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Effect of a Mindfulness Intervention on Community College Students' Writing Apprehension and Writing Performance

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**EFFECT OF A MINDFULNESS INTERVENTION ON COMMUNITY COLLEGE
STUDENTS' WRITING APPREHENSION AND WRITING PERFORMANCE**

by

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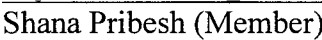
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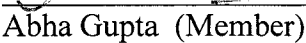
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ABSTRACT

EFFECT OF A MINDFULNESS INTERVENTION ON COMMUNITY COLLEGE STUDENTS' WRITING APPREHENSION AND WRITING PERFORMANCE

Megan E. Britt
Old Dominion University, 2011
Director: Dr. KaaVonja Hinton-Johnson

This experimental study used a quantitative data collection strategy to examine whether a mindfulness intervention, a three-minute breathing exercise marked by focused attention on the sensations of breath, would affect writing anxiety and writing performance measures. The researcher compared Daly-Miller Writing Apprehension surveys and narrative writing samples from 277 students enrolled in a freshman composition course at a southeastern community college, half of whom practiced the mindful-breathing technique at class onset.

Quantitative results revealed students in the mindful-breathing group experienced a statistically significant decrease in writing apprehension and mechanical error scores from pre- to post-measures when compared to controls. No statistically significant between group increase in word count per writing performance was found.

Findings suggest the mindful-breathing technique used in this study may reduce writing apprehension and improve narrative writing performance in community college students. These findings encourage further study of mindfulness interventions in educational settings and wider use of mindful breathing as a technique for managing writing apprehension and improving writing performance in community college students.

Committee Members:

Dr. Shana Pribesh
Dr. Abha Gupta

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and Karen Ludwig for their inspiration and guidance.

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CHAPTER I

“Writing in English is the most ingenious torture ever devised...”

-- James Joyce

As renowned Irish poet and novelist James Joyce suggests, the writing process entails a certain amount of creative tension. While crafting prose, writers develop ideas as they simultaneously search for the appropriate expression of those thoughts. Conflicting choices of invention and selection drive the writer’s creative tension. Composition scholars have long understood this tension and note writing is a recursive process, whereby writers return to their prose again and again to confirm diction choices, word order placement, grammatical correctness, logic of expression, readability, and the like (Emig, 1971; Murray, 1972; Perl, 1979). For some writers, executing written expression, with all its fits and starts, is intensely gratifying. For other writers, even great writers, the tension elicited by an invitation to write is, as Joyce says, torturous. Those who experience intense distress in writing situations may belong to a category of writers known as high apprehensives.

Purpose of Study

This study observed the effects of a mindful-breathing intervention on writing apprehension (WA) and writing performance (WP) scores in six experimental and six control classes of community college students. Writing apprehension, or writing anxiety, terms interchangeable in the literature, is defined as “a construct that refers to a person’s predisposition to undertake or to avoid writing tasks” (Daly, Vangelisti, & Witte, 1988). The WA construct has been identified as central to understanding the factors influencing students’ writing skill development.

Writing apprehensive individuals possess the tendency to experience an elevated degree of anxiety when asked to write, particularly when the written product is to be evaluated (Faigley, Daly, & Witte, 1981). Accordingly, WA is a situational trait. Its onset often coincides with students' early experiences with submitting writing for evaluation and its influence may continue throughout the writer's college years. No matter the age of the apprehensive writer, elevated WA is a factor that may inhibit a writer's demonstration of skill. As a result, high levels of WA may hinder a student's writing performance.

This study focused on WA and WP in college-age writers, and more specifically, writers in a freshman-level community college English course. The Daly-Miller Writing Apprehension Test (1975a) was used to measure WA levels. A narrative essay prompt (Gardner, 1999) gauged writing performances. It was conjectured that students who practiced a mindful-breathing exercise, when compared to students who did not, could eliminate or reduce WA and improve WP from pre- to post-measures.

Background

Much of what is known about WA initiates from the research of John A. Daly and Michael D. Miller who began studying the phenomenon as a form of communication anxiety in the early 1970s. The pair developed an instrument, The Daly-Miller Writing Apprehension Test (WAT), to measure an individual's disposition toward writing. With Daly and Miller's 26-item questionnaire, writers could identify their WA level along a continuum of low to high.

In the years to follow, Daly and Miller used their survey to make some critical observations about highly apprehensive college-aged writers. Compared to their low

apprehensive counterparts, high apprehensive writers had a greater tendency to report poor performances in writing courses and anticipated similarly poor performances in future courses. Individuals with high WA were also less likely to enroll in advanced writing courses and more likely to be males than females (Daly & Miller, 1975b).

Beyond the dispositional, behavioral, and gender disparities, anxious writers are apt to experience what psychologists call an approach-avoidance conflictive state (Lewin, 1935) elicited by the specific invitation to write. To illustrate, high WA writers may want to complete a writing assignment (approach), but not wish to experience (avoidance) what the writing process entails for them (i.e., fear of error, disapproval, or ridicule) (Gage, 1977). Not surprisingly, procrastination can be a familiar attribute of the high WA writer (Boice, 1985).

Writing Apprehension and Writing Performance

Both historical and current accounts of student writing apprehension emphasize the management of problematic WA is an important contributor to students' writing performance and academic success (Book, 1976; Daly, 1985; Faigley, Daly & Witte, 1981; Lee, & Krashen, 2002; Reeves, 1997). Highly anxious writers score lower on tests of reading comprehension and verbal ability (SAT) and perform differently on standardized writing tests, including college placement writing exams (Daly, 1978). Analysis of writing performances reveal high WAs produce shorter papers (Daly, 1977; Daly, 1978), with approximately one third fewer words (Book, 1976), less idea development, and more spelling and grammar usage errors than low apprehensive writers (Book, 1976; Faigley, Daly, & Witte, 1981). Not unexpectedly, high WAs also receive lower instructor evaluations (Daly, 1985).

Consequently, despite a common requirement that degree-seeking college students successfully complete a freshman composition course, high WA students may have difficulty doing so. If the high WA student attends freshman English at a community college, degree attainment is particularly challenging.

College Readiness of Community College Students

Open admission is a factor contributing to community college students' diverse writing skills. Often, community colleges require those who earn low scores on placement tests to register for remedial courses. Indeed, current data show nearly one fourth of community college freshmen enroll in some type of remedial writing course – enrollment nearly triple that of freshmen at four-year public colleges (Parsad & Lewis, 2003). Remediation data and studies of college writers indicate two-year students may lack college readiness due to poor quality writing performances associated with writing apprehension (Walsh, 1986; Pajares, 2003).

A Complex Issue

Despite acknowledgement of writing apprehension's role in student writing performance and an expanding and diversely skilled community college population, the WA/WP issue remains complex. A major stimulus for elevated writing anxiety, as reported by high apprehensive writers, is situational. That is, when expected to compose during class time (i.e., with a time restriction), highly apprehensive writers' anxiety increases (Penelitan, 2008). Unfortunately for high WA students, timed writing experiences are ubiquitous in education settings. From standardized writing exams to traditional classroom assessments, on-demand writing is a pedagogical staple. Without a

revolutionary shift in conventional writing assessment practices, an instructor's ability to alleviate students' anxiety is compromised.

With the unlikelihood of eliminating long established, timed writing experiences from assessment practice, instructors must seek alternative means for aiding high apprehensive students. Currently, mindfulness practices have shown increasingly promising results for anxiety reduction. Such practices may offer writing instructors an innovative approach to writing anxiety reduction and writing performance improvement.

Mindfulness

Originating from Asian cultures, mindfulness is a two-thousand-year-old traditional meditative practice that seeks to ease the emotional suffering that stems from dysfunctional thinking (Mellinger, 2010). Former elementary school teacher, current Buddhist nun, and author Pema Chödrön (2005) explains in her book, *When Things Fall Apart: Heart Advice for Difficult Times*, mindfulness is "pointing to being one with our experience, not dissociating, being right there when our hand touches the doorknob or the telephone rings or feelings of all kinds arise. The word *mindfulness* describes being right where we are" (p. 47). Essentially, Chödrön advocates mindfulness as training for facing the difficult, unsettling, or scary situations in life rather than retreating or escaping the perceived unpleasantness. In the case of writing apprehensive students, they endure a difficult or unsettling situation at each invitation to write. In light of Chödrön's definition, mindfulness has the potential to train writing apprehensive students to persevere rather than retreat from anxiety-eliciting writing situations.

Western cultures formally aligned mindfulness practices with medicinal contexts over three decades ago with the founding of the first mindfulness-based stress reduction

program at the University of Massachusetts Medical Center Stress Reduction Clinic in Worcester, MA. Since then, research centers such as the Duke Center for Integrative Medicine, UCLA's Mindful Awareness Research Center, and Penn State's College of Health and Human Development continue to investigate the impact of mindfulness-based interventions on a range of medical conditions.

University of Massachusetts program founder, Dr. Jon Kabat-Zinn, defines mindfulness as “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally” (1994, p. 4). Under Kabat-Zinn's supervision, mindfulness-based stress reduction clinic attendees learn to recognize thoughts as events, not facts. They develop the ability to modulate their thinking away from anxiety producing self-talk by refocusing their attention to the current moment. This fundamental skill, returning attention to the present moment, gives the mindfulness practitioner an ability to respond to negative or limiting thoughts, sensations, and emotions without rumination (Toneatto & Nguyen, 2007).

Mindful Breathing

The specific mindfulness intervention in this study is a practice called mindful breathing. During mindful breathing, the individual redirects the mind's attention from discursive thoughts to the inhaling and exhaling of breath. Returning one's focus, time and again, to the breath heightens awareness of two critical concepts: (1) the mind has a propensity to wander and (2) the mind's wanderings correspond with emotional responses. Continued mindful breathing practice furthers the ultimate goal of strengthening attentiveness by focusing on the present moment (Kabat-Zinn, 2003).

Seemingly, this metacognitive strategy enhances the individuals' ability to identify and respond to anxiety's early indicators. In fact, research supports this notion. Researchers found regular practice in mindfulness strategies, including mindful breathing, may enhance anxiety-prone individuals' facility for recognizing and disengaging from anxiety-inducing thoughts before such thoughts produce unproductive responses (see, for example, Kabat-Zinn, Massion, Kristeller, Peterson, Fletcher, Pbert, Lenderking, & Santorelli, 1992; Salmon, Sephton, Weissbecker, Hoover, & Studts, 2004; Tacon, McComb, Caldera, Randolph, 2003; and Toneatto, 2002).

With these findings as background, the present study sought further information regarding the effect of a mindful breathing intervention on the writing anxiety and writing performance of community college students. Additionally, the investigation was informed by the work of Jack Mezirow (1978, 1991, 1994, 2000).

Theoretical Framework

In the present study, mindful breathing was tested for its ability to alleviate anxiety and foster improved writing performance in writing apprehensive community college students. This study drew from the theoretical work of Mezirow whose transformative learning theory offers a structure to comprehend the wide range of experiences connected to adult learners' cognitive growth and development.

Prior to Mezirow, few cognitive theorists focused on the particular processes of adult learners. Prominent figures such as Jean Paul Piaget, Lev Vygotsky, and Maria Montessori developed and articulated cognitive development theories associated with children. Not until Mezirow's (1978) study of eighty-three women

returning to community college were the initial precepts of adult learning theory born.

Mezirow (2000) describes the adult learning process as "becoming critically aware of one's own tacit assumptions and expectations and those of others and assessing their relevance for making an interpretation" (p. 4), a process distinct to adult learners. Transformative learning itself refers to transforming one's limiting view, also called one's problematic frame of reference, to make it more reliable. Through exposure to alternative opinions and interactions, the learner becomes critically reflective of his/her own problematic views (Mezirow, 2000).

More specifically, when an individual becomes aware of holding a limiting or distorted view, such as the limiting views held by apprehensive writers (e.g., *I am not good at writing; my writing needs to be perfect before I can share it.*), a critical examination of this view provides an awareness of alternative views (e.g., *My writing anxiety is simply an emotional response to writing. I can write if I focus on the writing, not on the feelings generated by anxiety. Every piece of writing can be improved but even the most talented writers surrender their imperfect writing at deadline.*) Awareness of alternative views transforms the way an individual sees him or herself, and theoretically in the case of writing apprehensive students, transforms the way the student assesses his or her writing experiences.

Subsequently, Mezirow (1994) argues adult educators have a unique role. Assisting adult learners in their examination of the assumptions that underlie their beliefs, feelings and actions is paramount. For instance, if teaching highly apprehensive writing students, the instructor could provide a class exercise that allows learners to explore their

beliefs about writing. Such self-examinations may reveal limiting assumptions, such as the belief that the writer expects to receive negative evaluations and do poorly in composition classes.

Mezirow (1994) maintains the educator's next step is to aid the adult learner in assessing the consequence of his/her assumptions. For example, the educator may ask highly apprehensive writers to reflect upon the consequences experienced because of their assumptions about writing. A highly apprehensive writer may communicate his/her difficulty composing, meeting deadlines, or engaging in peer editing activities.

Once consequences are examined, Mezirow asserts the educator should aid adult learners in identifying and exploring alternative sets of assumptions. For example, the educator may express to apprehensive writers that evaluation can be seen as empowering instead of punitive. Real world writers, even the most skillful of writers, work with editors and many professional writers wish they had more time to revise their work. Through these and similar discussions, educators can assist adult learners in expanding their views about writing, challenging their existing assumptions, and considering alternative perspectives.

Finally, the educator should provide opportunities for adult learners to test the validity of their assumptions through participation in reflective dialogues. To illustrate, educators can use critical reflection as a means of reviewing actual events. For example, highly apprehensive writers can respond whether or not submitting their written work for evaluation elicited the ridicule they anticipated. Perhaps their work garnered praise instead. Were the highly apprehensive writer's original assumptions correct or in need of revision?

Critical reflection of assumptions is the process by which adults learn to think for themselves and free themselves from the mindless acceptance of what they believe to be true, based on their former experiences (Mezirow, 2000). In the case of the highly apprehensive writer, critical reflection allows the writer to question his/her anxiety-ridden predisposition toward writing situations and writing outcomes. According to Mezirow (1991), insight gained through the transformative learning process “is irreversible once completed; that is, once our understandings clarified and we have committed ourselves fully to taking the action it suggests, we do not regress to levels of less understanding” (p. 152). Insight, when applied to writing apprehension contexts, may transform high apprehensive writers into confident composers. Theoretically speaking, the transformation is not only possible, but also irreversible once taken hold (Mezirow, 1991).

Primary criticism of Mezirow’s transformative learning theory relates to Mezirow’s emphasis on rationality and critical reflection in the learning process. Mezirow (1991) asserts learning is change. Change in perspectives, or transformation, comes about through rational and analytical examination of one’s assumptions and beliefs.

Critics argue transformative learning involves an affective element Mezirow ignores. Grabov (1997) maintains Mezirow’s theory is limited by its focus on rational thought and offers transformative learning is an “intuitive, creative, emotional process” (p. 90). Taylor (1998) similarly acknowledges transformative learning theory is limited by its preference for analytical reasoning over affective processes.

Boyd and Myers (1998) further the idea that change in perspective embodies emotional processes beyond the rational and analytical. The researchers assert in the course of replacing old perspectives with new, more relevant beliefs, learners may experience distress and there may be a period of discomfort as learners adopt new patterns of thinking; therefore, transformative learning is both an emotional and rational process.

A second limitation of Mezirow's theory arises in its practical application. Taylor (1998) found not all learners, or educators for that matter, are willing to take part in transformative learning. The educator plays a critical role in shaping learners' transformative learning experiences. He/she assists learners in examining assumptions, assessing consequence of assumptions, identifying alternative beliefs, and providing opportunities for reflective dialogues (Mezirow, 1994). Not all educators, however, may feel comfortable with this role, or even the goal of transformative learning.

Further, some learning situations do not necessarily lend themselves to transformative learning. Mezirow (1991) recognizes all learning as change, but acknowledges not all change is transformational. Some learning is transmissional by design (Miller & Seller, 1990). For example, a skill-based curriculum such as cardio pulmonary resuscitation (CPR) instruction, does not require a fundamental change in one's perspective and is not well suited for transformative learning.

Motivation & Research Questions

Although much is known about the implications of elevated writing anxiety on writing performance, effective strategies for managing writing anxiety are less known. This study assessed the efficacy of one such strategy, mindful breathing, on community

college students' writing apprehension and writing performance. In comparing pre- and post-WA scores and pre- and post-WP scores of students who practiced a breath-focusing mindfulness exercise for six sessions (approximately three minutes/class) with those who received no mindfulness training, the researcher sought to understand if the intervention eliminated or reduced writing anxiety and/or improved writing performance over controls.

Hence, the specific research questions this study addresses were: (a) How does a mindfulness intervention strategy affect community college students' writing apprehension (WA) scores? and (b) How does a mindfulness intervention strategy affect community college students' writing performance (WP)?

To study the affect of the independent variable (assignment to either mindful-breathing or control group) on the dependent variables (writing apprehension and writing performance scores), two, one-directional hypothesis were proposed. The first conjectured the mindful-breathing technique would reduce community college students' writing apprehension as indicated on the Daly-Miller WAT. The second hypothesis held the mindful-breathing technique would improve community college students' writing performance as measured by the narrative essay prompt (NEP) responses.

Overview of Method

An experimental study using quantitative data was employed to address the research questions. As students were randomly assigned by course section to either the mindful-breathing or control group, group assignment was the independent variable. Students' scores on the Daly-Miller WAT and NEP comprised the dependent variables.

Participants included male and female community college students enrolled in English 101 courses offered at a Southeast community college in the spring 2011 semester (N=277). As community colleges historically reflect diverse enrollments, this study's participants were similarly diverse. Individuals ranged in age from 17-56 years and represented a variety of socioeconomic and racial backgrounds.

This study relied on survey and experimental methodologies and a quantitative data collection strategy. At the study's onset, all sections of English 101 students completed the Daly-Miller WAT and composed a timed, prompt-driven narrative essay. Half of the English 101 students, randomized by course section, participated in the mindful-breathing intervention. Half received no intervention. At the close of the study, students in both the mindful-breathing and non-mindful breathing sections of English 101 again completed the Daly-Miller instrument and wrote a second timed, prompt-driven narrative.

The researcher executed delivery of pre- and post-WATs and writing prompts. Acquired data included closed-ended questionnaire responses as well as word counts and error counts from students' written essay responses. Data were analyzed with descriptive and inferential statistics.

Significance of Study

By studying writing anxiety in community college students, a previously unexamined population, this research augments the existing body of knowledge regarding writing apprehension. Techniques for managing writing anxiety in apprehensive high school, four-year undergraduate, and graduate student writers are known (see, for example, Bloom, 1979; Fox, 1980; Reeves, 1997; and Smith, 1984); yet, specific

techniques for managing writing apprehension in community college students are missing from the literature.

The current study also informs of an original application of a mindfulness practice. Although recent clinical studies have pointed to mindfulness' efficacy for anxiety reduction (Kabat-Zinn, Massion, Kristeller, Peterson, Fletcher, Pbert, Lenderking, & Santorelli, 1992; Tacon, McComb, Caldera, Randolph, 2003; Toneatto, 2002); its value as an intervention for *writing* anxiety is unknown.

The mindful-breathing intervention's brief duration and field-based setting provides another point of uniqueness. Prior mindfulness research has found mindful breathing can moderate patients' anxiety symptoms in clinical trials; however, those interventions were up to eight weeks long (Kabat-Zinn, Massion, Kristler, et al., 1992; Tacon, McComb, & Caldera, 2003; Toneatto, 2002). An eight-week intervention in a clinical setting is not likely compatible with students' schedules or traditional academic structures. This study tests whether a more compatible design, an abbreviated intervention in a classroom setting, would elicit similar results.

By examining mindful breathing's role in writing performance, this study also supplements research into writing pedagogy. Anecdotal evidence from curriculum developers, professional writers, and writing scholars point to the significant role mindfulness practices play in writing performance (Goldberg, 1986; Hendricks & Wills, 1975; Hendricks & Roberts, 1977; Moffett, 1988; Perl, 2004); however, empirically-based research in support of such claims is absent in the literature. This study may be one of the first to employ experimental design to research mindful breathing's effects on writing performance.

Delimitations & Limitations

This study was limited to one mindfulness intervention, mindful breathing, and did not intend to be inclusive of all mindful techniques. Although other mindfulness-based anxiety reduction and writing performance enhancement methods exist (e.g., yoga postures, walking meditations, visualizations), these techniques, while interesting, were not pursued in this particular study because (a) they require writing instructors to participate in lengthy instructional preparations, (b) are challenging to integrate in traditional classroom environments, and (c) would exceed the researcher's limited time and financial resources for conducting this study.

Similarly, the researcher acknowledges this study centers on a college student population enrolled in a southeast, coastal, two-year institution. While it may be reasonable to infer similar findings would result from a study of other two-year colleges with similar characteristics, the researcher cannot draw conclusions from the data about all college students, nationwide. In limiting the study's focus to one community college population, generalizability of results is also limited. This limitation, however, provides an impetus for subsequent studies culled from a nationwide population. Further limitations include self-reported data and undetermined English 101 course enrollments at the study's proposal.

Summary

The remainder of the study is organized into four additional chapters, a list of references, and appendices in the following manner: Chapter Two summarizes current knowledge on community college students, cites existing strategies for managing students' writing apprehension, delineates recent research on mindfulness-based anxiety

reduction, and relates positions of curriculum developers, writing scholars and instructors who hold a mindful approach improves writing performance; Chapter Three provides an explanation of the research methodology, including the study's context and location, instrumentation, data collection and analysis procedures; Chapter Four provides data analysis findings of the mindful-breathing intervention's effect on community college students' writing apprehension levels and writing performances; and Chapter Five outlines the study's pedagogical implications and offers avenues for future research.

CHAPTER II

REVIEW OF RELATED LITERATURE

Chapter Overview

Criteria for Literature Selection & Organizational Strategy

This literature review utilized standard electronic databases and on-line catalogs. Comprehensive searches were conducted up through March 2010 in four relevant electronic databases: Education Research Complete, ERIC, MEDLINE, and Psychology and Behavioral Sciences Collection. The search was confined to peer-reviewed books, journal articles, papers, and research reports. Source material dealing directly with writing apprehension, writing performance, writing instruction, mindfulness, mindfulness based stress reduction, and community college students was included in the review.

The review is divided into five areas. After summarizing the current knowledge on community colleges students and writing apprehension, existing writing apprehension management strategies are examined. Next, relevant research in mindfulness-based anxiety reduction techniques is discussed. Finally, positions of curriculum developers, writing scholars, and instructors who argue a mindful approach improves writing performance are presented.

Community College Students

According to the White House Summit on Community Colleges (2010), just over one third of all postsecondary students, approximately six million a year, attend community colleges. To clarify, community colleges are postsecondary, public, two-year institutions and many are open access institutions; meaning students may enter college

regardless of academic readiness. In fact, in 2005-06, only 4.2 percent of public community colleges required a high school transcript (Horn, 2009).

Potential Economic Engine

A recent study by the Center for Education and the Workforce at Georgetown University estimates to meet the present economic challenges and increase global competitiveness, the United States will require 22 million workers with post-secondary degrees by 2018 (Carnevale, Smith, & Strohl, 2010). Acknowledging the need for more educated workers and the significant function community colleges play in workforce development, President Obama initiated the White House Summit on Community Colleges (White House, 2010) and proposed the American Graduation Initiative (White House, 2009). Both plans look to community colleges to help restore economic competitiveness via a college-educated, 20th-century-skilled workforce.

Despite these historic firsts in presidential support, community colleges traditionally succumb to high student attrition rates. Enrollments at two-year, public colleges have risen in the last decade (Aud, Hussar, Planty, & Snyder, 2010); yet, increased enrollments have not translated into more graduates. Recent NCES data show just over 20 percent of community college students receive a certificate or associates degree within six years, while nearly 40 percent drop out of college (Walton-Radford, Berkner, Wheelless, & Shepherd, 2010).

Community College Student Challenges

Community college students face distinct challenges as compared to their four-year counterparts. Enrollees are more likely to be non-traditional, minority students from low-income families (Horn, 2009). Approximately 20 percent are married with children,

and 15 percent are single parents (Horn & Neville, 2006). Nearly half are first generation college students and approximately 15 percent are non-native English speakers (Bailey, 2005; Bailey, Jenkins, & Leinbach, 2005). Over 60 percent are part-time enrolled, almost 85 percent are employed, and just over half work full time (Wilson, 2007).

Students in the two-year sector principally seek certificates, associate's degrees, or a transfer of academic credits to a four-year year college or university (NCES, 2010). Attaining the goal is difficult. Community college students characteristically face significant personal and institutional barriers to achievement, from fear of failure to naiveté navigating the higher education culture (Cox, 2009; Dougherty & Kienzl, 2006; Nora, 1993). Additionally, remediation studies indicate large numbers of community college students arrive at college academically underprepared. In addition to underpreparedness, researchers indicate and community college students' poor quality writing performances may be associated with writing apprehension (Walsh, 1986; Walsh, 1992).

Writing Apprehension in College Students

Although a review of literature produced no writing apprehension studies specific to community college populations, research on four-year college students abounds. Prior studies comparing high writing apprehensive college students to their low apprehensive counterparts produced five relevant findings about students with higher writing anxiety levels: (1) they are less attracted to college majors they perceive as writing-intensive (Daly & Shamo, 1978); (2) less confident about their writing (i.e., report less past writing successes and anticipate fewer future successes) (Daly & Miller 1975b), (3) use less intense language (Daly & Miller, 1975b), (4) write shorter pieces (Book, 1976), and (5)

their writing apprehension significantly correlates with their course grades (Seiler, Garrison, & Bookar, 1978). Variations between high apprehensives and their low apprehensive counterparts are principally apparent in composition length, mechanics, and grammar usage (Daly, 1978).

Factors Contributing to Writing Apprehension

What causes writing apprehension? The question is not easily answered because no research pinpoints a direct cause. Several studies, however, identify contributing factors, among them particular teacher practices, individual student characteristics, and unchecked fear.

Research indicates teacher instructional choices and behaviors concerning writing may initiate or escalate WA (Daisey, 2009, Thompson, 1979a). Ambiguous assignments and explicitly critical evaluation practices increase WA (Donlon, 1990; Donlon & Andreatta, 1987). Whole-group writing instruction (Daly & Shamo, 1978; Pajares, 2003), compulsory writing experiences (Powers, Cook, & Meyer, 1979) as well as audience, topic, and time restrictions (Newkirk, 1979) are also problematic for the apprehensive writer. If asked to compose in the narrative genre, the highly apprehensive writer's anxiety is especially intense. As a result, high WAs often prefer persuasive essays where argument, not self-disclosure, is required (Faigley, Daly, & Witte, 1981).

Individual characteristics, such as negative self-talk (Madigan, Linton, & Johnson, 1996), self-inflicted perfectionism (Boice, 1985; Newkirk, 1979), and a history of negative instructor responses to written work (Daly, 1977; Pajares, Usher, & Johnson, 2007) may also play a role. Moreover, research shows when it comes to writing anxiety, confidence matters (Daly & Wilson, 1983; Pajaras, 2003). A writer's self-efficacy

beliefs correlate with WA levels, and low confidence, not limited skill, often accounts for WA (Pajaras, 2003; Madigan, Linton, & Johnson, 1996).

Unchecked fear may also be a contributing factor. Fear of the empty page, of arranging one's thoughts, of revealing oneself in text, and having one's writing evaluated are common (Thompson, 1979b). Whether these fears are exhibited individually or in combination, if left unchecked, they can be an impetus for elevated WA.

Misconceptions of the Highly Apprehensive Writer

One commonly held misconception about highly apprehensive writers is their anxiety is merely a form of writer's block. Writer's block is a cognitive state in which the writer struggles with idea invention (Rose, 1980, 1985); it is not an expression of writing anxiety. The confusion stems from the fact that these writing hardships share two important commonalities. First, both conditions can be a source of frustration, and second, both impede the writing process (Elbow, 1988, 2000; Rose, 1980, 1985). Although initiating writing can be difficult for both high WA and blocked writers, WA does not manifest as a loss of inspiration. Elevated WA is marked by fear (Thompson, 1979b), not a struggle with idea invention.

One final misconception is highly apprehensive writers fear and avoid writing situations simply because they lack writing proficiency. Yet, research indicates the opposite may be true (Faigley, Daly, & Witte, 1981; Bloom, 1980). Highly anxious writers may be skilled and motivated to compose, while writers reporting low WA levels may exhibit limited writing proficiency (Minot & Gandle, 1991).

Writing Apprehension's Impact on Writing Performance

Elevated writing apprehension may impact a writing performance in such a way as to create an inaccurate reflection of the writer's cognitive awareness. Simply stated, highly apprehensive individuals' written products may make them appear less clever than they are. Faigley, Daly & Witte (1981) study of 110 undergraduate college students indicated higher apprehension was inversely proportional to writing quality.

Further studies show when these highly anxious writers compose, their products have fewer words, less idea development, less sentence pattern variety, less sentence structure complexity, and more usage and mechanics errors (Faigley, Daly, & Witte, 1981; Hays, 1981; Daly, 1978). Some anxiety-ridden writers will even avoid submitting work to save themselves from "self-exposure, criticism, ridicule, failure" (Boice, 1985; Reeves, 1997, p.38). Particularly when a high WA writer is limited by time constraints, his/her writing quality suffers (Kean, Glynn, & Britton, 1986).

Collectively these studies support the assertion that writing apprehension interferes with writing skill development. Discovering effective methods for combating high levels of writing apprehension in community college students is a critical area of investigation.

Managing Students' Writing Apprehension

Writing apprehension may negatively impact a students' writing performance, therefore, identifying effective instructional methods for lessening writing anxiety is an imperative. Research shows writing instructors have a vital function in helping students manage WA.

Pedagogical Strategies

Reeves (1997) identifies several strategies instructors can use with students whose writing apprehension interferes with their writing efforts. She encourages a pre-writing activity where teachers form small groups early in the course to talk about past writing experiences with students. The focus is to help students put any negative past experiences in perspective.

To combat the greater propensity for errors in high WA's finished products, Reeves also advises teachers to perform individual and small group "error analysis" conferences to assist students in their ability to locate and self-correct error patterns. The rationale here is these conferences, may "improve high apprehensives' confidence in their ability to edit their own work," (Reeves, 1997, p. 40).

The literature, however, is inconclusive about the efficacy of peer conferencing and pre-writing conferences as WA management strategies. Schweiker-Marra & Marra's (2000) six-month experimental study of 38, Title I, fifth-grade students found instructor and peer pre-writing conferences led to no significant reduction in WA levels. Similarly, Pfiefer's (1981) experimental study of 92 college freshman writers found peer evaluation of student work elicited no significant WA decrease or WP increase after six weeks.

Evaluation Practices

Since high WAs are likely to report receiving negative evaluations and expect similar for future writing attempts, productive evaluation practices are another important focus. As a means of reducing WA, Walsh (1986) suggests writing evaluation should emphasize successes and progress instead of failure reinforcement and recommends students participate in several ungraded writing opportunities. At this time, the efficacy

of Walsh's recommendations is undetermined. No literature has been published on the effect of ungraded writing opportunities or positive evaluation practices on WA reduction.

Although researchers and writing instructors have recommended and studied strategies to alleviate WA, empirically sound, classroom-appropriate strategies for helping students manage writing anxiety remain absent in the literature. The void is problematic. Studies show elevated WA negatively impacts writing performances, particularly when those writing performances are executed in a time-limited format (see, for example, Book, 1976; Daly 1985; Daly & Miller, 1975b; Daly, Vangelisti & Witte, 1988, Faigley, Daly, & Witte, 1981; Kean, Glynn, & Britton, 1986; Lee & Krashen, 2002). As timed writing exercises are a traditional and pervasive form of assessment, identifying and evaluating methods for managing WA is an important area of research. Currently, mindfulness-based anxiety reduction offers a novel, empirically grounded approach to WA management.

Mindfulness-Based Anxiety Reduction

Mindfulness-based anxiety reduction programs typically feature weekly sessions of training and participation in mindfulness practices, including silent and guided sitting meditations, body-scan, eating and walking meditations. Also common are yoga practice and education regarding the seven principles of mindfulness: acceptance, non-judging, non-striving, beginner's mind, letting-go, patience, and trust, as well as the mindfulness principles of de-centering and non-attachment. Weekly homework often includes daily sitting meditation and/or yoga practice as well as cognitive therapy exercises intended to

develop participants' ability to apply mindfulness principles to cope with life stressors (Kabat-Zinn, 1990).

Although mindfulness-based approaches are increasingly employed as interventions for a range of psychological and physical problems, a number of recent studies empirically associate mindfulness practices specifically with anxiety reduction in varied populations. Vollestad, Sivertsen, and Nielsen (2011) investigated the effect of mindfulness-based stress reduction (MBSR) on 76 self-referred patients with heterogeneous anxiety disorders, randomized to MBSR or a waiting-list control condition. Participants completing the eight-week MBSR intervention improved significantly on all outcome measures of anxiety compared to controls. Tacon and his colleagues (Tacon et al., 2003) similarly examined the effectiveness of an eight-week MBSR program on 20 females with anxiety, randomized to control and study groups of 10 participants each. Significant anxiety reductions were found in the study group when pre- and post-intervention anxiety scores were compared.

Reibel, Greeson, Barinard, & Rosenzweig (2001) reported a 44 percent reduction in anxiety from pre-to post measures in 136 patients with mixed medical conditions after an eight-week MBSR program. In a follow-up survey, 30 percent of participants responded and reported maintenance of anxiety reduction. Additionally, weekly instruction in mindfulness meditation significantly lowered anxiety in a study of 90 randomized cancer patients, heterogeneous in type and stage of cancer (Specia, Carlson, Goodey, & Angen, 2000); and in Kabat-Zinn and colleagues' (1992) study of mindfulness-based stress reduction program participants with anxiety disorders, significant reductions in anxiety scores were found in 20 of 22 participants and anxiety

reductions were maintained during a three-month follow-up period. These findings are consistent with a recent qualitative study of fifteen individuals diagnosed with schizophrenia spectrum disorders who, when interviewed after participating in a mindfulness-based intervention, reported reduced anxiety (Brown, Davis, LaRocco, & Strasburger, 2010).

Tang et al. (2007) extended beyond traditional self-report anxiety measures to blood-based indicators in their study of 80 undergraduate students, randomized to experimental or control groups. To induce stress, the investigators asked participants to solve a complicated math problem. In response to the math task stressor, mindfulness practitioners experienced lower stress-related cortisol levels in the blood stream over control groups.

The Tang et al. (2007) study was one of the first to link mindfulness to stress reduction via blood based indicators. A brief recap of the body's stress response illuminates the cognitive value of Tang's findings. Under stressful conditions the body's adrenal glands produce the hormone cortisol. Although the cortisol-producing adrenal glands sit atop the kidneys, it is the brain that controls the hormone's release into the blood stream. If mindfulness practice influences cortisol levels in the blood stream, then potentially mindfulness practice influences the brain activity that controls cortisol's production and release. Consequently, Tang's results spurred further interest in examining potential brain changes following mindfulness training.

Mindfulness and the Brain

Almost three years after Tang's findings were published, the first longitudinal study investigating structural brain changes related to mindfulness training was

published. Advances in neuroimaging technology allowed scientists examining stress reduction to shift their focus from blood-based indicators to brain-based cues found in the amygdala, the brain region that controls fear and anxiety. Located within the brain's medial temporal lobes, the amygdala processes the body's anxiety reaction. Hölzel et al. (2010) used neuroimagery to correlate reductions in right basolateral amygdala gray matter density with decreases in twenty-six participants' stress ratings after an eight-week mindfulness-based intervention. Similar to traditional mindfulness-based stress reduction (MBSR) interventions, the Hölzel et al. (2010) intervention consisted of weekly group meetings and daily home mindfulness practices, including yoga practice and listening to a pre-recorded guided meditation.

A second study, Hölzel et al. (2011), found that an eight-week program of MBSR training resulted in increases in gray matter density in areas of the brain associated with learning and memory processes, emotion control, self-referential processing and perspective taking (e.g., the left hippocampus, posterior cingulated cortex, temporo-parietal junction, and cerebellum). Pre- and post-MBSR program brain scans of sixteen participants were evaluated, as were seventeen scans of control group participants who received no mindfulness intervention but whose were scanned during the same time period. Although the MBSR participants' brain scans revealed significant changes in brain density, no significant increases or decreases in gray matter were identified in the control group.

In combination, the Hölzel et al. findings (2010, 2011) suggest that retraining one's emotional responses to stress, as such through mindfulness intervention, can lead to positive changes in brain structure and perceived well-being. It is important to note

mindfulness interventions may elicit both beneficial brain changes and positive emotional states, independent of whether or not there is a change in the individual's external environment. The studies offer hope for apprehensive community college writers who, unable to change their anxiety-evoking external environments, must nonetheless compose competently during in-class writing assessments.

Brefczynski-Lewis, Lutz, Schaefer, Levinson, and Davidson (2007) similarly reported differences in the brain structures of those who practice attentional focus meditation, a specific type of mindfulness training. In attentional focus, practitioners concentrate on a small object or the breath. Neural differences between expert attentional focus meditators, those with 10,000-50,000 hours of concentration practice, and novice attentional focus meditators, those with no prior meditation experience were determined via functional magnetic resonance imaging (MRI).

The functional MRI is a specialized type of MRI scan which measures the change in blood flow related to brain activity. In the Brefczynski-Lewis et al. (2007) study, the MRI's of expert meditators revealed less blood flow and therefore less brain activation in regions associated with distracting thoughts and emotions and more activation in brain regions related to attention. These findings suggest the efficacy of using meditation and other mindfulness techniques as an intervention for writing apprehensive individuals. The ability to direct one's attention away from discursive thoughts and toward the writing process is a critical skill for all writers, but especially so for the highly apprehensive who may be distracted by negative self-talk.

On a related point, mindfulness-based interventions are also associated with two additional cognitive situations that may trouble the highly apprehensive writer: negative

automatic thinking and rumination. Frewen, Frewen, Evans, Maraj, Dozois, and Partridge (2008) evaluated 43 undergraduate psychology students for their ability to disconnect from the negative automatic thought patterns characteristic of depression and generalized anxiety.

The eight-week intervention consisted of once-weekly 120–150-minute sessions of mindfulness meditation practices, yoga, homework, and education in mindfulness principles. Post-intervention participants reported a greater capacity to let go of their negative thoughts and a decrease in frequency of negative automatic thinking.

These findings are consistent with earlier studies that reported mindfulness-based interventions can reduce rumination (Broderick, 2005; Ramel, Goldin, Carmona, & McQuaid, 2004) and offer potential support for writing apprehensive individuals who may similarly ruminate on past writing failures.

Clinical Applications: Success and Criticism

Researchers continue to examine a number of applications for mindfulness techniques and this study is situated among them. Greeson (2009) of Duke University Medical Center's Department of Integrative Medicine, found 52 examples of empirical and theoretical work, between 2003 and 2008, studying mindfulness' effects on the mind, brain, body, and behavior. Opinions regarding mindfulness' efficacy at anxiety reduction are varied – from researchers who firmly believe individuals highly trained in mindful behavior are less stressed and anxious (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Baer, 2003; Goldstein, 2002) to those who deny mindfulness' ability to reduce worry and negative thought ruminations (Weiss Nordie, & Siegel, 2005; Marcus, Fine, & Kouzekanani, 2001; Williams, Kolar, Reger, & Pearson, 2001).

One impediment to a unified position on mindfulness' efficacy for anxiety reduction is the wide parameter of mindfulness techniques employed during empirical studies (Chiesa & Malinowski, 2011). From yoga retreats, to tai chi trainings, to daily sitting meditations, mindfulness interventions have embodied a number of different practices. The amount of variation in intervention frequency and time period make it difficult to draw generalizations.

Not surprisingly, variability among technique, duration, and sample has led researchers to conflicting results. Fibromyalgia sufferers, for example, who took part in ten daily 20-minute meditation practice sessions with guided audiotapes reported positive change on anxiety (Goldenberg, Kaplan, & Galvin-Nadeau, 1994), while drug users in a therapeutic community who participated in an eight-week, two and a half hours per week yoga practice did not report significant anxiety reduction (Marcus, Fine, & Kouzekanani, 2001).

Overall, current empirical studies of mindfulness practices have been met with mixed reviews. Meta-analyses of findings from 55 studies indicate some mindfulness practices generate significant changes in healthy participants (Ospina, Bond, Karkhaneh, Tjosvold, Vandermeer, Liang, Bialy, Hooton, Buscemi, Dryden, & Klassen, 2007). As evidence of the scientific communities growing interest in mindfulness-based interventions, funding for mindfulness research by The National Institutes of Health (NIH) has grown from three studies in 1999 to 44 studies a decade later (NIH, 2009).

Many note that although mindfulness research continues to increase at a swift pace, it is still in its infancy. Calls for well-designed investigations to determine which

mindfulness practices are effective for which populations, in what settings, and over what duration are common (Shapiro & Carlson, 2009).

Critics, on the other hand, cite poor methodological quality of mindfulness-based research. An absence of control groups, small sample sizes, lack of randomization, and reliance on self-report measures are familiar criticisms (Chiesa & Serretti, 2010; Ospina et al., 2007; Toneatto & Nguyen, 2007; Winbush, Gross, & Kreitzer, 2007).

Challenges to Mindfulness Applications in Educational Settings

While acknowledging the need for rigorous empirical studies, educational environments introduce specific challenges to mindfulness research. Investigating a traditional mindfulness-based program's efficacy for writing anxiety reduction is hampered by two primary factors: the program's duration and its financial commitment. With its eight-week format, mindfulness based stress reduction (MBSR), the most well documented, successful mindful application, requires substantial time and financial investment. Training sessions typically include 26 hours of instruction divided into mindfulness meditation practice, yoga-based mindful movement exercises, and discussion (Carmody & Baer, 2009). Writing instructors are not likely to have the time or monetary resources necessary to execute MBSR in traditional college course settings.

Fortunately, recent research indicates shorter formats may provide similar benefits found in longer mindful interventions. Zeidan, Johnson, Diamond, David, and Goolkasian (2010) investigated a four-day, 20-minute per day mindful-breathing intervention where participants focused on the sensations of the breath/body while keeping a relaxed state. When compared to controls, the 20-minute meditation training significantly reduced participants' anxiety scores. A second study (Zeidan, Gordon, &

Goolkasian, 2009) similarly reported participants' reduced anxiety scores after a three-day, 20-minute per day mindfulness training when compared to baseline measures. Together these studies indicate the potential efficacy of abbreviated mindfulness interventions.

Mindful Breathing

Mindful breathing teaches the practitioner to acknowledge wandering thoughts and return his/her attention back to the inhaling and exhaling of breath (Wallace, 2006). With continued mindful breathing practice, practitioners strengthen their ability to modulate their thinking away from anxiety producing self-talk by refocusing their attention to the current moment.

This fundamental skill, returning attention to the present moment, gives the practitioner an ability to respond to negative or limiting thoughts, sensations, and emotions without rumination (Toneatto & Nguyen, 2007). Paying attention to the breath without suppressing any thoughts, focusing attention to thoughts, or clinging to thoughts is mindful breathing's intended outcome. As Moyers, Flowers, and Grubin (1993) explain, paying attention wholeheartedly, attending directly to one's experience no matter how disagreeable, one learns that it is possible to relate differently to stress, pain, or any situation.

Mindful breathing may be an effective method for combating stressful stimuli. As breathing is closely aligned to emotions, the breath alters in response to stressful stimuli (Boiten, Frijda, Wientjes, 1994). When anxious, an individual's breathing rate increases, which triggers the sympathetic nervous system's release of stress hormones (Homma & Masaoka, 2008). For the highly writing apprehensive such stressful stimuli

may include seeing a blank page or the being asked to compose under a time limit (Thompson, 1979b). Neuroscientists hold slow, deep abdominal breathing may alleviate anxiety symptoms by signaling that the body's parasympathetic nervous system is actively recuperating from its stressed state (Smalley & Winston, 2010). It follows then, as a benefit to highly anxious writers, mindful breathing has the potential to curb the body's anxiety response.

Mindfulness and Writing Performance

Beyond applications for alleviating anxiety symptoms, mindful breathing and focused attention also have practical applicability to writing performance. The concept of aligning mindfulness techniques with American school curriculum surfaced in the mid-1970s when Prentice-Hall published two texts: *The Centering Book: Awareness Activities for Children, Parents, and Teachers* (Hendricks & Wills, 1975) and *The Second Centering Book: More Awareness Activities for Children, Parents, and Teachers* (Hendricks & Roberts, 1977). Offered as “the core of a curriculum for the development of affective, intuitive, and creative processes” (Hendricks & Wills, 1975, p. xii), the authors featured breath-focusing activities to foster inner attention and argued learners comprehend better and experience enhanced creativity while in a state of relaxed alertness (p.171).

Nearly a decade later, James Moffett, a composition scholar and meditation practitioner, further explored the connection between mindfulness and curriculum in *Coming on Center: English Education in Evolution* where he reasoned meditation makes better writers. “Meditation techniques,” said Moffett, “show how to witness one's own mind, direct one's own mind, and silence one's own mind. Teachers can give no greater

gift to their students than to help them expand and master inner speech. Good writing will ensue” (1988, p. 137). For Moffett, improved writing performance follows mastery of inner speech and mastery of inner speech is best taught through meditation practice, a form of mindfulness.

Writers and meditators are inextricably linked, Moffett argues, by the shared experience of contending with inner speech. Just as the act of meditating may foster attention to inner speech, the act of writing structures inner speech to create text. Meditators practice the non-judgmental attending to thoughts and inner speech, while writers practice “narrowing, focusing, editing, and revising inner speech” (Moffett, 1988, p. 154). Moffett (1988) explains this inner speech, or internal monologue, is the “wellspring of writing” (p. 91) and continuously passes through the writer’s mind, like a ticker tape. Attending to the ticker tape provides writers with content inspiration. Writers skilled in meditative practice learn to harness inner speech and transcribe raw inspiration into text (Moffett, 1982).

While Moffett encourages English educators to adopt a specific mindfulness practice in writing instruction, professional writer and Zen Buddhist practitioner Natalie Goldberg (1986) similarly counsels writers of the benefits of a mindful approach in her book, *Writing Down the Bones: Freeing the Writer Within*. Goldberg explains the importance of breathing mindfully, focusing on the moment without judgment, and becoming aware of limiting thoughts that may affect the writing process.

Goldberg cites mindful breathing as an explicit aid to her writing process, a process of composing without stopping or judging, just as one breathes -- inhaling and exhaling without stopping. Goldberg instructs writers to “[t]hink of writing as if it were

breathing” (Goldberg, 1986, p.136) and understand the very act of breathing is critical to the creative process. “Inspiration,” explains Goldberg, means ‘breathing in’” (p.10). By asserting the link between mindful breathing and a professional writer’s composing process, Goldberg shifts the discussion of mindfulness benefits’ on the writing process from the theoretical to the practitioner level.

Mindfulness and College Writers

In preparing college writers, Sondra Perl (1980, 2004) also teaches a mindful approach to the writing process. Similar to Goldberg’s practice, Perl’s (2004) composing guidelines include taking a deep breath, relaxing, and focusing awareness on one’s inner state before a writing session. On the writing process, Perl (1980) says, “The basic process [of knowing what to write] begins with paying attention. If we are given a topic, it begins with taking the topic in and attending to what it evokes in us” (p. 366). For the apprehensive writer, taking in the topic may evoke anxiety, which may hinder writing performance, especially if the topic is a narrative prompt.

Curriculum developers, composition scholars, authors, and writing instructors forward anecdotal evidence supporting the positive effects of mindfulness techniques on writing performance, (see, for example, Goldberg, 1986; Hendricks & Willis, 1975; Hendricks & Roberts, 1977; Moffett, 1988; Perl, 1980, 2004) but research has yet to make the empirical link. Studies connecting mindfulness and improved writing performance are absent in the literature, as are studies linking mindfulness and writing apprehension. This study seeks to fill that void.

Writing Performance Axiologies

One of the difficulties in measuring apprehension's effect on writing performance is determining what constitutes a quality writing performance. What writing instructors value in their students' writing performances may vary from instructor-to-instructor and from assignment-to-assignment.

To explain the disparities, Fulkerson (1990) describes four dominant axiologies, or theories of value, emerging from comprehension studies. First, writing instructors who value correctness in written products adopt a formalist axiology. If self-discovery is more highly valued than product, the instructor is of the expressivist domain. If critical thinking, logical conclusion, and avoidance of logical fallacies are a primary concern, a mimeticist approach is at hand. Finally, if ability to communicate effectively with a specific audience is valued, the instructor espouses a rhetorical axiology.

While acknowledging multiple characterizations may define a quality writing performance, prior research on highly apprehensive writers examines writing performance in terms of correctness (Daly, 1978; Daly & Miller, 1975b) and essay length (Book, 1976; Daly, 1978; Fox, 1980). Correctness as an evaluative lens signifies a formalist axiology. As established in previous WA studies (Daly, 1978; Daly & Miller, 1975b) the current study similarly adopts a formalist axiology and assesses performance as the writers' ability to develop error-free prose. Based on precedent set in prior WA research, (see, for example, Book, 1976; Daly, 1978; Fox, 1980) this study also similarly assesses essay length as a criterion of writing performance.

Summary

As revealed in the literature review, mindfulness-based stress reduction techniques show efficacy for anxiety management. Regrettably, few studies point to anxiety reduction techniques suitable for classroom environments, and seemingly no published studies apply mindfulness-based anxiety reduction techniques specifically to writing apprehensive individuals. The dearth of literature on appropriate strategies for alleviating writing anxiety in educational settings is apparent, as is empirical research on mindfulness-based interventions for writing performance improvement.

This study examined whether a mindfulness intervention could alleviate writing anxiety and improve writing performance in community college students. In focusing on a specific mindful-breathing technique and its impact on writing anxiety and writing performance, the researcher sought to augment the existing lean body of research with empirical data on a classroom appropriate intervention for writing anxiety reduction and writing performance improvement.

Chapter three delineates the methodology used to examine the mindful breathing intervention's (independent variable) impact on community college students' writing apprehension and writing performance (dependent variables).

CHAPTER III

METHODOLOGY

Design and Overview

The research design of this study was a pre-post experimental design. Six sections of English composition community college students (the experimental group) received mindful breathing training as a treatment. Six additional sections of the same course (the control group) received no mindful breathing instruction.

Descriptive and correlational statistics were applied to pretest and posttest data regarding the influence of mindful breathing on writing anxiety and writing performance using a multiple analysis of covariance (MANCOVA). Relationships between writing anxiety and writing performance were identified by Pearson R correlations.

Quantitative analyses were used to address the following research questions:

1. How does a mindfulness intervention strategy affect community college students' writing apprehension (WA) scores?
2. How does a mindfulness intervention strategy affect community college students' writing performance (WP) scores?

Participants

Participants were students enrolled in an undergraduate English course titled English 101, "English Composition I," offered in the spring 2011 semester at a medium-sized community/technical college located in the southeastern region of the United States. Students were mainly freshmen and sophomores and selected the class based upon their individual degree requirements and schedules. Participants did not know about the study when they enrolled in English 101.

Of the 299 students enrolled at the beginning of the semester, 277 participated in the study. The 22 students who did not participate were dropped from the study due to attrition, incomplete data, or denied consent. Enrollment in each of the twelve classes was limited to 29 students, although some classes enrolled as few as 17 students.

A prerequisite for admission to the course was required. To insure the accuracy of placement in composition courses, an English department policy requires students taking English 101 be placed in accordance with scores on the COMPASS test, the ACT, or the SAT. Thus, participants in this study earned a minimum score of 80 on the Reading and 87 on the Writing sections of the COMPASS Placement Test, a score of 19 on the ACT, or a score of 480 or higher on the SAT Verbal. Additionally, participants successfully demonstrated college-level writing skill on a departmental diagnostic essay given on day the first day of class and scored by their English 101 course instructors.

All participants in the mindful breathing and control classes gave the researcher permission to use their Daly-Miller Writing Apprehension Test and narrative writing scores. Students indicated their permission by signed statements to that effect (see Appendix A: Letter of Consent).

The mindful breathing classes were made aware of the details of the research study. The control classes were given no indication they were acting as controls, but were told their grades and scores were to be used in a study. No further information was given to the control classes until the collection of data was complete. At that time, students in the control group were given a description of the study.

The study focused on 12 sections of English 101 taught by three different instructors on different campuses and at different times of the week and day. These

considerations allowed the researcher to increase the likelihood of including a diverse sample of students. Each section met two times a week, for one hour and twenty minutes, for a fifteen-week semester. Appendix B delineates group assignment by course section.

To minimize disruption of instructional course objectives, students were randomized by course section. As evening enrollments are traditionally comprised of older students, the researcher attempted equity among groups by first assigning, by coin toss, the two evening English 101 sections to either mindful breathing or control groups. Daytime sections were then similarly assigned. Thus, comparatively equal numbers of day and evening students were distributed across groups.

Demographic information provided by English 101 instructors is presented for each group in Table 1.

Table 1

Demographic Information by Group

	Mindful-breathing M(SD) n=133	Control M(SD) n=144
Age	21 years (3.8)	23 years (5.4)
Caucasian	76%	68%
Black	17%	19%
Hispanic	10%	6%
Other	5%	7%
Female	60%	53%

Note: M= mean, SD=standard deviation

Groups were relatively equivalent on gender, age, and ethnicity variables. By chance the control students featured moderately older students and fewer females. Students ranged

between 17-56 years of age; 72% were Caucasian, 16% were Black, and 7% were Hispanic. Fifty-six percent were female.

In order to test the hypotheses, the six mindful breathing sections of English 101 practiced three-minutes of mindful breathing at the start of eight consecutive classes; the six English 101 control sections began class without the mindful breathing practice.

Course Description

The description from the course's syllabus outlines the purpose and goals of the class: To provide the student with an intensive, process-oriented writing course which will promote the effective, well organized, and well-developed logical communication skills demanded in college work and in professional careers (See Appendix C: Course Instructional Package). The course catalogue indicates English 101 is a college/university parallel transfer course in composition, which includes a review of standard usage, introduces source documentation, and concentrates on frequent in-class essay writing.

Main evaluation methods included three, five-to-seven page essays from multiple genres, a research paper, three essay tests that covered both the textbook and lecture materials, regular activities on WebCT, and in-class writing reflections that further discussed course topics. Although three different instructors taught English 101, consistency was required across sections. All instructors taught from the same English 101 syllabus.

Variables

Two dependent variables measured in this study are listed and defined as follows:

Writing Anxiety: the level of apprehension that occurs in connection with the writing process. Writing apprehension or writing anxiety can be additionally described as a general tendency toward anxiety elicited by the specific situation of writing.

Writing Performance: the extent of technical control (error count) and development (word count) evident in a writing sample.

Instruments

Two instruments used to quantify each of the dependent variables were as follows:

Writing Apprehension Test

Writing Anxiety was measured in pretest and posttest conditions using the Daly-Miller Writing Apprehension Test (WAT) (Daly & Miller, 1975a) (Appendix D). Each was administered on the same day to all twelve classes. Daly and Miller report both internal consistency and test-retest reliability coefficients greater than .90. Daly cites a related communication anxiety study as evidence of predictive validity (Daly & McCroskey, 1975) and argues the instrument's concurrent validity is supported by positive correlations with such norm-referenced instruments as the SAT and ACT tests (Daly & Miller, 1975b).

The WAT is a 26 closed-item instrument that measures the anxiety-related factors of writing avoidance, attitudes toward written communication, and feelings experienced during writing. Questions examine the writer's fear of writing, fear of evaluation, attitude toward the writing process, confidence in ability, ease in composing, satisfaction

in completing a writing task, and attitude toward sharing or publishing one's writing.

Table 2. features WAT items addressing specific writing anxiety-related factors.

Table 2

Writing Anxiety-Related Factors and Items of the Daly-Miller Writing Apprehension Test

Anxiety-Related Factor	Item
Fear of writing	1) I avoid writing.
	5) Taking a composition course is a very frightening experience.
	13) I'm nervous about writing.
Fear of evaluation	2) I have no fear of my writing being evaluated.
	4) I am afraid of writing essays when I know they will be evaluated.
	22) When I hand in a composition, I know I'm going to do poorly.
	25) I don't like my compositions to be evaluated.
Attitude toward the writing process	3) I look forward to writing down my ideas.
	8) Expressing ideas through writing seems to be a waste of time.
	10) I like to write down my ideas.
	15) I enjoy writing.
	17) Writing is a lot of fun.
Confidence in ability	11) I feel confident in my ability to express my ideas clearly in writing.
	18) I expect to do poorly in composition classes even before I enter them.
	24) I don't think I write as well as most other people.
	26) I'm not good at writing.
Ease in composing	7) My mind seems to go blank when I start to work on my composition.
	16) I never seem to be able to write down my ideas clearly.
	21) I have a terrible time organizing my ideas in a composition course.
	23) It's easy for me to write good compositions.
Satisfaction in completing a writing task	6) Handing in a composition makes me feel good.
	19) I like seeing my thoughts on paper.
Attitude toward sharing or publishing one's writing	9) I would enjoy submitting my writing to magazines for evaluation and publication.
	12) I like to have my friends read what I have written.
	14) People seem to enjoy what I write.
	20) Discussing my writing with others is enjoyable.

Responders rate statements like, "My mind seems to go blank when I start to work on my composition," and "I feel confident in my ability to express my ideas clearly in writing," on a five-point Likert scale, ranging from strongly agree (1) to strongly disagree (5). Scores range from a low of 26 to a high of 130. Writers who score lower on the WAT possess a greater degree of writing apprehension. Those who score higher

have a greater degree of writing contentment. For example, scores in the 26-59 range specify a low level of writing comfort and a high level of writing apprehension. The lower the responder's score within the range, the more anxious the writer.

Research indicates writers who score particularly low in the 26-59 range experience more than normal amounts of anxiety and will often avoid college majors or careers they expect will involve writing (Daly, 1978). Mid-scale scores, from 60-96, indicate writers who are moderately comfortable writing and consequently do not experience a significantly unusual level of writing apprehension; while high scores, in the 97-130 range, denote writers with a high comfort level and a correspondingly low level of writing apprehension.

Narrative Essay Prompt

Writing Performance was measured in pretest and posttest conditions using a timed, narrative essay prompt (NEP) (Appendix E), adapted from The National Council of Teachers of English (NCTE) online posting, NCTE-Talk, (Gardner, 1999). Each was administered on the same day to all twelve classes. The NEP does not have published validity or reliability.

NEP directions indicated a sixty-minute time limit and cued writers to include adequate details about story events (development) and write with attention to spelling, grammar, and punctuation (technical control).

Students' essay responses were hand-written in response to validity and accessibility concerns. As word processing software often corrects errors or cues writers to errors for correction, composing the NEP on a computer could have compromised the

instrument's validity. Further, students' access to computers could not be guaranteed during class time.

The pre- and posttest narrative essays were coded and students' names were blacked out with magic marker. Three expert evaluators, English professors with over ten years' experience each, assessed the essays by separately tallying total error and word counts per essay. To ensure reliability of the NEP data collection procedures, inter-rater agreement was measured. Agreement was sought for error count and word count tallies in 554 writing samples (277 pre-intervention, 277 post-intervention).

First, evaluators manually assessed essays for errors in spelling, grammar, and punctuation. Spelling, grammar, and punctuation errors were circled in text as identified. For example, the sample sentence: "The day I got married, is one I will never forget." contains two errors: one spelling (married) and one punctuation (no comma necessary). The evaluator would identify the two errors by circling them as they appeared in the essay. Evaluators only identified errors; they did not make corrections to the essay. When error identification was completed, an error total was calculated for each writer by tallying the total number of errors circled in the essay. The total error count was recorded as the error score. Legibility issues were addressed on a case-by-case basis. A third rater was consulted on legibility concerns when consensus between evaluators could not be reached.

Next, evaluators manually counted the essays' words written per paragraph. Headings, titles, and punctuation marks were not assessed in the word count. Evaluators began tallying word counts at the essay's first paragraph. At the end of each paragraph, evaluators recorded the number of words written. Paragraph word counts were added

together to calculate a word count total. The word count total was recorded as the word count score.

Each essay was read at least twice. If the two tallies for error and word count did not agree within a two-point margin of tolerance, a third reader was asked to evaluate the essay. The two closest tallies were accepted, added together, and divided in half to determine error count and word count scores. Lower scores in error count reflected superior technical control while higher error counts reflected inferior technical control. Conversely, lower scores in word count reflected inferior narrative development; higher scores reflected superior narrative development.

Pretesting Procedures

English 101 instructors collected pretest data during the first week of classes, after students acknowledged their permission for the researcher to use WAT and NEP scores. Both instruments were administered on the same day.

The NEP was administered first. Students were allowed sixty minutes to compose a narrative essay, by hand, on a specific topic. Scoring the pretest essay consisted of totaling error and word counts.

The Writing Apprehension Test was introduced to students immediately following the NEP's submission. No further instructions were given. Administration of the WAT took 15 minutes. Scores range from a low of 26 to a high of 130 with a mean score of 78. Lower scores indicate a greater degree of writing anxiety. Higher scores point toward a greater degree of writing confidence. Pretest results were made available to students before the semester's end.

Intervention

In six of twelve English 101 sections under review, English 101 instructors implemented the intervention, a pre-recorded mindful breathing exercise played from a compact disc. The treatment began the first week of the spring 2011 semester and followed a four-week schedule of mindful breathing at the beginning of class. Figure 1 features the schedule of experimental protocol and interventions for both groups.

Figure 1. Experimental Protocol and Intervention Schedule by Group Status

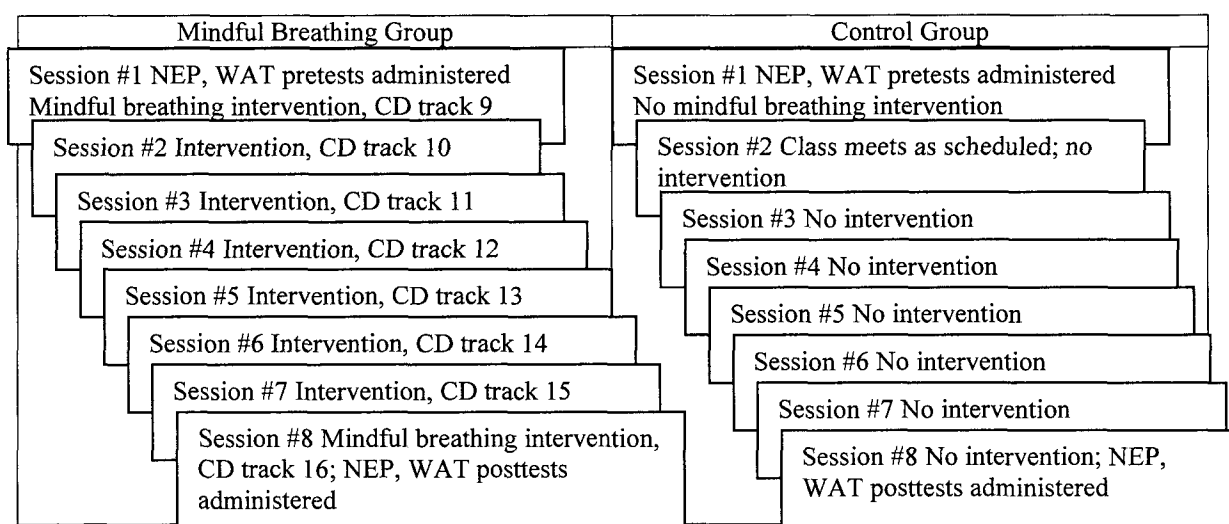


Figure 1. Schematic of experimental procedures. English 101 classes met twice a week for four weeks. In the mindful breathing group, English 101 instructors began class by playing a CD track featuring a brief mindful breathing practice. Instructors of the control sections began class with no mindful breathing practice.

During session one, students were instructed to sit comfortably in their chairs and listen to compact disc track 9 from Jon Kabat-Zinn's *Mindfulness Meditation: Cultivating the Wisdom of Your Body and Mind* (1995). The CD, narrated by Kabat-Zinn, was chosen for this study due to its direct instruction in mindful breathing technique. The track, "Listening to Breathing," direct participants to focus on their

breath and the sensations created by the breath. The CD track was two minutes and twenty-eight seconds long. Once the track completed, students continued with their regularly scheduled English 101 course content, which could have been writing or literature.

In subsequent sessions (2–8), students listened to one compact disc track per mindful breathing session (CD tracks 10-16 from Kabat Zinn’s *Mindfulness Meditation*). Each session was similarly brief (e.g., track length varied between 0:02:39 and 0:04:53) and further developed skills established in the previous session. For example, in sessions 2 and 3, subjects listened to tracks 10, “This is a Shift,” and 11, “Tending to the Breath” which instructed students to maintain awareness on the breath as it enters and exits the body, but to notice when thoughts moved from the breath to something else.

Redirecting from discursive thoughts was addressed in sessions 4-8 (CD tracks 12-16). To demonstrate, one CD track reminded students if they found their minds had wandered from the breath, they were to notice what is on the mind, and then gently return their focus, on purpose and without judgment, to the rhythmic movement of the body as it inhales and exhales, “moment-by-moment, breath-by-breath” (Kabat-Zinn, 1995, track 13).

During the intervention period for the mindful breathing English 101 sections, the six control sections engaged in regular course content without the mindfulness practice. Control participants met with their separate sections in separate locations. No teacher instruction about the study was given. This procedure was followed during the four-week treatment period.

Posttesting Procedures

Posttesting procedures were similar to pretest. At the close of the eighth mindful breathing session, course instructors administered the second NEP (see Appendix E). As with the pretesting procedures, students were given one hour to complete the narrative essay. Although the posttest narrative prompt differed from the pretest, identical directions cued writers to development and technical control concerns. The WAT was administered again, under the same conditions and with the same instructions. Posttests for the control group were administered at equivalent days/times.

Student code numbers, reflecting section number and student number, identified narrative essays. Coded essays were then collected from all twelve English 101 sections involved in this study.

Evaluators were given a set number of papers to assess for development and technical control. The procedure for assessment of grades followed quantitative evaluation by at least two evaluators, three evaluators if the first two did not agree within a margin of tolerance. Each evaluator tallied error and word counts per essay. Evaluators wrote total error and word tallies on each essay. If evaluator's final error and word count tallies did not match, a third evaluator assessed the essay. The two nearest scores were selected and the third dropped. A final error and word count was assigned to each essay.

Data Analysis

The collected data were analyzed quantitatively using Statistical Package for Social Sciences 17.0. The purpose of the analysis was to compare the effects of the mindful breathing intervention on multiple outcome variables. A multivariate approach was chosen and an alpha level of .05 was set.

Pearson product-moment correlations were run to indicate relationships between *writing apprehension*, *word count*, and *error count* variables. For visual comparison, data of interest were depicted in graphs.

Writing apprehension and narrative essay data were tested for the between group effect of the mindful breathing intervention. A multivariate analysis of covariance (MANCOVA) was used to control for effects of the covariates *writing apprehension pretest*, *word count pretest*, and *error count pretest*.

Finally, pretest scores on the Daly-Miller WAT identified students as belonging to one of three writing apprehension levels: low, moderate, or high. To analyze the intervention's effects for students at each apprehension level, follow-up analysis of covariance (ANCOVA)s of repeated measures were conducted. ANCOVAs controlled for pretest differences in WA level while testing for significant differences in the means of the writing performance dependent variables *word count posttest*, and *error count posttest*.

CHAPTER IV

RESULTS

Table 3 displays a comparison of mean scores on pretest measures of WA and WP variables. There were no significant pretest differences between groups on writing anxiety, $t(275) = -0.36$; $p=0.72$; narrative essay word count, $t(275) = -1.83$; $p=0.07$; or narrative essay error count, $t(275) = 0.35$; $p=0.73$. Results suggest participants had roughly equal levels of writing apprehension and writing abilities.

Table 3

Group Comparison on Pretest Scores for Each of the Measured Variables

	Mindful-breathing M(SD) n=133	Control M(SD) n=144
<i>Writing anxiety measure pretest</i>	86.5 (16.9)	87.5 (25.9)
Daly-Miller Writing Apprehension test		
Score range: 26-130		
26-59 indicates elevated WA		
60-96 indicates no unusual WA		
97-130 indicates low WA		
T-test ($t=-0.36$; $p=0.72$)		
<i>Writing performance measure pretest</i>		
Narrative essay word count	499.4 (204.9)	538.3 (147.1)
Score range: 102-1131		
Higher scores indicate stronger writing performances		
T-test ($t=-1.83$; $p=0.07$)		
Narrative essay error count		
Score range: 0-24		
Lower scores indicate stronger writing performances	6.6 (3.3)	6.5 (3.3)
T-test ($t=0.35$; $p=0.73$)		

Note: M= mean, SD=standard deviation

It was hypothesized that first, the mindful-breathing technique would reduce community college students' writing apprehension as indicated on the Daly-Miller Writing Apprehension Test and second, that the mindful-breathing technique would improve community college students' writing performance as measured by the word and error counts in students' narrative essay responses.

Each of the hypotheses was accepted or rejected through statistical analysis of quantifiable data. Results of the inquiry are organized in response to the two research questions: (1) How does a mindfulness intervention strategy affect community college students' writing apprehension (WA)? and (2) How does a mindfulness intervention affect community college students' writing performance (WP)? Controlling for pre-test differences in WA and comparing group data on post-intervention mean scores, recorded by the Daly-Miller Writing Apprehension Test, answers the first inquiry. The second question relates to controlling for pretest differences in WA while comparing the groups' writing performance on the post-intervention narrative essay writing activity.

Correlations

Pearson product-moment correlations were computed to indicate relationships between *writing apprehension*, *word count*, and *error count* variables. Literature suggests as WA scores increase (meaning writing anxiety levels decrease), writers gain more confidence and produce more words with fewer errors (Book, 1976; Daly, 1979, Daly & Miller, 1975). The connection between writing anxiety and writing performance shown in the literature was evident in the study participants in that there was a significant positive correlation between *writing apprehension* and *word count* ($r=0.17$, $p<0.01$) and a

significant negative correlation between *writing apprehension* and *error count* ($r = -0.21$, $p < 0.01$).

Expectedly, writing apprehension pretest scores were directly and strongly correlated with writing apprehension posttest scores ($r = 0.82$, $p < 0.01$); 67% of the variance in posttest scores was explained by the variance in pretest scores. At pretest, *writing apprehension* and *word count* were directly but weakly correlated ($r = 0.17$, $p < 0.01$); at posttest, the correlation was moderately stronger ($r = 0.23$, $p < 0.01$). *Writing apprehension* was weakly and indirectly correlated with *error count* at pretest ($r = -0.21$, $p < 0.01$), and remained so at posttest ($r = -0.22$, $p < 0.01$). Finally, *word count* and *error count* were weakly and indirectly correlated at pretest ($r = -0.03$, $p < 0.01$), but were directly, albeit weakly, correlated at posttest ($r = 0.07$, $p < 0.01$).

Writing Apprehension

The first research question inquired whether there would be a significant difference in writing apprehension scores of mindful-breathing English 101 students compared to control group students. To control for minimal between group differences, a multivariate analysis of covariance (MANCOVA) was computed with WA prescore as a covariate.

Test of Overall Model Significance

The overall F test for the model was significant for the dependent variable WA postscore, $F(4, 277) = 175.13$, $p < 0.01$, meaning after adjusting for prescore differences in writing apprehension, WA postscores significantly differed by group assignment (see Table 4).

Table 4

MANCOVA Results for WA Postscore with WA Prescore as Covariate

Dependent Variable	Sum of Squares	df	Mean Square	F	p <
Writing anxiety postscore	116,569.55	4	29,142.39	175.13	0.01

Note: df= degrees of freedom

Post Hoc Tests

Since the overall F test showed the independent variable *writing apprehension prescore* to be significant, post hoc analysis of variance (ANOVA) tests were run to specify the exact nature of the overall effect. Findings indicated a statistically significant difference between WA postscores of mindful breathing students compared to control students, $F(1,277) = 31.5, p < 0.01$. Factoring in the WA differences between the mindful breathing and control groups at pretest, the adjusted WA means at posttest are depicted in Table 5. To show the relative change across groups, means in Table 5 are graphically depicted in Figure 2.

Table 5

Estimated Marginal Means of Writing Apprehension Posttest

Dependent Variable	Mindful Breathing M (SD) Adj M	Control M (SD) Adj M	df	F	p
Writing apprehension postscore	96.44 (21.05) 97.20	88.43 (26.29) 87.74	1	31.50	0.01

Note: M=actual mean, SD=standard deviation, Adj M=adjusted mean, df=degrees of freedom. Higher scores of the WA variable equal greater writing confidence, i.e. lower writing anxiety.

Figure 2. Pre/Post Mean Scores on the Daly-Miller Writing Apprehension Test (WAT)

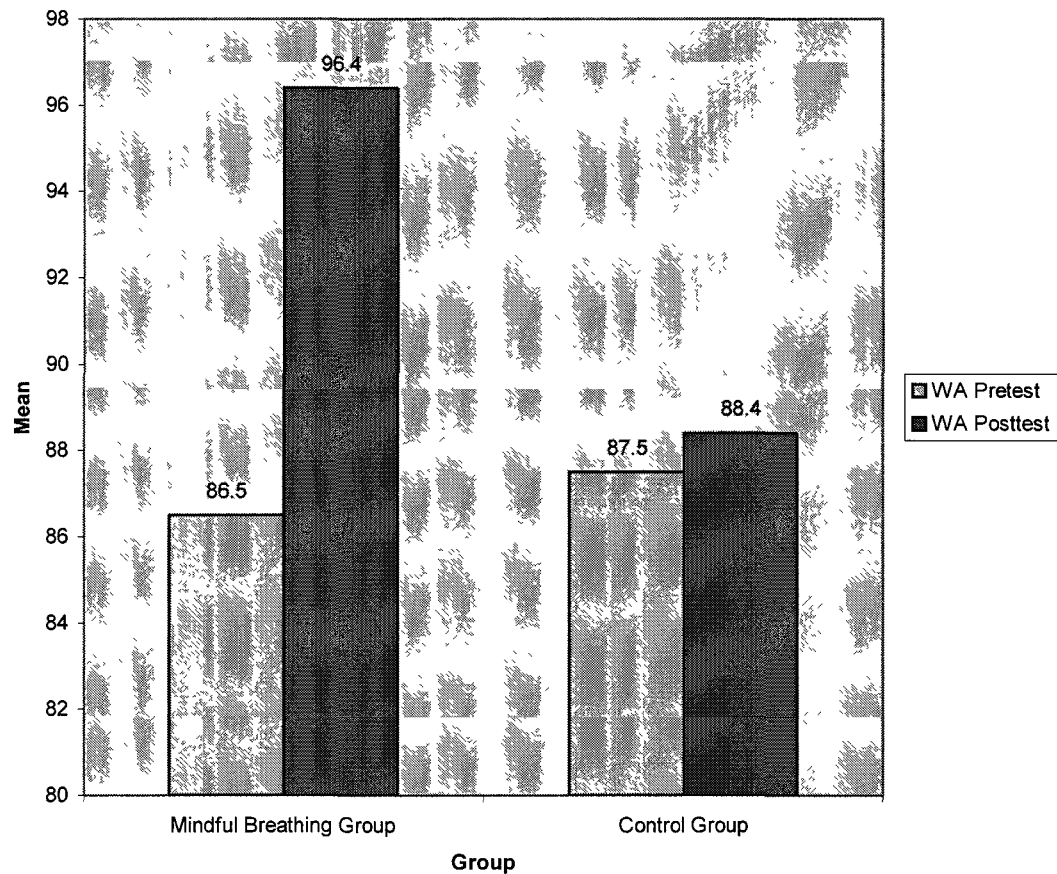


Figure 2. Mean scores on the Daly-Miller Writing Apprehension Test (WAT) with 95% confidence scales for the mindful breathing ($n= 133$) and control ($n= 144$) groups on pre- and post-intervention measurements. All differences are significant at the $p < .05$ level or better. The WAT categorizes writing apprehension scores among three levels: high apprehension (26-59), moderate (60-96), or low (97-130). The mindful breathing group showed a statistically significant decrease in writing apprehension from pre- to post-measures.

Writing Performance

The second research question queried whether there would be a significant difference in students' post-intervention writing performances. It was hypothesized that by practicing a mindful breathing exercise prior to a timed narrative writing activity, students could improve their writing performance by writing more words while reducing their grammar, spelling, and punctuation errors. To control for minimal between group differences, a multivariate analysis of covariance (MANCOVA) was computed with word count and error count prescores as covariates.

Test of Overall Model Significance

The overall F test for the model was significant for word count postscore, $F(4, 277) = 219.26$, $p < 0.01$, and error count postscore, $F(4, 277) = 39.85$, $p < 0.01$, meaning after adjusting for prescore differences in writing performance, postscores in word count and errors count writing significantly differed by group assignment (see Table 6).

Table 6

MANCOVA Results for WP Postscore with WA Prescore as Covariate

Dependent Variable	Sum of Squares	<i>df</i>	Mean Square	F	$p <$
Word count postscore	5.65	4	1414460.45	219.26	0.01
Error count postscore	978.01	4	244.50	39.85	0.01

Note: df =degrees of freedom

Post Hoc Tests

Since the overall F test showed the independent variables *word count prescore* and *word count postscore* to be significant, post hoc ANOVA tests were run to specify the exact nature of the overall effect. Findings indicated no statistically significant difference between mindful breathing and control students' word count postscores, $F(1,277) = 0.60, p < 0.43$, meaning the mindful breathing intervention held no efficacy for increasing word count (essay length) in students' writing performances. Factoring in the writing performance word count differences between the mindful breathing and control groups at pretest, the adjusted WP word count means at posttest are depicted in Table 5. To show the relative change across groups, means in Table 7 are graphically depicted in Figure 3.

Table 7

Estimated Marginal Means of Writing Performance Posttest on Word Count

Dependent Variable	Mindful Breathing M (SD) <i>Adj M</i>	Control M (SD) <i>Adj M</i>	<i>df</i>	<i>F</i>	<i>p</i>
Word count postscore	508.36 (191.49) 524.80	524.75 (133.64) 509.57	1	0.60	0.43

Note: M=actual mean, SD=standard deviation, Adj M= adjusted mean, df=degrees of freedom. Higher scores of the WA variable equal greater writing confidence, i.e. lower writing anxiety.

Figure 3. Pre/Post Mean Word Count Scores on the Narrative Essay Prompt (NEP)

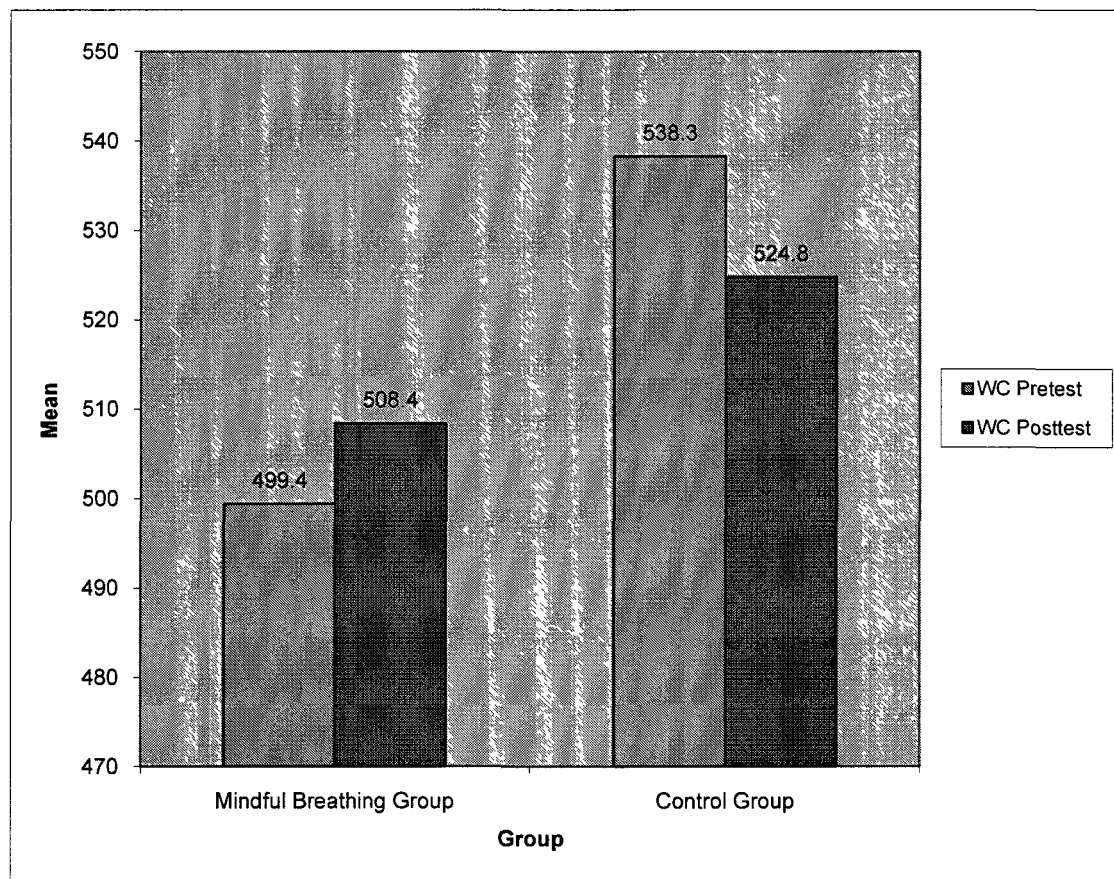


Figure 3. Mean word count scores on the Narrative Essay Prompt (NEP) with 95% confidence scales for the mindful breathing ($n=133$) and control ($n=144$) groups on pre- and post-intervention measurements. All differences are significant at the $p < .05$ level or better. Neither group showed a statistically significant increase in word count per essay from pre- to post-measures.

The mindful breathing intervention did, however, produce a statistically significant difference in errors per writing performance, $F(1, 277) = 12.5$, $p < 0.01$, indicating as compared to controls, the mindful breathing students' writing performances showed a statistically significant decrease in grammar, spelling, and punctuation errors. Table 8 indicates the adjusted mean writing performance error counts for each group on

post-measures. To show the relative change in writing performance scores across groups, means in Table 8 are graphically depicted in Figure 4.

Table 8

Estimated Marginal Means of Writing Performance Posttest on Error Count

Dependent Variable	Mindful Breathing M (SD) <i>Adj M</i>	Control M (SD) <i>Adj M</i>	<i>df</i>	<i>F</i>	<i>p</i>
Error count postscore	4.44 (2.77) 4.40	5.69 (3.27) 5.72	1	12.50	0.00

Note: M=actual mean, SD=standard deviation, Adj M= adjusted mean, df=degrees of freedom. Higher scores of the word count variable equal greater writing performance; lower scores on the error count variable equal greater writing performance.

Figure 4. Pre/Post Mean Error Count Scores on the Narrative Essay Prompt (NEP)

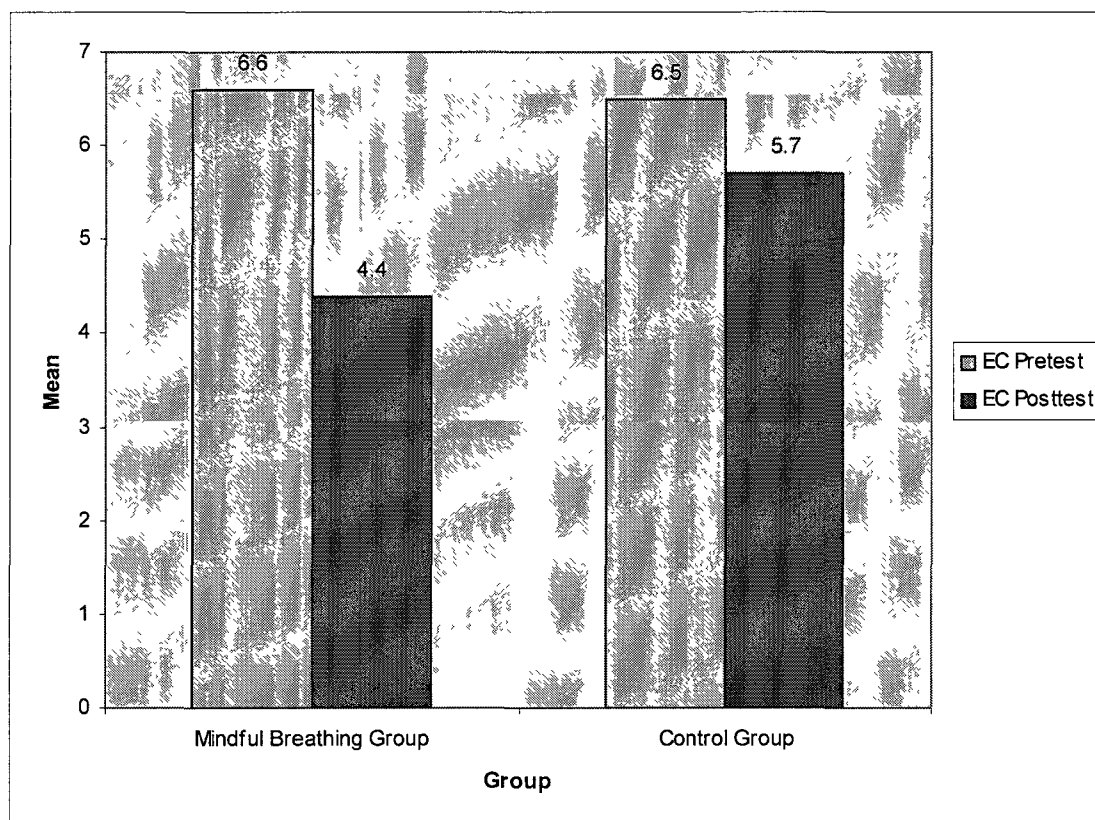


Figure 4. Mean error count scores on the Narrative Essay Prompt (NEP) with 95% confidence scales for the mindful breathing ($n = 133$) and control ($n = 144$) groups on pre- and post-intervention measurements. All differences are significant at the $p < .05$ level or better. The mindful breathing group showed a statistically significant decrease in errors from pre- to post-measures.

Within Group Effects

Recalling the Daly-Miller WAT categorizes writing apprehension scores among three levels: high apprehension (26-59), moderate (60-96), or low (97-130), the researcher was interested to know if statistically significant changes were consistent across apprehension levels. Separate repeated measure analyses of covariances (ANCOVAs) were conducted. The first ANCOVA controlled for pretest differences in WA level while testing for significant differences in the mean of the writing performance

dependent variable, *word count postscore*. The independent variable, *writing apprehension prescore*, included three levels: 1 (high apprehension), 2 (moderate apprehension), and 3 (low apprehension). The covariate was the pre-intervention writing word count score. The ANCOVA was not significant for posttest word count in mindful breathing students, $F(1, 130) = 2.23$, $p < 0.14$; nor was it significant for control students, $F(1, 141) = 1.12$, $p < 0.29$ (see Table 9). Findings indicate word counts did not vary by writing apprehension level in either group.

Table 9

ANCOVA Results for Word Count Postscore with Word Count Prescore as Covariate

Group	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>
Mindful Breathing	6676.57	1	6676.57	2.23	0.14
Control	5180.34	1	5180.34	1.12	0.29

Note: *df*=degrees of freedom

A second ANCOVA controlled for pretest differences in WA level while testing for significant differences in the mean of the writing performance dependent variable, *error count postscore*. Again, the independent variable, *writing apprehension prescore*, included three levels: 1 (high apprehension), 2 (moderate apprehension), and 3 (low apprehension). The covariate was the pre-intervention writing error count score. The ANCOVA was significant for error count in mindful breathing students, $F(1, 130) =$

51.87, $p < 0.00$. The ANCOVA for control students was also significant, $F(1, 141) = 9.18$, $p < 0.00$, meaning for both groups, the number of errors varied by writing apprehension level. Results are depicted in Table 10.

Table 10

ANCOVA Results for Error Count Postscore with Error Count Prescore as Covariate

Group	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>
Mindful Breathing	166.14	1	166.14	51.87	0.00
Control	48.47	1	48.47	9.18	0.00

Note: *df*=degrees of freedom

Post Hoc Tests

Since overall *F* tests showed some significant within WA-level differences, post hoc tests were run to specify the exact nature of the overall effect. Findings indicated from pre- to post-intervention WA measure, mindful breathing students gained more writing confidence than control students. The number of mindful breathing students reporting low levels of writing anxiety increased from 22% at pretest (pre $n = 30$) to 54% (post $n = 72$) at posttest. By comparison, only two control group students reported gaining writing confidence at post-test (pre $n = 64$, post $n = 66$). Table 10 indicates the average writing apprehension score for each group from pre- to post-measures. To show the relative change across groups, the percentage of students at each level in Table 11 are graphically depicted in Figure 5.

Table 11

Mean and Standard Deviation of Word Count and Error Count Variable Scores by Writing Apprehension Level and Group Status

WA Level	Mindful breathing Mean (SD) N=133		Control Mean (SD) N=144	
	<i>Pretest</i>	<i>Posttest</i>	<i>Pretest</i>	<i>Posttest</i>
High (26-59)	n=10 (7.5%)	n=10 (7.5%)	n=24 (16.6%)	n=25 (17.4%)
Word count	500.2 (163.4)	526.8 (139.7)	461.0 (102.0)	466.3 (130.8)
Error count	8.8 (6.1)	6.5 (4.7)	8.3 (2.3)	7.0 (3.5)
Moderate (60-96)	n=93 (69.9%)	n=51 (38.3%)	n=56 (38.9%)	n=53 (36.8%)
Word count	488.5 (198.5)	494.9 (191.2)	545.4 (139.4)	540.3 (133.9)
Error count	6.5 (3.1)	4.4 (2.6)	6.5 (3.6)	5.9 (3.5)
Low (97-130)	n=30 (22.6%)	n=72 (54.1%)	n=64 (44.4%)	n=66 (45.8%)
Word count	533.2 (237.2)	544.0 (207.0)	561.1 (159.7)	533.1 (130.5)
Error count	6.3 (2.6)	3.8 (2.3)	5.8 (3.0)	5.0 (2.7)

Note: SD=standard deviation; n=number participant

Figure 5. Pre/Post Comparison of Mindful Breathing Students' WA Levels

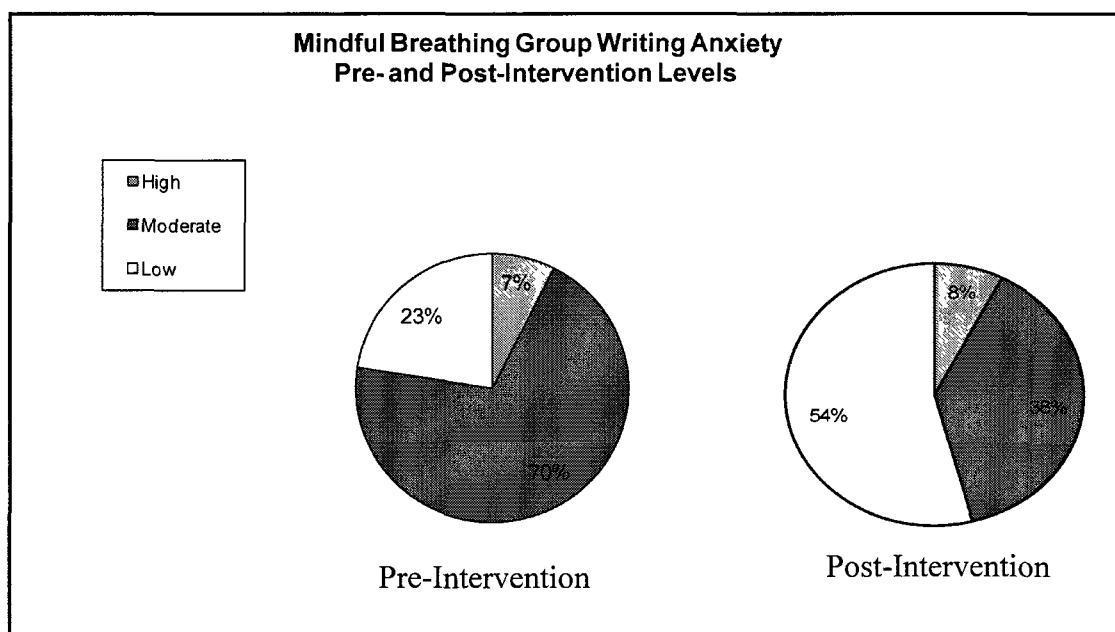


Figure 5 . Mindful breathing group's change in writing apprehension level from pre- to post-Daly-Miller Writing Apprehension Test. The WAT categorizes writing apprehension scores among three levels: high apprehension (26-59), moderate (60-96), or low (97-130). On the post-intervention measure, 54% of mindful breathing students reported the highest level of writing confidence on the WAT (up from 23% at pretest). By comparison, control group students increased their number of students reporting high levels of writing confidence by 1.4%.

Summary

This experimental study found the mindful breathing treatment produced a statistically significant decrease in students' writing apprehension and improvement in one criterion of writing performance: composition error reduction. The second criterion of writing performance defined in this study, word count, was not statistically significantly increased by the mindful breathing treatment. Analysis of within group effects found a greater percentage of mindful breathing students than control students

reported a decrease in writing anxiety from a moderate level at pre-intervention to a low level at post intervention.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

This study of 277 community college students in a freshman composition course investigated the effect of a mindful-breathing intervention on students' writing anxiety and writing performance. The eight-session intervention aimed to decrease students' writing anxiety and increase their writing performance. Pre- and post-intervention data on perceived writing anxiety and actual writing performance were collected from students. The data set was analyzed with a multiple analysis of covariance (MANCOVA). Analyses of covariances (ANCOVA)s were computed to determine mean differences within low, moderate, and high writing apprehension levels. Results showed statistically significant changes in the mindful breathing group toward a lesser degree of writing anxiety and writing errors. Findings indicated no significant changes in the mindful-breathing group toward an increase in essay word count.

Mindful Breathing and Writing Apprehension

The fact that mindful breathing students' post-scores revealed a statistically significant reduction in mean writing anxiety indicates these students became even more confident in their attitudes and feelings about writing. In addition to reporting lesser writing anxiety, mindful breathing students were also more apt to report a change among writing apprehension levels. For example, at pretest 30 students, or 23% of the 133 mindful breathing students, reported experiencing writing anxiety at the lowest level. At posttest, the number of students reporting the lowest WA level increased to 72 students, or 54% of the mindful breathing group. Control group students experienced modest

change. Sixty-four students, 44% of the control group, reported low anxiety at pretest. Four weeks later, the number who reported low anxiety increased by two.

It is likely eight sessions of English 101 instruction would aid students' writing confidence; however, the mindful breathing students demonstrated greater reduction in writing anxiety than control students.

Mindful Breathing and Writing Performance

The between-group significance in error count reduction similarly suggests mindful breathing had efficacy for writing performance improvement. Although no significant change was apparent in essay word count, results are still encouraging. Of the two writing performance criteria set in the present study: error count and word count, error count reduction is arguably the preferable improvement. Writing performance criteria were set based upon prior studies that point to highly apprehensive writers' propensity for composing with fewer words and more errors; yet, writing instructors may disagree that concise composition constitutes a poor quality writing performance. In fact, succinct diction is often preferable to verbosity. Nonetheless, mindful breathing students did not increase their word counts from pre to post narrative essay samples.

Limitations

The findings of this study need to be considered within the limitations of the research. Although the researcher took care to follow the precepts of a well-designed experiment: adequate experimental control, basis for comparison, uncontaminated data, no confounding of relevant variables, and parsimony (Wiersma & Jurs, 2009), a number of events occurred which potentially threatened experimental validity. Threats to internal, external, construct, and statistical conclusion validity are discussed here.

Internal Validity

The primary threat to internal validity was maturation. As students were tested for writing anxiety and writing performance four weeks apart, it was anticipated there would be improvement due to English 101 instruction and weekly practice in writing. In adhering to the tenets of experimental design, however, specifically in the designation of treatment and control groups, the researcher was reasonably confident in her ability to control for this extraneous variable. As expected with maturation, both groups showed improvement in their writing apprehension and composition error reduction, but the mindful breathing group's improvements were statistically significant while the control group's improvements were not.

It should be noted designation of treatment and control groups, although effective for indicating differences between groups, introduced the possibility of an extraneous variable that may have produced an effect that could have been mistaken as an experimental treatment effect. It is possible mindful breathing students may have wanted to please the researcher by indicating less anxiety on the post-measure. If subjects behaved in this way, then the validity of the cause-and-effect inference linking mindful breathing to writing apprehension reduction would be in question. It should be noted this limitation is inherent with any design employing self-report measures.

Further, since instructors were present during the mindful breathing intervention, it is possible gains in students' writing confidence and writing performance may be attributed to instructors' newly developed mindful teaching skills, not necessarily the mindful breathing intervention. If listening to the mindful breathing CD tracks positively influenced instructors' pedagogy, then yet again the cause-and-effect inference linking

mindful breathing to reduced writing apprehension and improved writing performance would be in doubt. Removing the instructor for the duration of the treatment would have eliminated this potential extraneous variable; however, as is common in education environments, liability concerns preclude instructors from exiting class for any length of time. The researcher, therefore, simply acknowledges this innate limitation of executing experimental research in educational settings.

Physical fatigue, another internal validity threat, might have similarly been a factor influencing results. Subjects were directed to compose the narrative writing prompt in sixty minutes, by hand. It is possible composing by hand led to subject fatigue and influenced total word count. Typing the response may have provided subjects a more familiar and less fatiguing format. Word processing programs, however, often cue grammatical mistakes and repair spelling errors. Therefore, composing the narrative essay on computer would potentially render inaccurate error counts.

A final threat to internal validity was group intermingling. Students in treatment and control groups may have merged in other courses. Thus, diffusion of treatment was possible. It is feasible mindful breathing students comprised data by sharing intervention information with control students, prompting the control students to try a similar writing anxiety reduction practice. To enhance internal validity, the researcher could have designed an experiment where students were sequestered for the study's duration. Doing so, however, would have low feasibility given students' divergent schedules.

External Validity

Students were randomly assigned by course section to either treatment or control groups. Random selection from the total population of students, however, was not

employed. Further, subjects were selected from the population of students enrolled in freshman composition at a community college. This unique population introduced a breach of true experimental design. Statistical inferences, therefore, cannot be made to the entire student population. Results may be generalized back to students from populations similar to those attending the Southeast community college featured in this study.

Construct Validity

Construct validity “deals with the definitions of the independent and the dependent variables in an experiment and in the ways that those variables are operationalized in the experimental setting” (Wiersma & Jurs, 2009, p. 139). In this study, the writing performance dependent variable was defined by two criteria: the total word count and total error count. Writing instructors may argue the operational definition’s merits. Research has shown when writing apprehensive individuals produce writing, particularly narrative writing as they did in this study, their products are often composed with less words, under-developed ideas, less variety in sentence pattern and complexity, and their writing is more prone to usage and mechanics errors (Daly 1977, 1978; Daly & Miller, 1975b; Faigley, Daly, & Witte, 1981). There are writing genres, however, where brevity is championed. For example, individuals skilled in journalistic or business writing genres may habitually produce low word counts. The researcher mitigated the length issue by factoring impediments to comprehension, punctuation, spelling, or grammar errors, into the writing performance variable.

A final threat to construct validity is the potential for mono-method bias. With only one measure of writing anxiety used, a paper-and-pen self report, multiple measure

validation was not possible. At the time of this study, however, no other measure matched the Daly and Miller Writing Apprehension Test in reliability. In terms of measuring WA, the Daly and Miller assessment is the research standard. Other anxiety measures exist, such as heart rate monitoring, systolic blood pressure checks, blood-level cortisol tests and brain scans, but such measures were beyond the scope of this inquiry.

Statistical Conclusion Validity

Finally, the researcher's decision to set a 95-percent confidence level for a statistically significant difference between treatment and control group means has limitations. Although mean differences in the writing apprehension and writing performance dependent variables were found, the possibility of a Type I error remains. For example, there is a five-percent chance the mindful breathing exercise had no effect on writing apprehension and the significant difference is the result of chance alone.

Implications for Teaching and Research

An empirically sound strategy for helping community college students overcome writing anxiety is absent in the literature. As research points to the challenges community college face due to poor quality writing performances associated with writing apprehension, examining techniques for writing apprehension reduction is critical. This study is an initial step. Findings support the efficacy of a specific mindful breathing practice on writing apprehension and composition error reduction in community college students enrolled in a freshman composition course. Analysis of results, however, did not support the mindful-breathing intervention's efficacy for increasing composition length. Although southeast community college students are an important population for research,

further studies should be conducted to test efficacy of the same treatment on a sample more representative of the general community college student population.

If the mindful breathing intervention used in this study can reduce writing apprehension in community college students, theoretically it is possible the intervention can do the same for writing apprehension in other student populations, including students enrolled in developmental English courses. Acknowledging gender and age are often strong determinants in terms of an intervention's effects and duration of effects, more research is needed. Currently, much of what is known about writer's apprehension and writing performance comes from Daly's (1977, 1978) studies of college students, yet it is likely individuals experience writing apprehension long before enrolling college writing courses. Studies of age-appropriate student populations are a logical next focus.

It should be noted mindfulness interventions have historically met resistance when initiated in public school settings. Researchers are therefore cautioned to employ secular mindfulness techniques in public schools. Barriers to non-secular mindfulness practices are formidable and supported by the Establishment Clause of the First Amendment (U.S. Const. amend. I.). For example, when some New Jersey public schools instituted a transcendental meditation curriculum in the 1970s, parents and separation of church and state interest groups filed a civil action lawsuit. Transcendental meditation, a specific form of religious meditation with roots in Hinduism, invokes Hindu gods during its puja, or initiation ceremony. Plaintiffs argued transcendental meditation was a religious practice and violated the First Amendment. The court agreed (see *Malnak v. Yogi*, 1979) and the practice was halted.

Three decades later, meditative practices in educational research continue to be controversial. Even within the present secular study, students expressed reservation about participating in meditation-like activities. Perhaps more exposure to and awareness of secular mindfulness practices will assuage the negative connotation held by some individuals. Until such time, researchers are cautioned to design secular interventions for study and to anticipate potential resistance.

The purpose of the study's intervention was to gradually establish writing students' capacity to attend to breath instead of potentially aversive thoughts or negative emotional responses elicited by the invitation to write. Data from the eight-session intervention suggest that compared with a no-intervention control, training in mindful breathing reduces students' writing anxiety and writing error scores. Yet, mindful breathing is one of multiple mindfulness practices with potential for writing performance effects. Well-designed experimental studies comparing mindful breathing's efficacy for improved writing performance to other mindfulness practices, such as yoga or tai chi, would inform the growing body of mindfulness research.

Moreover, there is much anecdotal evidence linking mindfulness practices, such as meditation, visualization, and focused relaxation, with improved writing performance (Goldberg, 1984; Perl, 2004); yet, little empirical evidence supports these assertions. With a statistically significant result for writing error reduction at the .05 alpha level, this study empirically substantiates claims that mindful breathing improves one specific aspect of writing performance: error reduction. Replication studies with larger, random samples from diverse populations are an important next step.

Sustainability studies offer another avenue of inquiry. Research to determine if the intervention's effect persists and for what duration is needed. Similarly, additional studies could investigate whether similar results can be attained with mindful breathing interventions executed in shorter and less frequent sessions.

The ability to control writing anxiety plays a fundamental role in the success or failure of developing writers. Research on techniques that can lessen the impact of writing anxiety is critical. Mindfulness approaches offer a potentially powerful set of interventions for writing instructors working with writing apprehensive students. Experienced instructors and those entering the field can focus on gaining experience in mindfulness techniques as prewriting strategies. If students learn and practice effective methods for alleviating their writing anxiety, they can better facilitate their own writing skill development.

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APPENDIX A: Letter of Consent

You are invited to participate in a research study conducted by Megan Britt, of Old Dominion University's Department of Teaching and Learning. The study will seek information about how community college students can apply mindfulness practices to alleviate writing apprehension and foster writing skill development. You were selected as a possible participant in this study because you have a particular insight into the topic.

If you decide to participate, you will be assigned to an experimental or control group. The experimental group will practice a mindful-breathing activity where they will breathe slowly while focusing their attention on the breath entering and leaving the lungs. The intervention will be three minutes in length, for six consecutive classes. The control group will not practice the mindful breathing technique. You may, at any time, elect to not participate in the study. Please know your participation will better inform the researcher on the topic of writing apprehension and mindfulness; however, I cannot guarantee that you personally will receive any benefits from this research.

All information will be held in the strictest confidence. At no point will data resulting from the survey or writing sample be identified with you personally. Neither raw data nor your identity will be shared with any other parties. Your identity will not be revealed in any discussion or publication that might result from this study. In order to ensure confidentiality and data security, electronic data will be stored on a password-secured personal computer to which the researcher has exclusive access. Subject identities will be kept confidential by substituting a number for the actual identity.

Your participation is voluntary. Your decision whether or not to participate will not affect your relationship with Old Dominion University or [institution name removed]. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

If you have any questions, please feel free to contact Megan Britt at 843-446-7035.

Your signature indicates that you have read and understand the information provided above, that you willingly agree to participate, that you may withdraw your consent at any time and discontinue participation without penalty, that you have received a copy of this form, and that you are not waiving any legal claims, rights or remedies.

Print Name _____

Signature _____

Date _____

APPENDIX B: Random Assignment of English 101 Sections

Control Group				Mindful Breathing Group		
Time	Day	N		Time	Day	N
8:00 - 9:20 am	TR	21		8:00 - 9:20 am	TR	25
8:00 - 9:20 am	WF	29		8:00 - 9:20 am	MW	23
9:30 - 10:50 am	TR	28		9:30 - 10:50 am	WF	17
11:00 - 12:20 pm	MW	29		11:00 - 12:20 pm	TR	27
1:00 - 2:20 pm	MW	27		11:00 - 12:20 pm	WF	29
5:45 - 7:05 pm	TR	18		5:45 - 7:05 pm	TR	26
	Total	152			Total	147

APPENDIX C: Course Instructional Package

COURSE PREFIX: ENG 101
CONTACT HOURS: 3.0

COURSE TITLE: English Composition
CREDIT HOURS: 3.0

COURSE DESCRIPTION: A college/university parallel transfer course in composition which concentrates on frequent in-class essay writing in conjunction with a study of professional essays as models. The course includes a review of standard usage and introduces the documentation of sources.

REQUIRED MATERIALS:

Text: McCuen-Metherell, Jo Ray and Winkler, Anthony C. *Readings for Writers*, 13th Edition. Boston: Thomson Wadsworth, 2010.
The English Department also recommends use of a dictionary, thesaurus and editing handbook during in-class writing.

PREREQUISITES:

- * A minimum grade of “C” in English 100.
- * A minimum COMPASS score of 80 Reading and 87 Writing.
- * A score of 480 or higher on the SAT Verbal.
- * A score of 19 on ACT.
- * Placement by departmental writing sample or diagnostic essay on day one of class.

ENTRY SKILLS:

The ability to write an organized and developed essay of at least 300 words.

PURPOSE:

To provide the student with an intensive, process-oriented writing course which will promote the effective, well organized, and well-developed logical communication skills demanded in college work and in professional careers.

RATIONALE:

English 101 is a college transfer course, a component of the four-year baccalaureate degree. Every student completing this course with a minimum grade of “C” will demonstrate competent, college-level writing skills. The development of these skills will be achieved by intensive writing. Students learn to write by writing. Whatever level their personal best is, they will discover it only through the process of writing. Therefore, they will write as much and as often as possible in this course. In addition to graded assignments, students will have opportunities to practice non-graded writing through in-class exercises in planning, drafting and revising.

*In general, “organized” refers to an essay’s structure and form; “developed” refers to an essay’s content.

COURSE SKILLS:**UNIT I**

The student will use the writing techniques of planning, drafting and revising and will cultivate the habits of good writers by practicing these interrelated steps in fulfillment of each writing assignment. The student will write well-organized essays that include an introduction with a thesis, well-developed body paragraphs, and a conclusion.

UNIT II

The student will write several essays employing a variety of strategies for narration, description, objective reports, proposals, argumentation, reviews, and critical analyses. Through these strategies, the student will also develop and enhance critical thinking skills.

UNIT III

The student will define plagiarism and avoid it by using the correct methods of quoting, paraphrasing, and summarizing sources. The student will write a minimum of two documented pieces which incorporate MLA parenthetical referencing and bibliographical format.

UNIT IV

The student will apply the principles of writing effective essay examinations and timed essays through in-class writing assignments. Students will often have the opportunity to write out-of-class papers during their college careers. The English 101 student will have ample opportunity to develop and refine skills to meet the demands of “on the spot,” timed writing requirements.

*In general, “organization” refers to an essay’s structure and form; “development” refers to an essay’s content.

SPECIFIC SKILLS:

UNIT I: Planning, Drafting and Revising

1. The student will select and narrow down a subject for an essay. Selecting an essay topic is an important part of the process of writing. A good topic is essential to a good essay; therefore, the instructor will evaluate topic selection when grading the essay.
2. The student will find an essay’s purpose and focus through planning or “prewriting” techniques such as listing, freewriting, clustering, cubing and other activities designed to stimulate creativity and assist the student in planning.
3. The student will analyze the role of audience in writing through exercises in writing for specific audiences and through sharing essays with other class members. Audience analysis will also help the student learn to use effective tone and style.
4. The student will employ memory and observation in writing, using what the student “knows” as a significant resource.
5. The student will compose an effective thesis and identify the critical role of the thesis in essay organization. Organization is imperative in a good essay, and the instructor will evaluate organization in grading the essay.
6. The student will use vivid, concrete, specific details and examples in developing interesting writing, and will avoid vague, general, uninteresting language. Good writing IS interesting and the instructor will evaluate the use of specific, descriptive details in grading the essay.
7. The student will organize the structure of body paragraphs by composing thesis-related topic sentences and by using transitions. The student will develop the content of body paragraphs by using examples, anecdotes, facts, statistics, names and descriptive details.
8. The student will apply the techniques for writing interesting, effective introductions (lead-ins) and conclusions.

9. The student will apply the techniques of revising and editing. Rewriting is essential to good writing, and the student will self-evaluate and self-edit through frequent revision.

10. The student will coordinate the interrelated stages of the writing process (planning, drafting and revising) through in-class writing assignments.

UNIT II: Formal Essay Writing

1. After reading an argumentative essay, the student will analyze the structure and content of the essay as a means of developing analytical and critical thinking skills.

2. The student will write an analytical essay in which he or she will evaluate the validity of the author's claim, evidence, and conclusion. The student will also identify the author's underlying assumptions, and draw conclusions as to the author's purpose and audience.

3. The student will identify in his or her essays, in a professional essay, or on a test, the most common logical fallacies.

4. The student will employ strategies for writing summaries, in critical analyses, classical arguments, and documented arguments following various models.

5. The student will write at least two documented essays that develop an argument. The student will select a debatable topic and learn to write persuasive, well-supported arguments.

UNIT III: Documentation

1. The student will write two documented pieces.

2. The student will quote, paraphrase, and summarize sources properly and credit those sources correctly.

3. The student will use MLA documentation style.

4. The student will incorporate conventional mechanics and manuscript standards in these papers.

UNIT IV: Essay Examinations

1. The student will write timed, in-class assignments and essay examinations successfully.

2. The student will read the essay question carefully and identify the organizational strategy suggested by the question. The student will then apply an appropriate method of development. Most essay questions call for the expository strategies the student has been learning in this course, and begin with the words "compare," "contrast," "define," "argue," etc.

EVALUATION:

The student will demonstrate knowledge of course material primarily through written essays. The student will write five graded essays plus an essay examination (Final). Each essay will be evaluated for grammar and mechanics as well as organization and development.

The student is expected to read the weekly text assignments before coming to class and to contribute to class discussion. During the semester, students will also be asked to complete

writing exercises, drafts, outlines, and shorter pieces in class. In addition to the five major writing assignments, individual instructors may assign short writing and grammar exercises from the tests. Points will be adjusted accordingly. Students who have problems in sentence structure, punctuation, and grammar may be assigned additional remedial material. However, all students should conscientiously look up and correct errors that are noted on their returned papers. Students needing an explanation, extra help, or just a good “sounding board” are encouraged to come to the Academic Achievement Center.

PROPOSED COURSE OUTLINE: [Individual Instructors May Modify]

All English 101 students will complete at least five (5) major writing assignments.

Assignments must include the following:

ASSIGNMENTS (Required)

Assignment 1	Classification Essay	100 points
Assignment 2	In-Class Comparison/Contrast Essay	100 points
Assignment 3	Causal Analysis	200 points
Assignment 4	Documented Research Paper	300 points
Final Exam		200 points
Two Tests		<u>100 points</u>
		<i>1000 points</i>

APPENDIX D: The Daly-Miller Writing Apprehension Test

Remember: *There are no correct answers, only give your honest response to each item.*

5=Strongly Disagree 4=Disagree 3=Uncertain 2=Agree 1=Strongly Agree

1. I avoid writing. (+)
2. I have no fear of my writing being evaluated. (-)
3. I look forward to writing down my ideas. (-)
4. I am afraid of writing essays when I know they will be evaluated. (+)
5. Taking a composition course is a very frightening experience. (+)
6. Handing in a composition makes me feel good. (-)
7. My mind seems to go blank when I start to work on my composition. (+)
8. Expressing ideas through writing seems to be a waste of time. (+)
9. I would enjoy submitting my writing to magazines for evaluation and publication. (-)
10. I like to write down my ideas. (-)
11. I feel confident in my ability to express my ideas clearly in writing. (-)
12. I like to have my friends read what I have written. (-)
13. I'm nervous about writing. (+)
14. People seem to enjoy what I write. (-)
15. I enjoy writing. (-)
16. I never seem to be able to write down my ideas clearly. (+)
17. Writing is a lot of fun. (-)
18. I expect to do poorly in composition classes even before I enter them. (+)
19. I like seeing my thoughts on paper. (-)
20. Discussing my writing with others is enjoyable. (-)
21. I have a terrible time organizing my ideas in a composition course. (+)
22. When I hand in a composition, I know I'm going to do poorly. (+)
23. It's easy for me to write good compositions. (-)
24. I don't think I write as well as most other people. (+)
25. I don't like my compositions to be evaluated. (+)
26. I'm not good at writing. (+)

APPENDIX E: Narrative Essay Prompt

Adapted from “**Traci's 19th List of Ten: Ten Narrative Writing Prompts**
Posted to ACW-L, WCenter, NCTE-Talk, and TEACH on 2/27/99.

Directions: You have sixty minutes to write a response that informs your readers by telling them a story. Your response should narrate an entire story (beginning, middle, and end).

Your answer should:

- include adequate details about the events in the story
- be written with attention to spelling, grammar, and punctuation

Pretest Prompt: [Childhood Memory] Choose a vivid time from your childhood. Narrate the events related to the childhood memory that you've chosen so that your readers will understand why the event was important and memorable.

Posttest Prompt: [The Good and the Bad] *Think about an event in your life that seemed bad but turned out to be good. Tell the story of the event that you experienced and help your readers understand how an event that seemed negative turned out to have valuable consequences.*

CURRICULUM VITA

MEGAN E. BRITT

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 145 Education Building, Department of Teaching and Learning
 Norfolk, Virginia 23529

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 Cell: (843) 446-7035 * Email: mbritt@odu.edu

1. Academic History

a. Education

- Ph.D. May 2011 Old Dominion University, Curriculum and Instruction
 Dissertation: *Effects of a Mindfulness Intervention on Community College Students' Writing Apprehension and Writing Performance*, Supervised by Dr. Kaa Vonia Hinton-Johnson
- M.A.T. 1996 Union College, English Education
 Thesis: *Jaime Sommers, Where Are You Now? In Search of the Adventuring Female Protagonist*
 New York State Permanent Teaching Certification, Grades 7-12
 New York State Athletic Coaching Certification
- B.A. 1992 Boston College, Speech Communications & Theatre
 Gold Key National Honor Society

b. Academic Employment

- 2010- present Lecturer, Darden College of Education, Department of Teaching and Learning, Old Dominion University, Norfolk, Virginia
- 2008-2010 Graduate Teaching Assistant, Darden College of Education, Department of Teaching and Learning, Old Dominion University, Norfolk, Virginia
- 2005-2008 Professor, English Department, Horry Georgetown Technical College, Conway, South Carolina
- 2005-2006 Kindergarten Teacher, The Lord's Children Pre-School and Primary School, North Myrtle Beach, South Carolina
- 2003-2005 Middle/High School English Teacher, Horry County Public Schools, Myrtle Beach, South Carolina
- 2001-2003 Middle/High School English Teacher, Westchester County Public Schools, Westchester, New York
- 1996-2001 Middle/High School English Teacher, Saratoga County Public Schools, Saratoga, New York

2. Instruction

a. College/University Teaching

READ 621	Differentiated Literacy Instruction and Portfolio Development
TLED 408	Reading and Writing across the Curriculum
TLED 408/VS	Reading and Writing across the Curriculum, distance format/online, video stream delivery
TLED 432/532	Developing Instructional Strategies PreK-6 Language Arts
TLED 451/551	Developing Instructional Strategies for the Middle/High School with Practicum
TLED 468/568	Language Acquisition and Reading for Diverse Learners
TLED 360	Classroom Management and Discipline
ENG 031/032	Developmental English I, II
ENG 101	English Composition I
ENG 102	English Composition II
ENG 155	Communications I
ENG 160	Technical Communication

b. Elementary/Middle/Secondary Teaching

Elementary	Kindergarten (1 year)
Middle	ELL, Gifted and Talented, Grades 7, 8 (4 years)
High	Grades 9,10,11,12, AP English Literature, Shakespeare elective (5 years)

c. Professional Development Workshop Presentations

2011	National Writing Project (NWP) affiliate, Tidewater Writing Project, Open Institute Presentation: <i>Writing in the Content Areas</i>
2011	Portsmouth Catholic School, <i>Writing to Learn</i>
2010	NWP affiliate, Tidewater Writing Project, Open Institute Presentation: <i>Writing across the Curriculum Matters</i>
2009	NWP affiliate, Tidewater Writing Project, Open Institute Presentation: <i>Writing Strategies for Student Achievement</i>
2007	Horry Georgetown Technical College, <i>Interactive & Creative Teaching Techniques</i>
2007	Horry Georgetown Technical College, <i>Early College Student Journalism Experience</i>

3. Scholarly Activities

a. Publications

- Britt, M.E. (2010). See me after class: Advice for teachers by teachers. (Book review). *Childhood Education*, 86(4), 279.
- Britt, M.E., Hinton-Johnson, K., Pribesh, S., & Gupta, A. (2010). Effects of a mindfulness intervention on teachers' writing apprehension and writing performance. *Research in the Teaching of English*. Submitted for publication November 2010.
- Britt, M.E. (2010). Jaime Sommers, where are you now? In search of the adventuring female protagonist. *Journal of the Women in Literacy and Life Assembly*. Submitted for publication October 2010.

Britt, M.E. (2010). The empathic civilization: The race to global consciousness in a world in crisis. (Book review). *Childhood Education*. Submitted for publication August 2010.

Britt, M.E. (2010). The secret of TSL: The revolutionary discovery that raises school performance. (Book review). *Childhood Education*. Submitted for publication August 2010.

b. Recognitions and Achievements

- | | |
|------|--|
| 2010 | Old Dominion University Division of Student Affairs <i>Shining Star Award</i> for faculty demonstrating evidence of helping students succeed academically, professionally, and personally inside and outside the classroom setting |
| 2007 | Permanent Professor Appointment, Horry Georgetown Technical College |

c. Travel Awards

- | | |
|------|---|
| 2011 | Tidewater Writing Project (\$1000), AERA presentation |
| 2010 | Old Dominion University, Department of Teaching and Learning (\$900), NCTE presentation |
| 2010 | Old Dominion University Research Foundation (\$325), NCTE presentation |
| 2010 | Old Dominion University Research Foundation (\$1000), AERA presentation |

d. Advisory Service

- | | |
|------|---|
| 2008 | Horry Georgetown Technical College faculty advisor to Horry County Schools' <i>Early College High School</i> , a program targeting the underrepresented in post-secondary education, including first generation college attendees and students for whom the cost of college is prohibitive. |
|------|---|

e. Conference Presentations

- Britt, M. E. *Practicing Mindfulness of the Bodies and Beings of Teachers and Students*. Annual meeting of the American Educational Research Association, New Orleans, LA April 2011.
- Britt, M. E. *Teaching and Learning from Great American Poets*. Annual meeting of the National Council of Teachers of English, Orlando, FL, November 2010.
- Britt, M. E. *Well Teachers Teach Well: Renewing Our Teaching Selves*. Annual meeting of the National Council of Teachers of English, Orlando, FL, November 2010.

Britt, M.E. *Lights, Camera, Action! The Mini-Western: Making Movies in the English Classroom*. Annual Capital District English Educators Association Conference on Best Practices in English Language Arts, Schenectady, NY, April 1998.

Britt, M.E. *Shakespeare Reconsidered: Love in the Afternoon*. Annual Capital District English Educators Association Conference on Best Practices in English Language Arts, Schenectady, NY, May 1996.

4. Public Service

2010	Judge, Elie Wiesel Poetry Writing Competition, Virginia Beach, Virginia
2010	Volunteer Instructor, YMCA Healthy You Program, Norfolk, Virginia
2009	Judge, Norfolk Public Schools District Annual Science Fair, Norfolk, Virginia

5. College/University Service

2010-2011	Budget Committee, Darden College of Education, Old Dominion University
2009	ELA K-6 Hiring Committee, Darden College of Education, Old Dominion University
2008-2009	Strength training, yoga, kickboxing fitness instructor for Old Dominion University students/faculty
2007-2008	Strength training fitness instructor for Horry Georgetown Technical College employees
2007	Quality Enhancement Plan (QEP) development team for Southern Association of Colleges and Schools (SACS) review, Horry Georgetown Technical College
2007	Retention Initiative faculty focus group, Horry Georgetown Technical College
2006	Local facilitator, 41st annual Two-Year College English Association Southeast (TYCA-SE) Conference, Myrtle Beach, SC, February 2006

6. Professional Affiliations

Aerobics and Fitness Association of America
 American Educational Research Association
 Assembly on American Literature
 Association of Teacher Educators
 International Reading Association
 National Council of Teachers of English
 Two-Year College English Association Southeast Region