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Zoë Kahn
Procrastination in Relation to Self-
Efficacy in Graduate Students
Writing a Doctoral Dissertation

ABSTRACT

Procrastination and self-efficacy have been studied over the years; however, there is a gap in the literature on the relationship between the two constructs and in relation to the populations in which researchers have chosen to focus. The present study used quantitative approaches to explore the relationship, if any, that existed between procrastination and self-efficacy in graduate students finishing a doctoral dissertation (N=19). Data were collected using an anonymous online survey which included demographic questions, the General Self-Efficacy Scale (GSES), and the Tuckman Procrastination Questionnaire (TPQ). The GSES calculated levels of self-efficacy and the TPQ assessed levels of procrastination.

The major finding was that procrastination and self-efficacy were strongly correlated in graduate students finishing a doctoral dissertation. Further relationships between the constructs and demographic data were explored as well.

**PROCRASTINATION IN RELATION TO SELF-EFFICACY IN GRADUATE
STUDENTS WRITING A DOCTORAL DISSERTATION**

A project supported by an independent exploration,
submitted in partial fulfillment of the requirements for the
degree of Master of Social Work.

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2011

Acknowledgements

I want to give thanks to my loving parents, Mom and Dad, for always being there to listen to me and to support me. Nora, you are my spiritual guide and I could not have completed this without your reassurance and love. I want to show gratitude to my friends, who consistently talked me out of feeling ineffective and helped me to feel like I could accomplish this. Sarah gently reminded me that I was capable when I really doubted myself. Philip's positive proclivity and problem-solving nature never failed to at least put a smile on my face. I really cannot thank you enough for your willingness to help me even when I made it difficult for you. I want to thank Dr. Mary Beth Averill, my advisor, for teaching me the true meaning of self-efficacy.

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CHAPTER I

Introduction

While there may be many different reasons why master's level students seek to further their education by pursuing a doctorate degree, finishing that degree is most likely a common desire. The completion of intensive schoolwork, extensive outside reading, and consistent research writing can result in meeting initial coursework requirements of the doctoral degree; the completion of a doctoral dissertation represents the final hurdle. How and why do students get stuck in this part of the process? Is feeling stuck in the doctoral dissertation phase related to having low self-efficacy? Does low self-efficacy in relation to writing a doctoral dissertation lead to procrastination and the high attrition rates in graduate schools across the United States?

Currently in the United States the attrition rate for graduate programs exists at 50%. This high number of doctoral students leaving graduate programs not only affects graduate students psychologically and practically, but also has widespread repercussions for the institution of graduate school and for higher education. As graduate students continue to leave graduate programs, fewer PhD students remain in programs and are available to teach undergraduate level or graduate level classes and stay within academia. Lovitts and Nelson (2000) identified four main areas in which graduate institutions as well as the faculty associated with those programs could improve and maintain enrollment in PhD programs. Their study attributed issues with attrition rates to four main areas: the application process, in which students often choose a program based on the larger university or college's reputation rather than the actual department; lack of social life at an institution; lack of initial transparency between program administration

and students regarding program strengths and weaknesses; and either a nonexistent partnership or a relationship with a faculty advisor who is inattentive or unsupportive. Another area of focus related to attrition rates is the phase of doctoral programs in which graduate students are most likely to leave. Often, this phase is the doctoral dissertation completion phase, in which doctoral students are expected to present extensive findings related to a specific field of interest in the form of a thesis in order to graduate and earn a degree.

Johnson and Conyers (2001) found that up to one third of doctoral candidates who have completed all other required course studies failed to complete a doctoral dissertation. The researchers cited different reasons for this failure of completion including procrastination, perfectionism, decrease in motivation, feelings of isolation and loneliness, personal responsibilities, and disappointment. These possible explanations for failure to complete the doctoral dissertation should be further researched. Within these possible explanations, an area that requires additional exploration is the study of procrastination in the doctoral student population.

While a growing body of quantitative and qualitative research in graduate education research exists, further research may serve to strengthen the quality of graduate-level education in the United States, decrease steadily rising attrition rates, and alleviate the intense anxiety and stress that doctoral students often go through during the doctoral program experience. In addition to research on the subject of procrastination in graduate students seeking to complete a dissertation and obtain a doctoral degree, the field of social work would benefit from a deeper understanding of why doctoral students procrastinate on the doctoral dissertation and what factors affect these common and often detrimental behaviors.

This study aims to address the following questions: Is there a correlation between procrastination and self-efficacy in graduate students finishing a doctoral dissertation? If so, is this correlation strong? In attending to these questions, a deeper exploration of the current literature on procrastination, self-efficacy, and the graduate student population is necessary. Through this deeper investigation, disparities and gaps in the literature will be identified and reviewed.

This thesis is divided into five chapters. Chapter II is an overview of the literature relevant to this thesis as well as literature with implications for social workers. Chapter III includes an explanation of the research methods used to investigate the hypothesis. In Chapter IV a summary of the finding of the hypothesis is presented. Lastly, Chapter V presents the finding in relation to pertinent literature, explores the implications of this finding, and examines ideas for further research.

CHAPTER II

Literature Review

In this literature review, I give an overview of the areas of procrastination, self-efficacy, and graduate students as a population. For the purposes of this review, I define procrastination as a behavior in which an individual delays completion of a task, self-efficacy as a person's perception of her or his own mastery or capacity to complete a task, and graduate student as a student who has previously completed undergraduate studies and is pursuing a degree at a graduate school. I will first give a broad overview of procrastination, the types of procrastination that exist, theories about procrastination, and previous studies on procrastination. Next, I will provide a more specific understanding of self-efficacy as a concept, theories about self-efficacy, and how it pertains to procrastination. And last, I will further define the graduate student population as a developmental stage and provide theories about how procrastination is linked with this population throughout the literature.

Procrastination in the Literature

Researchers have defined procrastination as the tendency to delay or postpone the completion of a task or set of tasks. This definition is applied to and relevant for both predictably pleasurable and less pleasurable or more practical types of activities (Shu, 2010). Klassen et al. (2009) found that procrastination occurs within a wide range of populations that are diverse in age, culture, types of students, professions, and many other important factors. The negative effects of procrastination can be quite detrimental for a wide range of people, and while some literature available on the subject of procrastination in a broad sense exists, still much more

research needs to be completed on the subject of the theories, treatment modalities, and differing types of procrastination. This research would greatly benefit mental health practitioners of all types (psychiatrists, psychologists, social workers, etc.), mental health patients, students, parents, teachers, and school guidance counselors.

While researchers have defined procrastination in many different ways, some contention remains among those studying the phenomenon of procrastination regarding how to define the term more precisely. One characteristic often cited and agreed upon as a part of the definition of procrastination is the delay factor or inclination to postpone completion of a task or activity (Özer, 2009). Although some researchers endorse agreement that the delay factor is a common characteristic, other authors believe that intentionality to postpone the completion of a task is an essential component in describing the definition of procrastination and that postponement of a task becomes procrastination only when the person possesses sincere desire to finish the task (Schraw, 2007).

Schouwenburg (2004) presented another viewpoint in the discussion of defining procrastination. In this perspective, procrastination is viewed as a behavior in which an individual merely lacks appropriate time management skills as well as effective study methods. When procrastination is construed in this way, as a behavior, the definition refers to a task-specific avoidance behavior. Similar to this perception, procrastination can be viewed as delaying responsibilities or important choices on a regular basis as a part of a behavioral characteristic. This definition of procrastination as a behavioral phenomenon also applies to academic procrastination in that students engage in the behavior by failing to finish assigned tasks or by postponing time spent studying for examinations (Deniz, 2009). Still other researchers view procrastination as a maladaptive act in which an individual unnecessarily

postpones completion of an assignment or task, which then typically creates feelings of discomfort (Bui, 2007). Steel (2007) discussed the prevalence of procrastination in undergraduate students, stating that 80% to 95% of students engage in this behavior. The researchers also examined the effects of procrastination in fields besides education, such as medicine and found that procrastination by patients in relation to medical appointments or procedures caused major conflicts and distress.

Other researchers assert that affective factors, such as somatic symptoms of anxiety, represent the key feature that defines procrastination. Haycock, McCarthy, and Skay (1998) found that there was a statistically significant, positive relationship between anxiety and procrastination, in that individuals who experienced higher levels of anxiety were more likely to procrastinate. Spada, Hiou, and Nikcevic (2006) showed that anxiety, depression, and worry were highly correlated with procrastination as a behavior and that people who engaged in chronic procrastination tended to experience negative emotions due to an inability to complete tasks on schedule, meet appropriate deadlines, or make decisions about important as well as minor life events.

In addition to the various definitions compiled within the literature on procrastination, researchers have also identified alternate types of procrastination. One exploratory research study found that active procrastinators, or procrastinators who took advantage of the strong motivation to complete tasks that often occurred during high pressure situations, actually participated in positive procrastination behaviors (Choi, 2009). The study defined the opposite of active procrastinators as passive procrastinators, or traditional procrastinators who delayed completion of certain tasks or assignments until the deadline. This passivity was described as being caused by a failure to decide that it was necessary to act in a time-sensitive manner when attempting to

complete tasks. The study included 185 voluntary, undergraduate business students from a large Canadian university. The participants were 63% female students and 37% male students. Racial representation in the sample was 74.1% White, 20% Asian, 2.7% Hispanic, and 1.6% African American. Participants filled out a questionnaire called the “Survey of University Students’ Use of Time” which was designed to measure active procrastination, time-related perceptions and behaviors, personality variables, and personal outcomes. Researchers measured the constructs by using multiitem indexes that included a 7-point Likert-type scale organized from 1 being “not true at all” to 7 being “very true.”

Academic procrastination has been defined as a form of procrastination carried out specifically in relation to academic tasks (Solomon, 1984). In a correlational, exploratory study of the relationship between the frequency of academic procrastination and behavioral, cognitive, and affective factors, researchers asked 342 voluntary, undergraduate students who were among two sections of a large introductory psychology course to participate in a class experiment. The sample was made up of 222 females, 101 males, and 19 who did not self identify gender. Out of this population, 264 students were freshmen, 43 students were sophomores, 13 students were juniors, and 19 students did not identify academic year. Ninety percent of students were between 18 and 21 years old. Introductory psychology students in one section simultaneously were given self-paced quizzes while they completed each chapter of the textbook. Students could then gain extra credit in the course for participation in the research study and were asked to choose and attend one of three experimental sessions held at different times throughout the first semester. Students took the self-report measure, Procrastination Assessment Scale-Students (PASS), which was made up of two different sections. The first section involved assessment of the frequency of procrastination in six specific areas of academic-type behavior, which included writing a term

paper, studying for an exam, keeping up with weekly reading assignments, performing administrative tasks, attending meetings, and performing academic tasks in general. Students then identified on a 5-point Likert-type scale both how much they felt they procrastinated, 1 being “never procrastinate” and 5 being “always procrastinate,” as well as the extent to which they felt procrastination was a personal problem. In the second section of the PASS, researchers developed questions involving typical undergraduate procrastination scenarios and subsequently listed different logical reasons for procrastination on the academic tasks or assignments described in the scenario. Some examples of logical reasons for procrastination provided in the questionnaire included evaluation anxiety, perfectionism, and difficulty making decisions. Students then rated how much they felt that these possible reasons accurately represented the causes for academic procrastination.

Results of the Solomon (1998) study indicated that 46% of participants stated that they nearly always or always procrastinate on writing term papers, 23.7% identified procrastination as a personal problem for them when writing term papers or completing weekly reading assignments, and 65% of the participants reported that they definitely wanted or wanted to decrease procrastination when writing term papers. Further exploration of the findings indicated that a large number of the undergraduate students involved in the research study identified procrastination on academic assignments as a personal problem and possessed a desire to decrease the behavior. Solomon also found that procrastination caused by aversiveness of the task was related to many different cognitive and affective variables, and should be considered a cognitive, behavioral, and affective occurrence. Additionally, researchers discovered that students who procrastinate due to a strong fear of failure could be differentiated from students

who primarily procrastinate due to aversiveness of the assignment, as anxiety and low self-esteem are also present.

Many different theories exist that attempt to demystify the phenomenon of procrastination. In McCrea et al.'s (2008) study on the construal-level theory and its relation to procrastination, the researchers explored the bidirectional relationship between level of abstractness and temporal distance and its psychological connection to procrastination. The study proposed that tasks which exist in the future tend to be represented by a person in a more abstract manner in comparison with tasks that were closer in time to the present. Further, the theory presented the idea that how well a student or individual understood an assignment or task, or how concisely or abstractly the assignment or task was introduced, directly affected the amount of time it would take her or him to begin the assignment or task. While McCrea et al. found that how well an individual understood a task was an important factor in relation to level of perceived procrastination, the extent to which the task was presented as concrete or abstract remained the primary catalyst in curbing procrastination and starting projects.

Procrastination and Perfectionism

Onwuegbuzie (2000) explored the relationship between procrastination and perfectionism in a graduate student population. The participants involved in the study were 135 graduate students from a graduate-level research methods class at a university in the southeast United States. Of the participants, 92.6% were female and the age range of students was 21 to 51 with a mean age of 26. Students were given the Procrastination Assessment Scale-Students (PASS) and the Multidimensional Perfectionism Scale (MPS) and asked to fill out the surveys. The PASS questionnaire was made up of six lists of academic tasks, which included writing a term paper, studying for exams, maintaining progress on weekly reading assignments, following through on

administrative jobs, being present at meetings, and following through on scholastic tasks. Participants were instructed to complete three rating scales for each of the six tasks identifying the rate at which they procrastinated on the given task. A rating of 1 referred to “Never procrastinate,” while 5 referred to “Always procrastinate.” The participants were also asked for their opinions related to seeing procrastination as a problem (1 refers to “Not at all a problem” and 5 refers to “Always a problem”) as well as desire to decrease procrastination (1 refers to “Do not want to decrease” and 5 refers to “Definitely want to decrease”). Frequencies were added up to show the overall measure of academic procrastination, with total scores that ranged from 12 to 60. High scores indicated self-reported procrastination on academic tasks. The second part of the PASS instructed students to reflect on the last instance in which they procrastinated on writing a term paper or dissertation, and to indicate how much, if at all, each of 26 reasons corresponded with why they engaged in procrastination. A rating of 1 referred to “Not at all reflects why I procrastinated” while 5 referred to “Definitely reflects why I procrastinated.” Students mostly responded that fear of failure and reluctance to start a task were reasons for procrastination. The MPS was made up of 45 questions in a 7-point, Likert-type design, which measured three aspects of perfectionism including self-oriented, other-oriented, and socially prescribed. A high score on any section indicated perfectionist tendencies.

Onwuegbuzie (2000) found that 41% of the graduate students who participated in this study stated that they “nearly always” or “always” procrastinated on writing an academic paper, while 39.3% procrastinated on learning material for exams, and 60% procrastinated on weekly reading for class. The study also indicated that graduate students were 3.5 times more likely to procrastinate on weekly reading assignments than undergraduate students. Some limitations of the study were the lack of demographic statistics relating to ethnicity, school size, and

socioeconomic status of students. The majority of participants were female (92.6%) which may have affected reliability of the study.

Self-Efficacy in the Literature

Defining Self-Efficacy

Self-efficacy, or an individual's perception of her or his capacity to accomplish a task, has a wide variety of definitions linked to many different areas of research. Comprehensive research studies show that self-efficacy has a significant influence on achievement in diverse areas including education, health, athletics, and commerce. In relation to research done in the field of education, students' perceptions of self-efficacy has been proven to affect achievement and behavior (Klassen & Chiu, 2010). Bonar et al. (2011) defined self-efficacy as the perceived degree of confidence an individual had in her or his ability to utilize self-control skills. Cain et al. (2009) further described self-efficacy as a possession of confidence in the ability to successfully use behaviors that were required for desired results. When an individual lacked self-efficacy in one area and possessed self-efficacy in a different area, she or he was more likely to cope by exerting control in the area in which there was a greater perception of self-efficacy. It might be supposed that if students coped with lacking self-efficacy in one area by exerting energy in an area where they felt more confident in their capacities to achieve a goal, that students would have avoided completion of the initial goal.

Self-Efficacy and Avoidance

Shim and Ryan (2005) explored the correlation between achievement goals and transformations in undergraduate students' sense of self-efficacy, challenge avoidance, and inherent value related to grades. The researchers found that negative feedback from professors resulted in decreased levels of motivation as well as a focus on performance-avoidance goals, or

a focus on avoiding negative feedback on an individual's capabilities. Heimerdinger and Hinsz (2008) explored the idea that a correlation between self-efficacy and failure avoidance-motivation existed in environments where individuals established goals for performance. This research has implications that an individual's preference to avoid failure should be regarded as a trait that includes an aversion to evaluative situations as well as a general fear of failure. In Cahill et al.'s (2006) exploratory research study on the meanings of self-efficacy, the researchers examined differences in an individual's willingness to try to complete a task and its direct relation to a sense of fear that she or he cannot complete that task. Self-efficacy was found to be predictive of avoidance behavior even when an individual maintained a sense of control over expectancy of an outcome or result. One aspect of maintaining a sense of control over outcome expectancy could be seen as possessing motivation to complete tasks and hold focus.

Self-Efficacy and Motivation

Feeling that one has the power to produce or control a desired result may affect an individual's incentive to begin or complete a task. Hsieh, Sullivan and Guerra (2007) described this phenomenon in a research study that found a correlation between self-efficacy and goal orientation in undergraduate students. The researchers found that students possessing higher levels of academic self-efficacy were better equipped to persevere through adversity and maintain the necessary motivation to complete tasks in a concentrated endeavor. These students were more likely to possess motivation to complete coursework required to graduate. In Pratsala and Redford's (2010) study on the relationships among motivation, self-efficacy, and approaches to studying, the authors described how motivation orientation, when seen as an individual-difference characteristic, and self-efficacy related to completion of tasks affected students' approaches to studying. The sample consisted of 163 first-year undergraduate

psychology students at a British university. Participants took the Work Preference Inventory motivation questionnaire, self-efficacy in reading and writing questionnaires, and a shortened version of the Revised Approaches to Study Inventory. Limitations of the study included the sample, which was taken from a psychology class, making it less generalizable to other fields of study. Fan and Williams (2009) further explored the relationship between motivation and self-efficacy. The researchers found that individuals who showed inherent motivation participate in academic tasks based on a sense of pleasure gained from the tasks as well as a natural desire to learn. Personal belief in one's capabilities to achieve goals directly affects concern and motivation in academic areas.

Self-Efficacy in the Doctoral Student Population

Self-efficacy as a construct has been linked to and researched in relation to general academic progress and functioning. Varney (2010) went further in the exploration of academic progress and self-efficacy and researched the specific relationship between self-efficacy and doctoral completion through a new construct named dissertation self-efficacy (DSE). DSE was described as the belief or self-assurance in an individual's capacity to write the doctoral dissertation. Varney hypothesized that if students had the experience of being in a cohort, were mentored, and believed that they were adequately prepared for writing a dissertation, they would possess higher levels of DSE and therefore would maintain greater levels of dissertation progress. This study consisted of sixty first- and second-year doctoral students from a small Midwestern university. Participants took the Dissertation Self-Efficacy Scale. Limitations of the study were the small number of participants as well as the lack of other demographic data, such as age, gender, or ethnicity. In the results for the second-year students, no relationship was shown between perception of value of doctoral program and dissertation completion or non-

completion, although for the total group there was a correlation between dissertation self-efficacy and completion rates. Arnoff, Glass, and Robinson (1992) have also explored the relationship between self-efficacy and dissertation studies completion within the doctoral student population. The researchers expanded on the subject of self-efficacy by describing self-efficacy expectations, or a student's confidence that she or he can perform necessary tasks in order to successfully cope during certain situations, such as test-taking or oral dissertations.

Self-Efficacy in Relation to Self-Image

While researchers have found that self-efficacy has an effect on doctoral students' perceived ability to complete tasks and maintain progress towards a goal of finishing a dissertation, social and emotional self-efficacy play an important role on students' academic performance and perception of the academic milieu as enjoyable. In Bacchini and Magliulo's (2003) study on self-image in relation to self-efficacy, the researchers explored this relationship from a developmental perspective. Individuals who felt more prepared were more likely to take on the completion of a task when there was a sense of control of the outcome. This feeling of self-control associated with predicted outcome was positively related to self-image. Falk and Miller (1998) described development of the reflexive self, or the aptitude to reflect upon who one is as related to others, as an endeavor that incorporates self-efficacy as well as self-image, self-concept, and self-esteem. When an individual feels competent in personal effectiveness in a certain area, self-efficacy can exceed this specific area and affect other areas of functioning, and in turn, affect an individual's image of herself or himself. The individual's self-image is also related to and affected by perceived evaluation by others.

The Graduate Student Population

Demographic Overview

The graduate student population is largely distinguished from other student populations by the requirement of a bachelor's degree as a prerequisite for matriculation into a graduate program. Graduate students begin work in master's-level or doctoral programs at many different stages of life. In the 2000 National Doctoral Program Survey administered by the National Association of Graduate-Professional Students, researchers broke down demographics of the doctoral student population, with a sample size of over 32,000 recent PhD's and doctoral students, into categories designated by field type. Within doctoral engineering programs, 74% are male and 26% are female. In the life sciences field, 44% are male and 56% are female. In the physical sciences field, 69% are male and 31% are female. In the social sciences field, 41% are male and 59% are female. The statistics regarding under-represented minority students in each corresponding field range from 10% to 16%. Students across all types of fields reported some dissatisfaction in relation to feeling adequately mentored and instructed to complete doctoral program requirements appropriately (Golde & Dore, 2001).

Attrition Rates and the Doctoral Student Population

Feeling dissatisfied with the quality or lack of mentoring may have an effect on doctoral students' success within a program. Church (2009) discussed possible reasons why a national average of 50% of doctoral students across years and fields report non-completion of the degree. The term for these students is All But Dissertation (ABD) students, which developed in response to the high percentage of students unable to complete necessary doctoral dissertations. Church argued that environmental stressors and lack of mentoring were not to blame for high attrition rates, but that lack of adequate preparation through role playing and practicing with a cohort may

have affected students' ability to comprehensively understand what was expected of them in order to complete a dissertation. When students did not adhere to the conventional process of private studying and writing, and instead engaged in group study activities, such as role playing and practicing what they would need to do to complete a dissertation, completion rates were higher. The study consisted of two separate populations: the 1991 to 2006 population and the expanded population, which was made up of graduates of a doctoral program from 1977 to 1991. The 1991 to 2006 population consisted of 140 completers, 20 non-completers, and 56 in-progress students. The expanded population was comprised of 22 completers, 20 non-completers, and 56 in-progress students. Both populations had three subgroups which consisted of completers who had graduated, non-completers who were currently doctoral students in the program but had not been present at the program for at least four continuous semesters, and in-progress graduate students who had reached candidacy positioning. The participants took the Completer Questionnaire and the Noncompleter Questionnaire, as well as the In-Progress Student Questionnaire. Limitations of the study were its small size as well as omission of data related to diversity within the sample. It was also very specific to the field of education doctoral programs and focused on mock orals, a specific requirement for completion of the education doctoral program, as opposed to being more generalizable to other doctoral fields. Other studies have emphasized the importance of peer relations in supporting students through the often tenuous process of dissertation completion. Devenish et al. (2009) explored the negative effects of isolation and invisibility within the post-graduate experience. The researchers also examined the importance of a supportive group of fellow students who were able to collaborate with one another. In this study, much information regarding the benefits of a support group were taken from the personal experiences of the researchers. Devenish et al. explained how, although

members of the group had different research topics as well as advisors, they were able to unify by focusing on methodologies. As a result, members felt comfortable enough to investigate ideas and encouraged one another to maintain progress towards a goal of completion. The doctoral students were also able to receive help and constructive criticism from peers as that support was received in a perceived safe environment. McAlpine and Norton (2006) described international attrition rates as ranging from 30% to 50% in relation to the subject discipline. The study focused on reasons for attrition in relation to the changes that have come about within doctoral programs and how doctoral programs are characterized. Graduate students' opinions were not heard by the administration, and as a result, these students remained silent regarding their needs or misunderstanding of requirements and information. Another important change within the scope of doctoral education is that new professors are forced to teach classes and have expectations from schools in relation to productivity numbers, criticism of performance, and anticipation of adequate experience in completion of research. This is a parallel process for both student and professor, in which professors may be unprepared to support students through a new and challenging experience. Hughes and Kleist (2005) explored the experiences of education doctoral students in their first semesters and the impact of the experience on students. Starting a doctoral program caused considerable stress and was linked with feelings of uncertainty, serious anxiety, feeling overwhelmed in relation to responsibilities, vulnerability, and high levels of low self-esteem. These emotions had a direct effect on students' ability to maintain progress for the duration of a doctoral program.

Minority Populations and Attrition

Another area in which there is crossover between the experiences of professors and doctoral students relates to the decreasing percentages of minorities represented among faculty

and student population. Moyer et al. (1999) described this phenomenon as the “funneling effect,” in which there was found to be a decrease in the ratio of women and minorities on the scholastic ladder as an individual rose from the undergraduate stage to the stage of full professor. The authors referred to forms of overt and implied sexism and racism within educational institutions as indicators of the decreasing levels of completion for female doctoral students as well as minority doctoral students. Cooke et al. (1995) further supported the finding of a strong relationship between experiences of women and minorities among graduate student populations which negatively affected the individual’s ability to feel supported and complete doctoral studies.

In Liechty et al.’s (2009) study on dissertation completion among doctoral students, the researchers focused on the population of social work doctoral students and provided a comprehensive understanding of specific aspects within the broader issue of attrition. Similar to other doctoral programs, social work schools also reported that 50% of students who started doctoral research dropped out before finishing. This study further analyzed four different stages of attrition and periods of time during which the drop-out risk was much higher in the doctoral student population. The first stage, or early stage, referred to the first 2 years of doctoral research when the attrition rate was 59%; the second stage, or middle stage, referred to the time between years 2 and 3 when the attrition rate was 41%; the third stage, or late stage, referred to the time between years 3 and 5, when the attrition rate was 32%; and the fourth stage, or end stage attrition, referred to the time after 5 or more years of study when the attrition rate was 17%. The ABD phase, when doctoral students had finished studies but not the actual dissertation, was the most sensitive stage for attrition rates. The researchers suggested, from a sociocultural theoretical standpoint, that higher learning was achieved through meaningful relationships, which, when

contextualized in the framework of dissertation completion, could refer to the work that was done with mentors, professors, colleagues, and other directors. Through this scholastic direction, doctoral students increased functioning in the zone of current development (ZCD) and moved towards the zone of proximal development (ZPD). In relation to these zones of learning, three types of learning conditions affected success and maturation in the area of dissertation completion. The first was that the doctoral student, her or his advisor, and the department must make an honest appraisal of the student's ZCD. The second was that the student must accept criticism and guidance, the advisor must maintain attunement to meet the student's specific needs, and the department must provide appropriate curriculums for ensured sequential mastery.

Coping Strategies for Struggling Dissertation Students

While some students cite support from professors and school or program administration as helpful throughout the struggle to complete the dissertation, supplementary help is often still needed. Meyers (2006) explored the necessary beginning phase of research and the student's ability to assess levels of preparation required to finish a comprehensive research study. Results from the study indicated that students should be advised on methods to successfully direct time in order to complete studies and should also possess practical expectations regarding the dissertation process. Doctoral students should also devote themselves to self-reflective time before starting the research process to adequately locate deficiencies and avoid difficulties. Hadjioannou et al. (2007) explored the importance and meaning of friendship and collaboration within support groups in the doctoral student population. Their findings suggested that relationships between professors and students were perceived as being highly correlated with the overall perceived quality of the doctoral student experience. Students simultaneously described feeling overwhelmingly disappointed in this relationship and citing it as the most unsatisfactory

aspect of the entire experience. Students reported experiencing a range of negative feelings throughout time in a doctoral program; most notably, students described living through anxiety, isolation, and agitation. In mentoring groups, support was provided by having both social and academic needs met. Findings indicated that within graduate programs which implement practices such as helping new students network with advanced students, organizing social get-togethers, and allowing doctoral students to occupy office spaces together, there are lower attrition rates. Specifically, promoting socialization through collaborative groups has been shown to be particularly effective in helping doctoral students develop necessary skills required for completion of necessary assignments. In these small groups, students were awarded opportunities for self-reflection and self awareness and were able to discuss issues related to coursework or research.

CHAPTER III

Methodology

Formulation

The present study explored what relationship, if any, existed between procrastination and self-efficacy in PhD students currently finishing a doctoral dissertation. The question focused on in this study included: to what extent are procrastination and self-efficacy related?

The proposed study was empirical, quantitative, and correlational in design as it explored the relationship between procrastination and self-efficacy across one group, graduate students who were finishing a doctoral dissertation. A sample of convenience and non-probability snowball sampling were used in order to gain the highest number of participants. Participants were given the link to the SurveyMonkey website where they were subsequently instructed to fill out an online questionnaire made up of demographic questions, The General Self-Efficacy Scale (Jerusalem, M., & Schwarzer, R. 1992), and the Tuckman Procrastination Questionnaire (Tuckman, 1991). Approval to use the two questionnaires was obtained from the researchers who developed them.

Sample

The sample was made up of 73 adults who started the survey, out of which only 19 participants completed all of the required questions on the survey. Only data from those 19 people are included in the Findings chapter. Participants met selection criteria for the study if they were a graduate student finishing a doctoral dissertation. Once approval was obtained from the Human Subjects Review Board at Smith College School for Social Work (see Appendix A),

getting the sample was relatively straightforward. The questionnaire was easy for participants to access online, and once started only took about 20 to 30 minutes to complete.

Recruitment

The process for gaining participants began with sending recruitment emails (see Appendix B), which contained a link to the online survey, to graduate students who knew other graduate students finishing doctoral dissertations. These students then sent emails to other doctoral students who gained access to the survey. Students also approached other doctoral students by word of mouth and passing along information about the survey.

Data Collection

The study was conducted through an anonymous online survey administered by SurveyMonkey. The aim was to invite graduate students finishing a doctoral dissertation to complete a survey measuring their levels of procrastination and self-efficacy during this process. The survey was completely quantitative and included a series of multiple choice questions about demographics, levels of procrastination and levels of self-efficacy. Possible participants were screened to meet all criteria for participation at the beginning of the survey. If they clicked “yes” that they met all criteria, then they proceeded to Informed Consent (see Appendix C). Students then filled out an initial assessment of demographic and background information, such as age and gender, after which they were asked to fill out the General Self-Efficacy Scale (see Appendix D) and the Tuckman Procrastination Questionnaire (see Appendix E). The General Self-Efficacy Scale (GSES) was made up of 10 items on a Likert-type response format (Jerusalem, M., & Schwarzer, R. 1992). This instrument was selected for the study due to its adequate reliability and internal stability (Mirsaleh et al., 2010). Cronbach’s alpha for the GSES in this study was .86. The GSES was made up of 10 questions related to levels of perceived self-

efficacy. Participants responses included: A) Not at all true B) Hardly true C) Moderately true D) Exactly true. Examples of statements included: “I can always manage to solve difficult problems if I try hard enough”; “If someone opposes me, I can find the means and ways to get what I want”; and “I am confident that I could deal efficiently with unexpected events.”

The Tuckman Procrastination Questionnaire (TPQ) was made up of 15 items on a Likert-type response format (Tuckman, 1991). This scale was chosen to measure procrastination in the study because of internal stability (Klassen, 2009). Cronbach’s alpha for the TPQ in this study was .9. Participants could choose response categories to answer each statement about levels of procrastination. Responses included: A) That’s me for sure B) That’s my tendency C) That’s not my tendency D) That’s not me at all. Sample statements included: “Putting something off until tomorrow is not the way I do it”; “I still get stuck in neutral even though I know how important it is to get started”; and “I get right to work, even on life’s unpleasant chores.”

Once students completed the surveys their responses were anonymously collected by SurveyMonkey and compiled into an Excel spreadsheet. Confidentiality of participants was ensured throughout the study beginning in the recruitment process, by sending possible participants a link to the survey page through email. The data were subsequently stored away in a confidential file on a locked computer with password protection. Maintaining confidentiality was done not only to adhere to appropriate standards of social work research but also to help participants feel safe enough to respond honestly.

Data Analysis

Data were gathered by SurveyMonkey and reported using descriptive statistics. Scoring instructions for the GSES consisted of calculating the sum of the 10 questions. Possible scores ranged from 10 to 40. Higher scores indicated greater self-efficacy. Scoring the TPQ included

calculating the sum of the 15 questions. For questions 7, 11, 12 and 15 a higher response suggested more procrastination as opposed to indicating less procrastination like the rest of the questions. In order to maintain the consistency of having a high score mean more procrastination while combining questions into the scale, all questions except for 7, 11, 12 and 15 were reverse scored. Possible scores ranged from 15 to 60. Higher scores indicated more procrastination.

To determine if there was a relationship between procrastination and self-efficacy, a Pearson correlation was run between the two scales and a significant, negative correlation was found ($r=-.678$, $p=.001$, two-tailed). This correlation was strong. A negative correlation indicated that as one scale increased, the other decreased. In the case of this study, a higher score on the TPQ indicated greater procrastination and a higher score on the GSES indicated greater self-efficacy. The result suggested that as procrastination increased self-efficacy decreased.

CHAPTER IV

Findings

The major finding was that procrastination and self-efficacy were related to one another. The major question presented in the research study was: To what extent, if at all, were procrastination and self-efficacy related? A section providing demographic data about the participants will precede an in depth analysis of the major findings.

Demographic Data of Participants

The participants in the sample were adult, doctoral level, graduate students finishing a doctoral dissertation during the period of March 2011 through the end of April 2011. Seventy-three doctoral students started the survey and only 19 of these students completed the required questions listed on the survey. Participants were not required to answer questions regarding demographic data, and therefore only some participants answered these questions and the response was haphazard. This resulted in varied totals for some questions.

Of the 19 participants, only 18 answered the open-ended question about age. Out of the 18 responders, 6 were males (31.6%) and 13 were females (68.4%). The ages in the sample ranged from 26 to 38 years old with a mean age of 29. Data related to age are presented in Table 1.

Table 1.**Frequency Distribution by Age**

<i>Age</i>	<i>Frequency</i>
26	4
27	2
28	3
29	1
30	2
31	4
37	1
38	1
Total	18

Ethnic diversity within the small sample was poor as 10 participants (52.6%) identified as White. One person identified as African American, two as Hispanic, two as Asian, and two as White, Non-Hispanic. A subsequent question asked participants to specify another race if their ethnicity was not included in the previous question. One person identified as Chicana and one person identified as Jewish (Ashkenaz). These data are presented in Table 2.

Table 2.**Frequency Distribution by Race**

<i>Ethnicity</i>	<i>Frequency</i>
White	10
Hispanic	2
African American	1
Asian	2
White, non-Hispanic	2
Chicana	1
Jewish (Ashkenaz)	1
Total	19

Seven participants (36.8%) attended a public university and 12 participants (63.2%) attended a private university. These data are presented in Table 3. One participant (5.3%) attended Harvard University, one (5.3%) attended San Diego State University, four (21.1%) attended Stanford University, one (5.3%) attended The University of Southern Mississippi, one (5.3%) attended Tulane University School of Public Health and Tropical Medicine, one (5.3%) attended The University of California Berkeley, one (5.3%) attended The University of Denver - College of Education, one (5.3%) attended The University of Leeds, United Kingdom, one (5.3%) attended University of Michigan, one (5.3%) attended The University of Texas at Austin, and four (21.1%) attended Yale University.

Table 3.**Frequency Distribution by Public or Private School**

<i>School Type</i>	<i>Frequency</i>
Public	7
Private	12
Total	19

Procrastination and Self-Efficacy Score Variances by Type of Institution and Gender

T-tests were run to determine if there were differences in the mean score of either the TPQ or the GSES by type of institution (public or private) and gender. No significant correlations were found.

Procrastination Scores for Sample as a Whole

To measure procrastination, the 15-item Tuckman procrastination scale (1991) was used. Procrastination was measured as overall total score with scores ranging from 15 to 60. Sample items included, “I needlessly delay finishing jobs, even when they’re important” and “When I’m done with my work, I check it over.” Cronbachs alpha was run which demonstrated strong internal reliability ($\alpha=.9$, $N=18$, N of items=15). These data are presented in Table 4.

Among the total sample of doctoral level graduate students, there were medium to high levels of procrastination reported. The scores ranged from 14 to 53 with a mean score of 33.89 (std dev=9.09). The highest score for procrastination was 53 and the lowest score for procrastination was 14. Of the participants, the highest number of the same score was 15.8% with a score of 28 out of a possible 60, meaning that the rate of procrastination was 15.8%. High scores ranging from 34 to 53 had a frequency of 8, and low scores ranging from 33 to 14 had a

frequency of 11. In this way, the frequencies were fairly evenly distributed. These scores indicated a statistically significant amount of procrastination in relation to the sample as a whole.

Table 4.

Procrastination Scores for Sample as a Whole

<i>Score</i>	<i>Frequency</i>	<i>Percent</i>
14.00	1	5.3
24.00	1	5.3
28.00	3	15.8
29.00	1	5.3
30.00	2	10.5
31.00	1	5.3
33.00	2	10.5
34.00	1	5.3
36.00	1	5.3
37.00	1	5.3
41.00	2	10.5
46.00	1	5.3
48.00	1	5.3
53.00	1	5.3
Total	19	100.0

Self-Efficacy Scores for Sample as a Whole

In measuring self-efficacy, the 10-item General Self-Efficacy Scale (1995) was used. Self-efficacy was scored by calculating a sum of the 10 questions. Scores ranged from 20 to 40 with a mean score of 31.89 (std dev=4.2). Cronbachs alpha was run and showed strong internal reliability ($\alpha=.86$, $N=19$, N of items=10). This data is presented in Table 5.

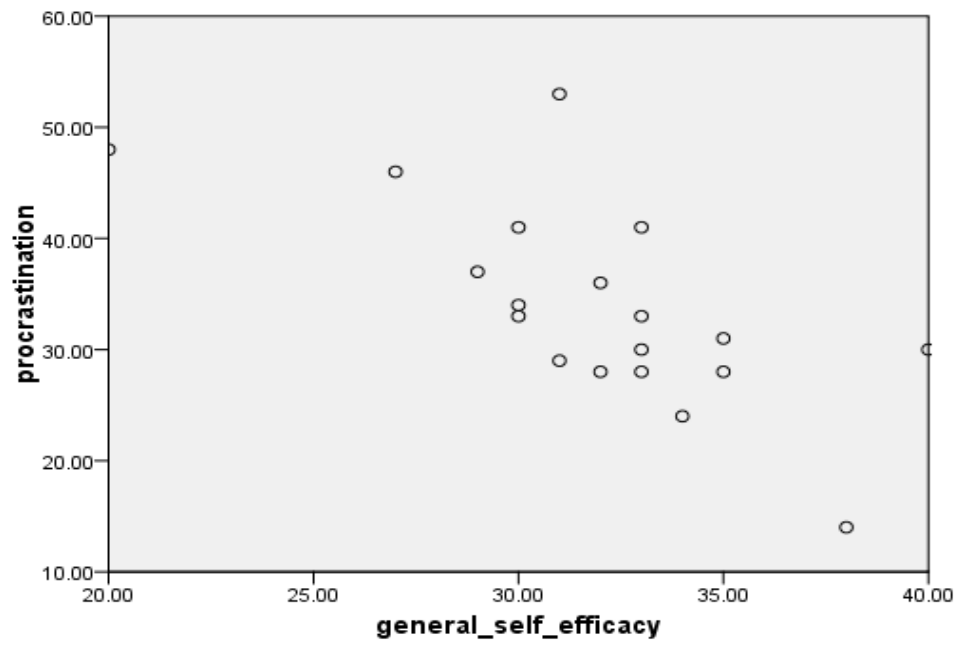
Table 5.

Self-Efficacy Scores for Sample as a Whole

<i>Score</i>	<i>Frequency</i>	<i>Percent</i>
20.00	1	5.3
27.00	1	5.3
29.00	1	5.3
30.00	3	15.8
31.00	2	10.5
32.00	2	10.5
33.00	4	21.1
34.00	1	5.3
35.00	2	10.5
38.00	1	5.3
40.00	1	5.3
Total	19	100.0

Relationship between Procrastination and Self-Efficacy

To determine if there was a relationship between procrastination and self-efficacy, a Pearson correlation test was run between the two scales. A significant, negative correlation was found ($r=-.678$, $p=-.678$, $p=.001$, two tailed). This correlation was strong and indicated that as procrastination increased self-efficacy decreased (or as procrastination decreased self-efficacy increased). These data are presented in Figure 1.

Figure 1.**Correlation between Procrastination and Self-Efficacy**

CHAPTER V

Discussion

The purpose of this study was to examine the relationship, if any, between procrastination and self-efficacy in graduate students finishing a doctoral dissertation. The key finding of the study was that there was a positive correlation between procrastination and self-efficacy within the doctoral student population.

Some of the current literature on procrastination in graduate students involves self-efficacy as a variable. Steel (2007) discussed procrastination as self-regulatory failure, which is described as being related to self-efficacy. While self-efficacy is described as having an effect on procrastination behaviors, there is still more research that needs to be done on the subject of procrastination as it specifically relates to self-efficacy. This statement also applies to the lack of studies completed on procrastination in a graduate student population. Surprisingly few studies on procrastination focus on this population although studies indicate that most graduate students engage in postponement of academic assignments or tasks and that graduate students are 3.5 times more likely to procrastinate on completing coursework or writing assignments than undergraduate students (Onwueegbuzie et al., 2000). As there is currently only limited research that has been undertaken in the field of procrastination in graduate students, it is difficult to state if the results of the present study are consistent with the literature.

Limitations of the Study

One major limitation of this study was the small size of the sample. While internal reliability was strong, external reliability was extremely weak. Although the N was very small,

some patterns emerged in the findings. Men ($m=14.72$) tended to procrastinate more than women ($m=5.16$) although the difference was not significant. This is not congruent with the current literature (Meyer, 2000) which links variances in procrastination by gender to the particular types of procrastination. Women are more likely to ascribe completion of tasks to luck, and to ascribe failure of completion of tasks to lack of competence. Men are more likely to ascribe completion of tasks to personal competency. Further research may be necessary to fully explore the complexity in the relationship between gender differences and procrastination.

Another finding of this study was that procrastination in participants who attended a public graduate institution scored higher on the TPQ than participants who attended a private graduate institution. Before viewing the results of this study, one assumption that was made was that participants from private institutions would possess higher scores on the procrastination scale than participants from public institutions. Due to the low sample size, this was not a significant finding and further research should be conducted to gain an understanding of the relationship between these two types of graduate institutions and the levels of procrastination in each demographic.

An additional limitation of the study was the lack of diversity in both age and ethnicity. The ages ranged between 26 and 38 which is not reflective of the age range for most graduate level programs. Similarly, the sample was homogenous in relation to ethnic diversity and consisted of mostly white females. Further research should be conducted to explore the relationships that may exist between these demographic characteristics and levels of procrastination.

Ideas for Further Research

One limitation of this study that could be corrected in future research on the relationship between procrastination and self-efficacy was the omission of narrative questions. With the use of narrative questions, a more in depth explanation regarding what kind of effect procrastination and self-efficacy have on graduate students finishing a doctoral dissertation could have been explored. Some examples of narrative questions that could have been posed to graduate students include: “How have your levels of procrastination and self-efficacy affected your relationship with your research advisor?” and “How has self-efficacy had an effect on the extent to which you find yourself procrastinating on finishing your doctoral dissertation?” Future researchers would benefit from an incorporation of both quantitative and qualitative methods in order to reach a deeper understanding of the effects of procrastination and self-efficacy on graduate students finishing a doctoral dissertation.

Implications or Suggestions for Social Workers

In relation to the findings of this research study, there are important implications for social workers, students, and educators in the mental health field as well as the education field. A deeper understanding of how procrastination and self-efficacy are related in the graduate student population would benefit college counselors, social workers, and professors in comprehending the experience of finishing a doctoral dissertation. Through this comprehension, graduate students could establish quality relationships with professors or advisors and could learn to express specific needs that would be helpful for them while completing a doctoral dissertation. Graduate students who believe they possess less capacity to finish a doctoral dissertation could ask for additional support from professors or advisors in order to find ways to build up levels of self-efficacy and to feel confident in the ability to finish this daunting task.

College counselors and social workers would also benefit from a deeper understanding of the underlying reasons for procrastination in graduate students as they attempt to learn more about the doctoral student's experience of trying to finish a dissertation. Specifically, social workers' understanding of the relationship between procrastination and self-efficacy in graduate students would greatly aid them in locating the inner conflicts that exist within many students who have trouble completing a dissertation. If clinicians were able to assess levels of self-efficacy in students who struggle, they could provide these students with a clear understanding of how low levels of self-efficacy are related to high levels of procrastination. Clinicians could then form treatment plans based around this understanding and work with students towards gaining confidence in capability. The current high attrition rate of graduate students in the United States is an ongoing reminder of the urgency to make changes within the graduate education field.

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Appendix A

Approval Letter from the Human Subject Review Board



Smith College
Northampton, Massachusetts 01063
T (413) 585-7950
F (413) 585-7994

March 30, 2010

Zoe Kahn

Dear Zoe,

Your final revisions have been reviewed and all is now in order. We are happy to give final approval to your study.

Please note the following requirements:

Consent Maintaining Data: You must retain all data and other documents for at least three (3) years past completion of the research activity.

In addition, these requirements may also be applicable:

Amendments: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

Renewal: You are required to apply for renewal of approval every year for as long as the study is active.

Completion: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Good luck with your project.

Sincerely,

A handwritten signature in cursive script that reads 'Ann Hartman' followed by a flourish.

Ann Hartman, D.S.W.
Chair, Human Subjects Review Committee

CC: Mary Beth Averill, Research Advisor

Appendix B

Recruitment Email

For a research study on procrastination in graduate students finishing a doctoral dissertation.

Looking for Doctoral Graduate Students Currently Finishing a Doctoral Dissertation to Take a Short Online Study!

Hello,

Are you currently a graduate student or have friends or loved ones who are graduate students? Are you trying to finish your doctoral dissertation? Do you procrastinate?

My name is Zoë Kahn, and I am a masters level social work student at Smith College School for Social Work. For my thesis project I am recruiting doctoral level graduate students in the process of finishing a doctoral dissertation, who engage in procrastination. I am collecting data relating to levels of procrastination in graduate students completing a doctoral dissertation. To access the survey please click on the link _____.

Participation in this web-based survey is completely voluntary and anonymous. Due to anonymity, you will not be able to withdraw from the study after you submit the survey.

I would like to thank you in advance for your participation in this research study and invite you to please forward this email to any friends, colleagues, or loved ones who are

also graduate students finishing a doctoral dissertation. Please feel free to contact me at either the email or phone number listed below if you any questions or concerns.

Thank you again for your time and participation in this important work,

Zoë A. Kahn
Smith College School for Social Work '11

Appendix C

Informed Consent

Dear Potential Participant,

I am masters level social work student at Smith College School for Social Work and I am conducting research exploring procrastination in relation to self-efficacy in graduate students finishing a doctoral dissertation. Currently there is a lack in the literature regarding procrastination in the graduate student population, which is unfortunate as this is a group who could benefit from studies done in this area. The purpose of this study will be to explore further the relationship between procrastination and self-efficacy of graduate students attempting to complete a doctoral dissertation. Further research on this topic will be helpful for students who struggle to stay on track towards completion of such a lengthy and comprehensive assignment, for professors or dissertation advisors who must continually search for new methods and styles of teaching or coaching students through this often difficult process, and for college counselors who many times must guide students through the emotional turmoil, anxiety, and stress that accompany the drive to complete a doctoral dissertation in time to meet the deadline. The data collected from this research may be used for presentation or publication as well as for my MSW Thesis.

To participate in this study, you are being asked to fill out a questionnaire which will include questions about demographic and background information, such as age, race, gender, and nature of graduate school (public or private). This will be followed by questionnaires on self-efficacy and procrastination. The self-efficacy questionnaire is made up of 10 items also in a Likert-type response. The procrastination survey is made up of 14 statements in a Likert-type response format. Participation is estimated to take up to 30 minutes.

After participating in this research on procrastination, you may be curious about personal study habits or stressors in your life. You may also find that participation in this research allows you to learn more about your personal study habits, responses to academic anxiety, and ways in which you cope with the stress of trying to complete a doctoral dissertation. You may experience mild discomfort answering the questions. I will provide you with a list of referral

sources after the survey is completed or if you choose to exit the survey. There will be no financial compensation for participating in the study.

All information collected is anonymous. No email addresses or identifying information are included in the survey. Survey data will be sent to me without your email address or any other identifying information. Once you have submitted the survey you cannot withdraw from the study since the data are being collected anonymously. I will keep all data related to the study secured in a confidential file in my office or place of residence. Data will be kept secure for three years after completion. All materials related to the study will be kept secure for three years and then destroyed when no longer needed.

Any participation in this study is completely voluntary in nature. You may refuse to answer any question in the survey. You may withdraw from the study at any time by not completing the survey, by clicking “No” to the confidentiality agreement, or by leaving the site. You cannot withdraw after you have submitted your survey as this is an anonymous study, and your survey cannot be identified.

For any questions or concerns about your rights or any aspect of the study, please contact me at (901) 299-9555 or the Smith College School for Social Work Human Subjects Review Committee at (413) 585-7974.

BY CHECKING “I CONSENT” BELOW YOU ARE INDICATING THAT YOU HAVE READ AND UNDERSTAND THE INFORMATION ABOVE AND THAT YOU HAVE HAD AN OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS AND THAT YOU AGREE TO PARTICIPATE IN THE STUDY.

Please print a copy of the Informed Consent form for your records. Thank you for your participation.

Appendix D

General Self-Efficacy Scale

General Self-Efficacy Questionnaire

1. I can always manage to solve difficult problems if I try hard enough.
 2. If someone opposes me, I can find means and ways to get what I want.
 3. It is easy for me to stick to my aims and accomplish.
 4. I am confident that I could deal efficiently with unexpected events.
 5. Thanks to my resourcefulness, I know how to handle unforeseen situations.
 6. I can solve most problems if I invest the necessary effort.
 7. I can remain calm when facing difficulties because I can rely on my coping abilities.
 8. When I am confronted with a problem, I can usually find several solutions.
 9. If I am in trouble, I can usually think of a solution.
 10. I can usually handle whatever comes my way.
- 1=Not at all true 2=Hardly true 3=Moderately true 4=Exactly true

Appendix E

Tuckman Procrastination Questionnaire

1. I needlessly delay finishing jobs, even when they're important.
2. I postpone starting in on things I don't like to do.
3. I delay making tough decisions.
4. I keep putting off improving my work habits.
5. When something's not worth the trouble, I stop.
6. I manage to find an excuse for not doing something.
7. I get right to work, even on life's unpleasant chores.
8. I am an incurable time waster.
9. I'm a times waster now but I can't seem to do anything.
10. I wish I could find an easy way to get myself moving.
11. I always finish important jobs with time to spare.
12. When I'm done with my work, I check it over.
13. I look for a loophole or shortcut to get through a tough task.
14. I still get stuck in neutral even though I know how important it is to get started.
15. Putting something off until tomorrow is not the way I do it.

A=That's me for sure B=That's my tendency C=That's not my tendency

D=That's not me for sure