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**ACADEMIC PROCRASTINATION AMONG GRADUATE VS. UNDERGRADUATE
STUDENTS AND DIFFERENCES IN THE EXPERIENCE OF AFFECTIVE AND
COGNITIVE FACTORS**

by
Richard Crowder

A Thesis

**Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
Rowan University
May 7, 2008**

Approved by
Advisor

Date Approved May 11, 2007

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ABSTRACT

Richard Crowder

ACADEMIC PROCRASTINATION AMONG GRADUATE VS. UNDERGRADUATE STUDENTS AND DIFFERENCES IN THE EXPERIENCE OF AFFECTIVE AND COGNITIVE FACTORS

2007/08

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Master of Arts in School Psychology

While not completely understood, the issue of procrastination is well known to the education field, and has been shown to be a significant problem affecting the academic achievement of college students. Research has examined the effects of procrastination across a variety of populations. However, research in the area of procrastination in relation to outcomes in graduate students compared to undergraduate students is lacking. Similarly, there is conflicting evidence as to whether academic procrastination results in lower grade point averages in college students, or whether differences exist in relation to gender and procrastination. Further, research is limited in the area of cognitive and affective factors in relation to procrastination. To investigate these areas, 74 participants (25 males and 49 females) enrolled at Rowan University participated in the study. Participants completed a confidential demographic information sheet, the Procrastination Assessment Scale-Students (PASS), the Rosenberg Self-Esteem Scale, the Taylor Manifest Anxiety Scale (TMAS), and the Center for Epidemiologic Studies Depression Scale (CES-D).

ACKNOWLEDGEMENTS

The completion of this thesis would not have been possible without the help and support of several people. I would like to thank Neil, Bridget, Wes, and my immediate family for always being there when I needed them the most. I also thank Dr. Epifanio and Dr. Dihoff for their help, support, patience, flexibility, and understanding of my situation. Most of all, I thank my wife for her support and love. Kelly has encouraged me to go on, which has helped me get through a challenging year

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CHAPTER I: INTRODUCTION

Need

Many studies have been conducted in the area of procrastination and academic achievement. These studies have consistently demonstrated a negative correlation between procrastination and college students' academic performance. Current studies have reported on the effects of procrastination on one's physical and mental health. Based upon this information, there is a need for interventions and strategies aimed at helping students to become more aware of their procrastination in order to reduce the anxiety and other affective and cognitive factors. Further, these interventions and strategies, if implemented early, will ensure success for these students in their future careers.

Purpose

The purpose of this current study is to a) examine and compare the levels of academic procrastination among undergraduate and graduate school students; b) examine the relationship between academic level in school and procrastination; c) determine whether gender differences exist in relation to procrastination; d) examine the reasons for procrastination; and lastly e) compare the levels of depression, anxiety, and self-esteem between undergraduates and graduate students; in particular, their relationship to procrastination and the varying effects on undergraduate and graduate school students.

Hypothesis

It was hypothesized that graduate students would score higher on levels of procrastination, as compared to undergraduate students, and would report higher grade point averages. In terms of gender and its relationship to procrastination, it was hypothesized that females would procrastinate more than males. In comparing affective and cognitive levels in relation to procrastination, it was hypothesized that a relationship between these factors would exist. Further, it was hypothesized that graduate students would exhibit higher levels of depression and anxiety, and lower levels of self-esteem.

Theory/Background

Academic procrastination has been a widespread and pervasive issue well documented throughout the research, with the percentage of college students engaging in procrastination ranging from 25% to 50% (Kachgal & Nutter, 2001). Further, students who acknowledge procrastination to be problematic, report that it was a constant problem for them.

Within the research, while definitions pertaining to procrastination are varied and without a universal definition accepted by all, most definitions focus on the act of delaying or avoiding responsibilities, decisions, and tasks. According to Schraw & Wadkins (2007) who conducted a grounded theory study of academic procrastination to explore the adaptive and maladaptive aspects of procrastination, most of the research in this area has emphasized three criteria required for procrastination. In particular,

procrastination must be counterproductive, dilatory, and unnecessary. Based upon this criteria found throughout the research, Schraw & Wadkins (2007) defined procrastination as the intentional delaying and deferring of work to be completed.

Throughout the research, the reasons or components of procrastination have also been examined. Many studies have focused on the impact that fear of failure has on a student's likelihood of completing a task, in addition to the aversiveness of the task. Other studies have examined the link between positive reinforcement and procrastination, such that students who procrastinate and earn a high grade for the assignment will be reinforced for their behavior, thereby strengthening the likelihood of the student to engage in the same behavior (Schraw & Wadkins, 2007).

Studies have also focused on the impact procrastination has on academic and nonacademic outcomes. Specifically, many studies have examined the relationship between procrastination and grades, completion of course work, and success in their careers. Current studies in this area have begun to emphasize the effects procrastination has on a student's cognition and affect. In particular, procrastination in relation to self-esteem, depression, and anxiety have been investigated, with many studies indicating a positive relationship between procrastination and depression and anxiety, and a negative relationship between procrastination and self-esteem (Wambach, Hansen, & Brothen, 2001). While previous studies focused their attention on undergraduate students in relation to procrastination, current studies have examined graduate students and the impact procrastination has on their academic, behavioral, and affective outcomes. It was previously believed that graduate students would engage in procrastination less

frequently than undergraduates; however, based upon the research, it has been found that the longer college students are in school, the more they tend to procrastinate (Muszynski & Akamatsu, 1991).

Regardless of the reasons and definitions cited within the research in relation to procrastination, studies continue to document the negative and adverse effects procrastination has on students' health, academic achievement, and cognitive and affective well-being. With this information, interventions and strategies aimed at reducing procrastination in the college setting could have beneficial effects, not only on a student's academic achievement in college and further education, but in their future careers.

Definitions

1. Academic Procrastination: The intentional delaying or avoiding of academic work that must be completed (Schraw & Wadkins, 2007).
2. Anxiety- A state of feelings recognized as fear, apprehension, or worry. Nausea, chest pain, headaches, and increased blood pressure are some of the symptoms (Lay, Edwards, Parker, & Endler, 1989).
3. Center for Epidemiologic Studies Depression Scale (CES-D)-A scale that measures the level of depression an individual is experiencing. The scale is a four point Likert scale with a range from 'experiencing the symptom less than one day' to 'five to seven days'. Depression is a temporary low or decreased mood,

which includes thoughts that do not easily go away. It can be a very disabling disease, which has an impact on all areas of an individual's life.

4. Self-Esteem- An individual's self-appraisal of their own worth.
5. Procrastination Assessment Scale-Students (PASS) - The scale, which was developed by Solomon & Rothblum (1984), measures areas of academic procrastination. One part of the test measures three academic areas while the second part of the scale assesses the reasons for procrastination (Solomon & Rothblum, 1984).
6. Procrastination- The delaying or avoiding of tasks that goes past the point of discomfort. The criterion for procrastination is that it must be dilatory, needless, and counter productive (Schraw & Wadkins, 2007).
7. Taylor Manifest Anxiety Scale (TMAS) - A scale that measures differences in reoccurring anxiety between different subjects.

Assumptions

It was assumed that the undergraduate and graduate level students' responses were honest and accurately represent the students' actual levels of procrastination, anxiety and depression. The demographic information sheet was assumed to have the students' true age, gender, grade point average, race and college level. It was also assumed that the surveys were completed by current Rowan University students.

Limitations

This study had some limitations that need to be taken into consideration. The sample size and population were a limitation. The gender of participants was a limitation due to the high number of females as compared to the males. All of the students attending the same college was also a limitation since there was an absence of diverse colleges. Lastly, anxiety, depression, and self-esteem levels were a limitation. When students provide personal information about depression, anxiety and self-esteem, they may respond to how they are feeling now instead of considering how they are feeling across time. This inaccurate reporting can result in a negative impact on the study.

Summary

Chapter II includes a review of literature relating to academic procrastination and the impact it has on student's grades. The literature also includes studies on the impact of procrastination on students' health. Also included is the relationship between procrastination and affective and cognitive factors. Chapter III describes the current study with details on the methodology used. Chapter IV includes a review of the findings from the current study. Chapter V includes a discussion of the results from this current study. Limitations regarding this study are also discussed as well as suggestions for future research.

CHAPTER II: LITERATURE REVIEW

The following research was used to examine the relationship between college students' level of procrastination and their grade point averages. The research also examines and compares gender differences, affective and cognitive factors, academic levels, and the common reasons for engaging in procrastination. The more general research includes statistics of procrastinators, various definitions of procrastination, and the impact that procrastination can have on one's health.

Procrastination and Academic Procrastination Defined

There are many variations in the definition of academic procrastination, and depending on the author(s) involved; it can range from a general to a more specific definition (Schraw & Wadkins, 2007). This has left researchers with an unclear definition that they can rely on. However, researchers do agree that procrastination involves cognitive and behavioral components, in addition to affective components (Fee and Tangney, 2000; Chu Cho, 20005).

One definition describes academic procrastination as a student's delayed or avoidance of engagement in school related assignments or activities, thus indicating that it is situation specific (Prohaska, Morrill, Atilas, & Perez, 2000; Burns, Dittman, Nguyen, & Mitchelson, 2000). These usually include reading assignments, papers, reports, and

studying for exams. Contrary to this, some researchers have stated that it is not task-specific. They go on to add that students will procrastinate in all areas of their life and not just in academic areas (Green, 1997). This has led to a vast array of suspected causes for procrastination (Owens & Newbegin, 1997).

Procrastination has further been defined as the act of delaying or avoiding responsibilities, decisions, and tasks (Haycock, McCarthy, & Skay, 1998). Several studies have mentioned the definition to include that the activity is delayed and therefore is not completed in the specified time allowed or the assignment must be completed quickly in order to finish (Wolters, 2003; Green, 1982; Senecal, Koestner, & Vallerand, 1995; Orpen, 1998). Solomon and Rothblum's (1984) definition of the term goes more in-depth and includes that the delaying or avoiding of these tasks goes beyond the point of discomfort to the individual and that it is a chronic, reoccurring habit.

Regardless of how it is defined, academic procrastination does not have a definition that has been accepted and agreed upon by all (Schraw & Wadkins, 2007). As mentioned earlier, this variety in definitions can change how researchers investigate the possible different causes and consequences of academic procrastination.

In the education field, procrastination is quite common. Academic procrastination, like procrastination, is not completely understood and suffers from a lack of "theoretical analysis", despite it being a common problem for college students (Green, 1982; Charlebois, 2007). It was even noted that it is not only common, but a serious problem for students (Hess, Sherman, & Goodman, 2000).

Research on Procrastination

Research indicates that procrastination can cause difficulties in an individual's academic and career related goals (Tuckman, 2002; Kachgal et al., 2001). Although the act of delaying or the avoidance of tasks can contribute to such problems, the tasks are under the control of the individual. Certain criteria are unique to procrastination. In order for the situation to be considered procrastination, it has to be dilatory, needless, and counterproductive to the individual (Schraw & Wadkins, 2007). A last addition to the term that Senecal et al. (1995) includes in the definition is the failure to "motivate oneself" into completing the task in the given time frame.

The research on procrastination has suggested that academic procrastination includes feelings of anxiety over starting and or completing the school related task, which tends to cause frustration for students (Solomon & Rothblum, 1984; Hess et al., 2000).

College Students

Just as the definitions for procrastination are varied, the research in regards to procrastination among college students is also mixed. Procrastination is not something that only a new or inexperienced undergraduate student encounters. Research has shown that students at the graduate level also engage in procrastination (Onwuegbuzie, 2000).

Ironically, students at the graduate level are more advanced academically, leading one to believe that it would be less common for them to engage in critical, last minute assignments. However, studies have found that the longer college students are in school, the more they tend to procrastinate (Muszynski & Akamatsu, 1991; Solomon &

Rothblum, 1984).

In a study by Onwuegbuzie (2004) graduate students' procrastination scores were compared to that of the results from Solomon & Rothblum's (1984) undergraduate results. It was found that students at the graduate level do engage in procrastination as much as and possibly even more so than, undergraduate students (Onwuegbuzie, 2004). Due to the lack of research regarding the comparison of undergraduate and graduate level students in the same study, further research in this area is needed to provide current data.

Research has also shown that tendencies to procrastinate follow students well after their college life has ended, (Haycock, et al., 1998; Kachgal, et al., 2001) suggesting that academic procrastination could be more of a domain specific problem (Green, 1997). In other words, individuals may engage in procrastination regardless of the task.

Percentage of Procrastinators

The percentage of students that engage in procrastination may be shocking to some. Research has found that close to 20% of the adult general population procrastinates on a regular basis, (Steel, 2007) whereas the percent of college students who procrastinate at both the undergraduate and graduate levels are much higher. Reported percentages of students engaging in academic procrastination have been from as low as 10% of students to as high as 95% (Steel, 2007). Approximately half of the students who procrastinate reported that it was a constant problem for them (Steel, 2007). Additionally, approximately 70% of college students report that they procrastinate on a regular basis (Schraw & Wadkins, 2007; Hoover, 2005).

The percentage of academic procrastination has also been reported on specific academic tasks. For instance, delayed reading assignments were reported by 30% of students, exam studying was reported at 28% and delayed, or avoidance of a term paper assignment was close to 50% (Solomon & Rothblum, 1984; Prohaska, Morrill, Atilas, & Perez, 2000). Onwuegbuzie's study (2000) provided the levels of academic procrastination among graduate students. Weekly reading assignments were doubled at 60%, delayed or avoidance of a term paper was reported at 41.7%, and studying on exams was 39.3%. Therefore, the percentages of graduate students engaging in procrastination are higher when comparing the results to undergraduates in a prior study by Solomon & Rothblum (1984).

Despite the extremely high estimates of academic procrastination, the majority of these students wish to reduce their problematic behavior. Estimates of students wishing to decrease their academic procrastination have generally ranged from 65% to 75% (Onwuegbuzie, 2004) with some going as high as 95% (Steel, 2007). The percentages may cause some to wonder what impact this has on students' academics.

Impact on Students' Grades

As previously mentioned, academic procrastination may lead to problems in terms of academic performance, however, the research on this area is varied. Several studies have examined the correlation between the levels of procrastination and academic grades. It has been reported that procrastination does have a negative impact on academic performance. In a study conducted by Rothblum, Solomon, & Murakami (1986), it was

determined that a relationship existed between academic procrastination and lower course grades. Similarly, Tice & Baumeister (1997) found that lower grades are typical in those individuals that procrastinate. In another study by Lee (2005) procrastination was found to be responsible for differences in college students' grade point average.

Several studies reported a significant negative correlation between students' grades and that of procrastination, indicating the strong impact of procrastination on academic outcomes (Beswick, Rothblum, & Mann, 1988; Orpen, 1998). In addition, a more recent study by Steel (2007) found a negative correlation between procrastination and students' grade point average, final exam grades, and assignment grades, which is similar to the results of a study done by Beswick et al. (1988) and Prohaska et al. (2000). Solomon & Rothblum (1984) indicated that there was a relationship between procrastination and that of "poor academic performance." Students themselves also feel that procrastination has had an impact on their academic achievement.

In contrast, it was also found that procrastinators and non-procrastinators were equally as likely to receive high grades. In a study by Chu & Choi (2005), students who complete assignments just prior to a deadline, did not necessarily have poorer academic grades when compared to those who completed the assignment well in advance.

In a study examining the relationship between graduate students and grade point average, it was found that graduate students reported engaging in procrastination even more so than that of the undergraduates in the Solomon & Rothblum (1984) study. The graduate students' mean grade point average of 3.57 was expected to have been higher

than undergraduates in the Solomon & Rothblum (1984) study. However, the undergraduates did not indicate grade point averages, and thus, this prediction cannot be substantiated (Solomon & Rothblum, 1984).

Additional support found by a college professor, who has completed previous research on the subject, has stated that, "Many of the worst procrastinators end up earning the highest grades in the class." He also mentions that the classes included students with similar grade point averages (Hoover, 2005). While many believe that research has not shown a specific relationship between procrastination and grades, some researchers still feel that there is a significant negative relationship between procrastination and college grade point averages (Lee, 2005; Haycock et al., 1998).

Due to this conflicting data, additional research regarding procrastination and academic performance, as it applies to undergraduate and graduate students, is needed. Additionally, current student grade point averages and the levels of procrastination are needed for comparison.

Gender and Procrastination

Another area of conflicting research involves the relationship between procrastination and gender. Several studies indicate that male and female students do not differ in their levels of procrastination (Beswick, et al., 1988; Owens, 2000). Solomon & Rothblum (1984) found that there was "no significant sex differences for any area of academic procrastination" and that there was an equal affect on gender type. However, Owens (2000) noted that a difference in academic procrastination between males and

females in not an unreasonable expectation. In a study by Senecal et al. (1995), female students procrastinated less as compared to male students. This suggestion raises interest on the topic as it relates to gender type.

Supporting this suggestion is research conducted by Haycock et al. (1998), which notes that women, as compared to men, have a higher risk level to procrastinate. A study by Washington (2004) provides similar results. The study found that women college students had higher scores on the Tuckman Procrastination Scale as compared to men, indicating that they tend to engage in procrastination more.

The various results provide unclear answers as to which gender is more likely to engage in procrastination. More specific research is needed to clarify the relationship between gender and procrastination. Specifically, examining and comparing the levels of procrastination and gender type in both undergraduate and graduate school students would be beneficial, particularly as research specific to graduate students is limited.

Impact on Health

Procrastination can have an affect on more than just a student's academic performance. It can also be problematic in that it may lead to problems with one's health. However, the research in this area is also conflicting. In a report conducted by Szalavitz (2003), some of the outcomes that procrastination has on health were listed. These outcomes included higher levels of insomnia, smoking, drinking, and stomach problems when compared to those who do not engage in procrastination. Tice and Baumeister

(1997) have found that there are more negative symptoms and higher levels of stress in college procrastinators compared to non-procrastinating college students. They also reported that the levels are not problematic until later on in the semester when deadlines approach (Tice & Baumeister, 1997; Chu & Choi, 2005).

Much of the research in this area has not fully argued against the idea that procrastination has at least some type of impact on health. One explanation may be that college students will exhibit the health symptoms mentioned, regardless if they are or are not procrastinators. This could occur at different times throughout the semester, with greater chances of it occurring towards the end.

Affective and Cognitive Factors

Affective and cognitive factors, such as anxiety, depression, and self-esteem are well documented in the relationship to procrastination (Stuber & Joormann, 2001; Spada, Hiou, & Nikcevic, 2006). They are also commonly found to be associated with one another in a large number of studies. Senecal et al. (1995) found a significant relationship between the three affective and cognitive factors. Specifically, academic procrastination was significantly associated with anxiety, depression, and low self-esteem. In a study by Muszynski & Akamatsu (1991), it was found that cognitive and affective factors related to procrastination are predictive of delays in completion of dissertations among clinical psychology students. Higher levels of test anxiety and depression along with low levels of self-esteem in procrastinators, has also been found by researchers (Rothblum, et al.1986; Green, 1997).

Researchers have reported that depression has a statistically significant relationship with procrastination (Washington, 2004; Ferrari, 2001; Schraw & Wadkins, 2007). Similarly, Steel's (2007) research found an association between depression and procrastination, such that depressed affect and diminished feelings of control over a situation could represent at least one of the causes of procrastination.

Self-esteem levels are also linked to academic procrastination. In a study by Beck, Koons, & Milgrim (2000), they found that lower levels of self-esteem associated with that of academic procrastination. They have suggested that procrastination is a type of strategy, useful to protect one's self-esteem. Further, it was found that the likelihood of students procrastinating was greater in those students with lower levels of self-esteem. One theory is that a more sensitive personality may be the cause, since it tends to be noticed in procrastinators (Beswick et al., 1988).

Studies examining anxiety levels provide support in regards to the impact that procrastination has on anxiety. The reports suggest that the levels of anxiety are high among individuals engaging in procrastination (Burns, Dittmann, Nguyen, & Mitchelson, 2000; Haycock et al., 1998). A positive correlation between anxiety and procrastination was also noted by other researchers (Schraw & Wadkins, 2007).

Some disagreement has arisen in terms of which gender exhibits more anxiety in regards to procrastination. Rothblum's, et al.(1986) study found that female "high" procrastinators reported more symptoms related to anxiety as compared to female "low" procrastinators and when also compared to male low and high procrastinators. Also of importance is that anxiety is noted to occur while students are procrastinating and not just

prior to or following procrastination (Rothblum, et al.; Solomon & Rothblum, 1984; Haycock et al., 1998).

In contrast to the above findings, Wambach, Hansen, & Brothen (2001) did not find a strong relationship between procrastinators and anxiety, which suggests that the anxiety levels of male and female students should be measured and compared at both the undergraduate and graduate level. Results could then be compared to their procrastination levels.

There is inconsistent research as to why college students procrastinate and the evidence for current explanations are somewhat limited (Haycock et al., 1998). One reason may include the notion that there is a positive reinforcement effect for academic procrastinators. Essentially, students' last minute rushed assignments may result in a successful grade, which would strengthen the likelihood of the procrastinator engaging in the same behavior during the next assignment or task.

Earlier research had suggested that procrastination is used as a self-handicapping strategy (Beck et al., 2000). However, extensive research has revealed that two of the most common reasons for students to procrastinate are due to fear of failure and task aversion (Hess, Sherman, & Goodman, 2000; Solomon & Rothblum, 1984; Senecal et al., 1995). Senecal et al. (1995) has also noted that regardless of the seriousness of academic outcomes, the procrastinator will not complete the activity or task if it bears no significant interest. They further suggest that this is evidence for considering motivation as a key factor in the role of academic procrastination. It is also determined that

procrastination is a technique or strategy that is used to “escape self-awareness” (Burns, et al., 2000).

Current research suggests that procrastination is due to the combination of anxiety, and irrational thoughts regarding the completion of a task (Szalavitz, 2003). Students’ personality traits are also considered when the reasons for academic procrastination are examined (Wolters, 2003). Regardless of the exact reasons for a student to procrastinate, Beswick et al. (1988) states, “Procrastination is a destructive habit, creating difficulties in study, career, and personal life. Procrastinators suffer psychological stress in their frantic efforts to meet impending deadlines and undergo the pain of failure and criticism for failing to meet deadlines.”

Summary

Research regarding undergraduate students and procrastination is well studied; however, few studies have examined the outcomes in undergraduate students as compared to graduate students in the same study. Furthermore, there is conflicting evidence as to whether academic procrastination results in lower grade point averages in college students, whether procrastination varies with gender, the potential reasons for procrastination, and the effects of procrastination on students’ levels of affective and cognitive factors

CHAPTER III: METHOD

Participants

The participants for this study consisted of 74 undergraduate and graduate students. Undergraduate students totaled 38, while graduate students were the remaining 36. There were 49 female and 25 male participants. The students' were enrolled in various courses at Rowan University and had volunteered to participate in this study. Students ranged in age from 18 to 47. While the sample of undergraduate and graduate students were similar, as noted above, there was a disproportion in the number of females versus males.

Both undergraduate and graduate students were given the same surveys to fill out. This consisted of the general demographic survey, the procrastination survey, the anxiety survey, and the depression survey. The researcher received 74 surveys that were completed and used for this study. However, 12 surveys were either not received or they were received incomplete. The incomplete surveys were not used.

Materials

The undergraduate and graduate students were asked to complete four separate surveys. Each student received a packet containing the surveys. The confidential demographic survey asked several general information questions (i.e., age, academic level, gender). The Procrastination Assessment Scale-Students (PASS), which determined the students' level of procrastination. The Rosenberg Self-Esteem Scale was

used to obtain the students' current level of self-esteem. The Taylor Manifest Anxiety Scale (TMAS), determined students' anxiety levels and the Center for Epidemiologic Studies Depression Scale (CES-D), was used to find the students' level of depression.

Procedure

Students at the undergraduate and graduate level were recruited by way of flyers posted around campus. In addition, undergraduate participants were obtained by way of the undergraduate student pool at Rowan University's main campus in Glassboro, New Jersey. As for graduate students, graduate level professors were asked to make an announcement to their classes regarding the study. This was due in part of there being a much lower student enrollment at the graduate level than that of the undergraduate level. Graduate students left their email address on a sheet of paper that was given to the professors, who in turn, handed it to the researcher. The participants were contacted by email and then a consent form was emailed to each participant on the sign up list. Once the signed consent form was returned to the researcher in person, the survey packet was either emailed or handed to the participants. Most of the graduate students choose this option.

The majority of undergraduate students completed the surveys on Rowan University's campus. The surveys completed on campus were handed to the participant by the researcher. In addition to the four surveys, as noted above, each student also received a consent form that was signed before the study started. Undergraduate students, who signed up for the study as part of the student pool, received course credit

for participating in the study.

Students also had to meet the criteria in order for their survey to be useable. Students not meeting the age criteria (between the age ranges of 18-65) and those who were not current undergraduate or graduate school students were excluded from the study. This was determined by students' responses to the demographic information sheet, which inquired about the participants' age, academic major, college level, gender, and grade point average. The surveys that did meet the criteria were then examined.

The first survey was the demographic survey, which asked for the students' age, gender, academic level (undergraduate or graduate), college major, grade point average, and race.

The PASS, which was developed by Solomon & Rothblum (1984) consisted of two parts that determine the level of procrastination in students and their reasons for procrastination. The first section consisted of three areas in relation to academic procrastination: Writing a Term Paper, Studying for Exams, and Keeping Up with Reading Assignments. The students answered from "never procrastinate" to "always procrastinate" on the scale. Students could earn up to 45 points on this section. The second section involved the reasons for academic procrastination. The students examined a list of reasons for procrastination and rated from 'not at all describes me' to 'definitely reflects why I procrastinate'. The selection choices are rated on a five point Likert scale.

The Rosenberg Self-Esteem Scale, developed by Rosenberg (1989), is another survey that students were required to complete for this study. It is one of the most utilized scales for measuring self-esteem levels and is commonly used to measure the construct of

global evaluation of self-concept. The ten item scale has students answer on a four point scale from strongly agree to strongly disagree. Results indicate students' level of self-esteem.

The third survey was the Taylor Manifest Anxiety Scale (TMAS), which is designed to determine the anxiety level of individuals. Students numbered on a sheet of paper beginning with number 1 and ending at 50. The TMAS involved 50 statements that the students read, then indicated 'true' if the statement applied to them. If the statement did not apply to them, they indicated 'false'. Points were given for certain questions based on the answer. The points were then tallied up, with higher scores indicating more anxiety.

The Center for Epidemiologic Studies Depression Scale (CES-D) that students completed assisted in determining the level of depression that students were experiencing. The survey, which consisted of 20 statements indicating a particular mood, is setup on a four point Likert scale. Students examined the survey and then indicated how often they feel that way. The range is from 'rarely or none of the time' to 'most or all of the time'.

Summary

In summary, this study used the PASS to look at the level of undergraduate and graduate students' procrastination in relation to students' grade point average. The general information survey provided information regarding grade point averages and college level. The goal was to see if higher procrastination scores result in higher or

lower grade point averages. In addition, the procrastination scores of undergraduates and graduates were compared to determine which group would procrastinate more. Another area examined was that of gender and procrastination level. The scores between males and females were examined and compared to determine which group scored higher in procrastination. The affective and cognitive factors of depression, self-esteem, and anxiety were used to determine the relation to procrastination. Results from the Rosenberg Self-Esteem Scale, TMAS, and the CES-D were used to determine this.

CHAPTER IV: RESULTS

Findings

The research was guided by five questions: (a) Is there a difference in reported levels of procrastination between undergraduate and graduate students? (b) Does a difference exist in reported levels of procrastination between males and females? (c) Is there a relationship between procrastination and reported grade point average among undergraduate and graduate students? (d) Is there a difference in reported levels of cognitive and affective levels between undergraduate and graduate students? (e) What are the most commonly reported reasons for procrastination among graduate and undergraduate students?

The first research question concerned the relationship between procrastination and academic level. It was hypothesized that graduate students would exhibit higher levels of procrastination than undergraduate students. A one-way ANOVA revealed that no significant differences existed in reports of procrastination among undergraduate and graduate students ($F(1,72) = .015, p > .05$.) The closeness in procrastination means suggests that graduate students had the same propensity to procrastinate as did undergraduate students (See Table 1). In examining the relationship between procrastination and gender, it was hypothesized that females would exhibit higher levels of procrastination than males. A one-way ANOVA revealed no significant differences in reports of procrastination among males and females ($F(1,72) = 2.621, p = .05$.)

To address the question of whether a relationship exists between reported grade

Table 1

Procrastination Among Graduate and Undergraduate Students

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Ungrad	38	28.26	8.560	1.389	25.45	31.08
Grad	36	28.47	5.930	.988	26.47	30.48
Total	74	28.36	7.350	.854	26.66	30.07

To address the question of whether a relationship exists between reported grade point averages and levels of procrastination among graduate and undergraduate students, a Pearson correlation was conducted. In previous studies, a significant negative relationship between grade point average and procrastination was found. The results of this study revealed a significant negative relationship between grade point average and procrastination, ($r = -.336$, $p < .01$). Similarly, in comparing reported grade point averages among graduate and undergraduate students, a significant difference between the populations was reported, ($F(1,72) = 34.569$, $p < .05$) (See Table 2). Specifically, graduate students reported having a higher grade point average than undergraduate students did. In contrast, no significant differences existed in reports of grade point average among males and females, as revealed by a one-way ANOVA ($F(1,72) = 1.459$, $p > .05$.)

Table 2

Relationship Between Academic Levels, GPA, and Procrastination

		GPA	Procrastination	Levels
GPA	Pearson Correlation	1	-.336(**)	.570(**)
	Sig. (2-tailed)	.	.003	.000
	N	74	74	74
Procrastination	Pearson Correlation	-.336(**)	1	.014
	Sig. (2-tailed)	.003	.	.904
	N	74	74	74
Levels	Pearson Correlation	.570(**)	.014	1
	Sig. (2-tailed)	.000	.904	.
	N	74	74	74

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

To address research question of whether a relationship exists between procrastination and reported levels of cognitive and affective levels, specifically, depression, anxiety, and self-esteem, a Pearson correlation was conducted. In previous studies, academic procrastination was significantly associated with anxiety, depression, and low self-esteem. The results of this correlation revealed that only depression was significantly positively related to procrastination ($r = .285, p < .05$) (See Table 3).

Table 3

Relationship Between Procrastination, Cognitive, and Affective Levels

		Self-esteem	Depression	Anxiety	Procrastination
Self-esteem	Pearson Correlation	1	-.475(**)	-.422(**)	.031
	Sig. (2-tailed)	.	.000	.000	.795
	N	74	74	74	74
Depression	Pearson Correlation	-.475(**)	1	.566(**)	.285(*)
	Sig. (2-tailed)	.000	.	.000	.014
	N	74	74	74	74
Anxiety	Pearson Correlation	-.422(**)	.566(**)	1	.163
	Sig. (2-tailed)	.000	.000	.	.165
	N	74	74	74	74
Procrastination	Pearson Correlation	.031	.285(*)	.163	1
	Sig. (2-tailed)	.795	.014	.165	.
	N	74	74	74	74

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

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

A correlation analyses examining the relationship between reports of cognitive and affective levels among undergraduate and graduate students revealed that self-esteem was significantly positively related to academic level ($r = .257, p < .05$), with graduate students reporting higher levels of self-esteem. Similarly, anxiety was revealed to be significantly negatively related to academic level ($r = -.336, p < .01$), with undergraduates reporting more anxiety than graduate students (See Table 4).

Table 4

Relationship Between Affective and Cognitive Levels Among Students

		Self-Esteem	Depression	Anxiety	Levels (Grad vs. Undergrad)
Self-Esteem	Pearson Correlation	1	-.475(**)	-.422(**)	.257(*)
	Sig. (2-tailed)	.	.000	.000	.027
	N	74	74	74	74
Depress	Pearson Correlation	-.475(**)	1	.566(**)	-.184
	Sig. (2-tailed)	.000	.	.000	.117
	N	74	74	74	74
Anxiety	Pearson Correlation	-.422(**)	.566(**)	1	-.336(**)
	Sig. (2-tailed)	.000	.000	.	.003
	N	74	74	74	74
Levels (Grad vs. Undergrad)	Pearson Correlation	.257(*)	-.184	-.336(**)	1
	Sig. (2-tailed)	.027	.117	.003	.
	N	74	74	74	74

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

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

The last research question addressed the reasons for procrastination among graduate and undergraduate students. Based upon the results from the PASS, 47.3% of students indicated that procrastination was always or nearly always a problem when they had too many other things to do, while 40.5% said it was a problem when they did not know what to or what not to include in a paper. Approximately 36.5% said they really disliked writing term papers, while 33.8% said they felt overwhelmed by the task and felt too lazy to write the term paper.

CHAPTER V: DISCUSSION

Discussion of Results

The purpose of this study was to investigate reports of procrastination among undergraduate and graduate students. This study sought to examine and compare the levels of academic procrastination among undergraduate and graduate school students, in addition to examining the relationship between graduate school students' grade point average as compared to undergraduates' grade point average. In addition to comparing academic level and students' grade point average, this study sought to determine whether gender differences exist in relation to procrastination.

As existing research has suggested, procrastination among college students will impact cognitive and affective factors. Therefore, this study further compared the levels of depression, anxiety, and self-esteem between undergraduates and graduate students, in particular, their relationship to procrastination and the varying effects on undergraduate and graduate school students. Lastly, the reasons for procrastination among undergraduate and graduate students were examined.

Consistent with past research (e.g., Haycock, et al., 1998; Lee, 2005), the results of this study suggests that procrastination, does in fact impact upon a student's grade point average., further demonstrating the impact that procrastination has on academic outcomes. Based upon the research in this area, it has been reported that students who habitually procrastinate believe their tendency to procrastinate significantly impacts with

their academic standing and ability to master academic material (Lee, 2005), supporting the need for strategies and interventions aimed at decreasing academic procrastination in college settings.

In contrast to earlier research conducted by Onwuegbuzie (2004) regarding the levels of procrastination among graduate and undergraduate students, no significant differences existed in the report of procrastination between the two populations. In fact, the results of this study suggest that graduate students had the same propensity to procrastinate, as did undergraduate students. In Onwuegbuzie's (2004) study, students at the graduate level engaged in procrastination as much as and possibly even more so than undergraduate students.

Regarding the cognitive and affective factors, supporting the research conducted by Washington (2004), there was a statistically significant relationship between procrastination and depression among both undergraduates and graduate students, indicating the need for counseling centers to raise awareness of the impact of procrastination in relation to students affect and cognition.

Less expected, was the emergence of differences in affective and cognitive levels in relation to procrastination among graduate and undergraduate students. In particular, graduate students in this study exhibited higher levels of self-esteem, and lower levels of anxiety than did undergraduate students.

Consistent with the literature suggesting that sex differences do not exist for any area of procrastination (Solomon & Rothblum, 1984), the results of this study provide no support for the hypothesis that females would demonstrate higher levels of

procrastination than males.

In regards to the reasons for procrastination, the primary reason noted in this study related to the number of assignments that needed to be completed. Other commonly reported reasons included a dislike and feeling of laziness when writing term papers, feeling too overwhelmed by the task and not knowing what to include and what not to include in a paper.

Limitations

While there were significant findings in the present study, these findings should be viewed with caution. The sample size and population of participants was limited. There were 74 participants (38 undergraduates, 34 graduates) who met the criteria and were able to complete the surveys. Females totaled 49 while there were 25 males for this study. A higher number was more desirable and could have produced results that were more significant. The availability of male participants, particularly at the graduate level was limited. As there tends to be a larger number of females at the graduate level, and since a high percentage of graduate students do not live on campus, access to male graduate students was limited. At the undergraduate level, finding students to participate was not as much of an issue, although the females still outnumbered the males.

Another limitation was with the accuracy of reporting, specifically in regards to the levels of procrastination and cognitive and affective levels. Some students may have attempted to present themselves in a socially desirable manner, thereby impacting upon the accuracy in reporting. Another limitation of the current study stems from the fact that

participants were almost exclusively Caucasian Americans. Approximately 93% of the participants were white while the other 5% consisted of those that selected “Black” and 2 % for participants that selected “Other” on the demographic sheet.

Students’ grade point averages (GPA) is another limitation. Students many not of known their current grade point average and therefore would be reporting an inaccurate number. There is also the possibility that some students’ were unsatisfied with their grade point average and in turn decided to write down a more acceptable grade point average. One other limitation to consider is that some students’ may have been in a rush to complete the survey, therefore producing inaccurate and untruthful numbers.

Students’ levels of self-esteem, anxiety, and depression were a limitation. The concern is that they may have filled out the surveys based on how they felt at the moment as opposed to considering how they felt over a set period of time. The inaccurate levels of these affective and cognitive factors will result in inaccurate results.

Future Research

Future research could include collection of data from a national sample of undergraduate and graduate students in order to assess the generalizeability of results. As mentioned above, the sample of males in this study was limited, necessitating the need to perhaps replicate the present study using more males, particularly when examining gender in relation to procrastination. Finally, more research in the area of procrastination, particularly as it relates to academic achievement and cognitive and affective factors is needed, using African-American and other ethnic groups.

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