

1-1-2008

# Anxiety, graduate students, and new student orientation programs: A quantitative study

Megan M. Hullinger

*Eastern Illinois University*

This research is a product of the graduate program in [Technology](#) at Eastern Illinois University. [Find out more](#) about the program.

---

## Recommended Citation

Hullinger, Megan M., "Anxiety, graduate students, and new student orientation programs: A quantitative study" (2008). *Masters Theses*. 694.

<http://thekeep.eiu.edu/theses/694>

This Thesis is brought to you for free and open access by the Student Theses & Publications at The Keep. It has been accepted for inclusion in Masters Theses by an authorized administrator of The Keep. For more information, please contact [tabruns@eiu.edu](mailto:tabruns@eiu.edu).

# THESIS MAINTENANCE AND REPRODUCTION CERTIFICATE

TO: Graduate Degree Candidates (who have written formal theses)

SUBJECT: Permission to Reproduce Theses

The University Library is receiving a number of request from other institutions asking permission to reproduce dissertations for inclusion in their library holdings. Although no copyright laws are involved, we feel that professional courtesy demands that permission be obtained from the author before we allow these to be copied.

PLEASE SIGN ONE OF THE FOLLOWING STATEMENTS:

Booth Library of Eastern Illinois University has my permission to lend my thesis to a reputable college or university for the purpose of copying it for inclusion in that institution's library or research holdings.

Meg Hullinger                      12/15/08  
 Author's Signature                      Date

I respectfully request Booth Library of Eastern Illinois University **NOT** allow my thesis to be reproduced because:

---



---



---

\_\_\_\_\_  
 Author's Signature                      Date

**This form must be submitted in duplicate.**

Anxiety, Graduate Students, and New Student Orientation Programs:  
A Quantitative Study

by

Megan M. Hullinger

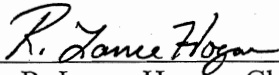
Submitted in Partial Fulfillment of the Requirements for the Degree of


Master of Science

In the Graduate School, Eastern Illinois University  
Charleston, Illinois


December 2008

I HEARBY RECOMMEND THAT THIS THESIS BE ACCEPTED AS FULFILLING  
THIS PART OF THE GRADUATE DEGREE CITED ABOVE

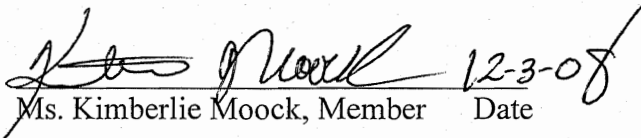
  
Dr. R. Lance Hogan, Chair      12-3-08  
Date

  
Department Chair      12-17-08  
Date

  
Dr. Daniel Nadler, Member      12-3-08  
Date

  
Dr. Robert Augustine, Member      12-3-08  
Date

  
Dr. Bonnie Irwin, Member      12-3-08  
Date

  
Ms. Kimberlie Moock, Member      12-3-08  
Date

© 2008

Megan M. Hullinger

ALL RIGHTS RESERVED

## Abstract

The purpose of this study is to analyze the anxiety levels of incoming graduate students at a Midwest regional state university and determine if an online graduate student orientation program assists in lowering those levels. The researcher used the State-Trait Anxiety Inventory Form Y-1 (STAI) to measure state anxiety levels before and after the orientation program was administered. Each participating student completed a pre- and post-test in conjunction with the online orientation program. Once the information was received, the researcher analyzed the data using a paired t test to determine if the orientation program lowered anxiety levels for incoming graduate students. Based on the information collected, the online orientation training program lowered anxiety levels; however, it also contributed to the rise of anxiety levels in certain populations. The results yielded from this study paves the way for future longitudinal studies based on lowered anxiety levels and effects on academic performance and retention of graduate students.

## Dedication

I happily dedicate this study to a number of different people, and for lots of different reasons:

First, to my husband Michael, who always knew how to calm me down when I was worried or concerned that something wasn't going to work out. Thanks for all of the take out meals, late nights, and cancelled dates due to the time dedicated to this project. Thanks for continuing to understand my passions, as I am sure that this will not be my last research project.

Second, to my sister, Jennifer Heffern, who is a fantastic example of being a well educated woman, fantastic mother, and dedicated to her career. Thanks for being such a great example to me – and thank you Kevin, Reiley, Ainsley, and Sawyer for helping make your wife and mother such an amazing woman.

Third, to my parents, Eli and Marlene Stepp, who still (bless their hearts) don't quite know what I do for my career, but encourage and support me all the same. Thanks for the encouraging phone calls, emails, and cards that told me that I could do anything that I wanted – and knowing that I would be successful.

Finally, to anyone who has been a college student, or a family member of a college student. Your experiences, suggestions, and comments assist higher education practitioners create a better learning environment and community for future generations.

## Acknowledgements

I am immensely grateful and indebted to my brilliant committee chair Dr. R. Lance Hogan. His continued patience with my limited statistical knowledge and many questions never wavered, and has truly helped me realize that researching is something that I am passionate about. Thank you for all of your e-mails, phone calls, encouraging words, and hours editing my work – you have no idea how much I appreciate it.

To Dr. Daniel Nadler, Vice President of Student Affairs at Eastern Illinois University, Professor, and orientation guru. His words have always been encouraging, and I am incredibly lucky to have a professional of his stature and commitment to higher education on my thesis committee.

To Dr. Robert Augustine, Dean of the Graduate School at Eastern Illinois University and a driving force of this study. Without his insight to EIU's graduate student population, fantastic attitude, and encouragement, I am unsure if I would be able to complete this project.

To Dr. Bonnie Irwin, Dean of the Honors College at Eastern Illinois University, Professor, and my go-to person for all things language, grammar, and spelling. Her continued encouragement and assistance in the field of new student orientation and transition programs will always be appreciated.

To Ms. Kimberlie Moock, Director of New Student and Parent Programs at Eastern Illinois University, and the resident expert of orientation and transition programming at EIU. Her advice and comments have been encouraging, and she is the reason I became involved in orientation in the first place.

To Ms. Tracy Clark, Assistant Director of New Student and Parent Programs at the University of Nevada Las Vegas, who became an amazing impromptu editor for the final drafts of this study. Thanks!

To Dr. Richard R. Rossi, Professor at Eastern Illinois University and my friend. His dedication to his own research study gave me some much-needed encouragement to get over the frustrations of writing and to come out with an outstanding research project. It helped to have someone to talk to who knew exactly what I was going through.

To Rodney Ranes, Director of Graduate Admissions at Eastern Illinois University, and my go-to person for communications with all of our incoming graduate students. Thank you so much for all of your help and patience!

## Table of Contents

Chapter 1: Introduction .....	7
Chapter 2: Review of Related Literature .....	13
Chapter 3: Research Methodology.....	25
Chapter 4: Results .....	30
Chapter 5: Summary, Conclusions, and Recommendations.....	38
References.....	48
Appendix 1: Online Orientation STAI Form Y-1 and Demographic Questionnaire Example .....	55
Appendix 2: STAI Form Y-1 .....	57
Appendix 3: STAI Form Y-1 Scoring Key.....	58
Appendix 4: Participant Timeline and Orientation Inclusions.....	59

## List of Tables

Table 1: Populations' Demographic Data.....	30
Table 2: STAI Form Y-1 Scores before Orientation Training.....	33
Table 3: Comparison of Anxiety Levels before and after training by Population.....	34
Table 4: Comparison of Anxiety Levels before and after training.....	35



## Chapter 1

### INTRODUCTION

#### Nature of the Study

Graduate study in the United States is increasing every year. According to the *Digest of Educational Statistics* (2005), while graduate enrollment in the 1970's and 1980's held steady at approximately 1.3 million students, "enrollment rose approximately 57% between 1985 and 2004" (p.277). With the increase in graduate enrollment, professionals in higher education have continued to research what graduate students need and how to assist them during their graduate studies. Researchers, including Pook (2002) and Taub & Komives (1998), have concluded that graduate students are struggling with academic performance and persistence within their programs.

Phillips, Daubman, and Wilmoth (1986) state that graduate study can indeed be stressful on a person, causing a decline in academic performance derived from fear of failure and extreme anxiety. To add to the stressfulness of actually obtaining a graduate degree, many students have the same fears and anxieties entering into a graduate program as when they entered their undergraduate institution (Pook, 2002). Additionally, incoming graduate students often have a skewed outlook of what to expect, and what is expected of them in graduate school (Taub & Komives, 1998).

To help alleviate the questions and concerns of incoming undergraduate and graduate students, college and universities have turned to orientation programs to help ease students into their new educational environment. Orientation, as defined by Pook (2002), is "any effort on the part of an institution to help entering students make the transition from their previous environment to the collegiate environment and to enhance

their success in [graduate education]” (p. 232). According to Poock (2002), high attrition rates can be up to 70% in some disciplines, and “participation in graduate orientation programs has the value of increasing students’ academic persistence and retention in their programs” (p.232). Researchers feel that significant notice should be dedicated to students entering graduate school and that orientation programs designed to help introduce students into new programs are imperative, yet still missing from graduate programs at universities (Barker, Felstehausen, Couch, & Henry, 1997; Taub & Komives, 1998; Poock, 2002).

A significant and continuing issue for graduate schools is reducing the anxiety of graduate student to increase retention rates and academic performance. Due to the significance of this issue, it is appropriate to investigate the utility of a graduate orientation program in lowering anxiety levels of incoming graduate students. Depending on how an orientation program is developed, it has the ability to help guide students through the next stage of their academic career and lower stress/anxiety levels of incoming university students.

#### Statement of the Problem

Does a graduate orientation program assist in lowering anxiety levels of incoming graduate students?

#### Purpose of the Study

The purpose of this study is to contribute to a better understanding of anxiety. More specifically, the purpose of this study is to investigate anxiety among incoming graduate students enrolled at a Midwest regional state university. The study will survey

incoming graduate students before and after an orientation program to determine if it reduces anxiety.

### Research Questions

These specific research questions were deduced from the problem statement:

1. What level of anxiety exists among incoming graduate students attending a Midwest regional state university?
2. What statistical differences exist between anxiety levels of incoming graduate students depending on their gender, age, degree type, and prior experiences?
3. Does an online graduate student orientation program contribute to the significant reduction of anxiety levels among incoming graduate students?

### Limitations

Factors affecting the generalization of the results include:

1. The scope of this study is limited to incoming graduate students at a regional Midwestern university; therefore, generalizations from this study to other graduate students at universities unlike the research institution are not warranted.
2. The responses by incoming graduate students participating in the study will be based upon self-perceptions.
3. The study will represent only volunteer participants; thus, the non-responding participants could respond differently.
4. The respondents' honesty and care in completing the questionnaire may alter the results.

5. Each participant had an opportunity to review the same information; however, the time taken and the specific information reviewed varies by participant. This variation could contribute with the reduction of anxiety.

### Significance of the Study

Two of the most important issues facing administrators in higher education today are academic performance and retention rates. With students of the future becoming increasingly diverse by age, race, ethnicity, geography, sexual orientation, ability, and other characteristics (Upcraft, 2003), it is becoming increasingly more important for higher education professionals to seek information on how to keep the new wave of students in college and increase academic achievement. Retention is essential due to the stability it builds into the system of the institution; a low and shifting retention rate creates a system of ambiguity (Cambiano, Denny, & DeVore, 2000; King & Wessel, 2004). This system of ambiguity has the potential to cause confusion, breed negativity, and increase stress levels of students and administrators alike. Beal and Noel (1980) found orientation to be the third most effective retention activity, and Strumpf, Sharer, & Wawrzynski (2003) hypothesize that “the first stage in the development of a strong retention program is a comprehensive orientation program” (p. 33). It is at this point that the careful planning of an orientation program must take place. Additionally, Upcraft (as stated in King & Wessel, 2004) states that there “is evidence that participation in orientation activities can result in better academic achievement and higher retention than nonparticipation” (p. 5). Frankel (1978) has stated that a decline in academic performance could be the result of fear of failure and extreme anxiety. Additionally, declined academic performance can vastly affect retention, attrition, satisfaction, and persistence

of students. To help alleviate stress levels, and improve academic performance, a graduate orientation should be implemented.

Information obtained in this study will benefit higher education administrators who desire to reduce anxiety among incoming graduate students. Findings of the study will contribute to the body of knowledge of graduate study and may facilitate retention enhancement.

#### Definition of Terms

For the purpose of this study, the following definitions will be used:

*Anxiety*: An “unpleasant emotional state, similar to fear, directed toward a somewhat vague source, often in the future” (Lindgren and Byrne, 1971, p.290). The term is used to refer to two related constructs, trait and state anxiety (Spielberger, 1983).

*Graduate student*: A student enrolled in a master degree program (Tacke, 2005).

*Orientation*: The process of making a person aware of such factors in his or her school environment as rules, traditions, and educational offerings for the purpose of facilitating effective adaptations (Breasure, 1996); “any effort on the part of an institution to help entering students make the transition from their previous environment to the collegiate environment and to enhance their success in [graduate education]” (Pook, 2002, p. 232).

*State Anxiety*: A stress reaction taking place at a given time and level of intensity; it is transitory in nature and relates to a particular situation (Reichenberger, 1987).

*State-Trait Anxiety Inventory (STAI)*: The *State-Trait Anxiety Inventory* (STAI) has been used extensively in research and clinical practice. It comprises separate self-report scales for measuring state and trait anxiety. The S-Anxiety scale (STAI Form Y-

1) consists of twenty statements that evaluate how respondents feel “*right now*, at this moment.” The T-Anxiety scale (STAI Form Y-2) consists of twenty statements that assess how people *generally* feel (Spielberger, 1983). For the purpose of this study, only the S-Anxiety self evaluation will be used.

## Chapter 2

### REVIEW OF RELATED LITERATURE

#### Introduction

The purpose of this study is to investigate anxiety among incoming graduate students enrolled at a Midwest regional state university. To complete this research, this chapter will serve as a guide through applicable research in regards to anxiety levels of incoming graduate students and new student orientation programs. More specifically, this chapter will discuss theories of anxiety, causes and symptoms of anxiety, instruments of measuring anxiety, anxiety's effect on behavior and academic performance, graduate student anxiety, integration of graduate students, the purpose of new student orientation programs, and graduate students and new student orientation programs.

#### Anxiety Defined

Anxiety has been studied thoroughly over the past few decades. In *Psychology: An Intro to a Behavioral Science* (Lindgren & Byrne, 1971), it is stated that “anxiety is the least understood and the most extensively studied of all emotions” (p. 290). Further, Schesinger (1948) claimed that anxiety is the official emotion of our age, and Sherman (1988) stated that anxiety is a varying condition, based on the situation, that many people experience within their lives. According to Lindgren and Bryne (1971), anxiety is an “unpleasant emotional state, similar to fear, directed toward a somewhat vague source, often in the future” (p.290), having levels that are often dependent on certain variables, such as personality traits and situations. According to Levitt (1966), there are two types of anxiety: “Acute” anxiety means anxiety with high intensity levels and lasting a

relatively short time, while “Chronic” anxiety means anxiety of relatively low intensity and indefinite duration (p. 13). Lindgren and Byrne (1971) also state that “anxiety is commonly aroused by situations that are ambiguous, whose meaning is not clear” and “by concern about the future” (p. 290). In addition to this research, Spielberger (1983) has referred to two related constructs of anxiety, trait and state, which will be examined later in this chapter. Regardless of how anxiety manifests itself in one’s life, research shows that almost every chapter of life has some form of anxiety attached. According to Archer (1991), anxiety has been used to describe an emotional state (p. 4), and researchers have often used the terms *anxiety*, *stress*, and *tension* interchangeably (Levitt, 1966).

### *Theories of Anxiety*

According to Levitt’s research (1966), “theories of the origin of anxiety have come primarily from two sources: the psychoanalyst (Freudian) and the learning theorist (neo-Freudian)” (p.32). Freud’s psychoanalytical theory of anxiety stems from the human experience of being born, thus exposing those to dangers and physiological needs not previously experienced (Levitt, 1966). Additionally, Freud focused on what he thought of as the center of human behavior; the “id”, which houses the primitive, instinctual, and infantile drives; the “ego”, which houses conscious memory, cognitive skills, organizing self, and allows the subject to be in contact with reality; and the “superego”, which houses the subject’s conscience, internalized values, and serves as a source of guilt feelings (Lindgren & Byrne, 1971). According to Freud, these three stages, also called the psychoanalytic concept of personality, is present in each human, and contributes to behavior, as well as how one reacts to anxiety (Lindgren & Byrne,



1971). Furthermore, Freud's theory claimed that due to the painful and uncomfortable nature of anxiety, human beings exhibit defense mechanisms. According to Levitt (1966), the purpose of a defense mechanism is to maintain a "basic psychological homeostasis" (p.53); in other words, defense mechanisms help make anxiety more manageable.

In contrast to Freud's psychoanalytical anxiety theory, the neo-Freudians' "learning theory" maintains that anxiety, although experienced at a young age, cannot be experienced at birth. The neo-Freudians belief is that anxiety not only originates in social processes, but also when a child realizes he or she is helpless, and the degree to which they are dependent on others. Led by Adler and Jung, the neo-Freudians' main concern was to make revisions to the Freudian theory (Lindgren & Byrne, 1971). These revisions included increased focus on cultural variables in regards to behavior, as well as decreased focus on the "id", "ego", and "superego" made famous by Freud. Researchers such as Horney, Fromm, and Sullivan continued the Neo-Freudian movement when other researchers developed their own theories (Lindgren & Byrne, 1971). Freud and the neo-Freudians spent their careers developing concepts to assist in the understanding of behavior and personality (including anxiety); however, "the concepts embodied in both Freudian and neo-Freudian theories are difficult to translate into propositions that can be measured or tested through psychological experimentation" (Lindgren & Byrne, 1971, p. 382). Although the concepts were not easily measured or tested, both Freud and the neo-Freudians paved the way for other researchers, such as Taylor (1951), Cattell and Scheier (1961), Greer (1965), and Spielberger (1971) to create ways to effectively measure anxiety levels and other forms of behavior.

### *Causes and Symptoms of Anxiety*

Peurifoy (1995) states that “both anxiety and fear trigger unpleasant mental symptoms such as a sense of helplessness, confusion, apprehension, worry, and repeated negative thoughts” (p. 2). In his book *Anxiety, Phobias, and Fears*, Kahn (1977) speculates on different causes of anxiety. Although Kahn states that some causes of anxiety will continue to remain unknown, people facing danger, insecurity, and worry have often faced heightened levels of anxiety. Kahn goes on to describe anxiety:

“[Anxiety] is a painful or an apprehensive uneasiness of mind. It is an emotional situation. It is some kind of anticipated uneasiness, unpleasantness or danger. There may be a definite objective cause for anxiety, or it may be an unconscious cause and the person may not know what the reason is. Anxiety is made of various degrees of extreme uneasiness of the mind....it is a worry.” (Kahn, 1977, p.5)

In addition to causes of anxiety, professionals have researched different symptoms of anxiety. Anxiety manifests itself into different symptoms, such as tension, irritability, difficulty to concentrate, depression, insomnia, weakness, tiredness, headaches and/or migraines (Kahn, 1997). In addition to these symptoms, McCown, Petzel, and Rupert (1987) found that anxiety is associated with chronic procrastination, and Alexandira, Haycock, McCarthy, and Skay (1998) propose that people with a weak sense of efficacy face increased anxiety levels.

### *Instruments of Measuring Anxiety*

Since Freud’s research on anxiety, which, according to Archer (1991), “increased society’s understanding and awareness of anxiety as an emotion” (p.4), researchers,

including Taylor (1951), Cattell and Scheier (1961), Greer (1965), and Spielberger (1971), have focused time and energy on devising instruments that would effectively measure anxiety levels in a number of audiences. According to Levitt (1966):

“The inventory is by far the most popular instrument for the experimental measurement of anxiety. An inventory is made up of statements or words which describe the respondent’s feelings or attitudes about himself or his environment.” (p. 89)

Levitt goes on to say that although “inventories are subject to certain response biases”, they are still the most widely used method to measuring anxiety levels (p. 89). Furthermore, as researchers continue to improve upon ways to measure anxiety, inventories formulated decades ago are under continuous improvement. There are, however, different types of inventories; for example, inventories such as Taylor’s Manifest Anxiety Scale and the Institute for Personality and Ability (IPAT) Anxiety Scale measure continuing states of anxiety; the S-R (Stimulus-Response) Inventory of Anxiety, Freeman Manifest Anxiety test, and Affect Adjective Check List measures a subject’s proneness to anxiety; and the State-Trait Anxiety Inventory provides means to measure both state and trait anxiety.

#### *State and Trait Anxiety*

With anxiety research ongoing, researchers have discovered differing types of anxiety. In 1971, Charles Spielberger specified two different types of anxiety: state and trait. State anxiety, according to Spielberger and Gaudry (1971), is a situational, or transitory, type of anxiety. An adult experiencing anxiety due to an upcoming job change or move, and the subsequent lowering of anxiety once the new job has begun, is an

example of state anxiety. Trait anxiety, on the other hand, is stable or enduring feature of personality (Spielberger, 1983); in other words, persons suffering from trait anxiety often ask “what if” questions and personality traits tend to cause trait anxiety.

After the development of the State-Trait Anxiety theory, Charles Spielberger developed the State-Trait Anxiety Inventory. This inventory, which provides two types of self evaluations (one to measure state anxiety and one to measure trait anxiety), has been known to be the most widely used inventory to measure these types of anxiety for the past three decades. Additionally, Levitt (1966), claims that the State-Trait Anxiety Inventory (STAI) “is the most carefully developed instrument, from both theoretical and methodological standpoints” (p.71).

#### Education, Students, and Anxiety

According to Gaudry and Spielberger (1971), “a clear case has been made for the existence for a consistent negative relationship between anxiety and various measures of performance” (p.37). One of the most important areas of performance for millions of people is in our school system. With young children, “where there is trust there is always release of tension and anxiety” (Kurzweil, 1968, p.180), and the same can be said of other age groups. Research shows that anxiety not only has effects upon behavior, but upon academic performance. This can lead to lower test scores and grade point averages, in addition to higher attrition and lowered satisfaction.

As mentioned previously, anxiety causes symptoms such as tension, insecurity, depression, and insomnia. Additional research by Levitt (1966) claims that “experimental investigations suggest that anxiety detrimentally affects such cognitive

processes as problem solving, incidental learning, [and] ability to communicate” (p.152). Levitt goes on to claim that under extreme levels of anxiety, problem solving capabilities lower significantly. Furthermore, Levitt (1966) asserts that people suffering from anxiety can often produce behavioral symptoms such as irritability and extreme tension, which can affect everything from personal relationships to academic performance.

#### *Effects on Behavior and Academic Performance*

Academic performance is the most important aspect of an educational experience. Research continues to show that anxiety has a negative affect upon academic performance. Gaudry and Spielberger (1971), who have done significant research on academic performance and anxiety, state that an apparent negative correlation exists between anxiety and performance. These two researchers have additional research supporting a negative relationship between anxiety and academic achievement. Furthermore, Elliot and Smith (2003) support the claim that anxiety in every day life, no matter how small, significantly contributes to lower productivity.

#### *Graduate Student Anxiety*

Although there has not been an overwhelming amount of research on graduate student anxiety specifically, there has been research revolving around issues that face graduate students, which in turn could contribute to anxiety levels. Tinto (1993) claimed that internal and external environments tend to influence graduate students and that tension rises when both environments present demands that conflict with one another. Further, researchers are concluding that students enrolled in a graduate program are often experiencing instability, unhappiness, and displeasure within their program (Offstein, Larson, McNeill, & Mwale, 2004).

Oliver, Reed, and Smith's (1998) research supports that "anxiety is common in undergraduates" (p. 214), and Rosenblatt and Christensen (1993) stated that "many graduate students when first entering their respective programs are just as confused and anxious as they were as new undergraduates" (p. 502). Miller, Miles, and Dyer (2001) explain that while challenges faced by undergraduate and graduate students are different in nature, they are equally stressful for different reasons. In a qualitative study by Offestein, Larson, McNeill, and Mwale (2004), data indicated that all of the graduate students participating in that particular study experienced some level of anxiety due to graduate school, with continued research indicating that the graduate school experience is "intensely stressful" (p. 406).

Tacke (2005) hypothesized that "in order to be successful in the graduate school environment, students are faced with adjusting to both academic demands and institutional processes" (p.8). In his paper *Creating a "good" Graduate Student: A Model for Success* (1998), Kahn concluded that the lack of communication that often exists between the graduate student and institution can "lead to a lack of information and an environment of unknowing" (p. 16). Lovitts and Nelson (2000) hypothesized that up to one third of students leave their respective graduate program due to the fact that they have not been properly informed of curriculum obligations. Ibrahima, Brescia, Murry, and Miller (2004) further asserted that doctoral student attrition "has been the highest when students reach dissertation writing stage, where the failure rate has been identified as high as 50%" (p.38). Clearly, research has shown that anxiety experienced by both doctoral and masters degree seeking graduate student, from the entrance of their

programs to the completion of their thesis or dissertation, is both high and, at times, debilitating.

### *Integration of Graduate Students*

The definition of satisfaction varies greatly for each student; regardless of how it is defined, a students' satisfaction with a graduate program is emerging as one of the factors that help graduate students persist through the program. Hahs (1998) stated this fact, and continued to claim that satisfaction with additional student assistant programs have yielded higher retention rates within the program. Universities and researchers have investigated ways to lower the amount of anxiety graduate students experience, as well as improve academic performance and retention. The Council of Graduate Schools (1990) stated that "because of the significant investment of time and money represented by each graduate student, the university has an obligation to itself and the student to make every effort to keep the student enrolled" (p. 18). Other researchers, including Smith (1998) and Hadlock (2002), maintain that when colleges improve their knowledge of what students need out of their programs and institutions, then students are more likely to stay enrolled. As Rodriguez (2003) stated, "...poorly integrated and weakly committed students increase the probability of withdraw from college" (p.20) and "students who integrate into the social and academic system of a college or university are more likely to achieve academic success, and, consequently, stay in school" (p.1)

Researchers have also found that providing a welcoming environment to incoming graduate students can help lower anxiety in graduate students. Poock (2002) states that a welcoming and supportive atmosphere helps new graduate student feel more at ease with their new environment, and assists in lowering emotional stress and anxiety.

Further, a study by Cooke, Sims, and Peyrefitte (1995) found that “students whose expectations had been met and have a high level of commitment to their programs are more likely to complete their programs” (Tacke, 2005, p.13). Researchers, such as Tacke (2005), Poock (2002), Love and Miller (2002), and Hadlock (2000) hypothesized that support services, such as new student orientation programs, would be a beneficial means to meeting the university’s goal of lowering anxiety levels, increasing academic performance, and improving retention.

### Anxiety Levels and New Student Orientation

As previously stated, researchers are finding evidence that student support programs assist in lowering anxiety. Poock (2002), as well as Barker, Felstehausen, Couch, and Henry (1997) and Taub and Komives (1998) state that orientation programs have been an absent component in graduate education. In additional research, Love and Miller (2002), concluded that transition programs, such as new student orientation programs, “increase student academic achievement, increase retention rates, increase the likelihood of collegiate involvement, reduce risks of unhealthy behavior, and can generally increase levels of satisfaction” (p. 29).

### *Purpose of New Student Orientation Programs*

There are varying structures and purposes for new student orientation programs. Nadler, Miller, and Casbere (1998) stated that orientation programs help the student gain a sense of what is essential and focal to the campus; Vilsides and Eddy (1993) claimed that one role of a graduate orientation program is to reduce student anxiety; and Perigo and Upcraft (1989) hypothesized that assisting students to succeed and adjust are



important goals in new student orientation programs. Additionally, Mann (1998) claimed that orientation programs are considered to be useful retention tactics, Hahs (1998) “recommends that increasing retention requires that the institution provide support services such as orientations...to increase student satisfaction” (Tacke, 2005, p. 13-14), and Barker, Felstehausen, Couch, and Henry (1997) show research that has “associated higher retention with support programs” (p.58) as well as higher academic achievement. In his study *A Study of Three Approaches to Freshmen Orientation and Student Success as Compared to Non-Orientation Students* (2003), Rodriguez noted:

“An early study by Kopeck (1971) examined the effects of completing an orientation course on academic performance. The study found students taking an orientation course had higher mean grade point averages than non-orientation participants” (p.24)

Although new student orientation goals have different meanings and outcomes, the final result of the new student orientation is consistently the same: increased academic performance, persistence, and retention (Phillips, Daubman, and Wilmoth, 1986).

#### *Graduate Students and New Student Orientation Programs*

Although there is limited research on graduate students, anxiety, and new student orientation programs, existing research provides an idea on how institutions can provide these types of programs. For example, Tacke (2005) maintains that new student orientation programs developed for graduate students can help them become accustomed to the university environment, and assist with navigating the institutional processes. Pooch (2002) states that “orientation programs can assist students in their transition to graduate study, whether such programs are coordinated by an academic department or are

offered to all new graduate students through a centralized, campus-wide orientation” (p. 236). In addition, Lang (2004) claims that “a strong orientation for graduate students can be a powerful tool in reducing the fear and apprehension of new students, and has the potential to not only improve retention, but improve the overall educational experience” (p.50). Additionally, in a research study of older and delayed entry graduate students by Barker et al. (1997), it was found that “the majority of older graduate students...indicated an orientation program would be helpful and that they would participate if one were offered” (p.66).

Vilsides and Eddy (1993) state that one role of a graduate orientation program is to reduce student anxiety. Furthermore, multiple researchers, including Boyle and Boice (1998), Buchanan (1989), Issac (1993), Phillips, Daubman, and Wilmoth (1986), and Pooch (2002), have concluded that a graduate student’s participation in an orientation program increases academic performance, persistence, and retention. With the goals and purpose of new student orientation programs as a guide, research has clearly shown institutions stand to gain from providing graduate students with a new student orientation program.

## Chapter 3

### RESEARCH METHODOLOGY

#### Introduction

The purpose of this study is to contribute to a better understanding of anxiety. More specifically, the purpose of this study is to investigate anxiety among incoming graduate students enrolled at a Midwest regional state university. To complete this research, the State-Trait Anxiety Inventory will be used to measure the anxiety level of graduate students before and after participating in an online graduate orientation program. Chapter Three describes the methodology that will be used to complete this study. Specific information found in Chapter Three includes research questions, methods, populations, instruments, data collection procedures, and treatment of data.

#### Research Questions

This research study will be guided by the following questions:

1. What level of anxiety exists among incoming graduate students attending a Midwest regional state university?
2. What statistical differences exist between anxiety levels of incoming graduate students depending on their gender, age, degree type, and prior experiences?
3. Does an online graduate student orientation program contribute to the significant reduction of anxiety levels among incoming graduate students?

## Research Methods

Due to the nature of the study, the researcher will utilize a quantitative descriptive research method. According to Best and Kahn (1993):

“A descriptive study describes and interprets what is. It is concerned with conditions and relationships that exist, opinions that are held, processes that are going on, effects that are evident, or trends that are developing. It is primarily concerned with the present, although it often considers past events and influences as they relate to current conditions.” (p. 105)

The data for this study will be collected using a self evaluation. As stated in Reichenberger (1987), Spielberger defines anxiety as “an unpleasant emotional response to stress broadly defined as vague, subjective feelings of fear” (p. 12). The self evaluation will be administered online both before and after the new graduate student orientation program is conducted. After the data is collected, it will be analyzed to determine anxiety levels of incoming graduate students and the effect of the orientation program.

## Population

According to Tuckman (1994), the population used is a group which the researcher is interested in gaining information and drawing conclusions. The population of the study will be incoming graduate students at a Midwest regional state university. More specifically, incoming graduate students include: 1) those who have just finished their undergraduate degree and are full time students, 2) returning students who continue to hold a full-time job while taking graduate courses part-time or who have chosen to return as a graduate student full time, and 3) students who are not a part of a degree

program but are completing professional certification programs. Incoming graduate students, upon receiving their admission materials, will have the option to participate in an online graduate orientation. This voluntary population will determine if the online graduate orientation is useful in lowering anxiety levels of incoming graduate students.

### Instruments

The State-Trait Anxiety Inventory Form Y-1 (STAI) and short demographic questionnaire will be used in this study. The STAI will be used to measure anxiety levels before and after the graduate student orientation program. The STAI was originally developed to measure transitory emotional and relatively stable anxiety reactions, and is a widely used instrument that measures both state and trait anxiety by using two self evaluations (Spielberger, Gorsuch, & Lushene, 1970). For the purpose of this study, only the state anxiety self evaluation will be utilized, and will take approximately 15 minutes to complete. As stated in Karsli and Baloglu (2006), these questions focus on feelings of apprehension, tension, nervousness, and worry about the current situation. Subjects participating in the study will complete a 20-answer self evaluation prior to and immediately following an online graduate orientation. The state anxiety self evaluation provides 20 statements such as “I feel at ease” and “I feel upset”, and the participants will answer each statement according to a 4-point Likert Scale. Coefficient alpha reliability of the state anxiety questionnaire was found to be .91 for men and .93 for women (Speilberger, 1983), and Spielberger et al., (1970) found the state anxiety self evaluation scores to be significantly higher in the examination condition than in the normal condition (Karsli & Balaglu, 2006).

In addition to the STAI, a demographic questionnaire will be used to ascertain variables including age, gender, degree type, when they obtained their last degree, and years of prior work experience. By collecting this additional data, the researcher will gain a better understanding of the population and be better equipped to determine what additional variables can possibly affect anxiety levels of incoming graduate students.

#### Data Collection Procedures

Data collection for the study will be guided by the regulations set forth by Eastern Illinois University Institutional Review Board. Students will receive the online orientation program information upon admittance to the institution. Participants will have the option of participating in the study along with the orientation program. For those participating students, a demographic survey and the STAI Form Y-1 will be presented for completion (Appendix 1); this will serve as the pre-test. Upon the participant's decision to exit the online orientation, they will be directed to the STAI Form Y-1 again, which will serve as an immediate post-test. Procedures and inclusions in the online graduate orientation program can be found in Appendix 4. The graduate online orientation program will be available from April 2008 until the 10<sup>th</sup> day census of the fall 2008 semester.

#### Treatment of Data

The researcher will utilize the Statistical Software Program for Windows (SPSS) to analyze the data. The researcher will determine the anxiety levels of incoming graduate students using the instructions provided in the *Manual for the State Trait Anxiety Inventory* (Spielberger, 1983). The researcher will analyze the anxiety levels for

the entire population using SPSS. Specifically, using the statistics obtained through the pre and post test process, it will be determined if the graduate student orientation program assisted in lowering anxiety levels within each sub population. The researcher will calculate mean scores, and use a paired t-test to compare mean scores from sub populations, including gender, age, degree type, years since completion of their last degree, and years of work experience.

### Summary

The purpose of this study is to analyze the anxiety levels of incoming graduate students at a Midwest regional state university and determine if an online graduate student orientation program assists in lowering those levels. The researcher will use the State-Trait Anxiety Inventory Form Y-1 (STAI) to measure state anxiety levels before and after the orientation program is administered. Since the participants will be filling the state-anxiety questionnaire online, the statistical information will go to an online database in which the researcher will manage throughout the process. Once the information is received, the researcher will utilize Statistical Software Program for Windows (SPSS) to decipher the statistics and determine if the orientation program lowered anxiety levels for incoming graduate students.

## Chapter 4

### RESULTS

#### Introduction

The purpose of this study was to contribute to a better understanding of anxiety. More specifically, the purpose of this study was to investigate anxiety among incoming graduate students enrolled at a Midwest regional state university. Data collected for this study were obtained using the State-Trait Anxiety Inventory (Form Y-1) to measure the anxiety level of graduate students before and after participating in an online graduate orientation program. This chapter begins with the description of population characteristics, followed by the analysis of each research question and a summary of the findings.

#### Population Demographic Data

The study population consisted of incoming graduate students at a Midwest regional state university. Graduate students, upon receiving their admission materials, had the opportunity to participate in an online graduate orientation, though it was not required. Of the 802 students who received this information, 32 (N) completed both a short demographic questionnaire and the pre and post- test State-Trait Anxiety Inventory Form Y-1 (STAI) self evaluation. A summary of the descriptive statistics of the population can be found in Table 1.

Of the 32 participants, 10 (31.25%) were male, while 22 (68.75%) were female. Twenty participants (62.5%) indicated they were under the age of 23; 5 participants



Table 1

*Populations' Demographic Data*

Demographic Characteristics	N	%	Frequency
<u>Gender</u>	32		
Male		31.25	10
Female		68.75	22
<u>Age</u>	32		
23 & under		62.5	20
24-30		15.62	5
31-36		3.12	1
37-42		6.25	2
43-48		3.12	1
49-54		9.37	3
55-60		0	0
60 & over		0	0
<u>Program Type</u>	32		
Degree Seeking		93.75	30
Certificate Seeking		6.25	2
Professional Development		0	0
Prefer Not to Respond		0	0
<u>Amount of Work Experience</u>	32		
Less than 1 year		21.87	7
1-3 years		25	8
4-6 years		21.87	7
7-10 years		9.37	3
11-14 years		0	0
15-18 years		0	0
19-22 years		3.12	1
23 + years		12.5	4
Prefer Not to Respond		6.25	2
<u>Last Degree Earned</u>	32		
Less than 1 year		62.5	20
1-2 years		18.75	6
3-4 years		6.25	2
5-6 years		6.25	2
7-8 years		0	0
9-10 years		0	0
11+ years		6.25	2

(15.62%) indicated that they were between the ages of 24 and 30; and 7 (21.87%) listed themselves as 31 years or older.

In addition to the participants' age and gender, information regarding their program type, amount of work experience, and amount of time since the completion of their last degree was collected and analyzed. In regards to program type, 30 participants (93.75%) considered themselves to be degree seeking students, while only 2 (6.25%) considered themselves to be certificate seeking students. While 7 participants (21.87%) indicated that they had less than 1 year of work experience, 8 (25%) reveal 1 – 3 years of experience, 7 (21.87%) have 4 – 6 years of experience, and 3 (9.37%) have 7 – 10 years of work experience. Additionally, 5 participants (15.62%) have over 19 years of work experience, while 2 participants (6.25%) preferred to not respond.

In regards to the amount of time since the completion of a prior degree, 20 participants (62.50%) indicated they had completed their degree less than one year before their entrance to graduate studies. Six participants (18.75%) indicated 1 – 2 years, and 6 (18.75%) indicated that over 3 years had passed since the completion of their last degree.

#### Descriptive Statistics for the STAI Form Y-1

STAI Form Y-1 was used to collect anxiety data from participants. The STAI was originally developed to measure transitory emotional and relatively stable anxiety reactions, and is a widely used instrument that measures both state and trait anxiety by using two self-evaluations (Spielberger, Gorsuch, & Lushene, 1970). For the purpose of this study, only the state anxiety self-evaluation (Form Y-1) was utilized, taking participants 15 minutes to complete. Scores were tabulated using the *Manual for the*

*State Trait Anxiety Inventory* (Spielberg, 1983). Participants' scores range from 20 to 80, 20 indicating virtually no state anxiety, and 80 indicating very high state anxiety. Participants' responses were analyzed using a paired t-test, providing statistical summaries of means, standard deviations, and statistical probability of the pre-test and post-test data (see Table 3). Prior to running statistical tests, data were examined for entry accuracy, outliers, missing data, normality of distribution and other assumptions. All values were within acceptable ranges and did not violate any assumptions.

### Research Question Results

As discussed in previous chapters, the primary focus of this study was to identify anxiety levels of incoming graduate students, and if a graduate online orientation helped alleviate those anxiety levels.

*Question 1: What level of anxiety exists among incoming graduate students attending a Midwest regional state university?*

Anxiety, for the sake of this study, is defined as an unpleasant emotional response to stress, and is used to refer to two related constructs, state and trait anxiety (Spielberger, 1973). As discussed previously, state anxiety is a stress reaction taking place at a given time and level of intensity, is transitory in nature, and relates to a particular situation (Reichenberger, 1987). A breakdown of the STAI Form Y-1 scores can be found in Table 2. Mean statistics will be evaluated later in this chapter. Before completing the orientation program, 72.5% of participants showed to have a moderate amount of anxiety (scores 31 – 50), while 21.87% showed low anxiety (scores 20 – 30) and 15.62% showed higher amounts of anxiety (scores 51 – 60). There were no participants that showed extreme high anxiety levels (scores 61 – 80).

Table 2

*STAI Form Y1 Scores Before Orientation Training (N=32)*

<u>Scores</u>	<u>Frequency</u>	<u>%</u>
< 30	7	21.87
31 - 40	16	50.00
41 - 50	4	12.50
51 - 60	5	15.62
61 - 70	0	0.00
71 - 80	0	0.00

*Question 2: What statistical differences exist between anxiety levels of incoming graduate students as it relates to their gender, age, degree type, and prior work experiences?*

Data was collected to study whether or not the orientation program made a statistical significance lowering anxiety among different student groups based upon gender, age, degree type, prior work experience, and amount of time since the completion of their last degree. Comparisons of these anxiety levels can be found in Table 3. A paired t-test was used to determine if anxiety levels were lowered in each demographic area.

Male (n=10) and female (n = 22) participants showed that there was a significant change in anxiety levels (t 1.82 and 1.78, respectively) after graduate orientation. Incoming graduate students below the age of 23 (n = 20) showed a statistically significant reduction in anxiety levels with a t value of 2.05 and probability of 0.027. Further, students between the age of 24 and 30 showed a statistically significant reduction in anxiety levels with a t value of 1.95 and probability of 0.042. Another subpopulation that saw a statistically significant reduction of anxiety levels was participants with 4 – 6 years of work experience (t 2.38, probability 0.028). Some subgroups experienced an increase in anxiety levels after participating in the orientation program. For example, those with

Table 3

*Comparisons of Anxiety Levels Before and After Orientation Training by Population (N=32)*

	Pre-test		Post-test		t-test	
	Mean	SD	Mean	SD	t	p
<b>Gender</b>						
Male	37.10	8.23	34.20	10.20	1.82*	0.048
Female	38.40	10.00	36.40	10.80	1.78*	0.045
<b>Age</b>						
23 and under	38.50	9.74	36.30	11.10	2.05*	0.027
24-30	40.20	8.53	35.00	12.10	1.95*	0.042
31-36	39.00	0.00	36.00	0.00	0.00	0.000
37-42	36.50	14.84	36.00	13.83	0.20	0.437
43-48	30.00	0.00	32.00	0.00	0.00	0.000
49-54	38.30	13.80	40.70	8.96	0.73	0.269
55-59	-----	-----	-----	-----	-----	-----
60+	-----	-----	-----	-----	-----	-----
<b>Degree Type</b>						
Degree Seeking	38.90	9.62	36.50	11.00	2.48*	0.009
Certificate Seeking	31.50	2.12	33.50	2.12	0.00	0.000
<b>Work Experience</b>						
Less than 1 year	38.40	12.50	36.50	14.80	1.44	0.096
1-3 years	37.90	2.12	34.00	6.93	1.70	0.071
4-6 years	43.00	9.87	38.00	11.90	2.38*	0.028
7-10 years	41.30	7.37	41.70	11.00	0.15	0.447
11-14 years	-----	-----	-----	-----	-----	-----
15-18 years	-----	-----	-----	-----	-----	-----
19-22 years	26.00	0.00	23.00	0.00	0.00	0.000
23+ years	-----	-----	-----	-----	-----	-----
Prefer not to respond	36.20	12.00	38.50	8.50	-1.00	0.196
<b>Last Degree Earned</b>						
Less than 1 year	37.40	9.96	34.50	10.60	2.80*	0.006
1-2 years	41.80	7.08	39.20	12.00	1.01	0.180
3-4 years	34.00	5.65	32.00	0.00	0.50	0.353
5-6 years	51.00	5.65	52.00	4.24	-1.00	0.250
7-8 years	-----	-----	-----	-----	-----	-----
9-10 years	-----	-----	-----	-----	-----	-----
11+ years	30.50	3.53	35.50	0.71	-1.66	0.172

\*p&lt;.05

5 – 6 years since the completion of their last degree (n=2, t- -1.00, probability 0.250) and 11 or more years since the completion of their last degree (n=2, t- -1.66, probability 0.172) also showed a statistically significant rise in anxiety levels.

*Question 3: Does an online graduate orientation program contribute to the significant reduction of anxiety levels among incoming graduate students?*

Incoming graduate students at the participating Midwest regional state university completed the pre and post- test self-evaluations, basing their answers on their feelings regarding graduate school. Overall, 32 participants completed both the pre and post-tests, resulting in a pre test mean of 38.40 (standard deviation 9.48) and a post test mean of 36.34 (standard deviation 10.64). A dependent t-test revealed a significant difference between pre-test anxiety scores and post-test anxiety scores as measured by the STAI with incoming graduate students having  $t(31) = 2.29, p < .05, \alpha = .05$  (see Table 4). Therefore, the graduate orientation training did significantly reduce anxiety for incoming graduate students attending a Midwest regional state university.

Table 4

*Comparisons of Anxiety Levels Before and After Orientation Training (N = 32)*

	Pre-test		Post-test		t-test	
	Mean	SD	Mean	SD	t	p
Incoming Students	38.4	9.48	36.64	10.64	2.29**	0.029

\*p<.05; \*\*p<.01

### Summary

In this study, graduate students were asked to answer a series of questions based upon their feelings about graduate school both before and after participating in an online orientation program. Although incoming students had varying levels of anxiety during

this process, the results of this study find that an online orientation program for graduate students shows a statistically significant lowering of anxiety levels. Additionally, certain populations within the participant pool showed both statistically significant lowering – and raising – of anxiety levels, which will be further discussed in Chapter 5.

## Chapter 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Introduction

This study was designed to research the levels of anxiety graduate students at a Midwest regional state university, and if the participation in an online graduate orientation program help alleviate those anxiety levels. In Chapter 4, statistical observations were presented; in this chapter, the results will be discussed, limitations will be revisited, and recommendations for further research will be proposed.

#### Summary

##### *Purpose of the Study*

The purpose of this study is to contribute to a better understanding anxiety among incoming graduate students enrolled at a Midwest regional state university. The study surveyed incoming graduate students, specifically graduate students attending Eastern Illinois University, to determine anxiety levels both prior to and after completing an orientation program.

##### *Statement of the Problem*

The problem addressed by this research was: Does a graduate orientation program assist in lowering anxiety levels of incoming graduate students? Specifically, this study was designed to collect and analyze anxiety data among incoming graduate students.

##### *Significance of the Study*

Information obtained in this study will benefit higher education administrators who desire to reduce anxiety among incoming graduate students. Findings of the study



will contribute to the body of knowledge of graduate study and may facilitate retention enhancement.

The study gathered data from incoming graduate students to determine levels of anxiety. Additionally, the study examined anxiety levels of incoming graduate students as it relates to gender, age, degree type, prior work experience, and amount of time since the completion of their last degree. Also, data were collected to identify if an online graduate student orientation program significantly reduces the anxiety levels among incoming graduate students.

#### *Procedures*

The study's population consisted of incoming graduate students at Eastern Illinois University including: 1) those who have just finished their undergraduate degree and are full time students, 2) returning students who continue to hold a full time job while attending graduate courses part-time or who have chosen to return as a graduate student full time and 3) students who are not a part of a degree program but are completing work performance certifications. The population consisted of 32 incoming graduate students.

#### *Analysis of Data*

Data collected during this study were analyzed using descriptive and inferential statistics (mean, standard deviation, frequency, percentages, and t-statistics). All statistics were generated using Statistical Software Program for Windows (SPSS) version 13.0 .

## Findings

The following findings were uncovered through statistical analysis from the completed instruments.

Of the 32 participants, 10 (31.25%) were male, while 22 (68.75%) were female. Twenty participants (62.5%) indicated they were under the age of 23; 5 participants (15.62%) indicated that they were between the ages of 24 and 30; and 7 (21.87%) listed themselves as 31 years or older. Further, 30 participants (93.75%) considered themselves to be degree seeking students, while only 2 (6.25%) considered themselves to be certificate seeking students.

Research Question 1: What level of anxiety exists among incoming graduate students attending a Midwest regional state university? Before completing the orientation program, 72.5% of participants showed to have a moderate amount of anxiety (scores 31 – 50), while 21.87% showed low anxiety (scores 20 – 30) and 15.62% showed higher amounts of anxiety (scores 51 – 60). There were no participants that showed extreme high anxiety levels (scores 61 – 80).

Research Question 2: What statistical differences exist between anxiety levels of incoming graduate students as it relates to gender, age, degree type, and prior work experiences? Incoming graduate students regardless of gender showed that there was a significant change in anxiety levels after completing the graduate orientation. Further, students between the age of 24 and 30 as well as students having 1 – 6 years of work experience showed a statistically significant reduction in anxiety levels. Additionally, students who received their last degree within the past year also showed a decline in anxiety levels.

Research Question 3: Does an online graduate student orientation program significantly reduce the anxiety levels among incoming graduate students? Anxiety levels of incoming graduate students who participated in an online graduate orientation program were lowered by a statistically significant amount; therefore, the graduate orientation training did significantly reduce anxiety for incoming graduate students attending a Midwest regional state university.

### Discussion

The first research question addressed the anxiety levels of incoming graduate students who chose to participate in the online orientation program. Anxiety in this study was defined as an “unpleasant emotional state, similar to fear, directed toward a somewhat vague source, often in the future” (Lindgren & Byrne, 1971). Scholars have indicated that high levels of anxiety can negatively affect academic performance, retention, and attitude toward their academic program (Levitt, 1966; Gaudry & Spielberger, 1971; Elliot & Smith, 2003; Larson et al., 2004; Miller et al., 2001).

In this study, all 32 participants indicated that they felt some sort of anxiety toward graduate school. Although these anxiety levels varied, the affects of anxiety remain the same – depression, insomnia, poor academic performance, high attrition rates, and chronic procrastination (Kahn, 1977; Peurifoy, 1995). None of the 32 participants, however, indicated extremely high levels of anxiety. Extreme levels of anxiety often mask other variables contributing to the anxiety, some of which could be characterized as trait anxiety. Extreme levels of anxiety may, in some cases, require other services to assist in lowering those anxiety levels. The lack of extreme anxiety in any of the

participants in this study made it more probable that the online orientation training would contribute to the decline in anxiety levels.

The second research question addressed significant statistical changes observed between particular populations. The question attempted to display the differences in each population, showing that different populations' anxiety levels were lowered at different rates. For example, participants who were male showed a more significant drop in anxiety levels ( $t = 1.82$ ) than females ( $t = 1.78$ ). The most telling statistical difference, however, was among participants who had obtained their last degree less than one year before participating in the online orientation program. These participants showed a  $t$  of 2.80, while participants who had obtained their degree more than two years before participation in the program showed little difference or an increased anxiety level. For example, participants who obtained their degree 11 or more years prior to participating had a  $t$  of -1.66, indicating that anxiety levels had increased due to their participation in the orientation program. These differences should be observed as an indication that participants in orientation programs perceive information in different ways, and audiences should be researched to ensure that each is receiving the appropriate information in the most effective way.

The third research question was formulated to discover if the online orientation training had significantly lowered anxiety levels of incoming graduate students who chose to participate in the program. Based on 32 participants, comparisons of pre and post- test scores showed a statistically significant difference in anxiety levels of the overall population. These results are encouraging, as they provide tangible data that a

basic, fundamental need based orientation training program has positive effects for students who participate.

### Limitations

As discussed earlier in this study, the following factors affect the generalization of this study:

1. The scope of this study was limited to incoming graduate students at a Midwestern regional state university; therefore, generalizations from this study to other graduate students at universities unlike the research institution are not warranted.
2. The responses of incoming students participating in the study were based upon self-perceptions.
3. The study represents only volunteer participants; thus, non-responding participants could respond differently.
4. The respondents' honesty and care in completing the questionnaire could have altered the results.
5. Each participant had an opportunity to review the same information; however, the time taken and specific information reviewed varies by participant. This variation could contribute to the reduction of anxiety.

### Implications of Study

The results of this study provide tangible evidence that a basic, fundamental need based orientation training program has positive effects for students who participate.

These results provide further justification for orientation and higher education

professionals that orientation programs are, indeed, a useful and necessary tool for incoming graduate students. The results also indicate, however, that there are certain populations that experienced elevated anxiety levels due to participating in the online orientation training.

The positive effects of this training program will contribute to the body of knowledge of graduate study and will help facilitate retention enhancement. The discovery of lowered anxiety levels allows orientation, graduate, and higher education professionals to further research the graduate populations in terms of learning and application. Additionally, the knowledge of anxiety levels assists these practitioners to understand their current class to greater depths, thus allowing for the expansion for support and human services offered to the graduate student population.

Increased anxiety levels as a result of participating is an indicator that training needs and learning styles for graduate students are not well known. It is vital for institutions of higher education to consider each of its populations when providing an orientation program, and provide supplemental programming for certain populations when appropriate. These increased anxiety levels indicate that populations may have felt marginalized, unprepared for graduate study, or less aware of what graduate study entails.

These implications provide higher education practitioners the opportunity to improve orientation training programs based on the information and results collected. These improvements can come in the form of orientation program overhaul, information collected via survey or focus group, as well as the replication and continuation of this research study.

## Recommendations

This study paves the way for future research in the areas of orientation, graduate students, and anxiety. It is recommended that this research study be duplicated at different institutions (small, midsize, large, public, private, and vocational) to discover if anxiety levels are affected by various institutional characteristics. These studies should aim to have a larger participant population, as it may yield different results compared to a smaller population.

Additional recommendations for study replication includes a comparison of ability level (i.e. GRE, GMAT) and anxiety levels; generate a clear definition of when students begin their orientation experience (i.e. as they are admitted or when they participate, etc); and the time frame of completion of their degree (i.e. Law School vs. Master of Science in Technology). Each of these variables may have an affect on anxiety levels, and should be researched thoroughly.

Research should also be expanded to include not only an online orientation program, but also a campus wide graduate orientation and program specific orientations. Further, a longitudinal study should be developed to not only measure anxiety, but to measure retention of graduate students completing different orientation programs compared to those who had not participated. Other studies should also be a combined study of both quantitative and qualitative data to provide a well-rounded study, providing student experiences and statistical data. A qualitative study should actively research what specific portions of the orientation program were most helpful; this information will assist practitioners to further discover the needs of certain populations, and plan accordingly. Additionally, a study focused on differing populations and the mediums,

content, and structure of orientation programs will provide an opportunity to discover the learning needs of those populations.

In addition to these research studies focused on the graduate student population, a study of anxiety levels and undergraduate new student orientation programs should also be formed. In their study, Rosenblatt and Christensen (1993) indicate that students new to graduate studies are often as anxious and confused as when they entered their undergraduate institution, and Miller, Miles, and Dyer (2001) explain that undergraduate and graduate studies are both stressful, but for different reasons. Replicating this study for the undergraduate population will not only shed light on what kind of anxiety levels undergraduates are feeling, but if an orientation program assists them in the same way as graduate students.

Finally, a way to further research in this vein of study would be to study the content of online orientation programs versus an on campus orientation program, and discover which medium is more effective in content retention. Currently, there is very little information on specifics of an online orientation, its affects, and usefulness in retaining student populations; researching this information will assist practitioners determine which medium could work for their population.

### Conclusion

The purpose of this research study was to contribute to the understanding of graduate students, anxiety, and the relation to orientation programs. During the course of this study, an online orientation was developed and implemented and demographic information of the graduate student population was collected. More importantly, this research study was able to identify the level of anxiety of graduate students at a Midwest



regional state university, what statistical differences were present between participating populations, and if the online orientation program assisted in lowering anxiety levels of participants. The result of the research study not only proved to lower the anxiety levels of the overall population, but identified the increase of anxiety in certain populations. The many facets of this study assist higher education professionals in reorganizing orientation program development and implementation, serve as tangible evidence that orientation training is an effective way of making students feel more comfortable in graduate study, and allow practitioners to consider reforming their programs to cater to the needs of different populations. These results are encouraging; however, studies must further research the effects of orientation programs, and how they can assist our graduate student population.

## References

- Alexandria, S., Haycock, L.A., McCarthy, P., & Skay, C.L. (1998). Procrastination in college students: The role of self efficacy and anxiety. *Journal of Counseling and Development, 76*, 317-324.
- Archer, J. (1991). *Managing Anxiety and Stress* (2<sup>nd</sup> Ed.). Levittown: Accelerated Development.
- Barker, S., Felstehausen, G., Couch, S., & Henry, I. (1997). Orientation programs for older and delayed-entry graduate students. *NAPSA Journal, 35*(1), 57-68.
- Best, J.W., & Kahn, J.V. (1993). *Research in education*. (7<sup>th</sup> ed.). Boston, MA: Allyn and Bacon.
- Boyle, P. & Boice, B. (1998). Best practices for enculturation: collegiality, mentoring, and structure. *New Directions for Higher Education, 1*, 87-94.
- Buchanan, D.A. (1989). A study of graduate student perceptions of the Oklahoma State University environment. ERIC Document Reproduction Service No. ED 330 284.
- Beal, P. E., and Noel, Lee (1980). *What Works in Student Retention*. Iowa City, IA: The American College Testing Program, 43-45.
- Breasure, V. (1996). The effects of transfer student orientation programs on student anxiety, self-esteem, after school detentions, and attendance. (Doctoral Dissertation, Wilmington College, 1996). *Dissertation Abstracts International, 58*, 2084.
- Cambiano, R.L., Denny, G., & DeVore, J. (2000). College student retention at a midwestern university: A six-year study. *The Journal of College Admission, 166*, 22-29.

- Cooke, D.K., Sims, R.L, and Peyrefitte, J. (1995). The relationship between graduate student attitudes and attrition. *The Journal of Psychology*, 129(6), 677-688.
- Council of Graduate Schools (1990). *Organization and Administration of Graduate Education*. Washington, DC: CGS.
- Elliot, C.H. & Smith, L.L. (2003). *Overcoming Anxiety for Dummies*. New York: Wiley Publishing, Inc.
- Frankel, A. (1978). Performance decrement following unsolvable problems: Learned helplessness and failure anxiety. (Doctoral Dissertation, Dartmouth College, 1977). *Dissertation Abstracts International*, 38, 3955.
- Guadry, E. & Spielberger, C.D.(1971). *Anxiety and Educational Achievement*. Australia: John Wiley & Sons, Inc.
- Hadlock, H.L. (2002). Orientation programs: A synopsis of their significance. *The Journal of College Orientation and Transition*, 7, (2), 27-32.
- Hahs, D.L. (1998). Creating “good” graduate student: a model for success. Paper presented at the annual meeting of the Mid-South Educational Research Association, New Orleans, L.A. (ERIC Document Reproduction Service No. ED 428040)
- Ibrahima, P., Brescia, W., Murry, J., and Miller, M. (2004). Orientation issues for distributed learning programs in graduate education. *The Journal of College Orientation and Transition*, 12, (1), 38 -43.

- Issac, P.D. (1993). Measuring graduate retention. In L.L. Baird (Ed), *Increasing graduate student retention and degree attainment* (New Directions for Institutional Research, No. 80, 13-25). San Francisco: Jossey-Bass.
- Karsli, M.D., Baloglu, M. (2006). *A description and comparison of the levels of anxiety among college administrators*. *Behavior & Personality: An International Journal*. 34(6), 739-745.
- Kahn, S. (1977). *Anxieties, Phobias, and Fears*. New York: Philosophical Library, Inc.
- King, T.M. & Wessel, R.D. (2004). Impact of admitted student programs on matriculation and retention. *Journal of College Orientation and Transition*, 11(2), 5-11.
- Kurzweil, Z.E. (1968). *Anxiety and Education*. London: Thomas Yoseloff, Ltd.
- Lang, M.E. (2004). The need for graduate orientation. *The Journal of College Orientation and Transition*, 11, (2), 49-51.
- Levitt, E.E. (1966). *The Psychology of Anxiety*. Indianapolis: The Bobbs-Merrill Company, Inc.
- Lindgren, H.C. & Byrne, D. (1971). *Psychology: An introduction to a behavioral science*. (3<sup>rd</sup> ed.). New York: John Wiley & Sons, Inc.
- Love, R. & Miller, M. (2002). Departmental and university orientation: A case study on competing programs and supportive systems. *Journal of College Orientation and Transition*, 9(2), 27-36.
- Lovitts, B.E. & Nelson, C. (2000). The hidden crisis in graduate education: attrition from Ph.D. programs. *Academe*, 86, (6) 44-51.

- Mann, B.A. (1998). Retention principles for new student orientation programs. *The Journal of College Orientation and Transition*, 6, (1), 15-20.
- McCown, W., Petzel, T., & Rupert, P. (1989). Personality correlates and behaviors of chronic procrastinators. *Personality & Individual Differences*, 11, 71-79.
- Miller, M.T, Miles, A.S., & Dyer, B.G. (2001). Graduate student orientation through a professional seminar: A case study of doctoral student, 1997-2000. *The Journal of College Orientation and Transition*, 8, (2), 22-31.
- Nadler, D.P., Miller, M.T., & Casbere, J. (1998). Student satisfaction with orientation: Toward a framework for program effectiveness. *The Journal of College Orientation and Transition*, 6, (1), 27-35.
- Offstein, E.H., Larson, M.B., McNeill, A.L., & Mwale, H.M. (2004). Are we doing enough for today's graduate students. *The International Journal of Educational Management*, 18 (6), 396-407.
- Oliver, J.M., Reed, C.K.S., & Smith, B.W. (1998). Patterns of psychological problems in university undergraduates: Factor structure of symptoms of anxiety and depression, physical symptoms, alcohol use, and eating problems. *Social Behavior and Personality*. 26(3), 211-233.
- Perigo, D.J., & Upcraft, M.L. (1989). Orientation programs. In M.L. Upcraft and J.N. Gardner (Eds.), *The freshmen year experience: Helping students survive and succeed in college*. San Francisco: Jossey-Bass.
- Peurifoy, R.Z. (1995). *Anxiety, Phobias, and Panic*. New York: Warner Books.
- Phillips, M., Daubman, K., & Wilmoth, D. (1986). A graduate student orientation program. *Journal of College Student Personnel*, 27(5), 280-1.

- Poock, M.C. (2002). Graduate student orientation: Assessing need and methods of delivery. *Journal of College Student Development*, 43(2), 231-45.
- Reichenberger, G.A. (1987). *The effect of an elementary school orientation program on Guam transfer students' behavior, anxiety and attitude toward school*. Dissertation Abstracts International, 48, 11A (UMI No. 2812).
- Rodriguez, P.D. (2003). *A study of three approaches to freshmen orientation and student success as compared to non-orientation students*. (Doctoral Dissertation, Baylor University, 2003). Dissertation Abstracts International, 64, 06A.
- Rosenblatt, H.S. & Christensen, C. (1993). *Welcome to the whole family: A graduate student orientation*. *College Student Journal*, 27(4), 502-505.
- Schlesinger, A.J. (1948). *The Vital Center*. New York: Houghton-Mills.
- Sherman, J.R. (1988). *Stop Procrastinating – Do it!* (2<sup>nd</sup> ed). Golden Valley, MN; Pathway Books.
- Smith, B.F. (1998). Planning standards based orientation programs. In M.L. Upcraft and J. N. Gardner (Eds.), *The freshman year experience: Helping students survive and succeed in college*. San Francisco: Jossey-Bass.
- Smith, R.F. & Brackin, R.K. (2003). Components of a comprehensive orientation program. In J.A. Ward-Roof & C. Hatch (Eds.), *Designing successful transitions: A guide for orienting students to college*, Monograph No. 13, 2<sup>nd</sup> ed., 39-53.
- Spielberger, C.D. (Ed) (1966). *Anxiety and Behavior*. New York: Academic Press, Inc.
- Spielberger, C. D., Gorsuch, R. C., & Lushene, R. E. (1970). *Manual for the State Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.

- Spielberger, C.D. (Ed.) (1971). *Anxiety: Current trends in theory and research*. New York: Academic Press, Inc.
- Spielberger, C.D. (1983). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Strumpf, G., Sharer, G., & Wawrzynski, M. (2003). 20 years of trends and issues in orientation programs. J.A. Ward-Roof & C. Hatch (Eds.), *Designing successful transitions: A guide for orienting students to college*, Monograph No. 13, 2<sup>nd</sup> ed., 31-38.
- Tacke, L.J. (2005). Graduate student attitudes toward institutional student services. (Doctoral Dissertation, Dowling College, 2005). *Dissertation Abstracts International*, 66, 1674.
- Taub, D., & Komives, S. (1998). A comprehensive graduate orientation program: practicing what we preach. *Journal of College Student Development*, 39(4), 394-8.
- Thon, A.J. (1984). Responding to the non-academic needs of adult students. *NAPSA Journal*, 21, 28-35.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2<sup>nd</sup> Ed.). Chicago: The University of Chicago Press.
- Tuckman, B.W. (1994). *Conducting education research*. (4<sup>th</sup> ed.). Orlando, FL: Harcourt Brace & Company.
- U. S. Department of Education, National Center for Educational Statistics (NCES). (2005). *Digest of Educational Statistics*. Washington, DC: U.S. Government Printing Office.

- Upcraft, M.L. (2003). Reflections on the future of orientation. In J.A. Ward-Roof & C. Hatch (Eds.), *Designing successful transitions: A guide for orienting students to college*, Monograph No. 13, 2<sup>nd</sup> ed., iii-iv.
- Vilsides, D., & Eddy, J. (1993). Graduate orientation models. *College Student Journal*, 27(1), 96-98.
- Winston, R.B., Jr. (1976). Graduate school environments: Expectations and perceptions. *Journal of College Student Personnel*, 17, 43-49.
-



Appendix 1 – Online Orientation STAI and  
Demographic Questionnaire Example

The information provided in this appendix represents the information provided prior to the graduate online orientation between April and September 2008. The demographic questions presented were approved according to information that was being researched; the rest of the questions were taken directly from the STAI Form Y-1 to measure state anxiety.

**Please provide the following information:**

Age:	<input type="text" value="24-30"/>
Ethnicity:	<input type="text" value="White, Non-Hispanic"/>
Gender:	<input type="text" value="Female"/>
Admissions Status	<input type="text" value="Regular Admission Status"/>
Program Type:	<input type="text" value="Degree Seeking"/>
Degree or Certificate Program:	<input type="text" value="MS in Technology"/>
Undergraduate Institution:	<input type="text" value="EIU"/>
Last Degree Earned:	<input type="text" value="Less than 1 year ago"/>
Marital Status:	<input type="text" value="Married"/>
Number of Children:	<input type="text" value="0"/>
Amount of Work Experience:	<input type="text" value="1-3 years"/>

**A number of statements which people have used to describe themselves are given below. Read each statement, and choose the appropriate answer to indicate how you feel *at this moment* in regards to Graduate Education. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.**

I feel calm.	<input type="text" value="1 - Not at All"/>
I feel secure.	<input type="text" value="2 - Somewhat"/>
I am tense.	<input type="text" value="3 - Moderately So"/>
I feel strained.	<input type="text" value="4 - Very Much So"/>

- I feel at ease.
- I feel upset.
- I am presently  
worrying over  
possible misfortunes.
- I feel satisfied.
- I feel frightened.
- I feel comfortable.
- I feel self-confident.
- I feel nervous.
- I am jittery.
- I feel indecisive.
- I am relaxed.
- I feel content.
- I am worried.
- I feel confused.
- I feel steady.
- I feel pleasant.

Continue

For use by Megan Hullinger only. Received from Mind Garden, Inc. on April 16, 2008

**SELF-EVALUATION QUESTIONNAIRE STAI Form Y-1**

**Please provide the following information:**

Name  
Age

Date  
Gender (Circle) **M** **F**

**DIRECTIONS:**

A number of statements which people have used to describe themselves are given below. Read each statement and then blacken the appropriate circle to the right of the statement to indicate how you feel *right* now, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

NOT AT ALL  
SOMEWHAT  
MODERATELY SO  
VERY MUCH SO ●

- |  |   |   |   |   |
|--|---|---|---|---|
| 1. I feel calm.....  | 1 | 2 | 3 | 4 |
| 2. I feel secure.....                                      | 1 | 2 | 3 | 4 |
| 3. I am tense.....   | 1 | 2 | 3 | 4 |
| 4. I feel strained .....                                   | 1 | 2 | 3 | 4 |
| 5. I feel at ease.....                                     | 1 | 2 | 3 | 4 |
| 6. I feel upset .....                                      | 1 | 2 | 3 | 4 |
| 7. I am presently worrying over possible misfortunes ..... | 1 | 2 | 3 | 4 |
| 8. I feel satisfied.....                                   | 1 | 2 | 3 | 4 |
| 9. I feel frightened.....                                  | 1 | 2 | 3 | 4 |
| 10. I feel comfortable.....                                | 1 | 2 | 3 | 4 |
| 11. I feel self-confident .....                            | 1 | 2 | 3 | 4 |
| 12. I feel nervous .....                                   | 1 | 2 | 3 | 4 |
| 13. I am jittery.....                                      | 1 | 2 | 3 | 4 |
| 14. I feel indecisive.....                                 | 1 | 2 | 3 | 4 |
| 15. I am relaxed.....                                      | 1 | 2 | 3 | 4 |
| 16. I feel content.....                                    | 1 | 2 | 3 | 4 |
| 17. I am worried.....                                      | 1 | 2 | 3 | 4 |
| 18. I feel confused.....                                   | 1 | 2 | 3 | 4 |
| 19. I feel steady.....                                     | 1 | 2 | 3 | 4 |
| 20. I feel pleasant.....                                   | 1 | 2 | 3 | 4 |

For use by Megan Hullinger only. Received from Mind Garden, Inc. on April 16, 2008

**State-Trait Anxiety Inventory for Adults Scoring Key (Form Y-1, Y-2)**

Developed by Charles D. Spielberger in collaboration with R.L. Gorsuch, R. Lushene, P.R. Vagg, and G.A. Jacobs

To use this stencil, fold this sheet in half and line up with the appropriate test side, either Form Y-1 or Form Y-2. Simply total the scoring **weights** shown on the stencil for each response category. For example, for question # 1, if the respondent marked 3, then the **weight** would be **2**. Refer to the manual for appropriate normative data.

NOT AT ALL  
SOMEWHAT  
MODERATELY SO  
VERY MUCH SO

ALMOST NEVER  
SOMETIMES  
OFTEN  
ALMOST ALWAYS

Form Y-1					Form Y-2				
1.	4	3	2	1	21.	4	3	2	1
2.	4	3	2	1	22.	1	2	3	4
3.	1	2	3	4	23.	4	3	2	1
4.	1	2	3	4	24.	1	2	3	4
5.	4	3	2	1	25.	1	2	3	4
6.	1	2	3	4	26.	4	3	2	1
7.	1	2	3	4	27.	4	3	2	1
8.	4	3	2	1	28.	1	2	3	4
9.	1	2	3	4	29.	1	2	3	4
10.	4	3	2	1	30.	4	3	2	1
11.	4	3	2	1	31.	1	2	3	4
12.	1	2	3	4	32.	1	2	3	4
13.	1	2	3	4	33.	4	3	2	1
14.	1	2	3	4	34.	4	3	2	1
15.	4	3	2	1	35.	1	2	3	4
16.	4	3	2	1	36.	4	3	2	1
17.	1	2	3	4	37.	1	2	3	4
18.	1	2	3	4	38.	1	2	3	4
19.	4	3	2	1	39.	4	3	2	1
20.	4	3	2	1	40.	1	2	3	4

**Participant Timeline**

Total Completion Time:  
Approximately 20 - 60 minutes

1. Receive admission materials, including instructions on how to sign into the online orientation.
2. Sign into the online orientation using the provided username and password.
3. Complete permission to participate in research form.
4. Complete Demographic Survey.
5. Complete STAI Form Y-1 (Pre-test).
6. Participate in the graduate online orientation program. Participants had the opportunity to review all information, but it was not required. Information provided

**Academics**

*Acalog video tutorial*  
*Graduate Assistantships*  
*Graduate Coordinator contact information*  
*Booth Library*  
*Panther Access to Web Services (PAWS) video tutorial*

**Social**

*Athletics*  
*Fine Arts*  
*Intramurals*  
*Graduate Student Academic Council*  
*Student Government*

**Student Services**

*First Mid Illinois Bank and Trust*  
*Child Care*  
*Financial Aid*  
*Housing*  
*Off Campus Housing*  
*Panther Card (ID)*  
*Parking*  
*Student Recreation Center*  
*Textbook Rental Services*

**Support Services**

*Academic Success*  
*Career Services*  
*Counseling Services*  
*Disability Services*  
*Health Services*  
*Minority Affairs*

**Technology**

*Center for Academic Technology and Support*  
*Email tutorial*  
*Laptop Referral Program*

7. Once the participant is finished, he or she would click the 'Finished' tab.
8. The STAI Form Y-1 would once again come up; this served as an immediate post-test.
9. Once the post-test was complete, the participant had completed the study.