begitu ianya ada memberi sedikit kesan terhadap pretasi akademi dan pencapaian akademi. Di pengakhiran kertas kerja ini, kekangan dan implikasi juga dibincangkan.

Kata kunci: Penangguhan Akademi, Prestasi Akademi dan Pencapaian Akademi.

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A special gratitude and appreciation to my late sister, Allahyarhamah Mona Lizza binti Mohd Kasim (12 June 1989 to 27 November 2013), She was a student of the 5th semester of Landscape Architecture course, Faculty Design and Architecture at University Putra Malaysia (UPM). She was the youngest in our seven siblings. She had won several competitions including the Honor Award for the design titled Athermic Ambiance of Malaysian

Landscape Architecture Award 2013. Her discipline and perseverance towards knowledge is an exemplary. One of her favorite *doa* was "Ya Allah S.W.T I'm not seeking for a good academic scores but I'm seeking for a quality of knowledge".

My late sister was greatly involved during distributing the survey paper and compiling information for this research. Without her I could not have better access to relevant information and participation to my survey. May Allah SWT blessed her with *Rahmat* and *Baroqah* for all the good deeds she had done, Al-Fatihah.

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TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This study was conducted to address the issue of academic procrastination amongst a group of students from a local university. Did academic procrastination has an impact on academic performance and academic achievement? Was there a difference in procrastination between male and female students? Those were the main objectives for this study.

1.1 Background of the Study

Procrastination is an interactive occurrence in which one disregards or delays a timely attendance to an obligatory assignment or judgment. This action subsequently leads to some potential unpleasant and undesirable consequences (Balkis & Duru, 2007). This potentially problematic behavior can be demonstrated in task performance (i.e., avoidant procrastination) or by delaying decisions (i.e., decisional procrastination). In addition, procrastination can be limited to certain circumstances, as in state procrastination, or can become prevalent in most life areas as in chronic or trait procrastination (Schouwenberg, 2004).

Procrastination is not a new phenomenon, as it has been recognized by previous studies. James and Steel (2007) traced procrastination references back to the 800 B.C. Meanwhile, Hammer and Ferrari (2002) found as many as 20% of adults experience chronic procrastination for everyday tasks, while the rate for problematic academic procrastination among undergraduates is estimated to be at least 70-95% (Ellis & Knaus, 1977; Steel, 2007), with estimates of chronic or severe procrastination among undergraduates between 20% and 30% (e.g., Ferrari, Hohnson, & McCown, 1995; McCown & Johnson, 1991; Solomon & Rothblum, 1984).

In spite of the developing pace of procrastination research, a lot of questions remain about procrastination and the people for whom procrastination is a problem. Research showed that chronic procrastination has a variety of negative consequences to the people who practice it from low performance on final exams and lower course grades (Steel, Brothen, & Wambach, 2001) to negative effects on physical health (Sirois, Melia-Gordon, & Pyshyl, 2003).

Procrastination consists of the intentional delay of an intended course of action, in spite of an awareness of negative outcomes (Steel, 2007), and it often results in unsatisfactory performance (Ferrari, O'Callaghan & Newbegin, 2005; Solomon & Rothblum, 1984). Considerable attention has been given to procrastination in university settings, with findings that academic procrastination is related to lower levels of self-regulations, academic self-

efficacy, and self-esteem, and is associated with higher levels of anxiety, stress and illness (e.g. Ferrari et al., 2005; Howell, Watson, Powell, & Buro, 2006; Schraw, Wadkins, & Olafson, 2007; Tice & Baumeister, 1997; Wolters, 2003).

In some cases, procrastination is beneficial (Chu and Choi, 2005), it reported that some students benefits from working under time pressures, and actively choose to procrastinate, and Tice and Baumeister (1997) report that undergraduate procrastinators experience less stress and illness than non-procrastinators early (but not later) in an academic semester.

More frequently, however, procrastination is connected with negative behaviors and outcomes, such as submitting late assignments, cramming, test and social anxiety, use of self-handicapping strategies, fear of failure, under-achievement and can result in damaging mental health outcomes such as depression and anxiety (Schouwenburg & Dewitte, 2002; Fritzsche et. al., 2003; Ferrari & Scher, 2000; Lay & Schouwenburg, 1993; Midgley & Utdan, 2001; Lee, 2005).

Among all of the variables that have been investigated in relationship to academic procrastination, self-regulation. self-efficacy, and self-esteem have received the most attention (e.g., Chu & Choi, 2005; Cassady & Johnson, 2002; DeRoma et al., 22003; Haycock, MacCarthy, & Skay, 1998; Ferrari, 2001; Howell et al., 2006; Wolters, 2003; Tuckman, 1991; Steel, 2007; Senecal, Koestner, & Vallerand, 1995), with most studies showing significant reverse relationships with procrastination.

Ellis and Knause (1977) reported that the general procrastination is to be prevalent in 20% of the adult population, while academic procrastination or dilatory behavior related to academic performance can be prevalent in as many as 70% of the student population. This situations described why individuals, who commonly have the best intention to complete academic, personal, and professional tasks, failed to complete those tasks in a timely manner has been a recurrent focus of educational and psychological has generated research across common psychological.

Haycock, McCarthy, & Skay (1998) also reported the confusion of procrastination has generated research across common psychological constructs such as self-efficacy, affective states including shame and guilt (Fee & Tangney, 2000), individual characteristics such as dependence (Gree, 1997; Johnson, Green & Kluever, 2000), locus of control including intrinsic and extrinsic motivation (Carden, Bryant, & Moss, 2004; Janssen & Carton, 1999; Orpen, 1998), role conflict (Senecal, Julien, & Guay, 2003), social activity (Jackson, Weiss, Lundquist, & Hooper, 2003), five factor theory of personality (Johnson & Bloom, 1995; Lee, Kelly, & Edwards, 2006) situational and trait characteristics (Senecal, Lavoie, & Koestner, 1997; Stainton, Lay, & Flett, 2000) and self-regulations (Saddler & Buley, 1999; Tuckman & Abry, 1998).

As a common research theme, historically, procrastination research has focused on cognitive-behavioral factors from a motivational perspective. For example, Lum (1960) reported that academic motivation as compared to study

habits distinguished underachieving students from over-achieving students. Underachieving students tended to delay the initiation of tasks perceived as difficult and were more vulnerable to distracting activities with a higher degree of pleasure such as engaging in alternative social opportunities. Lum noted that even though underachieving students possessed the same aptitude as over achieving students, underachieving students differed in their attitude and tended to require external pressure to comply with course tasks.

In affirmation of Lum's conclusion that procrastination was predominately a cognitive-behavioral issue as opposed to a simple study habit deficiency, Solomon and Rothblum (1984) reported that factor analysis of procrastination suggested fear of failure and task aversion accounted for the largest portion of the variance. Both factors correlated with multiple mental health and interpersonal factors. Solomon and Rothblum's observation that approximately one third to one half of the students in their study reported procrastinating on paper writing, test studying an course reading assignments supported their assertions that procrastination was related to an interrelated mixture of effective, behavioral, and cognitive factors.

In extending Solomon and Rothblum's research with undergraduate students, Onwuegbuzie (2002; 2004) noted that 40% to 60% of the participants reported nearly always to procrastinating on writing papers, preparing for tests, and completing weekly reading assignments. Onwuegbuzie (2002; 2004) equally observed that fear of failure and task loathing was associated with

academic procrastination. Subsequent procrastination research has focused on the constructs identified by Solomon and Rothblum and a myriad of related psychological substrates.

For the past 30 years of research, academic procrastination as well as other forms of procrastination has been investigated through a variety of viewpoints. Exploration of procrastination along motivational, mental health, metacognitive, self-regulated learning and social psychological has suggested potential explanations and mixed results. Based on range of potential explanations for procrastination that was evident in the literature, the absence of philosophical exploration was noted. The relationship between student personal epistemological beliefs and academic procrastination appeared to be unexplored and may reveal a deeper understanding of factors associated with unproductive academic performance. In the opinion of Schommer (1990) regarding the undervalued importance of epistemological beliefs, student epistemological beliefs may transverse more common psychological explanations and specific interpretations for this problematic academic phenomenon.

Guba (1990) reported that in traditional philosophical terms, personal epistemological paradigms focused on the relationship between the perceiver or knower and what was perceived and can be known. Also from Schommer-Aikins (2004), Perry's research with Harvard undergraduates in the late 1960s represented the influential work in personal epistemological belief research.

Perry reported determined that students have a complex, interactive relationship with knowledge in an academic setting. In response to Perry and associates original work, Schommer (1990) appeared to be an early supporter that epistemological belief were critical to metacognitive processes and learning in general.

In short epistemological beliefs research, Hofer (2004b) reported dimensions of personal epistemology have been conceptualized as falling along a continuum (Hofer & Pintrich, 1997) and as independent dimensions (Schommer-Aikins, 2002) with continuum features. To date, epistemological beliefs research has tended to follow two paralleling paths. Schommer's (1990) early conceptualizations appeared to be significant impetus for renewed epistemological beliefs research. Schraw, Dunkle, and Bendixen (1995) have actively worked to quantitatively refine the epistemological beliefs construct as described by Schommer. In a different mood, Hofer (2004b) has also researched epistemological beliefs with at times a more qualitative research approaches. Even though their epistemological or paths have not yet converged, both Schommer and Hofer admit the importance of epistemological beliefs and recommend the need for further study especially in relation to other psychological constructs.

1.2 Problem Statement

Procrastination may result in stress, severe loss of personal productivity, a sense of guilt and crisis, as well as dissatisfaction by others for not meeting responsibilities or commitments. These feelings combined may stimulate further procrastination. While it is regarded as normal for people to procrastinate to some degree, it becomes a problem when it hampers normal functioning. Chronic procrastination may be a sign of underlying psychological disorder.

Prior research showed that academic procrastination is a widespread problem among college students. Ellis and Knaus (1977) estimated that 95% of university students in the United States of America procrastinated. Solomon and Rothblum (1984) indicated that 46% of American university research participants often or always procrastinated on writing a term paper; 30.1% procrastinated on reading weekly assignments; and 27.6% procrastinated on studying for exams. Rothlum, Solomon and Murakami (1986) further added that American university students pointed out that 40.6% of participants scored high, that was, in the top 33.3%, on the procrastination scale.

Klassen, Krawchuk and Rajani (2008) conducted a study in a Canadian university which exhibited a similar result concluding that "almost all of the students defined themselves as procrastinators, with 89% of students reporting more than 1 hour of procrastination per day" (p. 927). A Turkish study

(Klassen & Kuzucu, 2009) on adolescents' academic procrastination indicated that "more than 80% of Turkish adolescents reported spending more than one hour procrastinating each day, with more than 40% reporting spending three hours or more procrastinating during a typical school day"(p.77).

Academic procrastination is a widespread phenomenon in the academic world. However, most research on academic procrastination was performed in Western countries. Few studies were conducted in non-Western cultures. For example, Gropel and Steel (2008) declared that "most of the procrastination data was from English speaking countries, particularly the United States which comprised 65% of the results" (p. 406).

A cross-culture study by Mann et al. (1998) described the conclusion that East Asian university students, especially Japanese and Taiwanese, tended to procrastinate more than the Western students. Based on the previous research, Klassen, Krawchuk, and Rajani (2008) divided academic procrastination into two group i.e. positive and negative academic procrastination. Positive academic procrastination is defined as procrastination that students benefit from, for instance, through better academic performance; however, as for negative academic procrastination—which is more common—students suffer from it, for instance in the form of anxiety.

At present, research on academic procrastination mainly focuses on negative academic procrastination (Rothblum, Solomon & Murakami, 1986; Prohaska et al., 2000; Howell & Watson, 2007; Tan et al., 2008; Klassen &

Kuzucu, 2009). The term "academic procrastination" often stands for negative academic procrastination. In this paper, the research centers on negative academic procrastination. When the term "academic procrastination" is used, it always refers to negative academic procrastination.

Academic procrastination is believed to be related to many different variables such as academic performance, age, anxiety, depression, boredom, self-regulation, fear of failure, gender, perfectionism, and so forth (Solomon & Rothblum, 1984; Flett et al., 1992; Owens & Newbegin, 1997; Vodanovich & Rupp, 1999; Gropel & Steel, 2008; Klassen, Krawchuk & Rajani, 2008). Most importantly, academic procrastination plays a negative role in influencing university students' future careers.

Therefore, not only the lack of research of academic procrastination in the non-Western world, but also the great influence of academic procrastination and academic performance on career prospects arouses interest in conducting a study on academic procrastination and the nature of its relationship with academic performance.

Gender differences in procrastination has also been an area of research that aims at identifying the possibilities of which gender has the higher tendency for procrastination or are there simply no gender difference in procrastination. Thus, in this study, gender was considered as a relevant factor, because gender is believed to be related to academic procrastination (Gropel & Steel, 2008; Klassen et al., 2009).

In the present study, the participants were second and third year university students, so the age difference should be negligible. For this reason, gender but not age is considered as a variable in this research. As a further complication to the comparability of research findings, in studies on university students, researchers barely considered the impact of academic major on academic procrastination.

Most research was implemented on subjects who took psychology-related courses (Solomon & Rothblum, 1984; Rothblum, Solomon & Murakami, 1986; Flett et al., 1992; Tice & Baumeister, 1997; Mann et al., 1998). For some other research, no major was mentioned (Vodanovich & Rupp, 1999; Zhang & Zhang, 2007). Regarding this, the present research is one of the first to examine the influence of academic major systematically. It is specifically designed to see if there is any difference between students who are in art-based majors and those in science-based majors.

Thus far research on academic procrastination has been carried out in different countries among different participants at different academic levels, which led to the problem that shared characteristics between different research samples can hardly be found. In this regard, the generality of those research results is not justified.

1.3 Research Questions

Relating to the issue of academic procrastination and its relationship with students' achievement, the research addressed the following questions:

1. What was the frequency of academic procrastination among the 5th semester students for the Landscape Architecture course of the Faculty of Design and Architecture of one of the local university?
2. Was there any relationship between academic procrastination and academic achievement?
3. Was there any relationship between academic performance and academic achievement?
4. Was there any difference in terms of gender in academic procrastination?

1.4 Research Objectives

This study focused on academic procrastination and its relationship with students' achievement. The research objectives in this study were:

1. To determine the frequency of academic procrastination among the 5th semester students for the Landscape Architecture course of the Faculty of Design and Architecture in a local university;

2. To determine the relationship between academic procrastination and academic achievement;
3. To examine the relationship between academic performance and academic achievement; and
4. To ascertain whether gender played any role in academic procrastination.

1.5 Significance of the study

This study was significant for a number of reasons:

The findings would assist universities in finding ways to come up with programmes to deal with academic procrastination amongst students.

The study would also demonstrate to students the importance of time management in completing their tasks and studies successfully.

The findings would create awareness among students and universities in understanding the impact of procrastination on academic performances.

Future studies would benefit from having the support of undergraduate studies department providing a mechanism to track more comprehensive data as to timely tasks completion in addition to student perceptions as to the reasons they completed or did not.

1.6 Scope and Limitations of the Study

Significant limitations existed for this study due to time constraint:, the participants in the survey, the method in which participants were obtained, and the method of data collection.

As for the instrument, the 16-item TPS is originally designed in English and for U.S. students, so to use it on Malaysian students might not lead to the same effect. What is more, there are only 16 items in the TPS, which might not be enough for accurately measuring the academic procrastination of students. On the self-designed academic performance questionnaire, only 9 valid items are available for measuring students' academic performance, which is rather limited. And the information of NCEE score, grade, and rank was provided by participants under estimation, so the accuracy of the reports is not guaranteed. Therefore, the instrument might also impair the validity of the study. Additionally, the findings may not be generalizable for Malaysians to be compared to other countries in procrastination behaviours.

1.7 Organization of the Thesis

This presentation of this study was organized as follows:-

Chapter One covered the introduction to the study, the problem statement, research questions, research objectives, significance and limitations in carrying out this study.

Chapter Two consisted of the literatures which were referred to in this study. Past studies related to academic procrastination were reviewed in this chapter.

Chapter Three comprised of the research methodology adopted in this study. The population and sample of the study were discussed. The research instrument, data collection and analysis procedures were also deliberated.

Chapter Four covered the results in this study. The analysis on data gathered was reported. The correlation and independent t-test were reported.

Chapter Five covered the discussion and recommendation. Future studies were also proposed.

CHAPTER 2

LITERATURE REVIEW

2.0 Chapter Objective

It is critical to review literatures on past studies related to the topic of the thesis. It is meant to act as a base for the experimental of analytical section of the thesis. Literature selected must be related to the research as a base to guide the development of research framework.

2.1 Academic Procrastination

Academic procrastination represents the procrastination that happens in academic settings. Ellis and Knaus (1977) defined procrastination as "putting off something until a future time—postponing or deferring action on something you have decided to do" (p. 7); Burka and Yuen (1983) stated that "whenever you put something off you are procrastinating, regardless of the reason for your delay" (p. 5); Ness (1988) defined it as "avoiding or delaying a task that needs to be done" (p. 8). Boice (1996) defined it as consisting "largely of opting for short term relief through acts that are easy and immediately rewarding, while generally avoiding even the thought (and its anxiety) of doing more difficult, delayable, important things" (p. XIX). Dietz, Hofer, and Fries (2007) regarded

procrastination as the "preference for choosing the leisure alternative when there is a motivational conflict between learning and leisure activities" (p. 893). Such task-avoidance predicts "a low level of work engagement and high level of burnout during the early career" (Salmela-Aro, Tolvanen & Nurmi, 2009).

As seen from the above, no shared definition about procrastination has been established. In this research, Ellis and Knaus (1977) and Ness's (1988) definitions were adopted. This is because Burka and Yuen's (1983) definition is too vague; Boice (1996) and Dietz, Hofer, and Fries' (2007) are partial—for instance, these definitions cover that wanting or needing relief is a reason for procrastination, but they do not state that in pursuing perfection people might also procrastinate (Flett et al., 1992).

Academic procrastination, which is defined by Tuckman (1991) as an individual's postponing a piece of work, which she or he can actually control, because of the lack of self-regulation skills, is perceived as a common problem among the university students. For instance, the study done by Balkıs and Duru (2009) showed that 23% of the university students do not complete their academic duties on time, and that they postpone them to a future date.

2.2 Factors and Outcomes of Procrastination

Studies have been found various factors and outcomes due to procrastination. Özer, Demir, and Ferrari (2009) reported that 52% of the students, Potts (1987) reported that 75% of the students, and Ellis and Knaus (1977) reported that 95% of the students postponed their academic duties.

Correspondingly with the postponing behavior's being common among the university students, it is emphasized in many studies in the literature that there is a relation between the academic procrastination and depression, stress, anxiety, and low academic performance; and it is seen that the procrastination is conceptualized as a variable that affects the academic and social lives of the individuals in a negative way (Balkıs and Duru 2010; Balkıs and Duru, 2009; Beck, Koons, and Milgrim, 2000; Deniz, 2006; Durden, 1997; Fritzsche, Young and Hickson, 2003; Klassen, Krawchuk and Rajani, 2008; Milgram and Toubiana, 1999; Özer, Demiri and Ferrari, 2009; Saddler and Sacks, 1993; Tice and Baumister, 1997).

In addition to this, Burka and Yuen (1983) claimed that procrastination behavior can sometimes protect one from facing some disturbing circumstances. According to Burka and Yuen (1983), the academic procrastination behaviors can help one to decrease the negative impacts of the disturbing feelings he or she might experience.

Ellis and Knaus (1977), who emphasized the function of procrastination protecting one from being hurt, state that academic procrastination can sometimes be seen as a self-protective strategy. In similar studies in procrastination literature, it has been stated that procrastination serves to the intention of protecting the vulnerable self-esteem (Ferrari, Johnson, and McCown, 1995; Solomon and Rothblum, 1984).

Academic performance and the self-esteem of an individual might decrease since she or he has the academic procrastination (Balkıs and Duru, 2010). Similarly, the direct impact of self-doubt on self-esteem and academic performance may decrease when the academic procrastination is present. Therefore, it can be put forward that there might be direct and indirect relationships among the related variables. In this study, it was aimed to contribute to fulfil a conceptual gap in the literature by focusing on the possible roles of academic procrastination in relation to self-doubt, self-esteem, self-doubt and academic performance.

Reeves and Baden (2000) referred to gender in two facets which are sex and gender itself whereby an individual's sex refers to the biological characteristics that categorizes someone in male or female while gender is defined as the socially determined ideas and practices of what is to be male or female. In addition, gender is defined by Scott (1986) as a grammatical term to talk of persons or creatures of the masculine or feminine sex. Also, gender can either be defined in terms of sex whereby being female or male is biologically

rigid or by gender itself which refers to the existing societal expectations, roles, places and life stages required distinctively by men and women (Phillips, 2005).

Gender differences in students' academic performance is a fluid field in the literature because related literature revealed mixed results concerning gender differences in science achievement; some studies show that females achieve at an equal or higher level than males (e.g. Greenfield, 1996; Sencar & Eryilmaz, 2004; Zohar & Sela, 2003) and some others indicated males achieve higher level than females (e.g. Altınok, 2005; Burkam, Lee, & Smerdon, 1997).

Additionally, more recent report of the Program of International Student Assessment (PISA) focused on examination of gender differences in students' academic performance and found minimal gender differences and different outcomes depending upon the country (OCED, 2009). Specifically, Turkish female students scored higher than male students in PISA. Also, results of some studies claimed that underachieved students' gender has been shifted over years from females to males (Epstein, Elwood, Hey & Maw, 1998; Frosh, Phoenix & Pattman, 2002; Van Houtte, 2004). For instance, female students in the U.S. have been encouraged in the areas; they academically troubled in such as math and science, as a result of this approach male students are underachiever in the areas now (Breskin, 2009). Since there are conflicted

results for the relationship between gender and ecademic achievement, there is need for examination of the relationship.

Procrastination can be measured in several facets subjected on whether it is directed towards the individual's internal attribution to do so or the actions of individuals that depict their procrastination behaviors. Klassen, Krawchuk and Rajani (2008) described that procrastination was measured in terms of late assignment submissions and burning the midnight oil nights before examinations.

The theory that was applied in explaining the procrastination behavior and how it affected individuals' academic performance is self-efficacy theory which implies that the belief of an individual about their success being a result of their abilities and efforts put into any given task (Baron et al., 2009).

Individuals with high self-efficacy were found to have higher self-esteem thus leading to an increase of confidence in confronting the challenges associated to the task (Klassen et al., 2008). This decreased the probability of procrastination happening. Additionally, self-efficacy acted as a motivating drive for self-regulation whereby students resist distractions, develop realistic and interesting strategies that help facilitate and improve learning as well as make the completion of written assignment within the allocated time easier (Klassen et al., 2008; Wolters, 2003). Subsequently, individuals with self-regulation revealed a high desire for goal mastery and adaptive motivational attitudes and beliefs towards the desired objective (Wolters, 2003). Low self-

regulated learners however were individuals who often procrastinated by taking longer time to begin and were not motivated to complete the given task (Klassen et al., 2008; Wolters, 2003).

Klassen et al, 2008 explained that this may be results of having low confidence levels in planning out schedules for task completion and difficulty in initiating self-learning. Hence, the inability to practice self-regulated learning because of low self-efficacy has led to higher procrastination tendencies and with this, individuals who procrastinated reported negative academic performances such as lower grade point average scores (GPAs) and less quality of work as well as poorer assignment and examination results (Klassen et al., 2008).

Likewise, Solomon & Rothblum, 1984 described that procrastination was examined in terms of individual study habits. The study habits were categorized in three aspects which were the amount of time spent studying or completing a task and the early or overdue submission of assignments as well as the pace at which students completed the given task. In their research (Solomon & Rothblum, 1984) shared that there are two groups of procrastinators which are the homogenous procrastinators and heterogeneous procrastinators. While homogeneous procrastinators had low self-esteem and high fear of failure, the heterogeneous procrastinators had high averting task tendencies which correlated highly with their study habits.

Additionally, Rothblum, Solomon and Murakami (1986) conducted a similar study which measured study habits in terms of behavioral postponement in task or assignment completion. Those who portrayed low procrastination behaviors often thought of their success as a result of their effort and capability whereas those who often procrastinated attributed their academic performances to external factors such as luck (Rothblum, Solomon, & Murakami, 1986).

Result of studies showing that those who procrastinated and waited till the last minute to complete their assignments or study for examinations yielded lower grades and overall academic performance for the semester (Solomon & Rothblum, 1984; Rothblum, Solomon, & Murakami, 1986). The researchers attributed their low academic performances and procrastination to the extreme anxiety experienced by high procrastinators, difficulty in decision making about where to begin the task, the lack of assertion and the fear of what expectation others will have in the future if they succeed (Solomon & Rothblum, 1984). However, researchers observed that despite negative academic consequences, yet individuals still portrayed poor study habits (Solomon & Rothblum, 1984; Rothblum, Solomon, & Murakami, 1986).

Scher and Osterman (2002) as well as Howell and Watson (2007) both conducted studies that investigated the negative academic consequences of procrastination. Different individuals viewed the direction of their goals dissimilar to others and were orientated towards only relevant goals (Scher &

Osterman, 2002). According to Scher & Osterman, 2002, while some individuals were task-mastery-orientated individuals, others belonged to the task-avoidance-orientated category. It has also described that the orientation of goals for those who had intention of task mastery were frequently driven by the desire to acquire new skills and improve abilities while those who avoided difficult ones did so because they disliked the ample of effort that was required of them.

Additionally Scher & Osterman, 2002, further explained those who portrayed lesser procrastination of tasks focused on acquiring a new skill rather than completing it as an obligation or requirement and merely increasing their performance level. Similarly, those who practiced the mastery approach based on the theory of Temporal Motivation Theory were intrinsically motivated and completed their tasks on time for greater self-satisfaction and they also focused on the short terms rewards for good academic performances (Howell & Watson, 2007).

In contrast, individuals who often procrastinated portrayed no desire for acquiring new skills thus did not regulate their learning or left things to the last minute and were highly disorganized (Scher & Osterman, 2002; Howell & Watson, 2007). Hence, summarily, individuals with the desire to have new learning experiences procrastinated lesser and achieved better grades and achievements than while those who procrastinated obtain lower overall academic performances.

Procrastinators are often thought about indifferently as well as individuals who possess lower cognitive ability than others (Schraw & Wadkins, 2007). Despite evident research that showed how academic performance is inhibited by procrastination as the quantity and quality of performance is seriously affected, however, there have been several studies that produced contrary results whereby procrastination did not affect individual academic performances. The reasons that were identified in this particular studies that led to procrastination were boredom due to long semesters and tasks that were irrelevant to academic needs (Schraw & Wadkins, 2007).

The study conducted by Schraw and Wadkins (2007) on third and fourth year college students found that poor academic performance were not necessarily associated to those who procrastinated. Instead, the researchers found that high procrastinators mostly consisted of students with higher ability rather than those with lower academic abilities and yet had small and insignificant impact of academic performance (Schraw & Wadkins, 2007).

Additionally, individuals who procrastinated were able to maintain a better flow for studying schedules thus leading to lesser fear of failure and better academic grades (Schraw & Wadkins, 2007). The researchers explained that an increase in motivation to regulate self-learning may yields high efficiency in performance. Furthermore, procrastination provided an optimal stress level for putting off tasks to the last minute that allowed individuals to

perform at peak efficacy (Schraw & Wadkins, 2007) whereby individuals produce better quality of work when under moderate pressure.

Regarding the influence of these variables, the randomly selected sample from the university student population is representative of the population as a whole can minimize their impact. Moreover, the present research is regarded as basic, so these variables might be considered in future studies. However, there are two variables—age and gender—which need to be taken into account, because these two are physical variables that everyone possesses.

There are studies (Prohaska et al., 2000; Zhang & Zhang, 2007; Gropel & Steel, 2008) declaring that the older people became, the more self-regulation they got, and the less procrastination they committed. On the other hand, Owens and Newbegin (1997) inferred that procrastination "may be a learned behavior," so older students became more likely to procrastinate. The explanation for this apparent contradiction might be that the participants of the first group of studies were either university students or older than 18, while the participants of the second study were high school students.

When considering gender, some studies (Zhang & Zhang, 2007; Howell & Buro, 2009; Klassen & Kuzucu, 2009) stated that no gender difference is found in academic procrastination. However, other studies (Gropel & Steel, 2008; Klassen et al., 2009) asserted that a gender difference existed in

academic procrastination, in that males had a higher procrastination tendency than females.

More interestingly, Zarick and Stonebraker (2009) found that although males procrastinated more than females, the academic performance showed no significant difference between males and females. The first conclusion was drawn from studying adolescent and university students from different countries. The second finding was based on adolescents and various age groups from different countries. The last result was obtained from a Untied State's university with student and faculty participants. The university participants in the three groups of studies came from different academic majors. There is thus no similarity between samples, which might explain the difference in the research results.

2.3 Academic performance and Academic Achievement

Academic performance, in this study, is defined as the combination of test scores, academic rank, and academic honor. In most of the research that studies the relationship between academic procrastination and academic performance relates to students' GPA and grade scores (Tice & Baumeister, 1997; Prohaska et al., 2000; Howell & Watson, 2007; Klassen, Krawchuk & Rajani, 2007; Zarick & Stonebraker, 2009).

Academic qualifications may not be enough on their own to ensure success, but they indicate that their possessor has got what it takes. Visualize a new world order in education, where people don't study but join their business or look for jobs straight from school, with no qualifications to prove their worth. How would employers choose between them? Academic grades are important, because in order to gain good exam grades or a degree, students have to work hard, master demanding skills and learn a great deal of specialist knowledge. These are valuable attributes for success in any field of endeavour, which is why employers value academic qualifications. Simply getting into a good college indicates to a future employer that the student is out of the ordinary.

Research on procrastination, mainly the procrastination in academic settings, was not documented until the 1980s (Schouwenburg, 2004). Since then, various studies have demonstrated that academic procrastination is negatively related to academic performance, and the evidence obtained highlights various relevant factors. For instance, Orpen's (1998) research on Australian high school students indicated that academic procrastination was positively related to students' external motivation, which is involved in processing academic knowledge on the surface level; and it was negatively related to students' intrinsic motivation, which is involved in deep-level processing.

Deep-level processing plays the most crucial role in learning, which is vital for academic performance. Hence, academic procrastination is negatively related to students' academic performance. Along with this negative relationship goes the negative attitude that students feel toward their academic courses.

It was found (Tan et al., 2008) from undergraduates in Singapore that "students who perceive themselves as capable of regulating and structuring their own learning would engage in procrastination to a much lesser extent than other students" (p. 141). Like intrinsic motivation, the sense of control for one's own learning is crucial for academic performance. So this finding also supports the negative correlation between academic procrastination and academic performance.

For Dietz, Hofer, and Fries (2007), the decision on how to finish academic tasks was regarded as the "first essential step in the way to academic performance" (p. 903) for 6th-8th grade students in Germany. What is important is that such a decision can either prevent or foster academic procrastination. For example, a planned decision could prevent academic procrastination, which in turn predicts the better academic performance. Once again, academic procrastination and academic performance are negatively related.

One study that was carried out among African American undergraduates (Collins, Onwuegbuzie & Jiao, 2008) found that reading ability and academic procrastination were negatively related. According to the study,

reading ability was an essential factor that could influence university students' academic performance, so it is reasonable to conclude from this result, too, that academic performance is negatively related to academic procrastination.

A study conducted by Bruinsma and Jansen (2009) in a Dutch university indicated that "students with the lowest amount of procrastination tended to obtain their first-year diploma faster" (p. 111). In the Netherlands, it is common for universities to give students an official first-year diploma. In order to get the diploma students must successfully complete a domain-specific program. Moreover, it was shown that the first-year academic performance would influence the later years. At this point, academic procrastination seems to be a fatal factor in negatively deciding academic performance.

According to many studies, academic procrastination has a negative relationship with grade score and GPA—which are elements of academic performance. After collecting data from students and faculties in a U.S. university, Zarick and Stonebraker (2009) stated that academic procrastination is the cause for "lower quality work, late assignments, or lower scores" (p. 213).

Klassen, Krawchuk and Rajani (2008) showed that a negative correlation existed between academic procrastination on the one hand and GPA and grade score on the other when Canadian undergraduate students did not experience a benefit from procrastination, such as becoming more focused under time pressure. Other studies (Rothblum et al., 1986; Tice & Baumeister,

1997; Prohaska et al., 2000) also demonstrated a negative correlation between academic procrastination and GPA/grade.

According to the above research, academic procrastination is negatively related to academic performance. In other words, when students show a higher academic procrastination tendency, lower academic performance goes along with it; and when students show a lower academic procrastination tendency, higher academic performance is presented. This relationship is usually explained by the researchers in causal terms—academic procrastination predicts academic performance.

Nevertheless, Owens and Newbegin (1997), who carried out their study in an Australian Catholic high school, proposed a different point of view about the relationship between academic procrastination and grade score. They introduced the idea that grade score was the predictor for academic procrastination, rather than vice versa, though they did admit the negative relationship between those two. Thus, the difference between this study and the above studies is whether academic procrastination or grade score is the cause.

Without considering the causal relationship that might exist between academic procrastination and academic performance, Howell and Watson (2007) summarized a set of correlations among "low procrastination, greater organization, higher cognitive and meta-cognitive strategy usage, deep processing and higher grades" (p. 176). This brief summary also represents the general idea of the researchers mentioned before.

For all of them, academic procrastination does negatively relate to academic performance, though the causal relationship is under debate. Basing the present research on this conclusion, I expected to see a negative relationship between academic procrastination and academic performance, with the preference to view academic procrastination as the predictor.

Beyond academic performance, research on academic procrastination indicates that it relates with many other variables. Ferrari, Johnson, and McCown (1995) produced different research on academic procrastination in which they identified variant variables that might relate to it. For example, they highlighted the possible positive relationship between academic procrastination and depression and the possible negative relationship between academic procrastination and self-esteem.

Academic performance might determine one's future job search or job opportunity. It is command that employers will be more in favor to recruit students who reached higher academic performance. Therefore, academic performance has an imperative impact on students' employment prospects. The research literature that demonstrates a consistent positive relationship between general cognitive ability and academic as well as work performance may surprise those who see the "work" in both contexts as being fundamentally different. Some have argued that academic tasks are different from practical or real-world tasks (e.g., Sternberg & Wagner, 1993). Academic tasks from this perspective are said to be well defined, have only a single correct answer, and

be self-contained, among other things. We argue that the accuracy of this perspective is restricted to only a subset of examinations, as many examinations are more complex, requiring tasks such as analysis and synthesis (Bloom, Hastings, & Madaus, 1971). More important, this statement does not begin to do justice to the complex behaviors students engage in before they sit down to complete an examination or to do other academic assignments, such as making oral presentations or writing term papers.

Like work tasks, many academic tasks are complex and ill defined. They lack a single right answer and often require students to attain additional information and generate creative solutions. Work settings emphasize the submission of previously acquired declarative and procedural knowledge with a lesser, but still critical, emphasis on acquiring new declarative and procedural knowledge.

In an academic setting, a larger emphasis is placed on directly demonstrating that declarative knowledge has been recently acquired, for an example, course examinations, papers, comprehensive examinations, oral examinations, and dissertation defenses are focused on testing an individual's current level of knowledge in a specific area. In heavily cumulative disciplines (e.g., mathematics, chemistry), performance is also partially a function of previously acquired, discipline-specific declarative and procedural knowledge. For an example, prior knowledge and skill solving mathematical problems

influence the acquisition of new mathematical knowledge. However, academic performance is not just the production of recently acquired knowledge.

Academic performance in the classroom is the end product of many other behaviors. For an example, obtaining a good grade after answering examination items is the result of effective performance studying, managing goal conflicts, coordinating work with classmates, seeking additional information, negotiating with peers and faculty, avoiding counterproductive behaviors (e.g., drugs and alcohol), handling finances, and structuring effective communications (e.g., Kuncel, Campbell, Hezlett, & Ones, 2001; Reilly, 1976). Each of these is likely to be partially determined by declarative and procedural knowledge, such as specific study skills, planning skills, writing skills, and team performance skills.

The extent to which students have mastered these skills varies across individuals and is partially a function as well as other individual differences. In short, performance in both academic and work settings is a direct function of learned declarative and procedural knowledge.

Performance in the workplace is directly determined by the motivated application of declarative and procedural knowledge, with a lesser emphasis on acquiring additional knowledge and skill. Performance in an academic classroom setting is determined by the direct demonstration of declarative and procedural knowledge after having engaged in many other complex and ill-defined tasks; that is, the knowledge was recently acquired through a number

of different and complex tasks that occur both within and outside of the classroom. Thus, although the academic setting places a larger emphasis on the acquisition of knowledge, performance in both settings should be and is predicted. Both situations involve learning. Both situations contain complex or practical tasks.

Finally, performance in both situations is partially determined by previously acquired levels of knowledge and skill. General cognitive ability is related to all three of these. Consequently, the same cognitive ability measure should be a valid predictor of performance in both settings even if that measure was originally developed for use in academic admissions.

Some research, conducted in different countries, indicates that academic performance relates to academic procrastination (Rothblum, Solomon & Murakami, 1986; Owens & Newbegin, 1997; Howell & Watson, 2007; Klassen & Kuzucu, 2009). Thus, it is reasonable to suppose that the relationship between academic procrastination and academic performance may affect one's future career.

2.4 Summary

Academic procrastination was referred to in this study as delaying something that needed to be taken care of for a period of time. Various reasons led to

procrastination and academic performance which in turn influenced academic achievement.

CHAPTER 3

METHODOLOGY

3.0 Chapter Objective

Methodology describes the research design adopted in this study. The population and sample and instrument were also discussed. Finally, the data collection and analysis were elucidated.

3.1 Research Framework

In this research, the survey research method was used to explore the relationship between academic procrastination and academic performance among 5th semester students for the Landscape Architecture of the Faculty of Design and Architecture in one of the local University.

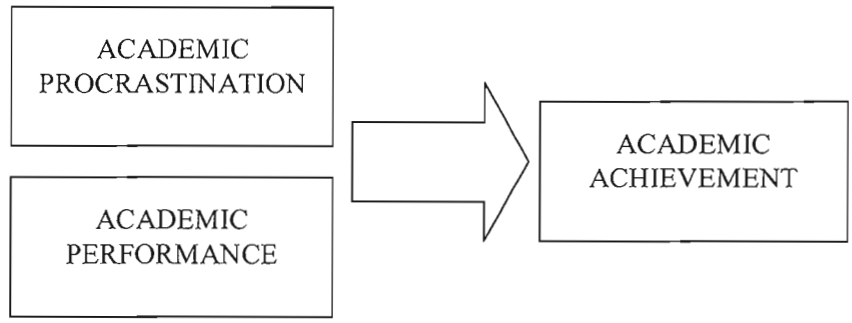

Figure 3.1: Conceptual Framework

This study also examined the level of procrastination amongst students and whether there was any difference between male and female students on academic procrastination.

3.2 Research Design

This exploratory study adopted a quantitative approach and utilized the survey method in gathering data. The survey was best conducted utilizing a questionnaire which was distributed to the respondents to gather data (Malhotra, 2007). Sekaran (2003) agreed that questionnaire is an efficient data collection mechanism. Correlation analysis was chosen to examine the data gathered. These data were analyzed to identify any significance influence on the relationship between the variables.

3.3 Operational Definition

This study adopted the following definitions on relevant terms:

Academic procrastination refers to as "putting off something until a future time – postponing or deferring action on something you have decided to do" (Ellis & Knaus, 1977:7) or "avoiding or delaying a task that needs to be done" (Ness, 1988:8).

Academic performance, in this study, is defined as the combination of academic motivation, academic satisfaction, and academic expectations (Tice & Baumeister, 1997; Prohaska et al., 2000; Howell & Watson, 2007; Klassen, Krawchuk & Rajani, 2007; Zarick & Stonebraker, 2009).

Academic achievement refers to the students' Cumulative Grade Point Average (CGPA) (Zarick & Stonebraker, 2009).

Gender refers to female or male as biologically born (Phillips, 2005).

3.4 Measurement of Variables/Instrumentation

The questionnaire (see Appendix 1) of this research contains two parts: Part I aimed at measuring students' procrastination, for which the 16-item Tuckman Procrastination Scale (TPS) is adopted; while Part II aimed to identify students' academic performance and academic achievement. The questionnaire includes both English and Bahasa Malaysia versions for better understanding by the students.

3.4.1 Tuckman Procrastination Scale (TPS)

The Tuckman Procrastination Scale was devised to measure procrastination in academic settings (Ferrari, Johnson & McCown, 1995). The

16-item TPS was utilized (Tuckman, 1991). A 4-point Likert scale was used to score the 16-item TPS:-

1. That is me for sure
2. That is my tendency
3. That is not my tendency
4. That is not me for sure

Examples from the 16-item TPS included statements like "I needlessly delay finishing jobs, even when they're important," "When I have a deadline, I wait till the last minute," and "I put the necessary time into even boring tasks, like studying."

3.4.2 Academic Performance and Academic Achievement

Academic performance (perceived academic performance) included academic motivation, academic satisfaction, and academic expectations (Tice & Baumeister, 1997; Prohaska et al., 2000; Howell & Watson, 2007; Klassen, Krawchuk & Rajani, 2007; Zarick & Stonebraker, 2009). There were 8 items which 8 used the 5 Likert scale:-

1. Strongly disagree
2. Disagree
3. Fairly Agree

4. Agree

5. Strongly Agree

Meanwhile the academic achievement comprised of the respondents' actual current CGPA scores.

3.5 Population and Sampling

The population in this study included all 5th semester students from the Landscape Architecture course of Faculty Design and Architecture at a selected local public university. Due to time constraint, a convenient and purposive random sampling was adopted. On that basis, 104 5th semester students in the Landscape Architecture course of Faculty Design and Architecture were chosen for convenience in the distribution and collection of questionnaires.

3.5 Data Collection

Using questionnaire as a data collection method is advantageous due to its low cost, no interview bias, no prior arrangement are needed and the facts of anonymity among respondents (Sekaran, 2003). With the assistance of the researcher's late sister, the approval to distribute the questionnaires in one class on a specified date was sought and given by the lecturer in charge. Only 90 questionnaires were distributed and collected as only 90 out of 104 students

were present on the day of the data collection. This represented 86.5% of the total sampling frame.

3.5.1 Data Collection Procedures

Announcement regarding the survey was done in a class prior to the date of the data collection. The questionnaires were distributed to all 5th semester students in the Landscape Architecture course who were present in class. Before answering, the researcher explained to everyone the purpose of the study. Instructions were given as to how responses should be made on the questionnaires. Respondents were given 15 minutes to complete the form, after which the questionnaires were collected. This ensured all questionnaires distributed were collected.

3.6 Techniques of Data Analysis

The Statistical Package for the Social Sciences (SPSS) was utilized to analyze the data. All data were coded accordingly. Data were analysed using descriptive analysis, Pearson's correlation analysis, multiple regression analysis and independent t-test.

3.6.1 Descriptive Statistics

Descriptive analysis is statistics that describes a population or sample (Zikmund *et al*, 2010). In this study, descriptive analysis was used to reveal the respondents' demographic background. Frequencies, percentages, standard deviations and averages were utilized to report the respondents' gender, age, marital status and grades. Frequencies and percentages were presented to disclose the type of procrastination students did most frequently.

3.6.2 Reliability Test

Cronbach's Alpha value determines the reliability of the instrument used in this study. Cronbach's Alpha value which is closer to 1.0 indicates high internal consistency reliability. Cronbach's Alpha which is less than 0.6 is considered poor, in the range 0.7 is considered to be acceptable and more than 0.8 is considered to be good (Hair *et al.*, 2010).

3.6.3 Pearson's Correlation Analysis

Pearson's correlation analysis describes the degree of relationship between variables. It can be used to determine the strength and direction of linear relationship between two or more variables. A Pearson correlation coefficient value of 0 to +0.1 shows that the variables are positively related to

each other. Meanwhile, a Pearson correlation coefficient value of 0 to -0.1 shows that the variables are negatively related. The + or – symbols indicates the direction of the relationship between variables. The closer the Pearson correlation coefficient value is to 1.00 indicates the strength or magnitude of the relationship between variables.

Correlation analysis was carried out to answer Research Questions 2 and 3, i.e. to determine the relationship between academic procrastination and academic achievement, and to examine the relationship between academic performance and academic achievement, respectively. Pearson's correlation analysis was used to examine the strength and direction of the relationship between the variables.

The interpretation of the strength of the correlation is defined using the "Guilford's Rule of Thumb" (Hair *et al.*, 2010) below:

Table 3.2: The interpretation of the strength of the correlation according to "Guilford Rule of Thumb"

Value of Coefficient Relation Between Variables	The interpretation of the strength of the correlation
a. 0.00-0.30	Very low relationship
b. 0.31-0.50	Low relationship
c. 0.51-0.70	High relationship
d. 0.71-1.00	Very high relationship

3.6.4 Multiple Regressions

Multiple Regressions method used to identify the most dominant independent variables that influenced the dependent variable. The most dominant dimension showed the largest beta value. Hierarchical regression determined the variance of dependent variable which can be explained by a set of independent variables.

In this study, the independent variables were academic procrastination and academic performance, while the dependent variable was academic achievement. Data were gathered on all of these variables to explore the most significant independent variable that influenced academic achievement.

3.6.5 Independent Samples t-Test

To ascertain whether gender played any role in academic procrastination, an independent samples t-test was carried out to compare the means of a normally distributed interval variable, i.e. academic procrastination, between male and female students.

3.7 Summary

The methodology used in the study was discussed in this chapter. Using a quantitative approach with a survey method, data were collected from 90

students who were in their 5th semester enrolled in the Landscape course. Instruments used in this study were explained. To answer Research Questions 1 to 4, data gathered were analysed using descriptive analysis, Pearson's correlation analysis, multiple regressions and an independent t-test. The following chapter revealed the results of the study.

CHAPTER 4

RESULTS AND DISCUSSION

4.0 Chapter Objective

Analyses of data and findings of the research were described in this chapter. The results of the study were presented according to the research objectives. Figures, tables or text were used accordingly to highlight key results and information.

4.1 Background of the Respondents

All 90 questionnaires distributed were returned and useable in this study. Table 4.1 showed the distribution of the respondents according to their demographic background.

There was an equal representation from both genders in this study. There were 45 male students making up 50% of the total number of respondents. There were 45 female students (50%) who responded in this study. With an equal number of respondents, it would be interesting to see whether there would be any difference in the academic procrastination among both genders.

Table 4.1:
Background of the Respondents

	Frequency	Percentage
Gender		
Male	45	50.0
Female	45	50.0
Marital Status		
Single	86	95.6
Married	4	4.4
Age (Years)		
<25	86	95.6
25>	4	4.4
Grade CGPA		
<2.0	0	0
2.0-2.49	10	11.1
2.5-2.99	68	75.6
3.0-3.49	12	13.3
3.5-4.00	0	0

As expected, there were more than 95% (86) of the respondents who were single. As this class was an undergraduate class, majority of the students were single. There were only 4 (4.4%) students who were married. These were matured students who continued their studies after or while working.

Similar to the marital status, the study showed the same number of respondents, 86 (95.6%) who were less than 25 years old and less than 5% (4) who were more than 25 years of age. This explained the mature students who were married were more than 25 years old.

As for their current grades, their Cumulative Grade Point Average or CGPA was taken into consideration. As shown, none of the respondents

achieved a CGPA below 2.0 or above 3.50. Majority of respondents which represented nearly 76% (68) achieved a CGPA between 2.5 to 2.99. More than 13% (12) of the respondents achieved a CGPA between 3.0 to 3.49. Meanwhile, more than 11% (10) of the respondents achieved a CGPA between 2.0 to 2.4. Thus, majority of respondents were moderate achievers. None of the respondents were high achievers.

4.2 Detection of Outliers

Outliers are referred to as any observations with a unique combination of identified characteristics which are specifically different from the other observations (Hair *et al,* 2010). Some of the graphic methods of detecting outliers include histograms and normal probability plots (Field, 2009). In this study, outliers were also identified by means of mahalanobis Chi-square (D^2) method. From the analysis carried out, no cases were found to have the characteristics of outliers and all of the cases were used for the analysis.

4.3 Normality Test

The normality of distribution of data in this study were examined using kurtosis values for each variable and skewness values. The skewness values illustrate the symmetry of distribution score and a skew variable's mean will

not be at the center of this distribution. Meanwhile, the "*peakness*" of distribution is displayed by kurtosis, either too peaked (with short and thick tail) or too flat (with long and thin tail) (Tabachnick & Fidell, 2001).

When the value of skewness and kurtosis is at zero (0), normal distribution is done. Positive skewness value will have a cluster of cases to the left at a low value and negative skewness will have the score cluster or pile at the right side with a long left tail (Tabachnick & Fidell, 2001). Kurtosis values below zero (0) indicate a relative flat distribution known as "*playkurtic*" while kurtosis values above zero (0) indicate a peak distribution or "*leptokurtic*". The rejection of the normality assumptions at absolute values of ±-3.29 at $p<0.001$ significant level, ± 2.58 at $p<0.01$ significant level and ± 1.96 at $p<0.05$ significant level were recommended by Hair et al.

To assess the normality of the variables, the above suggestions were applied and noticeably none of the variables fell outside the ±3.29 at $p<0.001$ probability range level. A summary of the kurtosis and skewness for all the variables is presented in Table 4.2. The data shows the variables were normally distributed. Therefore, in conclusion, all the variables do not deviate from the normality test requirement.

Table 4.2:
Normality Test of the Variables

	Skewness	Kurtosis
Academic Procrastination	-.051	-.441
Academic performance	-.617	-.241

4.4 Reliability Analysis

The internal consistency confirmation of the scales was accomplished by testing the Cronbach's alpha coefficient to confirm the reliability of the scales. According to Hair (2010) and Sekaran (2003), Cronbach's Alpha is a reliability coefficient that indicates how well the items in a set are reliable. The closer Cronbanch's Alfa is to 1.0, the higher the internal consistency reliabilities. The reliability coefficient for a scale should range from 0.6 or higher in order to be reliable.

Table 4.3 presented the reliability of the scales used in the study. Coefficient of stability for each item in the questionnaire was more than 0.90. Therefore, the questionnaire distributed was highly reliable.

Table 4.3

Reliability Coefficient of the Variables

	N. of Item	Cronbach's Alpha
Academic Procrastination	16	0.991
Academic Performance	10	0.982

4.5 Results

This section attempted to answer Research Question 1 to Research Question 4 as follows:

RQ1: What was the frequency of academic procrastination among the 5th semester students for the Landscape Architecture course of the Faculty of Design and Architecture in a local university?

RQ2: Was there any relationship between academic procrastination and academic achievement?

RQ3: Was there any relationship between academic performance and academic achievement?

RQ4: Was there any difference in terms of gender in academic procrastination?

The results were presented according to the research questions.

4.5.1 RQ1: What was the frequency of academic procrastination among the 5th semester students for the Landscape Architecture course of the Faculty of Design and Architecture in a local university?

To answer Research Question 1, descriptive analysis was used. Frequencies and percentages were presented to identify which type of procrastination students tend to do most frequently.

Table 4.4 presented the frequencies for each statement in the Tuckman's Procrastination Scale according to the students' responses. The measurement of responses was based on the scales given. The closer the responses were to the scale 1 indicated that the statements closely reflected the respondents. Vice versa, the closer the responses were to the scale 4 indicated that the respective statements did not associate to who the respondents were.

Majority of the students reported that most of the statements did not reflect their tendency towards procrastination. Eleven out of 16 items revealed that students did not have a tendency to procrastinate. The highest response identified was for the item which stated "I promise myself I'll do something and then drag my feet" (66.7%). This result was substantiated with a high tendency on the item stating "I always finish important jobs with time to spare" (63.3%) followed by the item "Whenever I make a plan of action, I follow it" (56.7%). The respondents have a tendency of completing their task and not putting it off until the next day (46.7%). The results showed that most of these students did not have the tendency to procrastinate.

On the other hand, results showed that more than 53% (48) of the students revealed they had a tendency to delay finishing their jobs, even when knowing the jobs were important. Nearly 57% (51) of the respondents tend to postpone on things they did not like to do. Some students revealed that even though they would hate themselves for not getting started on a given task, it did not get them going (46.7%). Nonetheless, more than 43% (39) of the students reported they did not have the tendency to wait until the last minutes when they were given a deadline on tasks that needed to be completed. Simply said, even though majority of the students had the tendency to postpone jobs, they would complete those jobs when they were given deadlines or when there was some urgency in completing the task. This result was reinforced with more than 53% of the respondents disclosing that it was not their tendency to get stuck in neutral knowing the importance of the task given.

Majority of the respondents reported they did not have the tendency to procrastinate in making tough and important decisions (46.7%) and when improving their work habits (53.3%). Students also revealed that it was not their tendency to find an excuse for not doing something (53.3%) and for spending necessary time to do boring tasks including studying.

Nearly 47% of the respondents said they were no time wasters and 43.3% denied they could not stop wasting time. Students also denied they believed in postponing tough tasks (43.3%). This showed that most students agreed that they could stop procrastinating if they wanted to. Based on the

findings, attitude and self-motivation played a role in academic procrastination among students.

Table 4.4:
Responses to Tuckman's Procrastination Scale using Frequencies

1	2	3	4
That is me for sure	That is my tendency	That is not my tendency	That is not me for sure

Statements	1	2	3	4	Mean	S.D.
1. I needlessly delay finishing jobs, even when they're important.	12 13.3%	48 53.3%	21 23.3%	9 10.0%	2.30	.82721
2. I postpone starting in on things I don't like to do.	12 13,3%	51 56.7%	24 26.7%	3 3.3%	2.20	.70631
3. When I have a deadline, I wait till the last minutes.	6 6.7%	33 36.7%	39 43.3%	12 13.3%	2.6333	.79958
4. I delay making tough decisions.	3 3.3%	33 36.7%	42 46.7%	12 13.3%	2.70	.74124
5. I keep putting off improving my work habits.	9 10.0%	15 16.7%	48 53.3%	18 20.0%	2.8333	.86440
6. I manage to find an excuse for not doing something.	9 10.0%	18 20.0%	48 53.3%	15 16.7%	2.7667	.84866
7. I put the necessary time into even boring tasks, like studying.	3 3.3%	33 36.7%	48 53.3%	6 6.7%	2.6333	.66112
8. I am an incurable time waster.	6 6.7%	30 33.3%	42 46.7%	12 13.3%	2.6667	.79323
9. I'm a time waster now but I can't seem to do anything about it.	0 0%	30 33.3%	39 43.3%	21 23.3%	2.90	.75028
10. When something is too tough to tackle, I believe in postponing it.	3 3.3%	33 36.7%	39 43.3%	15 16.7%	2.7333	.77605
11. I promise myself I'll do something and then drag my feet.	6 6.7%	21 23.3%	60 66.7%	3 3.3%	2.6667	.65343
12. Whenever I make a plan of action, I follow it.	21 23.3%	51 56.7%	18 20.0%	0 0%	1.9667	.66112
13. Even though I hate myself if I don't get started, it doesn't get me going.	6 6.7%	30 33.3%	42 46.7%	12 13.3%	2.6667	.79323
14. I always finish important jobs with	15	57	18	0	2.0333	.60800

	time to spare.	16.7%	63.3%	20.0%	0%		
15.	I still get stuck in neutral even though I know how important it is to get started.	0 0%	33 36.7%	48 53.3%	9 10.0%	2.7333	.63246
16.	Putting something off until tomorrow is not the way I do it.	9 10.0%	42 46.7%	30 33.3%	9 10.0%	2.4333	.80797

4.5.2 RQ2: Was there any relationship between academic procrastination and academic achievement?

To answer Research Questions 2 and 3, a bivariate correlation analysis was carried out to examine the relationship between academic procrastination, academic performance and academic achievement. In correlation analysis, correlation coefficient (r) explains the level of relationship between variables. The Pearson correlation is referred to as a correlation coefficient. It ranges from – 1.00 to + 1.00, with zero representing absolutely no association between the two metric variables. The larger the correlation coefficient is, the stronger the linkage or level of association between variables. A strong correlation is represented by a coefficient exceeding the value of 0.5 whereas a medium or modest correlation is when the coefficient has a value of between 0.5 and 0.2. Any coefficient possessing a value less than 0.2 will be deemed as showing a weak correlation (Hair *et al.*, 2010). The overall results of the correlation analysis were depicted in Table 4.5.

Table 4.5

Correlation Analysis between Academic Procrastination, Academic Performance and Academic Achievement

	Academic Procrastination	Academic Performance	Academic Achievement
Academic Procrastination	1		
Academic Performance	.963**	1	
Academic Achievement	.545**	.575**	1

***p<0.01*

Results exhibited in Table 4.6 revealed the findings from Pearson analysis on the relationship between academic procrastination and academic achievement. The Pearson correlation (r) indicated that there was a significant relationship between academic procrastination and academic achievement ($r=0.545$, $p<0.01$). Applying "Guilford's Rule of Thumb" to interpret the strength of correlation (Hair *et al.*, 2010), a high and significant relationship between academic procrastination and academic achievement was reported ($r=0.545$, $p<0.01$).

Table 4.6

Correlation Analysis between Academic Procrastination and Academic Achievement

	Academic Procrastination	
	r	*Sig.*
Academic Achievement	0.545	0.00

4.5.3 RQ3: Was there any relationship between academic performance and academic achievement?

The Pearson correlation analysis was conducted to establish any relationships between variables in the study. The result was presented in fulfilling Research Objective 3 which was to determine the relationship between academic performance and academic achievement.

Results in Table 4.7 exhibited the findings from the Pearson correlation analysis. The result showed that there was a significant relationship between academic performance and academic achievement ($r=0.575$, $p<0.01$). Positive 'r' indicated the positive relationship between the variables. Using "Guilford's Rule of Thumb" to interpret the strength of correlation (Hair *et al.*, 2010), the relationship between academic performance and academic achievement was reported to be a high and significant ($r=0.575$, $p<0.01$).

Table 4.7

Correlation Analysis between Academic Performance and Academic Achievement

	Academic Performance	
	r	*Sig.*
Academic Achievement	0.575	0.00

A regression analysis was also conducted to predict values of dependent variable from values of the independent variables (Hair et al., 2010). The R square value indicated the percentage or magnitude of the independent variables in explaining the variations in the dependent variable. The higher the R square value, the greater the impact of the independent variables on the dependent variable.

The purpose of the analysis was to establish linear relationships between variables to predict the values of dependent variable the independent variables (Hair et al., 2010). Results of the analysis were presented in Table 4.8. The result indicated that academic procrastination and academic performance had almost 33.1 percent influence on academic achievement (R^2=0.331, F=21.570, p<0.01). The result also revealed that only one variable, academic performance had a significantly impact on academic achievement (B=0.313, t=2.116, p<0.05). Academic procrastination was found to have no significant effect on academic achievement (B=-0.073, t=-0.363, p>0.05).

Table 4.8:

Multiple Regression Analysis

	B	t	*Sig.*
Academic Procrastination	-.073	-.363	.718
Academic Performance	.313	2.116	.037
R^2	*0.331*		
F	*21.570*		
Sig.	*0.000*		

4.5.4 RQ4: Was there any difference in terms of gender in academic procrastination?

To ascertain whether gender played any role in the relationship between academic procrastination and academic performance, an independent samples t-test was carried out to compare the means of a normally distributed interval dependent variable, i.e. academic procrastination and academic performance, for two independent groups, male and female.

The independent t-test showed that males and females have no difference in academic procrastination however, it could be interpreted that the lower academic performance showed males suffer more academic procrastination than female.

Note that the output provides two t values, one assuming that the variances are **Equal** and another assuming that the variances are **Unequal**. To

the left of the t-test output is the **"Levene's Test for Equality of Variances"**, which tests whether the variances are equal. However, this test is very sensitive to issues other than variances (such as homogeneity), so we often ignore it. When deciding between the t-test assuming equal or unequal variances, instead look at the standard deviations in the Group Statistics table. If the standard deviation of one variable is not more than about twice the other variable, then it is probably safe to use the equal variances version of the t-test. If the standard deviation of one variable is much larger than that of the other variable, then you may want to use the t-test with the unequal variances assumed.

Because the standard deviations for the two groups are similar (10.3 and 8.1), we will use the "equal variances assumed" test. The results indicate that there is a statistically significant difference between the mean writing score for males and females ($t = -3.734$, $p = .000$). In other words, females have a statistically significantly higher mean score on writing (54.99) than males (50.12).

Results showed that male respondents in this study recorded a mean score of 2.4708, while female respondents revealed a mean score of 2.6375 which was slightly higher than the male respondents' mean. The t-test was conducted in order to find out whether there was a significant difference between single and married respondents. The two-tailed significance for the academic procrastination of 0.253 was higher than alpha value of 0.05. Thus, it

could be concluded that there was no significant difference in academic procrastination level between male and female respondents.

Table 4.9:

Independent Samples T-Test of Academic Procrastination and Gender

Group Statistics

Academic Procrastination	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	45	2.4708	.66246	-1.151	0.253
Female	45	2.6375	.71031		

4.6 Discussion

Data analysis revealed that participants in this study exhibited a moderate procrastination tendency with no gender difference, though whether this result can be generalized is still under discussion. Gender difference also did not show in academic procrastination and academic performance. Thus, it could be concluded in this study that male and female respondents dealt with academic procrastination in similar ways.

4.6.1 Findings for Research Objective 1, 2 & 3

Findings revealed that participants in this study tend to be moderate procrastinators, since the mean score for their academic procrastination was not statistically significantly higher than the medium score of the scale which indicated moderate procrastination. The 16-item Tuckman's Procrastination Scale (TPS) aimed to examine academic procrastination and academic achievement (Rothblum, Solomon & Murakami, 1986; Prohaska et al., 2000; Howell & Watson, 2007; Tan et al., 2008; Klassen & Kuzucu, 2009).

Studies have shown negative influence on higher academic procrastination tendency, lower GPA and grade scores (Rothblum et al., 1986; Tice & Baumeister, 1997; Prohaska et al., 2000). However, more research is required to obtain generalizable results in order to understand the academic procrastination tendency among students in the university.

Procrastination consists of the intentional delay of an intended course of action, in spite of an awareness of negative outcomes (Steel, 2007), and it often results in unsatisfactory performance (Ferrari, O'Callaghan, & Newbegin, 2005; Solomon & Rothblum, 1984). Considerable attention has been given to procrastination in university settings, with findings that academic procrastination was related to lower levels of self-regulation, academic self-efficacy, and self-esteem (e.g., Ferrari et al., 2005; Howell, Watson, Powell, &

Buro, 2006; Schraw, Wadkins, & Olafson, 2007; Tice & Baumeister, 1997; Wolters, 2003).

In some cases, procrastination is beneficial. Chu and Choi (2005) reported that some students benefit from working under time pressures, and actively choose to procrastinate. This could explain the positive and significant relationship between academic procrastination and academic achievement found in this study. Tice and Baumeister (1997) stated that undergraduate procrastinators experienced less stress and illness than non-procrastinators.

Academic procrastination is significantly related to academic achievement, though the strength of the correlation is moderate. So, people who procrastinated more tended to have lower academic performance, which is consistent with previous research (Howell & Watson, 2007; Collins, Onwuegbuzie & Jiao, 2008; Bruinsma & Jansen, 2009).

However, procrastination is normally connected with negative behaviors and outcomes, such as submitting late assignments, cramming, test and social anxiety, use of self-handicapping strategies, fear of failure, under-achievement and can result in damaging mental health outcomes such as depression and anxiety (Dewitte & Schouwenburg, 2002; Ferrari & Scher, 2000; Fritzsche et al., 2003; Lay & Schouwenburg, 1993; Lee, 2005; Midgley & Urdan, 2001).

Among all of the variables that have been investigated in relationship to academic procrastination, self-regulation, self-efficacy, and self-esteem have

received the most attention (e.g., Cassady & Johnson, 2002; Chu & Choi, 2005; DeRoma et al., 2003; Ferrari, 2001; Haycock, McCarthy, & Skay, 1998; Howell et al., 2006; Sene´cal, Koestner, & Vallerand, 1995; Steel, 2007; Tuckman, 1991; Wolters, 2003), with most studies showing significant inverse relationships with procrastination.

In contrast to functional motivation variables like self-regulation, procrastination suggests lower levels of planning approach to learning. Much of the most recent procrastination research views procrastination as a function of low levels of self-regulation (e.g., Ferrari, 2001; Sene´cal et al., 1995; Steel, 2007; Wolters, 2003). Ferrari (2001) proposed that procrastination might be considered a ''self-regulation failure of performance'' (p. 391), in which procrastinators fail to regulate their functioning in situations of stress and high cognitive load.

Another key to understanding procrastination may be self-efficacy. Self-efficacy theory (Bandura, 1997) holds that what we believe about ourselves strongly influences our choice of task, persistence, level of effort, and resilience, and how we subsequently perform. Self-efficacy beliefs in one's capabilities to carry out the actions needed to succeed in a task has been found to be one of the strongest factors predicting performance in domains as diverse as sports, business, and education. In academic settings, self-efficacy is a strong predictor of performance, with the strength of association dependent on

correspondence with the task in question, as well as level of specificity (Pajares, 1996).

Self-efficacy has been studied in several previous procrastination studies, with results showing an inverse relationship with procrastination (Ferrari, Parker, & Ware, 1992; Haycock et al., 1998; Steel, 2007; Tuckman, 1991; Wolters, 2003). Self-efficacy can be assessed at a variety of levels of specificity, from very specific (''I am confident I will be able to solve this math problem'') to more general (''I am confident I have the capabilities to succeed in university'').

One explanation for the significant relationship between academic performance and procrastination could be the usage of a variety of learning strategies, resist distractions, complete schoolwork, and participate in class learning, was found to influence academic performance (Klassen, 2007; Zimmerman, Bandura, & Martinez-Pons, 1992).

The simple correlations among the variables showed that academic procrastination was related to academic performance.

Academic procrastination literature found that procrastination serves the aim of protecting an individuals' vulnerable self esteem (Balkıs and Duru, 2010; Ferrari, Johnson and McCown, 1995; and academic performance (Rothblum, 1984). Ferrari (1991) states that because of the tendency of procrastination, the individual do not take risks on the point of his or her performance's being sufficient or not when a task has to be accomplished, she

or he protects himself or herself from being hurt. Within the light of the explanations above, it can be considered that academic procrastination may have both direct and indirect roles in relation to self doubt-self esteem. In other words, as it is also emphasized in the literature, if the self esteem level decreases as the self doubt level increases (Hermann et al., 2002; Oleson et al., 2000), it can be expected that the self doubt's direct impact on self esteem will decrease when there is academic procrastination.

Similar to the findings in this study, many studies in the literature emphasized that there was a positive relationship between procrastination and academic performance (Alves-Martins, Peixoto, Gouveia-Pereira, Amaral and Pedro, 2002; Balkıs and Duru, 2010; Bankston and Zhou, 2002; Schmidt and Padilla, 2003; Zhang, Zhou, and Yu, 2009). In other words, an individual may fail not because she or he is in self-doubt but because of academic procrastination she or he displayed to avoid academic failure. Consequently while individual is trying to protect self from being hurt with academic procrastination, she or he cannot completely achieve it therefore academic performance decreases negatively affecting self-esteem.

4.6.2 Findings for Research Objective 4

Similar to the findings in this study, gender variable has no influence on academic procrastination tendency, academic achievement and academic

performance (Zhang & Zhang, 2007; Howell & Buro, 2009; Klassen & Kuzucu, 2009). Unlike some of the previous research (Gropel & Steel, 2008; Klassen et al., 2009), gender variable demonstrates no influence on academic procrastination.

The area of gender differences and procrastination has been studied over time. In a study by Bronlow and Reasinger (2000), procrastination was measured in terms of the number of hours spent studying in preparation of examination; fewer hours spent were indications of high procrastination. Also, individual procrastination behaviours were associated with longer time students took to return materials to professors (Bronlow & Reasinger, 2000).

The tendency for procrastination depended on the motivation towards given assignments; whereby dissatisfaction of the course generally as well as having low intrinsic motivation in completing tasks was associated to higher procrastination tendency (Brownlow & Reasinger, 2000).

The study revealed that men who were often extrinsically motivated and dissatisfied with the given assignments were more likely to procrastinate as compared to women. Despite the fact that women also procrastinated with reasons such as the need to produce perfect work (perfectionism) and thus put off starting the assignment given in effort to protect their academic ability if outcomes were unpleasant, women still procrastinated lesser than men and completed their tasks with regards to potential compensations provided by educators (Brownlow & Reasinger, 2000).

Moreover, a significant difference was found between gender and procrastination that was viewed in terms of individual locus of control (Hampton, 2005). In this study, men reported more procrastination behaviours than women. The researchers explained that men had a higher tendency to belief that a particular situation is controlled by external factors and not one's self (Hampton, 2005).

Additionally, Hampton (2005) also found that procrastination was more frequent for difficult tasks as they increased stress levels. In contrast, despite also having external locus of control, women in this study procrastinated lesser than men.

Yong (2010) revealed a difference in procrastination across genders among students that have completed the English and Communication Skills subject. With regards to their academic performances, males were found to procrastinate more than females on several aspects especially academic tasks delays (Yong, 2010).

These findings were parallel to a recent study by Ozer, Demir, and Ferrari (2009) which found significant gender differences for academic procrastination. The researchers attributed the findings to the students' inability in decision making, low self-esteem, poor time management and perfectionism which hindered individuals from either starting or completing a task within a given time frame (Yong, 2010).

Nevertheless, there have been numerous studies that have found no gender differences in procrastination tendencies (Onwuegbuzie & Jiao, 2000). The overall academic procrastination of students indicated no gender difference and that the behavior was equally practiced by men and women (Milgram, Sroloff, & Rosenbaum, 1988; Onwuegbuzie and Jiao, 2000). The procrastination behaviors in males were attributed to attitudinal variances in males towards tasks that involved a routine (Milgram, Sroloff, & Rosenbaum, 1988). Females on the other hand were held up to the societal expectations which made it obligatory for them to take on routine associated tasks with major responsibilities, similar to their domesticated chores despite their individual behavioral practices (Milgram, Sroloff & Rosenbaum, 1988).

Besides that a difference for gender in procrastination is also explained by a study by Brownlow and Reasinger (2000) which attributed more male procrastination to the lack of intrinsic motivation and dissatisfaction with the assigned task (Brownlow & Reasinger, 2000). Additionally, men were more motivated if there were external rewards that followed the completion of a task as oppose to feeling self-satisfaction thus they often put off their work to the last minute. Furthermore, the results obtained may have arisen from individual survival key stage in University especially students in their third and fourth year and have had to retake many subjects in order to graduate (Sarid & Peled, 2010). Having to cope and focus on many subjects for a semester may have

increased the tendency to procrastinate especially among male students as they encountered difficulty in multi-drafting behaviours (Sarid & Peled. 2010).

Gender difference in students' science achievement is a fluid field in the literature because related literature revealed mixed results concerning gender differences in science achievement; some studies show that girls achieve at an equal or higher level than boys (e.g. Greenfield, 1996; Sencar & Eryilmaz, 2004; Zohar & Sela, 2003) and some others indicated boys achieve higher level than girls (e.g. Altınok, 2005; Burkam, Lee, & Smerdon, 1997). Since there are conflicted results for the relationship between gender and science achievement, there is need for further examination of such correlation.

4.7 Summary

All four research questions were answered in this study. All four research objectives were fulfilled. This study found that there were significant relationship between academic procrastination, academic performance and academic achievement. Gender did not play any role on the variables in this study.

The findings were summarized as follows:-.

Research Objective	Test	Result
1. To determine the frequency of academic procrastination among the 5th semester students for the Landscape Architecture course of the Faculty of Design and Architecture in a local university	Descriptive Analysis	Moderate procrastination
2. To examine the relationship between academic procrastination and academic achievement	Correlation Analysis	Significantly related
3. To examine the relationship between academic performance and academic achievement	Correlation Analysis & Regression Analysis	Significantly related
4.To ascertain whether gender played any role in academic procrastination	Independent samples t-test	No difference

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.0 Chapter Objective

This chapter summarised the key findings in this study according to the research objectives. The significance of the findings and their implications were highlighted. Recommendations for future research were included.

5.1 Conclusion

The findings from the study added to our understanding about the motivational correlates of procrastination, and provide an insight into the negative impact of procrastination on some students. The normal expected consequences of academic procrastination included negative procrastinators reported lower GPAs, expected and received a lower class grade, spent more hours procrastinating each day, took longer to begin important assignments, and expressed less confidence that they were capable of regulating their own learning.

On the other hand, although negative procrastinators fared more poorly than neutral procrastinators, they were experiencing a degree of success in a

university setting, and reported GPAs above 3.0. Our findings suggest that procrastinators managed to achieve good grades and scores in their studies.

In Malaysia, university students generally do not tend to view academic procrastination as a big issue. The finding could be used to inform educators in order to prevent the occurrence of academic procrastination, thought this should be viewed for the perspective of culture (Tice & Baumeister, 1997; Klassen, Krawchuk, & Rajani, 2008; Klassen & Kuzucu, 2009).

Some researchers have already provided means to prevent academic procrastination. For example, Tuckman (1998) said that testing could be a solution for academic procrastination. And instructors who divide assignments into smaller units and emphasize the impact of assignments on grades might also prevent academic procrastination (Zarick & Stonebraker, 2009), because "procrastinators are people who are vulnerable to distractions" and "who do not have problems in facilitating their behavior" (Dewitte & Schouwenburg, 2002, p. 486).

5.2 Recommendation and Suggestion for Future Research

Future studies should be conducted on all the university students as oppose to only limited number of students in one faculty as well as from a variety of different universities. With this, not only will researchers be able to examine procrastination occurrence in different universities, it will also be able

to compare the procrastination behaviors of one course across several universities.

From the preceding limitations, to recruit more participants in future research could better examine the relationship between academic procrastination and academic performance. Furthermore, adding other research methods could also be a good way to study this relationship. For example, researchers can use qualitative research methods, like asking participants to keep a journal about their academic life, which would later serve as a data point for analysis. Also, interview could be another research method, through which researchers could purposefully ask questions that they are interested in.

Lastly, future research could focus more on the reasons for both male and female procrastination to provide better explanation on the reasons for procrastinating. Thus, through acquiring knowledge about the explanation for procrastination, better predictions for individual academic performance and achievements may be gained. In essence, procrastination is always going to exist among students. However, if both students and educators become aware of the reasons or signs of procrastination as well as to know that it may be the obstacle in achieving one goals, the chances that effort can be made to reduce procrastination would be better. Therefore, students should practice starting their assignments upon receiving them and put in the necessary effort to complete and produce quality work.

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