Mindfulness in Online Courses: A Mixed Methods Research Study

by

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ABSTRACT

Community colleges serve an important and pivotal role in society. Neighborhood community colleges attract local students and students who attend community colleges do so for reasons including convenience and cost savings of living near or at home, lower tuition, developmental education courses, vocational training, ESL courses for English Language Learners, and a myriad of student and college resources. Community college faculty and administration work hard to meet the needs of by providing vocational and university transfer programs.

This research study is about the proliferation of online learning and the community college's struggle to offer online course and keep students enrolled. In an effort to keep up with new educational innovations such as learning online, community colleges offer and fill online courses. However, attrition in online courses is high. Educators continue to innovate and change in areas of course design and online teaching pedagogy, but online learning lacks the physical presence of teacher-student and student-to-student contact and connectedness to the class itself. This study investigates whether it is possible, and effective, for educators to include non-content related curriculum that tries to boost student connectedness to the class, reduce stress, and increase focus so students are more likely to stay enrolled or at least gain more self-efficacy.

I chose mindfulness and its myriad of benefits to incorporate into assignments to enhance the online learning experience and keep students enrolled and passing. This study used one class section of online ENG102 students in a small, urban community

college. Within the online course students were introduced mindfulness through periodic opportunities to read about and participate in mindfulness activities.

Results indicate that students still withdrew or stopped participating in the course, even after just a couple weeks and with minimal opportunity to engage in the mindfulness exercises. Students who did stay enrolled and participated in the mindfulness exercises reported that mindfulness did relieve stress and increase focus in general and when approaching course work. Attrition remained high. The implications for online educators indicate that more than just mindfulness is needed to address the attrition problem in online courses.

Keywords: mindfulness, attrition, online learning

DEDICATION

This dissertation is dedicated to all community college students new or returning who are pursing higher education as a means to a better life and a stronger sense of self.

Education is always worth it.

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I would like to thank my husband, Scott, for taking every Thursday off for three years so I could pursue a doctoral degree.

I would also like to thank my friends who saw me through tears of sadness and tears of joy before and during this doctoral journey. Enjoy your good Karma.

And to my girls, AnnaLei and Lily, may you find your passion and move swiftly towards it.

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Introduction

In the past two decades online learning has expanded to most colleges and institutions of post-secondary education. Online learning has become so popular that one in four students are now enrolled in an online class and 97% of community colleges offer online learning courses (Online Learning Consortium, 2018). Students can take individual courses or earn anything from a certificate to a doctorate degree exclusively online (Betts, 2017). Online learning is convenient for students and lucrative for colleges, which helps to explain why online learning has expanded so quickly: everyone seemingly benefits. From the student perspective, learning online can be a convenient learning medium and addresses many access barriers for students such as transportation and job or family responsibilities (Betts, 2017). From an institutional perspective, online education is cost effective for the colleges. Colleges can offer a myriad of online course options at a low institutional cost (Hachey et al., 2013; Harasim, 2000). Students are flocking to online learning and colleges are meeting that demand.

Along with these potential benefits, however, online learning's exponential growth has also created ongoing challenges for students and colleges. Due to online learning's rapidly increasing enrollment, competition among colleges vying for new students remains high. Colleges have embraced online learning as a way to market their colleges to an expanded pool of potential students, but sometimes colleges have rolled out online courses or programs before systematically assessing their design quality, instructor training, and student success rates (Betts, 2017). Betts argues that although demand for online learning is high, the growing enrollment should not be the only reason

colleges expand online learning opportunities; when students are not successful online, they are less likely to return to any form of post-secondary learning. Therefore, "online learning and student retention require an institutional commitment, including innovative approaches to program and course formats, student engagement, and support services" (Betts, 2017, para. 2).

Online education can be an educational game-changer, but program directors, instructors and entire educational systems need to continually reflect upon online practices, perceptions, and pedagogies (Hachey et al., 2013; Harasim, 2000). While online learning does create educational access, rapid implementation of online programs without sufficient design quality and instructor training can lead to problems and setbacks in online learning's efficacy.

One of the most pressing and troubling problems for online education is attrition. Studies have found that online courses have attrition rates that are 10% to 20% higher than face-to-face courses, with 40% to 80% of students dropping out of online courses (Bawa, 2016; Smith, 2010). Community colleges, especially urban community colleges that serve lower income neighborhoods, experience attrition rates of up to 42% in online programs or courses. Xu and Jaggars (2011) argue that the attrition problem is exacerbated for community college students because "the type of student who chooses to enroll in an online course is also the type of student who is more likely to withdraw" (p. 361), and who, if they do withdraw, do not have the money to recoup the cost and subsequently run the risk of never returning to the college or reenrolling in the class.

The Attrition Problem

Research on the effectiveness and rapid rise of online learning concludes that there is not a problem with online enrollments; there is a problem with course or program completion (Crawford, Barker, & Seyam, 2014). Researchers are generally in agreement that the reason community colleges offer so many online courses is because online learning creates access and availability to non-traditional community college students, and that theoretically, online learning should help low income or urban students who have barriers to obtaining an education (Travers, 2016; Xu & Jaggars, 2011). However, while community college students flock to online courses and programs because of online learning's convenience and availability, they frequently do not complete the course or finish a program (Colferai & Gregory, 2015; Gaytan, 2013). The literature on community college attrition rates indicates that colleges across the country are struggling to some extent with online attrition and student retention, and that community colleges particularly experience problems with high online attrition (Tirrell & Quick, 2012). One study about online attrition at a large urban community college district in Virginia reports enormous growth of online enrollments. Even after addressing quality issues in online frameworks, the Virginia Community College System saw attrition rates range from 10% to nearly 50% across individual colleges (Tirell & Quick, 2012). Other studies from community colleges nationwide also report higher attrition rates in online courses and programs (Hachey et al., 2013).

In understanding these trends, it is useful to differentiate college attrition from course attrition. College attrition is the loss of students from an institution and course attrition is the loss of students from a specific course. Just because a student drops out of

a course does not necessarily mean the student has or will drop out of the college (Michalski, 2014). However, research shows that if beginning college students are unsuccessful in their first classes, they are less likely to take other classes and more likely to drop out (Boling, Hough, Krinsky, & Saleem, 2012). Research on community college students found that community colleges offer the most online learning options to a population that is the least prepared to be successful taking classes online (Travers, 2016; Xu & Jaggars, 2011). Travers (2016) explained the community college attrition issue by characterizing the students as being underprepared to be successful in an online environment:

> The combination of being underprepared and enrolling in an online course may therefore amalgamize into an extremely difficult performance challenge for [community college] students. Additionally, many of these unprepared students are older adults who have been separated from the formal education environment for several years and are no longer acclimated to formal learning settings. To complicate matters further, many of the students may be underachievers in school, potentially stemming from lower socioeconomic populations who may have been subjected to a lower standard at the K–12 educational level, be single or married parents with family obligations, and possess either full-time or part-time employment obligations. (p. 50)

Online learning is a convenient and cost-effective mode of learning for both students and colleges, yet researchers question the effectiveness and sustainability of learning online if problems with attrition persist (LaPointe & Reisetter, 2008). Otter et al. (2013) argue that despite decades of technological advances in course delivery systems

and generations of students now considered technology natives, students, and particularly community college students, falter and fail in online courses. Although learning online is an innovation intended to increase educational access and remove geographic barriers, online college courses continue to suffer from high attrition rates, leaving a once promising educational breakthrough in a predicament (Castillo, 2013; Hachey et al, 2013; McGee, Valdes, Bullis, 2015).

Causes and Factors Affecting Attrition. Researchers across academic disciplines have acknowledged and sought to address the problem of attrition (Michalski, 2014; Tirrell & Quick, 2012; Travers, 2016). Decades of research studies and dissertations have yet to identify one intervention, policy, or pedagogy that answers why students drop an online class, but one point is generally agreed upon: adult learners lead complicated lives requiring a balance between family, work, and education (Michalski, 2014; Tirrell & Quick, 2012; Travers, 2016). The Association of Community College's 2017 fact sheet lists important defining characteristics of community college students around the country that may influence attrition: 36% of community college students are first generation students or the first in their families to ever attend college, 62% of students attend part-time, 17% are single parents, 12% are people with a disability, and 41% of community college students work full time and are part-time students.

While the statistics above may contribute to student attrition, adult community college students reported many additional reasons for dropping a class, including lack of student engagement (the class did not hold their attention), technical difficulties, lack of structure, lack of support, lack of communication by instructors and staff, and lack of time-management skills (Allen & Seaman, 2007; Cole, 2016; Crawford & Persuad, 2013;

Gaytan, 2013; Hachey et al., 2013). Lee, Choi, and Kim (2013) found that non-traditional students, including online students, need support from work and family but also need to be self-directed and self-motivated. Several research studies identified goal setting, academic confidence levels, anxiety levels, task and time management skills, self-reflective practices, and intrinsic motivation as factors that influence students' online experience and which may affect attrition if those needs are not adequately met in an online context (Cho & Shen, 2013; Choi, Lee & Kim, 2013; Dunn, 2014; Sansone, Fraughton, Zachary, Butner & Heiner, 2011).

Lee et al. (2011) name three areas that hinder student success: psychosocial factors such as motivation and life or work commitments, technology efficacy, and course content experience like feedback or instructor presence. Online programs in colleges around the world have conducted independent surveys of how students feel about online learning in hopes of discussing and resolving student concerns. Researchers hypothesized that students believe online learning to be a panacea for their educational goals but become frustrated and drop out (Allen & Seaman, 2007). Studies found that while some students enjoy the autonomy of working independently and become annoyed by forced group work, others report that online learning feels isolated, disconnected, and lonely (Boyd, 2008; LaPointe & Reisetter, 2008; Luck & Rossi, 2015). Some online students prefer a great deal of assignment feedback while other students do not care. Some students perceived online courses would be easier and less time consuming, but instead found online courses to be more time consuming (Boyd, 2008; LaPointe & Reisetter, 2008). One survey found students believed "poorer teachers teach online," that

online teachers were less effective than traditional teachers, and that the role of the teacher was less important in online courses (Otter et al., 2013).

In some surveys, students reported being dissatisfied and confused with many components of online learning, course content, and teacher-student interaction (Boyd, 2008). In another research study about students' perceptions about online learning, Peters (2007) found students felt disconnected the most when "teaching is pre-planned to the extent that individual needs cannot be considered" (Peters, 2003). Contributing to the problem is faculty perspective. Johnson and Berge (2012) suggest that because community colleges want to offer online classes, faculty feel pressured to teach and accept online courses.

Additionally, a number of studies suggest causes for attrition relate to institutional online learning policies, poor online planning, problematic content delivery systems, or trying to address the needs of online learners with strategies and pedagogy based on face-to-face courses (Boling et al., 2011; LaPointe & Reisetter, 2008; Sansone et al., 2011; Tirrell & Quick, 2012). Miller (2008) argued that "We continue to use new technologies in traditional ways, repeating past inadequacies and constraints with the new media" (p. 8). Insufficient consideration is given to the delivery platform and to the specific needs of adult online students; as a result, the reputation and quality of learning online has been compromised (Shea & Bidjerano, 2010).

A combination of external factors and personal reasons on the part of students contribute to high attrition. Regarding success, however, Liu, Gomez, Khan, and Yen (2007) studied online attrition and dropout rates in thirty community college programs and found that a combination of pedagogically sound course design coupled with

interventions and communication that guide and foster psychological skills (engagement, motivation, confidence) contributed the most to successful course completion.

Situated Context

Community colleges serve a societal purpose, providing students with an open admission policy (everyone is accepted), and accessible and comprehensive educational opportunities that are close to home (Ma & Baum, 2016). Thus, the student body of a community college generally varies widely in skills, background, expectations and needs (Johnson & Berge, 2012). The purpose of local community colleges is to offer assessable and transferable skills, including two-year career specific degree programs (trades) as well as college credit pathways so students may pursue the rest of their degree at a university (Johnson & Berge, 2012).

The National Center for Education Statistics defines a nontraditional college student as meeting at least one of the following seven characteristics: delayed enrollment into postsecondary education; attends college part-time; works full time; is financially independent for financial aid purposes; has dependents other than a spouse; is a single parent; or does not have a high school diploma (Pelletier, 2010). Given this description, community college students are typically non-traditional students, and serving this unique and diverse demographic further complicates addressing online education needs and preventing attrition in the community college context (Hachey et al., 2013; Luke at al., 2015).

Additionally, students in urban community colleges often have lower socio-economic status, have lower grade points averages, are first generation students, attend part-time, and are 24 years of age or older on average (Hachey et al., 2013; Luke at al.,

2015). As discussed previously, the complexity of the community college demographic suggests that community college students may not have the experience nor background to accurately assess what is truly in their control when it comes to attaining educational or vocational training (Luke et al., 2015 p. 223).

Maricopa County Community College District. According to the Maricopa County Community College's office of institutional effectiveness, Maricopa County Community College District (MCCCD) oversees ten community colleges in the greater Phoenix area. As such, MCCCD is one of the largest community college districts in the country. As of 2015-16, MCCCD had 220,000 students; 68% of the population were part-time, 38% intended to transfer, and 34% were 25 or older. Additionally, MCCCD employs 1,498 full-time faculty and 4,822 adjunct faculty. Each of the ten colleges works under MCCCD 's academic mission and goals, which include goals for general education, student development, and transfer education as well as practices in innovation, community, and dedication to excellence. MCCCD informational profiles page explains how The Commission on Institutions of Higher Education for the North Central Association of Colleges and Schools independently accredits the ten colleges and their programs. Each college operates as a separate entity with its own distribution of administrative and educational duties (Fast Facts, 2014).

All ten Maricopa County Community College District colleges provide online learning opportunities. MCCCD calls online learning "eLearning," and each college addresses eLearning separately, so the process of designing and teaching online courses vary across colleges. Each of the ten colleges has addressed the growing demand for online education by creating directors of eLearning or faculty leads who oversee online

courses. Sometimes there is an eLearning coordinator in each department, and in some colleges, there is an independent eLearning department. At least one college does not have a specific eLearning coordinator, but an eLearning committee. Thus, the committee, instead of a coordinator, recommends best practices and shares eLearning news.

Quality Matters. The proliferation of online learning necessitates that colleges create online learning expectations, standards, and guidelines to ensure quality instruction and support student learning outcomes (Hachey et al., 2013). Hachey et al. (2013) further explain that increased demand for online courses "poses a continued challenge for meeting higher education standards of accountability while still maintaining the ideal of open access" (p. 10). Consequently, in 2008, Maricopa Community College District adopted Quality Matters (QM), a peer-reviewed process meant to address issues and criticisms of online courses and programs, and to standardize, guide, and uphold the quality of online learning (Quality Matters, 2014). The adoption of the Quality Matters Rubric for online learning stemmed from a larger, nationwide attempt to make online learning as rigorous and as effective as face-to-face courses (Quality Matters, 2014). According to the Quality Matters website, QM is the national standard that guides online learning course design. Many of the ten MCCCD colleges require eCourse instructors be trained and apply Quality Matters criteria to online course design as part of online teaching best practices (L. Yena, personal communication, September 3, 2015).

Even with Quality Matters making online course design more consistent, attrition rates remain high across the district (L. Yena, personal communication, September 3, 2015). Per Laura Ballard, a community college eLearning Coordinator, MCCCD student attrition is the largest problem facing online courses. David Miller, English department

chair at another district college, states only 10% of the college's beginning composition courses are online, but 50% of online students drop those courses. Although online courses do not make up a significant percentage of the overall student population at present, the increasing demand for online opportunities requires MCCCD's colleges to address eLearning with rigor and fidelity (D. Miller, personal communication, August 5th, 2015).

The ten colleges within MCCCD address online attrition issues independently of one another. For instance, GateWay Community College's vice president, Maria Wise, has extensive online learning experience and meets monthly with faculty on an eLearning Committee. This committee is where decisions about online learning are made for GateWay. Each of the other ten colleges have similar yet context specific committees or coordinators. Laura Ballard explained that at one college when students drop online courses, they are asked to take an exit survey to find out why. The results help the college reassess online learning pedagogy and practice. Both Ballard and Yena agreed that in some instances, other college eLearning Coordinators personally contact online students who stop participating in the course(s). Ballard also stated that the college president on her campus, in an attempt to address the problem of online attrition, considered limiting the number of online courses students are permitted to take (L. Ballard, personal communication, 2015; L. Yena, personal communication, September 3, 2015). However, Hachey et al. (2013) argue that limiting online courses limits educational access. Limiting or restricting access to online courses, especially at a community college, may "hinder socioeconomic opportunity for far too many students" (p. 15). In fact, the data from

Hachey et al.'s (2013) study suggests restricting access to online course did not affect attrition.

Colleges nationally and locally have many things to consider, such as faculty training, cost, and student benefits, when deciding how to increase educational access to learning while keeping student attrition numbers low. Johnson and Berge (2012) explain, "online education presents administrators with a new set of challenges and opportunities. If administrators provide the appropriate support and guidance, they will not only make the transition [to online teaching and learning] easier but also create alternative solutions to the budgeting and space planning problems that regularly impact community colleges" (p. 902). Issues of online attrition in higher education require that colleges, administrators, coordinators, and faculty to rethink online learning so students benefit and succeed.

Local Context

GateWay Community College (GWCC) is located in Phoenix, Arizona. GWCC offers 2-year degree programs, certificates, and transfer programs, enrolls about 12,000 students each year, and has four campuses. GWCC's main campus specializes in Allied-Health careers, technical careers, and trade career training. The three sister campuses offer mostly trade and career training for students wishing to enter or re-enter the local workforce. Students enrolled at GWCC often have full time jobs, families, and limited monetary resources. GWCC offers many community resources on campus such as free counseling services, a learning center with computer lab, enrollment advisors, a health care clinic, a college preparatory high school, and a day care center for parents of children ages 2 to 12.

According to the GWCC website, in the fall of 2016 the main campus of GWCC enrolled 1,305 students in full-time, undergraduate credit programs. Of these, 59% were female and 41% were male. Because of its central location in Phoenix, the campus is a diverse combination of ethnicities. In the fall of 2016, the student demographics were 46% Hispanic, 27% White, 11% Black, 3% American Indian/Alaska Native Asian/Pacific Islander, 2% two or more races, and 1% Non-Resident Alien. GWCC also serves international and refugee students from over 20 countries. The average age of the student population is 27, with 75% of the student body being part-time students. The 3-year graduation rate for full-time students at the main campus was 13% and the 3-year transfer out rate to a four-year college was 34%. The retention rate for full time students in the fall of 2015 and returning in the spring of 2016 was 56% while the part-time retention rate for part-times students was 34% ("Student Body Diversity," 2016).

An urban community college, GWCC is located in a lower socio-economic neighborhood just a few miles from downtown Phoenix. Recently the light rail implementation brought more cost-effective transportation options for students wishing to attend GWCC for its career and technical training programs. GWCC is also a Title V community college which means it receives federal Title V funding to support the retention and preparedness of students attending a Hispanic-serving institution. The designation Hispanic-Serving Institution (HSI) means that more than 25% of GWCC's students are Hispanic. Additionally, in 2014, 55% of enrolled full-time students received Federal Pell Grants.

Any student at GWCC is allowed to take an online course as long as they have met the prerequisite, if applicable. For fall 2016 online courses, GWCC offered 87 online

classes and 22.7% of enrolled students withdrew from those online classes. In the Literature, Language, and Literacy (English Department), online courses for Beginning Composition ENG101/102 cap at 20 students, due the rigor and time commitment required to properly grade writing. I am a full time residential English Faculty at GWCC, with a semester load of 15 credits (five courses) that includes a combination of face–to-face and online courses. As the instructor, as with all online instructors at most MCCCD campuses, I teach and design my online courses independently and duplicate courses from fall to spring. All the courses I teach run for a full, 16-week semester.

In my online courses, I attempt to create courses that encourage discourse and inquiry, critical thinking and projects, and incorporate appropriate technologies. I have two academic certificates in online teaching and course design as well as over ten years' experience teaching online. Therefore, I believe my courses to be structurally sound and academically rigorous. Yet, even with solid, Quality Matters-guided course design, student attrition remains high in my courses.

Problem of Practice

My problem of practice is the occurrence of high attrition rates in online community college courses. Each semester I begin with a full class of eager students, and yet each semester many students drop despite continuous efforts my efforts to make my courses sound in both design and teaching practice. Attrition rates in my online courses range from 50% in some sections to 90% in others.

Online learning at GWCC meets professional standards of course design (QM) and employs highly skilled full time and adjunct (part-time) faculty. Yet, attrition remains high. Research indicates that colleges have tried to identify reasons for attrition and admit

the reasons are complex (Hachey et al., 2013). Specifically, research on online course design pedagogy identifies four variables affecting online attrition: psychosocial factors (e.g., feelings of isolation), lack of motivation, goal orientation, and/or stress management coping skills (Webb-Boyd, 2008). Webb Boyd (2008) argues that colleges need to encourage online course design that addresses students' psychosocial as well as cognitive needs, and that acknowledges psychological issues that affect students' lives. Course design rubrics cannot fully address the psychological or social needs of online community college learners (Webb Boyd, 2008), and my own experience with QM supports that conclusion.

High and increasing online student attrition rates require colleges to precipitate a major shift in online learning teaching pedagogies (Tirrell & Quick, 2012). Research studies conclude that online learning practices needs to adapt to the changing needs of the 21st century student and the 21st century community college (Liu et al., 2007). Colleges in MCCCD are not having trouble enrolling online students; colleges are having trouble keeping students enrolled. Thus, we need to rethink online learning pedagogy and course design principles in an effort to create effective online learning environments that support our community college students in persisting with, and being successful in, online courses.

If colleges can address issues of attrition and make online learning sustainable for students, it will be the students who benefit the most by having access to quality, rigorous, effective, and convenient learning experiences (Hachey et al., 2013) Travers (2016) argues that colleges and/or programs can make institutional changes to decrease high attrition rates and identifies course design elements that can make it more likely for

students to stay and pass. These elements are: the same or equivalent academic and personal support given to in-person students, context specific course design, communication before, during and after the course, and student-centered instruction (Travers, 2016). Moreover, benefits to the students when those design elements exist also include increased motivation and a feeling of connectedness to college or program (Travers, 2016).

Purpose of the Intervention

This study sought to investigate factors that contribute to community college student attrition in online courses. These factors include stress, motivation, time-management, focus, and feeling connected to self and others. I hypothesized that personal mindfulness practices could contribute to addressing a subset of these factors – stress, focus, and connectedness to self and others – in order to positively influence students' online learning experience and potentially decrease attrition. In the fall of 2017, my beginning composition ENG102 online course included a series of guided mindfulness exercises. These exercises spanned 16 weeks and were inserted strategically to compliment and support important writing assignments. The intent of the mindfulness exercises was to redirect students to focus on the present moment in order to develop better focus and/or reduce stress and therefore, persist in course work.

Previous Action Research Cycles

When my teaching practice moved online in 2008, I found that by the time the first paper was due, about four weeks in, I lost an average of ten students out of 75 from three sections I taught at the time. Moreover, that number increased as the semester progressed. By mid-semester it was possible to lose 20-30% of the students originally

enrolled. Sometimes students emailed me to explain why they dropped, and other times they stopped participating until I was required to withdrawal them.

Cycle One. In trying to understand the high attrition rates in my online writing course, I initially surmised that students were not confident in their writing and technological skills. However, survey results from my initial cycle of action research indicated that students believed themselves to be efficacious in writing and confident in their ability to take and pass an online course. Why were attrition rates high if students were comfortable and expressed confidence in taking an online writing course? While the survey results did confirm that the students felt confident taking an online course, students also reported that everyday life situations created stress and that they lacked effective time management skills.

Consequently, I adjusted subsequent research questions and refocused my research methods to discover what, if not the perception of self-efficacy, was contributing to the students' high attrition rates.

Through personal experience being an online instructor for 13 years, along with interviews with other online instructors, I hypothesized that perhaps students dropped out because they cannot balance college, family, and work. In support of this hypothesis Laura Ballard, an MCCCD eLearning coordinator, explained high attrition is the largest problem facing online courses across the district (L. Ballard, personal communication, September 3, 2015). To find out why students stop participating in online courses, her college administers exit surveys. Resoundingly, students cited personal issues, time-management, and the inability to juggle the stress of school, work, and family. I therefore adjusted the intervention to address issues of stress and stress management.

Cycle Two. In cycle two, I honed my research questions and data to reassess why students may not be completing an online course. The second cycle included one section of 20 online beginning composition ENG102 students enrolled in fall of 2016, and the course content included a series of mindfulness activities. Based on the previously discussed research about student's complex lives, I hypothesized that students may lack self-regulatory skills or behaviors and that mindfulness exercises may help bolster those skills or behaviors. Therefore, I constructed a survey instrument for pre and post intervention to measure students' perception of their own self- regulatory behaviors and the effect from participating in mindfulness exercises. Out of the 20 students enrolled at the beginning of the semester, 10 students took the survey. With regard to self-regulation, students reported a mean of 2.0 out of a 4 points Likert Scale, indicating they disagreed with statements such as, *I have a hard time controlling my temper* and *I am afraid I will lose control of my feelings*. Nine of the ten students who took the survey also reported using the mindfulness exercises. Those nine students reported the mindfulness exercises helped them write better, focus, and helped alleviate stress and feel more connected to the class. Since the cycle two survey results suggested that the students felt they had a grasp on self-regulatory behaviors and reported benefits to the mindfulness intervention, I changed the pre and post survey from measuring self-regulatory behaviors to measuring general mindfulness for cycle three.

Cycle Three

The third cycle of action research is this dissertation study. In this study, I sought to understand and address the high attrition rates in online classes at GWCC by designing, implementing, and assessing the effect of course modules that include

personal mindfulness practices such as body awareness, object focus, or two-three minutes of focusing on a task or idea. I hypothesized that the inclusion of mindfulness practices would influence students' online learning experience. I defined online learning experience as addressing four constructs of mindfulness: general mindfulness use and beliefs, stress reduction, focus, and connectedness. Research supports that people who feel mindful and calm also feel capable of dealing with stress, are more apt to focus on learning tasks, and engage with others (Hefferon & Boniwell, 2011). More generally, I hypothesized that a mindfulness intervention would help students develop personally and, as a result, students would develop academically.

Research Questions

This action research study answers the following research questions:

1. To what extent do the course's mindfulness exercises influence students' use of general mindfulness?
2. How and to what extent do students' use of mindfulness practices influence their online learning experience?

Chapter 2

Theoretical Perspectives and Research Guiding the Project

Research studies suggest online learning must be reimagined to meet the learning needs of 21st century students and address how adults learn and interact academically and personally (Castillo, 2013; Elaine & Seaman, 2011). But which part of online learning needs to change? There are many factors that influence student behavior, learning, attrition, and retention. How can colleges or instructors know for sure which factors are important? Do students need more peer contact and/or more instructor feedback? Do courses need more videos, fewer videos, better discussion boards, or more interactive discussion boards?

Understanding the adult learner in an online learning context is complex. The research guiding this study focuses on psychological factors that influence learning, the expanding pressures of adult life, and the increased responsibility of both student and teacher in a technologically based, online environment. The guiding theories for my proposed study are positive psychology, self-regulatory learning, self-efficacy, and mindfulness. Positive psychology is the foundation of exploring social emotional factors of learning including self-regulation. Self-regulation includes behavior traits such as time-management skills and goal setting, and motivation. Self-Efficacy involves self-regulatory processes. Self-efficacy means having belief in one's capabilities to execute and achieve a goal. Therefore, self-efficacy impacts students' self-regulation. If a student feels efficacious, he or she is more likely to put forth self-regulatory skills like effort, motivation, and persistence (Wang, Shannon, & Ross, 2013).

Mindfulness is simply attention to the present moment. Mindfulness seeks to still the mind, allowing people to practice focusing and accepting what is happening right now and without labeling or judging it.

Positive Psychology

Positive psychology is a science of personal, positive experiences and the practice of trying to develop positive traits (Seligman & Csikszentmihalyi, 2000). Principles of Positive psychology promote happiness and well-being rather than focusing on the more negative mental illness aspects of psychology (Hefferon & Boniwell, 2011). Positive psychology broadly encompasses emotions and personal traits such as hope, wisdom, courage, responsibility, perseverance, goal setting, and creativity that affect health and learning. Seligman and Csikszentmihalyi (2000) assert that in this age of stress and melancholy, not enough attention is given to nurturing psychological needs, thereby causing an increase in unnecessary mental strife. By fostering and accentuating positive human traits, people can learn better coping strategies to more effectively and successfully navigate daily life's difficulties (Seligman & Csikszentmihalyi, 2000).

Related Research Study 1. Daspit, Mims, and Zavattaro (2015) describe a Community of Inquiry (CoI) framework developed in 2000 by Garrison, Anderson, and Archer (2000). In alignment with principals of positive psychology, the CoI Framework combines cognitive and social elements within online course design that focus on the more positive aspects of psychological phenomena like happiness, hope and optimism. More specifically, it combines elements of teaching pedagogy with psychological elements that develop positive, useful behaviors. The authors explain that the influx of online education has in fact changed the landscape of education. Students flock to online

learning, but once there, find online learning impersonal and lonely. Daspit et al. (2015) describe psychological capital as enacted through the CoI Framework as a means to influence individual student success in an online environment.

In their study, Daspit et al. (2015) examined five online undergraduate courses using the CoI model. The authors argued that online course delivery needed a new approach that focused on the psychological needs as well as the cognitive needs of students. Their intervention used three components: teaching presence, social presence, and cognitive presence. The psychological capital, or social presence, was intended to promote characteristics of resilience, self-efficacy, hope and optimism.

Daspit et al. found that many factors contribute to student success in online learning environments, such as motivation, instructor presence, and self-efficacy. The study concluded that by addressing psychological capital through social enhancement techniques, students can have a more powerful and transferrable online experience. The authors recommended that instructors begin to add more than just cognitive content to online course design, since in this stressful and technological age, educators need to foster psychological wellness. The study found that positive psychological traits such as happiness, hope, and optimism can be taught in an online delivery system, and that the implications for that can be generalized and transferred to other learning and social environments (Daspit, Mims and Zavattro, 2015).

Related Research Study 2. In their research study, Seear and Vella-Broderick (2013) used the theory of positive psychology to increase well-being through mindfulness interventions. Their study, while not in an online educational environment, hypothesized that mindfulness would increase both motivation and emotional well-being. The authors

acknowledged that the art of being happy or achieving happiness is allusive. Therefore, the purpose of the study was to better understand the influence of mindfulness techniques on overall life satisfaction and levels of happiness. Results indicated that mindfulness interventions increased participants' perceptions of personal well-being and decreased symptoms of depression, stress, and anxiety. The mindfulness intervention sought to inspire participants to find 'their best possible self' through exercises in memory, attention, and focus. The study found that individuals who practiced mindfulness with the intent to benefit from it (or be more mindful), did benefit from it and were in fact, more mindful. Implications suggest that mindfulness interventions and positive psychology techniques can promote psychological well-being, decrease anxiety and stress, and improve overall happiness (Seear & Vella-Brodrick, 2013).

Self- Regulation

As outlined in Chapter One, my dissertation study combines the practice of mindfulness with effective course design (Quality Matters rubric), which, I hypothesize may influence students' self-directed behaviors or self-regulation. Bandura (1977) defined Cognitive Self-Regulation Theory as cognitive processes that influence motivation and action in the form of self-monitoring, standard setting, evaluative judgment, self-appraisal, and affective self-reaction. Caporrimo (2007) found that because of the complex responsibilities of community colleges students and their lack of self-regulation skills, they are often fatigued, stressed, do not complete work, and have excessive absences. When students develop self-regulation, their outcomes for success in college increase (Caporrimo, 2007).

Self-regulation requires learners to self-reflect and adjust at different times in the learning process (Cho & Shen, 2013; Dunn, 2013; Sansone et al., 2011). Moreover, self-regulated learning reflects a student's effort and motivation to seek challenges and meet goals (Sansone, et al., 2011). Studies suggested successful students have, or develop, self-regulation (Cho & Shen, 2013). Molden and Dweck (2006) argue that students who possess self-regulatory qualities have higher levels of self-esteem, self-efficacy and ultimately more success. Self-regulation may be enhanced through effective use of course design strategies such as mindfulness exercises.

Psychologically, self-regulation is voluntary action management and according to Karoly (1993), self-regulation is measurable, malleable, and adaptable. However, Karoly suggests self-regulatory behaviors can be negatively affected and therefore, terminated, based on negative, punitive, or critical experiences. The author further argues that self-regulation is powerful indicator of success both socially and emotionally, but self-regulation is difficult to implement and teach because it deals with intrinsic human qualities thought to be environmentally developed and out of the control of educators. Karoly asserts, though, that when people have a nascent level of self-efficacy, self-regulation skills can be more easily learned. Presumably, self-regulation is a dynamic process, ephemeral, and holistic, but self-regulation, through proper interventions can be changed, adapted, and adjusted to individual needs or life situation. It is the opinion of Karoly that self-regulatory behaviors and characteristics need continual consideration in social learning as well as in academic learning. For example, being cognizant of others' needs lead to other positive effects such as increased self-efficacy and a general state of well-being and resilience to emotional turmoil (Karoly, 1993).

Self-Regulation Online. Results from the aforementioned studies suggest that developing and recognizing self-regulation in online environments is challenging (Cho & Shen, 2013; Sansone et al., 2011). Academic success in online courses requires intrinsic goal orientation coupled with cognitive engagement that creates self-regulatory approaches to online courses (Cho & Shen 2013). Students are often not aware of their own skill set when approaching online courses and as a result, self-regulation deficiencies become apparent as students drop out of their courses (Cho & Shen, 2013).

Sansone et al. (2011) measured online undergraduate students' self-regulatory behaviors such as goal setting, academic motivation, and effort level. The results indicated that students' levels of self-regulation influenced motivation and intent, and if self- regulatory skills were present, students were more successful. Research results on self-regulation in online learning consistently indicate a positive correlation between self-regulation and student success, including lower attrition rates (Sansone et al., 2011; Wang, Shannon, & Ross, 2013; Yukselturk & Bulut, 2007). The studies all suggest that further research is needed and assert that through intentional interventions and attention, self-regulatory behaviors can be learned and supported (Sansone et al., 2011; Wang, Shannon, & Ross, 2013; Yukselturk & Bulut, 2007).

However, self-regulation is just the basis for what researchers find is the most significant predictor of online success: self-efficacy (Cho & Shen, 2013).

Self-Efficacy

Bandura's Social Cognitive Theory names self-efficacy as a factor that influences behavior. Self-efficacy reflects a student's confidence, self-esteem, and personal judgment about one's ability to complete or achieve a goal. Self-efficacy is a person's

belief they can complete a task even when it is challenging or difficult. Bandura (1977) states that not only does self-efficacy cause a person to persist through difficulties, it also provides coping skills. He postulates that self-efficacy, like self-regulation, can be learned through vicarious experiences that eventually increase efficacious perceptions, and those perceptions can transfer to other situations – even situations that are markedly different from ones experienced before. Bandura argues that people who experience doable tasks raise their self-efficacy and become more efficacious as the tasks progress. Based on Bandura's self-efficacy principles, students can become more efficacious in a challenging environment, as long as they experience some degree of success.

Self-Efficacy Online. Shen, Cho, Tsai, and Marra (2013) suggest that levels of self-regulation influence self-efficacy in online learners, while at the same time, self-efficacy is essential for students to persist with self-regulation – in other words, the two are interrelated and often require one to be present in order to affect the other. Additionally, Cho and Shen's (2013) study on self-regulation found self-efficacy to be a key psychosocial variable for obtaining successful online learning outcomes. Considering that factors of self-efficacy can significantly contribute to an online learning environment. Shen et al. (2013) argue that online learning strategies that focus more on the technological aspect of learning at the expense of factors that contribute to self-efficacy create additional challenges for a successful or complete online experience.

Related Study One. Luke, Redekop, and Burgin (2015) studied psychological factors that influence student retention, and focused specifically on four factors that predict student persistence: career decision self-efficacy, career locus of control, education-employment connection, and intent to return. Of those factors, the authors

found that self-efficacy is the most powerful predictor of retention. However, the authors also found that community college students, specifically, are more likely to have lower levels of self-efficacy, but may over-perceive their self-efficacy and as a result, have a false sense of ability that when challenged, could negatively affect retention (Luke et al., 2015).

Related Study Two. Shea and Bidjerano (2010) is a frequently cited study about online theories of self-regulation and self-efficacy. Their study found that self-efficacy increased as a result of developing self-regulation. At the same time, the authors argue that "self-regulation is contingent on positive self-efficacy beliefs" (Winne, as cited in Shea & Bidjerano, 2010, p. 1723). In other words, learners who develop self-efficacy beliefs are more likely to persist and develop higher levels of self-regulation (Shea & Bidjerano, 2010). Results from this study indicate that self-efficacy was enhanced by effective course design and teacher presence, resulting in greater student investment in the course.

Related Research Study Three. The purpose of Bressler, Bressler and Bressler's (2011) study was to examine how psychological factors like age maturity, hope, and self-efficacy affect grade performance. The authors examined the relationship between hope and self-efficacy and found, within their context, that hope and self-efficacy are not related. However, age maturity and numbers of online courses taken did influence student grade performance. The authors conclude that self-efficacy is vital for success in college, and while hope does not appear to contribute to self-efficacy and grade performance, other factors such as age and prior online courses taken are a better predictor of grade performance and course success (Bressler, Bressler and Bressler's, 2011).

Related Research Study 4. Wang, Shannon, and Ross (2013), examined technological self-efficacy and self-regulated learning in online learning settings among undergraduate students. The authors argue that not only do students need self-efficacy in their abilities to manage content in an online course, but they also need technological self-efficacy in an online environment (Wang et al., 2013). The study concluded that students' prior experiences in an online environment influenced levels of performance and motivation in subsequent online courses, and that students benefited from previous, positive online experiences in which they achieved a level of success. The authors also argue that online instructors can promote technological self-efficacy through course design (Wang et al., 2013).

Mindfulness

The idea of being mindful is not new, but the practice of mindfulness as a mainstream philosophy comes recently from the teachings and philosophy of Jon Kabat-Zinn and Thich Nhat Hanh. Mindfulness is born out of the Buddhist tradition of meditation. Mindfulness requires attention to the present moment no matter how unpleasant. Jon Kabat-Zinn (1990) calls it paying attention to the present moment nonjudgmentally, so one can fully experience what is happening in the present moment with a calm, concentrated attention. Mindfulness is therapeutic practice meant for anyone who needs emotional support or coping mechanisms. Additionally, mindfulness methods and practices are used in various settings of education, health care, and psychology (Kabat-Zinn, 1990).

Being mindful involves practice paying attention on purpose with non-judgmental acceptance of situations in everyday life (Kabat-Zinn, 1990). Mindfulness and related

mindfulness practices, such as meditation, have become mainstream strategies for alleviating stress and creating an overall sense of well-being (Davidson & Kaszniak, 2015). The term mindfulness in its many translations is defined as "attention, awareness, retention, and discernment" (Davidson & Kaszniak, 2015, p. 585). Research on the benefits of mindfulness find that a mindfulness practice can help reduce stress, lower blood pressure, quell anxiety, alleviate chronic pain, and reduce symptoms of depression and other disorders (Holzel, Carmody, Vangel, Congleton, Yerramsetti, Gard & Lazar, 2011). Mindfulness is a learned process and its focus on self-awareness and attention supports adults as they move from immaturity to maturity (Lanestrand, 2012).

Mindfulness in Neuroscience. The practice of mindfulness affects mental functioning by changing the area of the brain responsible for learning, memory, and emotional control called the hippocampus (Holzel et al., 2011). Gray matter in the hippocampus area of the brain contains most of the neuronal cell bodies. Those cell bodies are responsible for muscle control, and sensory perception such as seeing and hearing, memory, emotions, speech, decision making, and self-control (Holzel et., 2011). In multiple MRI studies, scientists found increases in gray matter when participants practiced mindfulness and concluded that "a growing body of literature has demonstrated that neural systems are modifiable networks and changes in the neural structure can occur in adults as a result of [mindfulness] training" (Holzel et al., 2011, p. 37). It is important to note that increases in the gray matter in the hippocampus were most likely due to individual characteristics, type of mindfulness practices, and duration. However, even with minimal mindfulness practice time, changes in the hippocampus still occurred (Holzel et al., 2011).

Research supports that a mindfulness practice can change the brain enough to alleviate common yet deadly levels of stress and stress related illnesses (Bingaman, 2011). Because the brain 'remembers' the mindfulness practice as soothing, the brain 'learns' to modify itself in order to handle anxiety and stress symptoms. The brain is not just changed temporarily through mindfulness practice. The brain, "changes in response to experience, not only modifying the way it works but also remolding and reconfiguring its very structure" (Bingaman, 2011, p. 479.) The practice of mindfulness can have permanent, beneficial results.

Mindfulness in Education. Albrecht, Albrecht and Cohen (2012) call mindfulness an innate human action and report that people naturally practice mindfulness throughout the day. Albrecht et al. (2012) advocate for the use of mindfulness practices in education, arguing that mindfulness practices may cultivate students' innate coping skills while developing attention and awareness in an academic environment.

Hyland (2013) describes mindfulness as a way of calming and stabilizing the activity in the right and left hemispheres of the brain; mindfulness practices enhance the connection between rational thinking and emotional reactions. Current research suggests that the benefits of mindful habits influence well-being and are a powerful vehicle in regulating psychological responses of students (Baer, 2011; Orr, 2003; Shutte & Malouff, 2011).

Although using mindfulness in education is still in its infancy, a topic once on the peripheral is now gaining acceptance in academia. The purpose of mindfulness practice in education is to create new strategies for students to be present in their reality, while maintaining emotional wellness (Seear & Vella-Brodrick, 2012). Being mindful means

acting with intention, being focused, and not judging things as bad or good (Hyland, 2013). According to Kabat-Zinn (1990), mindfulness is an innate human quality; people possess the ability to be mindful. Therefore, mindfulness practice can be carefully infused in educational contexts to tap into the existing human capacity to reflect and grow. Engaging in mindfulness is a phenomenological process by which students can realize the interconnectivity of themselves and the world (Albrecht et al., 2012).

Ritchart and Perkins (2000) investigated the question, "Is mindfulness a worthwhile educational goal?" (p. 28). The authors concluded that mindfulness in education, "is a facilitative state that promotes increased creativity, flexibility…memory and retention" (p. 29). The authors argued that the practice of mindfulness must be more than a tool; lessons of how to be mindful must become embedded within the educational landscape. Their study examined three practices that nurture dispositional mindfulness: looking closely, exploring possibilities and perspectives, and introducing ambiguity to conditioned and non-conditioned groups of undergraduate students (Ritchhart & Perkins, 2000). The authors' hypothesis was that mindfulness dispositions can be conditioned through mindfulness as a way to influence student learning (Ritchhart & Perkins, 2000). Their research concluded that mindfulness can adapt to teaching styles, content, contexts, but must be salient and intentional (Ritchhart & Perkins, 2000).

Shutte and Malouff (2011) equated mindfulness practices to increased emotional intelligence and argued that mindfulness is a trait that humans already have but underutilize. The authors stated that being mindful is a skill people can identify and practice. People may not know when they are being mindful or when a situation may require mindfulness. However, through practice, awareness and mindfulness can

increase. Shutte and Malouff researched whether mindfulness influenced emotional intelligence and higher levels of life satisfaction. Results indicated mindfulness practices did facilitate greater emotional intelligence, and emotional intelligence can influence other psychosocial variables such as health or stress (Shutte & Malouff, 2011).

Hyland (2013) stated that mindfulness in education cultivates awareness, a focus on the present, and absence of judgement. Hyland (2013) called this movement toward mindfulness the affective domain of education and says teaching and learning must address both the cognitive and spiritual features that connect students' attitudes and values. Mindfulness studies are increasing in education. Researchers are rediscovering the benefits and importance of recognizing factors that contribute to emotional intelligence and the affective domain of learning (Shutte & Malouff, 2011). The socio-emotional development of students is significant to the overall education of the person; there must be a balance between the cognitive and the emotional. Education of the affective domain is not simply a non-cognitive feature of a liberal educational philosophy, but crucial to the development of human power over one's self (Hyland, 2013).

Additionally, practicing Mindfulness creates a sense of the here and now, and as the research above suggests, student may be able to use mindfulness to create positive experiences and contribute to their happiness. Seligman and Csikszentmihalyi (2000) surmise that when people ignore their own happiness and psychological needs, loneliness, angst, and alienation may occur. Happiness and general well-being are essential for nurturing and sustaining emotional wellness (Seligman & Csikszentmihalyi, 2000). Seligman and Csikszentmihalyi (2000) state that people who have a healthy sense

of emotional wellness fare better cognitively and socially. In this world of autonomy and unlimited vice, catering to mental health, optimism, happiness, and joy are often overlooked; people are more stressed and more depressed (Seligman & Csikszentmihalyi, 2000). The authors state that young people in society lack opportunities to nurture psychological skills, and advocate for educators to infuse psychological interventions as a means of increasing student well-being and happiness (Seligman & Csikszentmihalyi, 2000).

Therefore, putting mindfulness practices into online course design may positively influence students' mental well-being. Seligman and Csikszentmihalyi (2000) argue that positive psychology techniques can act as mental health therapy. So, practicing mindfulness may increase feelings of happiness, foster positive emotions and build psychosocial skills that may increase resilience and fight feelings of depression or despair. Teaching people how to regulate and understand emotions has personal and societal implications (Seligman & Csikszentmihalyi, 2000).

Additional Mindfulness Studies. Albrecht, Albrecht, and Cohen (2012) provide several studies which conducted mindfulness interventions. Study one (Gold et al., 2010, as cited in Albrecht et al., 2012, p. 8) examined mindfulness-based stress reduction in nine primary school teachers and two teaching assistants. Prior to the intervention, participants reported suffering from a lack of self-confidence and low self-efficacy. Results of the intervention showed teachers improved in all areas by 60%. The authors caution, however, that the number of participants in the study was small, and larger scale inventions would be needed to increase external validity.

In the second study, Etty-Leal (2012, as cited in Albrecht et al., 2012, p. 8) developed mindfulness 'capsules' she implemented in two primary schools in Australia. Capsules are lessons that contain mindfulness activities in ten sessions, and included walking meditations, attention to the present moment, and breathing. The ages of the participants ranged from four to eighteen years old. In interviews about the use of the mindfulness capsules in the classroom, teachers reported a reduction in hostile students and decreased emotional outburst of anger, fear or irritations (Albrecht et al., 2012).

The third study (Napoli 2012, as cited in Albrecht et al., 2012, p. 10) examined mindfulness practices developed for elementary school teachers and students. Teachers participated in mindfulness practices focused on breathing, body awareness, meditation and sensory experiences over an 8-week period. Results of this study found that the teachers' mindfulness training improved the teachers' ability to communicate and teach mindfulness techniques to their students. Additionally, Napoli reported that teachers said their students adapted quickly to mindfulness information and practice. Moreover, mindfulness seemed to influence academic success for students as well as social and personal aspects of the school community. The study's conclusion suggested that mindfulness programs be adopted as a part of a whole school initiative (Napoli 2012, as cited in Albrecht et al., 2012).

Mindfulness Online. Limited studies exist for mindfulness in online course design. Institutions continue to design and teach online courses mostly in a linear, standardized way, although some universities and cancer researchers have created interventions using mindfulness practices in an online setting. This study seeks to

contribute to the literature by providing additional findings on mindfulness practice that support the continuing efforts to improve student success in online environments.

Summary of Chapter Two

The theories described in this chapter – positive psychology, self-regulation, self-efficacy, and mindfulness – relate to increasing or supporting the well-being of people. The accompanying studies for each theory indicate that a myriad of factors influence human social and emotional growth. The mindfulness studies, specifically, suggest that a practice of mindfulness may influence ones' happiness, self-regulatory behaviors, and self-efficacy. These theories and studies have helped to underpin and inform the research design of my study, which I will describe in Chapter 3.

Chapter 3

Methods

In Chapter 3, I discuss my research design for this action research, mixed methods intervention. The following sections explain the research setting, participants, role of the researcher, research methodology, procedures, data collection instruments, data analysis, and limitations.

The intervention answered the following two research questions:

1. **RQ1:** To what extent do the course's mindfulness exercises influence students' use of general mindfulness?
2. **RQ2**: How and to what extent does students' use of mindfulness practices influence their online learning experience?

For the purposes of this intervention, I defined "online learning experience" in the context of three of many benefits of mindfulness: focus, stress reduction, and connectedness.

Setting

The setting for this study is one online section of ENG102, offered in the fall of 2017 at GateWay Community College. As full time Residential English Faculty, I teach the beginning composition sequence ENG101 and ENG102 as part of my faculty responsibilities and job description. During the fall 2017 semester I taught one section of online ENG102 and four sections of ENG101/102 in person.

Participants

The participants were 17 community college students at GWCC who were taking ENG102 and have either taken a remedial developmental education course 081 or 091 to meet the pre-requisite for the course, or taken ENG101 with a grade of C or better.

The participants self-enrolled in ENG102 for the fall 2017 semester. The section used for this study is an asynchronous online course. That means students are enrolled in the same course at the same time at the same college, and complete assignments by pre-established and published due dates. Students are not required to work on assignments together or at the same time, nor are they required to meet or attend any class in person.

In my online courses, I communicate frequently with students via course announcements or emails. I am also present inside class assignments and discussion board posts usually through grading. The only knowledge I have of the students' private lives or personal struggles is what an assignment asks them to provide. For instance, at the beginning of the course, students introduce themselves to me and each other. I ask students, via the first assignment, to provide a bit of personal or educational background. For this intervention, I included information about the intervention, its goals, and the nature of what students may encounter in the course.

Role of the Researcher

My role in this study involved my participation as the course designer, course facilitator, and researcher.

As the course designer, I had the responsibility of designing course content, assignments, and organizational aspects such as pacing and due dates. As discussed previously, I design my courses using the Quality Matters rubric to maintain structural

and design quality of the course. Additionally, as faculty I have academic freedom and creative license to design and change this course to fit class needs and ensure the integrity of MCCCD's course competencies, which are statements of student learning and focus on writing in particular for the beginning English composition courses. For this intervention, I designed modules for each major writing assignment. I did not create the mindfulness videos, information, or audio clips. Instead, I chose from the myriad of free mindfulness activities and information online. The mindfulness exercise came from multiple sources and included video, audio and textual modes.

As the instructor, I use a Learning Management System (LMS) called Canvas. For an online course, I am responsible for creating an online environment that is organized, clear, purposeful, and engaging. I created videos of content or reminder information, weekly announcements or tips for success, and/or to clarify feedback or collective patterns of writing. Through Canvas, I addressed issues of late work or non-participation and asked students frequently if they needed assistance. My role as an instructor is to seem like I am as present and available as I would be in a face-to-face course.

As the researcher, I designed, developed, administered, adjusted, collected, and analyzed data from the mindfulness intervention. Because my role includes course design and course facilitation, it provided me, as the researcher, complete access for adapting the study, as appropriate.

Research Methodology

Action Research. The goal of action research, per Herr and Anderson (2015), is to develop the individual, improve practices that involve humans, and therefore, transform educational or social institutions.

Cycles of research seek to answer whether the original identified problem is being addressed via the research questions and intervention. In action research, the researcher, after each iterative cycle, observes findings, identifies shortcomings, reflects, and redesigns (Herr & Anderson, 2015). The intent of this iterative process is to enact and promote knowledge production, develop deeper and more nuanced understandings of new or changing phenomena, and to challenge the status quo (Herr & Anderson, 2015). An action research design allows researchers to collect, analyze and then make inferences using quantitative and qualitative methods (Tashakkori & Creswell, 2007).

All knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context (Crotty, 2015, p. 42). Crotty (2015) calls the action research process "suggestive rather than conclusive" (p. 13) because the researcher attempts to generate solutions to a local, real-life problems in new and innovative ways through ongoing cycles of research.

Mixed Methods Design. The selection of a research design is a critical decision as it impacts the direction and scope of research. Creswell (2009) argues that "rigorous research designs are important because they guide the methods decisions that researchers must make during their studies and set the logic by which they make interpretations" (p. 58). When choosing the research design for this study, I considered most importantly, my research questions and the methods with which I intended to answer them. Creswell (2009) argues that, "A research design should always match the research problem" (p. 79). My research questions have both qualitative implications by asking *how* students used or did not use mindfulness and quantitative implications by asking the *extent to*

which students used or didn't use mindfulness. Therefore, I used to a single-phase Convergent Design (or concurrent) because I collected both types of data simultaneously, compared the results, and discussed any discrepancies in the results (Creswell, 2009 p. 543).

My methodological approach was also informed by Greene (2008), who argues that "A mixed methods way of thinking rests on assumptions that there are multiple legitimate approaches to social inquiry" (p. 20). Greene (2008) states that in the field of education and other social sciences, practitioners seek to use multiple methods of inquiry to obtain results that convey the "magnitude and dimensionality as well as results that portray contextual stories about lived experiences" (p.7). A mixed methods approach often involves the researcher as a participant in contrast to a positivist approach where the researcher is uninvolved and attempts to be objective (Greene, 2008). Since this study includes latent human traits and relies on the experience of participants' thoughts and emotions, I used the quantitative data surveys and qualitative instruments together, equally accounting for strengths and weaknesses of both methods.

Greene (2012) argues that a social inquiry of critical issues involves not only hermeneutics but also genuine, dialogic opportunities to develop a deeper understanding of social phenomena. As research suggests, human subjects are complex. Understanding how people learn online can adapt and shift due to generational markers, advances in technology, or policies that govern previous educational learning (Greene, 2012). Through this research study, I hoped to uncover how students perceive online learning and how educators can address student needs in the ever-changing medium of online learning.

Procedures

I designed the ENG102 online course with periodic mindfulness exercises and information about the benefits of mindfulness. At the beginning of the course, in Week 1, students were introduced to several aspects of the course including syllabi, course navigation, what to expect, and mindfulness. Participants were also given a pre-intervention general mindfulness survey and participated in an initial one-minute mindfulness exercise. By week 16, students had been afforded 12 opportunities to read about or engage in mindfulness exercises and concluded the course with a two post-intervention surveys and a final reflection. A timeline and description of the mindfulness exercises and information is below.

Intervention Activities and Timeline. I designed the intervention activities to provide the participants with information and experiences related to mindfulness and the benefits of mindfulness in education. More specifically, I designed the activities to begin with an overview of the benefits of mindfulness, and to include mindfulness exercises that began with small increments of time, such as the one-minute exercise in Week 1 and progressively increased to five-minute exercises by Week 13. Table 1 provides a description of each activity.

Table 1

Intervention activities

Frequency	Intervention Activity	Description
Week One	-Introduction to Mindfulness in education -Pre-Survey -One Minute Mindfulness	Introduction to mindfulness in education: Pre-general mindfulness survey, one- minute mindfulness assignment online practice video.
Week Two	Benefits of Mindfulness Optional Mindfulness Exercise	Benefits of participating in mindfulness exercises. 1-5-minute mindful awareness exercise
Week Four	Focus before writing optional exercise Reflection	Two minutes focus video Mindfulness information
Week Five	Mindfulness Exercise	Five mindfulness exercises options
Week Seven	Feel connected exercise	Guided mindfulness audio file
Week Nine	Stress Reducing Focusing Exercise Required and graded reflection	One- minute stress reducing exercise. Mindfulness questions.
Week Ten	Why Mindfulness is a Super Power Video	Stress Relief Video
Week Eleven	Relieve Stress Video	Relieve stress using your mind.
Week Thirteen	Focus before a task exercise	Focus Activity Video
Week Fifteen	Post Survey Post Discussion Board	Freiberg General Mindfulness Survey Reflection
Week Sixteen	Instructor Created Post Survey	Mindfulness and Online Learning Survey

Data Collection Instruments. Instruments for collecting both quantitative and qualitative data were used to answer the research questions presented in this study. This section provides a description of each instrument utilized before, during and after the intervention.

Pre-Post Intervention Survey. The Freiburg Mindfulness Inventory (FMI) was administered prior to the intervention and at its conclusion. The FMI is a 14-item short form of a longer 30 item survey measuring a single construct – a person's experience with mindfulness – with a 4-point Likert- type scale ranging from 1 (*rarely*) to 4 (*almost always*). The survey is psychometrically stable and reliable with an internal consistency of Cronbach's alpha = .83 (Walach, 2003). The survey directions informed students that the purpose of FMI is to characterize their experience with mindfulness generally, along with their prior or current use of mindfulness.

FMI contains items such as *I am open to the experience of the present moment* and *When I notice an absence of mind, I gently return to the experience of the here and now*. There is one negatively worded item in the survey which states, *I am impatient with myself and others*. Although I considered this item in the overall data analysis, I did not calculate it as part of the overall mean in my statistical analysis because this negatively worded statement would affect the mean inversely.

At the end of survey, I wrote and added three open-ended questions that asked students to explain further their use and knowledge of general mindfulness. The questions are: *What do you know about mindfulness*; *Explain how you have used mindfulness in this course or in general;* and *How has mindfulness helped you?* The questions are the same in the pre- and post-intervention surveys. This survey is located in Appendix A.

Post Intervention Researcher Survey. The Mindfulness and Online Learning Survey (MOLS) was researcher-created and piloted in spring of 2017. Prior to administering the survey, I used SPSS 23 to calculate Cronbach's Alpha which is the

measure for internal consistency and reliability. This survey scored .83 making it fall under the category of 'good' in terms of internal consistency with <.9 being excellent.

The 15-item survey measures participants' online learning experience using four constructs: general mindfulness use and beliefs, plus the three constructs I have defined as comprising students' online learning experience (stress reduction, focus, and connectedness). The survey has a 4-point Likert- type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The survey has items such as *I felt calmer or less stressed after completing the mindfulness exercise before an assignment* and *The mindfulness exercises helped me focus my attention on an assignment*.

The Mindfulness and Online Learning Survey also has three open-ended questions to gather additional qualitative data on the three constructs defining students' online learning experience: stress, focus, and connectedness. The questions are: *Explain if the mindfulness exercises influenced or did not influence your stress in the class*; *Explain if the mindfulness exercises did or did not help you focus in the class; and Explain if the mindfulness exercises helped or did not help you feel connected to the class, students, or instructor.* This survey is located in Appendix B.

In-Course Narrative Reflection Prompts. During the intervention, students wrote brief, narrative reflections as in-course assignments. After a mindfulness exercise, students reflected upon their use of and experience with mindfulness. The reflection prompts appear at the end of writing modules and assignments. The qualitative items asked students to describe their use of the mindfulness exercises and whether they thought participating in them influenced their online learning experience on a particular assignment or in the course. An example of an in-course narrative reflection is, *Explain*

how and if your experience using mindfulness before writing changed your online learning experience.

Data Analysis

Table 2 presents the research questions and instruments I used to answer the research questions. Following the table, I provide a description of my data analysis strategy for answering each research question.

Table 2

Research Questions and Data Collection Instruments

Research Questions	Instrument	Description
RQ1: To what extent did the course's mindfulness exercises influence students' use of general mindfulness practices?	Pre-Post Survey: General Mindfulness Survey (FMI)	Quantitative data – Survey measuring general mindfulness practices
	Pre-Post Survey: Open-ended items	Qualitative data – Open-ended survey questions about mindfulness use and knowledge.
RQ2: How and to what extent does students' use of mindfulness practices influence their online learning experience?	Post Survey: Researcher-created survey	Quantitative data –survey measuring four constructs of the online learning experience: general mindfulness use and beliefs, focus, stress, and Connectedness.
	Post Survey: Open-ended items about mindfulness and the online experience	Qualitative data – Open-ended survey questions about stress reduction, focus, and Connectedness.
	In Course Narrative Reflection Prompts	Reflection questions about online learning experience

RQ 1: To what extent did the course's mindfulness exercises influence students' use of general mindfulness practices.

To answer research question 1, I embedded the Freiberg General Mindfulness Inventory (FMI) into Canvas, the Learning Management System (LMS) during week one

of the 16- week course. For the purposes of analysis, I combined the survey's 14 items into 4 constructs measuring different facets of mindfulness: *Being Present, Self-Awareness, Self-Compassion*, and *Stress Relief*. I analyzed the pre-intervention survey data using SPSS 23 software and ran analytics for descriptive statistics for both individual items in each construct and the aggregate of the items in each construct. Following the administration of the post-intervention survey, I again calculated descriptive statistics and grouped the frequencies responses into higher and lower indications of the characteristics.

I analyzed the qualitative open-ended survey questions at the end of the FMI survey using an early data analysis approach. Glesne (1999) explains that early data analysis can shape the study as the researcher reflects on preliminary data and discovers the beginning of what story the data holds. As students completed assignments, readings or reflections, I coded the preliminarily data, looking for aspects of general mindfulness such as focus, stress, presence, awareness etc., in an effort to identify emerging themes, while keeping in mind the four pre-determined mindfulness constructs described above.

RQ 2. How and to what extent does students' use of mindfulness practices influence their online learning experience?

To answer Research Question 2, I administered a researcher-created posttest survey, Mindfulness and Online Learning Survey, that also includes opened questions. This survey explored how, and if, students felt the mindfulness intervention enhanced their online learning experience. As described previously, the Mindfulness and Online Learning Survey has 15 items on a four-point Likert- type scale from 1 (*strongly disagree*) to 4 (*strongly agree*). The survey is divided into four constructs, including

general mindfulness and the three constructs that define students' online learning experience: stress, focus, and connectedness. Survey items include statements like, *I believe a mindfulness practice can help me feel more connected to daily activities* and *I believe practicing mindfulness can reduce stress*. Survey items were shuffled and not in order of construct. I analyzed the survey data by calculating descriptive statistics in SPSS 23 for individual items within each construct as well as for the overall construct.

Additionally, the survey has three open-ended survey questions to support, qualitatively, the quantitative data involving stress, focus, and connectedness with self and other. To analyze these data, I coded the open-ended survey responses, looking for key words and phrases that reflected the constructs of stress, focus, and connectedness.

I also collected the In-Course Reflection Narrative Prompts data during the intervention as part of what Saldana (2009) iterates as a "transitional process between data collection and more extensive data analysis" (p. 4). I collected this data with the intent of answering RQ 2. As I collected data, I read, coded, and re-read and re-coded the material looking for key words, themes or similar phrasing patterns associated with students' general mindfulness and their online experience having to do with the three constructs of stress, focus, and connectedness.

Limitations

Experimenter Bias. One of the drawbacks of action research is the researcher's positionality. As the developer and teacher of the content, I could become overly invested in obtaining results I wanted rather than results that developed from the intervention. Additionally, the tenets of action research involve practitioners and look at a local problem (Plano Clark & Creswell, 2015). Inevitably, many action researchers like myself

find areas of personal interest to examine and research, causing threats to the objectivity of the study and results.

History. The passing of time between the beginning of the intervention may influence students' responses (Creswell, 2015). Participants may have experiences with mindfulness or stress-management techniques outside of the course.

Attitudinal Effect. Participants' attitude about mindfulness may influence their responses to the research intervention. I communicated the purpose and details of the research study to the participants before and during the course. Therefore, prior to the intervention, students may have already decided the intervention was useless, ridiculous, or unnecessary. On the other hand, students who may enjoy mindfulness may already have developed an affinity for and to the practice.

Self-Report. Because students are self-reporting level of use, participants may elaborate or embellish their responses, believing their grade may be affected or they may feel compelled to 'be nice.' Whatever the reason, Creswell (2015) states that using multiple modes of analysis, triangulation, or member checking, may ensure self-reporting data is valid.

Generalizability. Because action research focuses on understanding and addressing problems of practice in local settings, the results of action research are usually not generalizable. Due to the action research orientation of this study, along with the small sample size and the study's embeddedness in the specific context of my online course, the results are not generalizable, but could be transferable to similarly situated contexts.

Conclusion

The purpose of this mixed methods study was to introduce students to the practice of mindfulness and how being mindful can help improve or alleviate everyday stress and/or feelings of anxiety and influence and improve their online learning experiences at GateWay Community College. Therefore, the findings in this study are not generalizable to other contexts. Through quantitative and qualitative methods, I examined the data for how and to what extent students used and received help from participating in mindfulness exercises inside an online, beginning composition course. My hypothesis was that even marginal use of mindfulness could benefit students' online experience.

Chapter 4

Data Analysis and Results

Chapter Four is a report of the analysis and findings for this study's research questions:

1. To what extent do the course's mindfulness exercises influence students' use of general mindfulness practices?
2. How and to what extent does students' use of mindfulness practices influence their online learning experience?

The findings are organized by research question (RQ), with quantitative results presented first, followed by qualitative results.

RQ 1: To what extent did the course's mindfulness exercises influence students' use of general mindfulness practices.

Quantitative and qualitative data from the pre- and post-intervention Freiburg Mindfulness Inventory (FMI) general mindfulness survey were used to answer this research question.

Quantitative FMI Pre-Survey Data Analysis and Results. The FMI has 14 items, with response choices ranging from 1 *(Rarely)* to 4 *(Almost Always)*. Each item measures different facets of mindfulness, as discussed in Chapter 3. To facilitate my analysis, I combined the survey items into four constructs that represent some aspect of general mindfulness use: *Being Present*, *Self-Awareness*, *Self-Compassion*, and *Stress Relief*. In retrospect, I calculated the Cronbach alpha internal consistency for each construct I created from the FMI Inventory using SPSS 23: Being Present (a = .71), Self-Awareness (a = .66), Self-Compassion (a = .65), and Stress Relief (a =.50). A Cronbach

Alpha score of .7 and higher is an acceptable reliability score. I will address the potential implications of this in Chapter Five. In the survey itself, however, the survey items were randomly shuffled and not grouped together in any way. I calculated an overall mean for each construct, and also calculated Likert scale frequency distributions for each question in each construct in order provide a more fine-grained understanding of the students' levels of general mindfulness. To provide further clarity for the analysis, I combined the frequency responses for Almost Always and Fairly Often into an indication of *Higher Levels* of the characteristic being measured, and *Occasionally* and *Rarely* into an indication of *Lower Levels* of the characteristic.

Being Present. The Being Present construct has three questions: Q1, Q3, and Q7. Q1 states *I am open to the experience of the present moment.* This statement is the crux of what mindfulness is, which is experiencing the present moment for what it is, even if it is uncomfortable or difficult. An analysis of Likert scale frequency distributions for this question shows that 44% of students chose *Almost Always*, with 39% of students choosing *Fairly Often* and 17% choosing *Occasionally*. No students selected *Rarely*, indicating that before the intervention, 83% of the students thought of themselves as *Almost Always* or *Fairly Often* open to whatever the present moment has to offer.

This construct has other similar statements trying to find, albeit with different word choice, if students see themselves at peace with whatever 'the present' entails. For instance, the questions that ask about the 'here and now' are Q3 which states: *When I notice an absence of mind*, *I gently return to the experience of the here and now* and Q7, *I feel connected to my experience in the here and now*. For Q3, 39% of students chose *Almost Always* (6%) or *Fairly Often* (33%), and 61% chose *Occasionally* (50%) or

Rarely (11%), indicating relatively lower levels of returning their attention to the here and now. For Q7, students were more evenly split between higher and lower levels of feeling connected to one's experience in the here and now, with 56% of students choosing *Fairly Often* (34%) or *Almost Always* (22%) and 44% choosing *Occasionally*; no students chose *Rarely*. The overall mean for the construct of *Being Present* was 2.80 (see Table 3).

Table 3

Descriptive Statistics for Being Present

Being Present	n	*Higher Levels*	*Lower Levels*
Q1 *I am open to the experience of the present moment*	17	83%	17%
Q3 *When I notice an absence of mind, I gently return to the experience of the here and now*	17	39%	61%
Q7 *I feel connected to my experience in the here and now*	17	56%	44%
Construct mean: 2.80			

Note: Likert scale scoring (4) = *Almost Always;* (3) = *Fairly Often*; (2) = *Occasionally*; (1) = *Rarely*
Higher Levels = Almost Always + Fairly Often; Lower Levels = Occasionally + Rarely

Self-Awareness. Another facet of mindfulness is self- awareness. This construct has four related questions: Q2, Q4, Q10 and Q14. These questions ask to what extent are you (the student) in tune with yourself: *I sense my body, whether eating, cooking, cleaning, or talking* (Q2); *I am able to appreciate myself* (Q4); *I watch my feelings without getting lost in them* (Q10); and *I am able to smile when I notice how I sometimes make life difficult* (Q14). Mindfulness entails not only being in the here and now but also being aware of your body, your actions, your reactions, and personal self-talk.

For Q2, 67% of students chose *Almost Always* (22%) or *Fairly Often* (45%), and

33% chose *Occasionally* (22%) or *Rarely* (11%), indicating relatively higher levels of body awareness. For Q4, 72% of students answered either *Fairly Often* (39%) or *Almost Always* (33%), indicating a relatively strong sense of self-appreciation. Results for Q10 (the ability to watch one's feelings without getting lost in them) were evenly split between higher level and lower level responses, with 22% choosing *Almost Always*, 22% choosing *Rarely*, 28% choosing *Fairly Often* and 28% choosing *Occasionally*. Results for Q14 (being able to smile when noticing self-inflicted difficulties) were also more split between higher and lower level responses, with 61% of students reporting *Fairly Often* (44%) and *Almost Always* (17%) and 39% reporting *Rarely* (22%) and *Occasionally* (17%). The overall construct mean for Self-Awareness was 2.68 (see Table 4).

Table 4

Descriptive Statistics for Self-Awareness

Self-Awareness	n	*Higher Levels*	*Lower Levels*
Q2 *I sense my body, whether eating, cooking, cleaning, or talking*	17	67%	33%
Q4 *I am able to appreciate myself*	17	72%	28%
Q10 *I watch my feelings without getting lost in them*	17	50%	50%
Q14 *I am able to smile when I notice how I sometimes make life difficult*	17	61%	39%
Construct mean: 2.68			

Note: Likert scale scoring (4) = *Almost Always;* (3) = *Fairly Often*; (2) = *Occasionally*; (1) = *Rarely*
Higher Levels = Almost Always + Fairly Often; Lower Levels = Occasionally + Rarely

Self-Compassion. Another important facet of mindfulness is self-compassion or the ability to accept who you are no matter what, and do so with kindness and non-

judgement. Questions 5, 6, 9, and 13 all deal with the relationship with oneself by stating: *I pay attention to what is behind my actions* (Q5); *I see my mistakes and difficulties without judging them* (Q6); *I am friendly to myself when things go wrong* (Q9); and *I am impatient with myself and others* (Q13).

Students reported higher levels of mindfulness for Q5 (paying attention to the intent or motivation behind their actions) with 78% of students reporting *Almost Always* (39%) and *Fairly Often* (39%). Lower levels were indicated by 6% reporting *Occasionally* and 16% reporting *Rarely*. Conversely, students reported relatively lower levels of mindfulness with regard to being able to see their mistakes without judging themselves (Q6). For this question, 28% of students reported *Almost Always* (6%) or *Fairly Often* (22%), while 72% reported *Occasionally* (28%) and *Rarely* (44%). Q9 was evenly split between higher and lower levels of mindfulness in terms of being friendly to themselves when things go wrong: 50% of students responded *Fairly Often* (28%) and *Almost Always* (22%); 50% responded *Occasionally* (33%) and *Rarely* (17%). The negatively worded Q13 shows that 72% of students were *Rarely* (44%) or *Occasionally* (28%) impatient with themselves and others, with only 28% reporting that they were *Fairly Often* impatient and no students reporting *Almost Always*. Due to the negative wording of this question, the results actually indicate a higher level of mindfulness with respect that exhibiting patience with self and others. The overall construct mean for Self-Compassion was 2.41 (see Table 5).

Table 5

Descriptive Statistics for Self-Compassion

Self-Compassion	n	*Higher Levels*	*Lower Levels*
Q5 *I pay attention to what is behind my actions*	17	78%	22%
Q6 *I see my mistakes and difficulties without judging them*	17	28%	72%
Q9 *I am friendly to myself when things go wrong*	17	50%	50%
Q13 *I am impatient with myself and others*	17	72%	28%
Construct mean: 2.41			

Note: Likert scale scoring (4) = *Almost Always;* (3) = *Fairly Often*; (2) = *Occasionally*; (1) = *Rarely*
Higher Levels = Almost Always + Fairly Often; Lower Levels = Occasionally + Rarely

Stress Relief. The remaining facet of mindfulness in the survey deals with stress and includes questions 8, 11 and 12: *I accept unpleasant experiences* (Q8); *In difficult situations, I can pause without immediately reacting* (Q11); and *I experience moments of inner peace and ease, even when things get hectic and stressful* (Q12). Mindfulness, as discussed, is a proven effective tool for reducing stress and working through difficulty. These three questions deal with stress and how one may handle or alleviate stressors.

For Q8, student responses were almost evenly split between higher and lower levels of mindfulness with regard to accepting unpleasant experiences. While no students answered *Rarely*, 47% of students reported that they only *Occasionally* were able to accept unpleasant experiences. On the other hand, 53% of students indicated higher levels of acceptance of unpleasant experiences, with 41% responding *Fairly Often*, and 12% responding *Almost Always*. Q11 asks students if they pause and reflect briefly before

reacting to a difficult situation. For this question almost three-quarters (72%) of students answered that they *Fairly Often* (50%) or *Almost Always* (22%) paused before reacting, with 22% responding *Occasionally* and just 6% responding *Rarely.* Q12 deals directly with stress and inner peace. Are students able to calm themselves down during periods of difficulty and stress? Responses to Q12 suggested students struggled more with this component of mindfulness, with 67% reporting *Occasionally* (39%) and *Rarely* (28%), 33% reporting *Fairly Often*, and no students reporting *Almost Always*. The construct mean for Stress Relief was 2.53 (see Table 6).

Table 6

Descriptive Statistics for Stress Relief

Stress Relief	n	*Higher Levels*	*Lower Levels*
Q8 *I accept unpleasant experiences*	17	53%	47%
Q11 *In difficult situations, I can pause without immediately reacting*	17	72%	28%
Q12 *I experience moments of inner peace and ease, even when things get hectic and stressful*	17	33%	67%
Construct mean: 2.53			

Note: Likert scale scoring (4) = *Almost Always;* (3) = *Fairly Often*; (2) = *Occasionally*; (1) = *Rarely*
Higher Levels = Almost Always + Fairly Often; Lower Levels = Occasionally + Rarely

Quantitative FMI Post-Survey Data Analysis and Results: For the FMI post-survey analysis, I grouped the data into the same four constructs and related frequency response categories used in the pre-survey. The post-survey had 9 respondents, meaning 47% of students dropped (8 students out of 17) either from non-participation, which results in instructor-initiated withdrawal, or by students withdrawing themselves. I discuss reasons why this attrition may have occurred in Chapter Five. The following is a report of the responses from the nine remaining students. The participants included two

students who were not passing the course and seven passing students (70% or higher is passing).

Being Present. As described previously, the construct, Being Present, encompasses three questions: Q1, Q3 and Q7. Q1 states, *I am open to the experience of the present moment* and is the most directly worded statement referring to the basic tenet of mindfulness: the present moment. In the post-survey, 56% of the students indicated lower levels of openness to the present moment by choosing *Occasionally,* with no students choosing *Rarely*. Students chose *Fairly Often* and *Almost Always* at the same rate, with 22% for both measures. Q3 states, *When I notice an absence of mind, I gently return to the experience of the here and now*. For this question, 78% chose *Occasionally*, and 22% chose *Fairly Often*, indicating lower levels of returning to the here and now. Lastly, Q7 states, *I feel connected to my experience in the here-and-now.* For this item, 67% of students chose *Fairly Often*, and 33% chose *Occasionally*, indicating a higher level of feeling more connected to the here and now. The construct mean for Self-Awareness was 2.44 (see Table 7).

Table 7

Descriptive Statistics for Being Present

Being Present	n	*Higher Levels*	*Lower Levels*
Q1 *I am open to the experience of the present moment*	9	44%	56%
Q3 *When I notice an absence of mind, I gently return to the experience of the here and now*	9	22%	78%
Q7 *I feel connected to my experience in the here and now*	9	67%	33%
Construct mean: 2.52			

Note: Likert scale scoring (4) = *Almost Always;* (3) = *Fairly Often*; (2) = *Occasionally*; (1) = *Rarely*
Higher Levels = Almost Always + Fairly Often; Lower Levels = Occasionally + Rarely

Self-Awareness. The construct of Self-Awareness includes four questions: Q2, Q4, Q10, and Q14. For Q2, *I sense my body, whether eating, cooking, cleaning, or talking,* 44% of students chose *Fairly Often* and no students chose *Almost Always*, while 56% of the students chose *Occasionally* (45%) or *Rarely* (11%), indicating a Lower Level of body awareness. Q4, *I am able to appreciate myself*, indicated the opposite trend, with 56% of students choosing *Almost Always* (45%) or *Fairly Often* (11%), and 44% choosing *Occasionally* (22%) and *Rarely* (22). Results for Q10, *I watch my feelings without getting lost in them* indicated a similar overall trend with no students choosing *Almost Always* but 56% of students choosing *Fairly Often*; 22% chose *Occasionally* and 22% chose *Rarely*. Q14 states, *I am able to smile when I notice how I sometimes make life difficult*. Students indicated somewhat lower levels of mindfulness for this component, with 56% choosing *Occasionally* (34%) or *Rarely* (22%), while 44% chose *Fairly Often* (33%) or *Almost Always* (11). The construct mean for Self-Awareness was 2.44 (see Table 8).

Table 8

Descriptive Statistics for Self-Awareness

Self-Awareness	n	*Higher Levels*	*Lower Levels*
Q2 *I sense my body, whether eating, cooking, cleaning, or talking*	9	44%	56%
Q4 *I am able to appreciate myself*	9	56%	44%
Q10 *I watch my feelings without getting lost in them*	9	56%	44%
Q14 *I am able to smile when I notice how I sometimes make life difficult*	9	44%	56%
Construct mean: 2.44			

Self-Compassion. The Self-Compassion construct also includes four questions: Q5, Q6, Q9, and Q13. Student indicated higher levels of self-compassion for Q5, *I pay attention to what's behind my actions,* with 89% choosing *Fairly Often* (67%) or *Almost Always* (22%), and only 11% choosing *Occasionally* and no students choosing *Rarely*. For Q6*, I see my mistakes and difficulties without judging them*, students indicated somewhat lower levels of self-compassion with 56% reporting *Occasionally* (34%) or *Rarely* (22%), while 44% chose *Fairly Often* (33%) or *Almost Always* (11%). Q9, *I am friendly to myself when things go wrong* elicited higher levels of self-compassion responses with 56% of students choosing *Fairly Often* (34%) or *Almost Always* (22%), while 44% chose *Occasionally* (22%) or *Rarely* (22%). Results for the negatively worded question, Q13 (*I am impatient with myself and others*) indicate higher levels of self-compassion with 67% of students reporting they are only *Occasionally* (45%) or *Rarely* (22%) impatient, while just 33% reported being impatient *Fairly Often* (22%) or *Almost Always* (11%). The construct mean for Self-Compassion was 2.67 (see Table 9).

Table 9

Descriptive Statistics for Self-Compassion

Self-Compassion	n	*Higher Levels*	*Lower Levels*
Q5 *I pay attention to what is behind my actions*	9	89%	11%
Q6 *I see my mistakes and difficulties without judging them*	9	44%	56%
Q9 *I am friendly to myself when things go wrong*	9	56%	44%
Q13 *I am impatient with myself and others*	9	67%	33%
Construct mean: 2.67			

Stress Relief. The Stress Relief construct includes questions 8, 11 and 12, and relate to stress or dealing with unpleasant feelings or situations. Q8 states, *I accept unpleasant experiences*, and demonstrates lower levels of acceptance of stressful experiences with 67% of students choosing *Occasionally* and only 33% of students reporting *Fairly Often*. No students chose *Rarely* or *Almost Always* for this characteristic of stress relief. For Q11, *In difficult situations, I can pause without immediately reacting,* students indicated somewhat lower levels of dealing with stress, with 56% choosing either *Occasionally* (45%) or *Rarely* (11%); although 44% chose *Almost Always* (33%) or *Fairly Often* (11%). Q12, *I experience moments of inner peace and ease, even when things get hectic and stressful,* elicited substantially lower levels of stress relief responses, with 67% of students choosing *Occasionally* (45%) or *Rarely* (22%), and just 33% choosing *Fairly Often* and no students choosing *Almost Always*. The construct mean for Stress Relief was 2.53 (see Table 10).

Table 10

Descriptive Statistics for Stress Relief

Stress Relief	n	*Higher Levels*	*Lower Levels*
Q8 *I accept unpleasant experiences*	9	33%	67%
Q11 *In difficult situations, I can pause without immediately reacting*	9	44%	56%
Q12 *I experience moments of inner peace and ease, even when things get hectic and stressful*	9	33%	67%
Construct mean: 2.37			

Note: Likert scale scoring (4) = *Almost Always;* (3) = *Fairly Often*; (2) = *Occasionally*; (1) = *Rarely*
Higher Levels = Almost Always + Fairly Often; Lower Levels = Occasionally + Rarely

Summary of the quantitative FMI survey findings. As described previously, to facilitate my analysis, I combined the FMI survey items into four constructs that represent different aspects of general mindfulness application (*Being Present*, *Self-Awareness*, *Self-Compassion*, and *Stress Relief),* Each construct contained either three or four survey items with four Likert scale response options: (4) *Almost Always*; (3) *Fairly Often*; (2) *Occasionally*; and (1) *Rarely*. To provide further clarity for the analysis, I combined the frequency responses for *Almost Always* and *Fairly Often* to indicate *Higher Levels* of the characteristic being measured, and *Occasionally* and *Rarely* to indicate *Lower Levels* of the characteristic. I calculated an overall mean for each construct, and also calculated the frequency distributions for each item in each construct in order provide a more fine-grained understanding of the students' levels of mindfulness. Table 11, below, presents the pre- and post-survey construct means. Tables 12 – 15 present the pre- and post-survey item distributions. As indicated in the tables, overall construct means decreased from Pre-Survey to Post-Survey, with the exception of Self-Compassion, which increased. Data from the item-specific frequency distributions generally reflected the trend in the means, although some individual construct items did increase from pre- to post-survey for the three constructs that showed an overall decrease in the construct mean.

Table 11

Pre- and Post-Survey Construct Means for the Freiburg Mindfulness Inventory

Construct	*n*	Pre-Survey Mean	*n*	Post-Survey Mean
Being Present	17	2.80	9	2.52
Self-Awareness	17	2.68	9	2.44
Self-Compassion	17	2.41	9	2.67
Stress Relief	17	2.53	9	2.37

Note: Likert scale scoring (4) = *Almost Always;* (3) = *Fairly Often*; (2) = *Occasionally*; (1) = *Rarely*
Higher Levels = Almost Always + Fairly Often; Lower Levels = Occasionally + Rarely

Table 12

Pre- and Post-Survey Item Distributions for the FMI: Being Present

Being Present	n	*Higher Levels*	*Lower Levels*
Q1 Pre-Survey	17	83%	17%
Q1 Post-Survey	9	44%	56%
I am open to the experience of the present moment			
Q3 Pre-Survey	17	39%	61%
Q3 Post-Survey	9	22%	78%
When I notice an absence of mind, I gently return to the experience of the here and now			
Q7 Pre-Survey	17	56%	44%
Q7 Post-Survey	9	67%	33%
I feel connected to my experience in the here and now			

Table 13

Pre- and Post-Survey Item Distributions for the FMI: Self-Awareness

Self-Awareness	n	*Higher Levels*	*Lower Levels*
Q2 Pre-Survey	17	67%	33%
Q2 Post-Survey	9	44%	56%
I sense my body, whether eating, cooking, cleaning, or talking			
Q4 Pre-Survey	17	72%	28%
Q4 Post-Survey	9	56%	44%
I am able to appreciate myself			
Q10 Pre-Survey	17	50%	50%
Q10 Post-Survey	9	56%	44%
I watch my feelings without getting lost in them			
Q14 Pre-Survey	17	61%	39%
Q14 Post-Survey	9	44%	56%
I am able to smile when I notice how I sometimes make life difficult			

Table 14

Pre- and Post-Survey Item Distributions for the FMI: Self-Compassion

Self-Compassion	n	*Higher Levels*	*Lower Levels*
Q5 Pre-Survey	17	78%	22%
Q5 Post-Survey	9	89%	11%
I pay attention to what is behind my actions			
Q6 Pre-Survey	17	28%	72%
Q6 Post-Survey	9	44%	56%
I see my mistakes and difficulties without judging them			
Q9 Pre-Survey	17	50%	50%
Q9 Post-Survey	9	56%	44%
I am friendly to myself when things go wrong			
Q13 Pre-Survey	17	72%	28%
Q13 Post-Survey	9	67%	33%
I am impatient with myself and others			

Table 15.

Pre- and Post-Survey Item Distributions for the FMI: Stress Relief

Stress Relief	n	*Higher Levels*	*Lower Levels*
Q8 Pre-Survey	17	53%	47%
Q8 Post-Survey	9	33%	67%
I accept unpleasant experiences			
Q11 Pre-Survey	17	72%	28%
Q11 Post-Survey	9	44%	56%
In difficult situations, I can pause without immediately reacting			
Q12 Pre-Survey	17	33%	67%
Q12 Post-Survey	9	33%	67%
I experience moments of inner peace and ease, even when things get hectic and stressful			

Qualitative FMI Pre-Survey Data Analysis and Results. The following are the results of the three qualitative questions I added to the end of The Freiburg Mindfulness Inventory. I coded the open-ended questions looking for emerging themes, words, or phrases that reflected the four pre-determined mindfulness constructs described above (being present, self-awareness, self-compassion, stress relief), or any words or ideas associated mindfulness generally.

Question One. The first question asked *What do you know about mindfulness*? Out of 17 responses, three students said they did not know, while one said, "I don't really know much about mindfulness, but I do know that it relaxes me right before I start an assignment." Nine student responses alluded to or directly used the word 'awareness' in their response: "I know that mindfulness means being aware of something" and "I know that is means being conscious of something." Three students wrote that mindfulness is focus: "I know that mindfulness will help me become more focused" and "It is a technique to keep me calm and focused." And, two students answered that mindfulness

was for centering oneself: “It can help center yourself and “calmly accept one’s thoughts and feelings.” Two students, in addition to awareness, said mindfulness is also about emotions and controlling one’s emotional responses: “I believe that mindfulness is having the ability to control your emotions” and “It is a state of awareness that involves the mind and emotions.”

To summarize, for question one, 82% of students answered with at least one general concept related to mindfulness (i.e., relaxation, calmness, awareness, focus).

Question Two. Question two asked students to explain how they have used mindfulness in general or in the course. Out of 17 responses, 5 students said they do not use mindfulness. The remaining students had a moderately strong idea of what mindfulness is and how they have used mindfulness in general. For example, student responses included: “I used mindfulness to help keep me focused…”; “It helps me focus and relax”; “It has helped by keeping me focused on the present.” A few wrote about managing time with mindfulness, or being mindful when caring for children while juggling multiple responsibilities, as exemplified by the following responses: “I am a mother of three young children. I always look to calm myself when things start to get hectic at home,” “I have used it by managing my time to fit this class in.”

For this question, 71% of the students indicated they used mindfulness in some way, using key words associated with mindfulness such as focus, calmness, relaxation, and being present.

Question Three. The third question asked students *How has mindfulness helped you?* Four students did not know or replied that mindfulness has not helped them. The remaining students used key words such as focus, presence, or awareness in their

responses, saying that mindfulness has helped them become more focused, have peace of mind, understand people better, for self-exploration, and to keep emotions in control. For instance, two students responded: "Mindfulness has helped me keep my thoughts together and has made it easier to create new thoughts," and "It has helped me understand people and the world a lot better." In summary, 76% of students indicated that mindfulness has helped them in some way, using key words associated with mindfulness such as focus, presence, peace of mind, and awareness.

Overall, the pre-survey qualitative data suggests that most students, an average of 76%, had a working knowledge of, and some level of experience with, general mindfulness prior to the intervention. These students reported they knew how to apply mindfulness in various situations and defined mindfulness with various words or phrases related to focus, stress relief, being present, and having awareness. Students reported, "It has calmed me in stressful situations," "It has helped me by being more cautious and aware," and "it is a learning strategy."

Qualitative FMI Post-Survey Data Analysis and Results. The post-survey qualitative data had nine respondents. Two of the nine respondents reported that they did not use or participate in the mindfulness exercises during the course. Because the purpose of the post-survey qualitative items is to help understand the effect of participating in the mindfulness intervention, I chose not to include the responses of the non-participants. The following are the results of the seven students who took part in the mindfulness exercises. Following the same strategies that I used in the pre-survey, I coded the responses looking for emerging themes, words, or phrases that reflected the four pre-

determined mindfulness constructs described above (being present, self-awareness, self-compassion, stress relief), or any words or ideas associated mindfulness generally.

Question One. Question one asks what the participants know *now* about mindfulness. All seven respondents responded in ways that fit into one of the following constructs: *Being Present, Self-Awareness*, or *Stress Relief*.

For example, for *Being Present*, students responses included: "It is how I bring myself to present time"; " It helps me pay attention to the present"; and "It helps you relax and focus on the present."

For *Self-Awareness* or awareness about mindfulness generally, students said that, "[Mindfulness] helps you think positive [in a] better state of mind"; "I now know that mindfulness isn't just inherent and that I must actively pursue it," and "I understand that it can be a powerful way of manipulating your thoughts."

For *Stress Relief*, one student responded that "it is easy to engage in mindfulness and only takes a short amount of time to decrease the stress and anxiety in your life."

One response that did not fit into a construct stated that mindfulness "actually works, I was a skeptic."

Question Two. Question two asked students to explain how they applied mindfulness either in this course or in general. Of the seven responses, four related to *Stress Relief*, two related to *Self-Awareness*, and one related to *Being Present*.

For *Stress Relief*, one student responded, "I've used this process to help me relieve stress" and the other students included words in their responses such as "relax and refocus," "calm down," and "reduce my anxiety."

For *Self-Awareness* students responded that they applied mindfulness in "Reading the material and asking myself what is being requested, narrowing down what is needed in order to not get lost," and "I use mindfulness to control my thoughts."

For *Being Present* one student said, "I used mindfulness for every assignment in this course in order to clear my mind and really focus on the matter at hand and be present in the current moment."

Question Three. The third question asked, *How has mindfulness helped you*? All seven students said that yes, mindfulness did help. Four responses related to the construct *Stress Relief*, two related to *Self-Awareness*, and one related to *Being Present*.

For *Stress Relief*, students said mindfulness, "Helped me be a lot more calmer and less stressed," "It helped me by relieving stress," "Helped me learn to take a break," and "to help reduce my anxiety before assignments."

For *Self-Awareness*, students responded that "It has helped me rethink in a stressful situation," and "redirect intruding thoughts."

For *Being Present* one student stated, "It has helped me to be more present in the current moment."

Summary of qualitative FMI survey findings. Due to the decrease in student respondents from the pre-survey to the post-survey, a direct comparison of qualitative responses is not possible. However, the data does indicate that while 76% of students in the pre-survey had a working knowledge of, and some experience with, general mindfulness prior to the intervention, the post survey elicited responses from all seven students who participated in the course's mindfulness exercises, and suggested a more complete understanding of mindfulness and its uses and benefits.

RQ 2. How and to what extent does students' use of mindfulness practices influence their online learning experience?

To answer research RQ 2, I created and administered the Mindfulness and Online Learning Survey (MOLS), a quantitative, 15-question survey with three qualitative, open-ended questions at the end. The survey measures four constructs: general mindfulness, and the three specific mindfulness benefits that I defined as contributing to the students' online learning experience, i.e., stress reduction, focus, and connectedness. The in-class narrative reflection prompts also provided data to answer RQ 2. To begin, I describe my findings from the MOLS survey, followed by the findings from the in-course narrative prompts.

Mindfulness and Online Learning Survey (MOLS) Quantitative Data Analysis and Results. This survey was given in Week 16, the final week of class. By this week, students had had the opportunity to do nine in-course mindfulness exercises. For the purposes of analysis, I grouped survey items into the four constructs described above, although the survey items themselves were presented in a random sequence. Each item was measured on a 4-point Likert-type scale from Strongly Disagree (1) to Strongly Agree (4). As with the FMI survey, I calculated Likert scale frequency distributions for each question in each construct in order provide a more fine-grained understanding of the students' levels of mindfulness. To provide further clarity for the analysis, I combined the frequency responses for *Strongly Agree* and *Agree* into an indication of *Higher Levels* of the characteristic being measured, and *Disagree* and *Strongly Disagree* into an indication of *Lower Levels* of the characteristic. The survey states that its purpose is to learn about students' beliefs and uses of mindfulness during the course. Eight of the nine

students remaining in the course took the post-survey but only six students participated in the mindfulness exercises. Because the post-survey is designed to measure the effects of the mindfulness exercises, I included only the six students who actually did participate in the mindfulness exercises. The results of those responses are below.

General Mindfulness. The construct of General Mindfulness Use and Beliefs contained four statements. For Q1, *I participated in the mindfulness exercises,* 100% of students reported participating, with students reporting either *Agree* (83%) or *Strongly Agree* (17%). Q2, *I believe a practice of mindfulness can help people focus on one thing at a time*, elicited strongly positive responses, with students choosing *Agree* (67%) or *Strongly Agree* (16.5%) and only 16.5% choosing *Disagree*. The final two statement also indicated higher levels of mindfulness use and belief with 100% of students choosing *Agree* (83%) or *Strongly Agree* (17%) for Q3 (*I found the mindfulness exercises helpful for completing class assignments*) and similarly, 100% of students reporting *Agree (67%)* or *Strongly Agree* (33%) for Q4 (*The mindfulness exercises helped me 'be in the moment' during class assignments*) (see Table 16, below).

Stress Reduction. The next construct was stress reduction, with 100% of students reporting higher levels of reduction in stress for every item. For Q5, *I believe practicing mindfulness can reduce stress,* students chose *Strongly Agree (50%)* or *Agree* (50%). The next item, *I felt calmer or less stressed after completing the mindfulness exercise before an assignment* showed similar, although slightly less high levels of stress reduction, with students choosing *Agree* (83%) or *Strongly agree* (17%). Q7, which states *The mindfulness exercises throughout the course helped me be mindful of my feelings as I*

approached course work, elicited similarly positive responses, with students choosing either *Agree* (67%) or *Strongly Agree* (33%), (see Table 17).

Table 16

Descriptive Statistics for General Mindfulness Use and Beliefs

General Mindfulness	n	*Higher Levels*	*Lower Levels*
Q1 *I participated in the mindfulness exercises*	6	100%	0%
Q2 *I believe a practice of mindfulness can help people focus on one thing at a time*	6	83%	17%
Q3 *I found the mindfulness exercises helpful for completing class assignments*	6	100%	0%
Q4 *The mindfulness exercises helped me 'be in the moment' during class assignments*	6	100%	0%

Note: Likert scale scoring (4) = *Strongly Agree;* (3) = *agree*; (2) = *Disagree*; (1) = *Strongly Disagree*
Higher Levels = Strongly Agree + Agree; Lower Levels = Disagree + Strongly Disagree

Table 17

Descriptive Statistics for Stress Reduction

Stress Reduction	n	*Higher Levels*	*Lower Levels*
Q5 *I believe practicing mindfulness can reduce stress*	6	100%	0%
Q6 *I felt calmer or less stressed after completing the mindfulness exercise before an assignment.*	6	100%	0%
Q7 *The mindfulness exercises throughout the course helped me be mindful of my feelings as I approached course work*	6	100%	0%

Note: Likert scale scoring (4) = *Strongly Agree;* (3) = *agree*; (2) = *Disagree*; (1) = *Strongly Disagree*
Higher Levels = Strongly Agree + Agree; Lower Levels = Disagree + Strongly Disagree

Focus. The next construct relates to Focus, which is a word students frequently used to describe their use of mindfulness throughout the intervention. 100% of students reported higher levels of focus for each statement in the construct. The first two

statements in this construct asked students to describe whether the mindfulness exercises helped them to focus on daily activities. For Q8 (*I believe a practice of mindfulness can help people focus on one thing at a time),* students chose *Agree* (50%) and *Strongly Agree* (50%), and for Q9 (*The mindfulness exercise (s) helped me focus my attention on an assignment),* students chose *Agree* (67%) or *Strongly Agree* (33%). Q10 (*I actually felt like I was being 'present' and 'in the moment' after completing the mindfulness exercises)* also indicated strong levels of focus, with 50% reporting *Strongly Agree* and 50% reporting *Agree*. For the final statement, Q11 (*I thought more about being mindful because of the mindfulness exercises),* students were again evenly split between *Strongly Agree* (50%) and *Agree* (50%), (see Table 18).

Table 18

Descriptive Statistics for Focus

Focus	n	*Higher Levels*	*Lower Levels*
Q8 *I believe a practice of mindfulness can help people focus on one thing at a time*	6	100%	0%
Q9 *The mindfulness exercise (s) helped me focus my attention on an assignment*	6	100%	0%
Q10 *I actually felt like I was being 'present' and 'in the moment' after completing the mindfulness exercise (s)*	6	100%	0%
Q11 *I thought more about being mindful because of the mindfulness exercise (s)*	6	100%	0%

Note: Likert scale scoring (4) = *Strongly Agree;* (3) = *agree*; (2) = *Disagree*; (1) = *Strongly Disagree*
Higher Levels = Strongly Agree + Agree; Lower Levels = Disagree + Strongly Disagree

Connectedness. The last construct in the MOLS was Connectedness. The items in this construct measured whether the mindfulness exercises helped the students feel more connected to daily activities (Q12), to course content (Q13), with other people in the

course (Q14), and whether the course seemed more friendly or relatable (Q15). For two of the four items in this construct (Q13 and Q15), 100% of students reported *Strongly Agree* or *Agree*, with no students reporting *Disagree* or *Strongly Disagree*. For the other two items, Q12 (*I believe a mindfulness practice can help me feel more connected to daily activities)* and Q14 (*The mindfulness exercises helped me feel more connected to other people in the course even though the course was online),* 83% of students choose *Agree* and 17%, or one student, choose *Disagree.* (See Table 19).

Table 19

Descriptive Statistics for Connectedness

Connectedness	n	*Higher Levels*	*Lower Levels*
Q12 *I believe a mindfulness practice can help me feel more connected to daily activities.*	6	83%	17%
Q13 *The mindfulness exercises helped me feel more connected and interested to the content of the course*	6	100%	0%
Q14 *The mindfulness exercises helped me feel more connected to other people in the course even though the course was online.*	6	83%	17%
Q15 *I believe the mindfulness exercises make the class more relatable and friendly*	6	100%	0%

Note: Likert scale scoring (4) = *Strongly Agree;* (3) = *agree*; (2) = *Disagree*; (1) = *Strongly Disagree*
Higher Levels = Strongly Agree + Agree; Lower Levels = Disagree + Strongly Disagree

Summary of the quantitative MOLS findings. As described previously, this survey was administered in the final week of class, after students had had the opportunity to participate in nine in-course mindfulness exercises. The responses to the survey for each construct indicate higher levels of support throughout, with between 88% and 100% of the students reporting that they used some aspects of mindfulness throughout the

course and found mindfulness to be helpful in areas of stress reduction, focus, and connectedness.

MOLS Qualitative Data Analysis and Results. The MOLS survey concludes with three open-ended items. These items asked student to explain if the mindfulness exercises influenced or did not influence their stress, focus, and connectedness in the course. All eight students responded to each prompt. Because the open-ended items address the three constructs I used to define students' online experience directly, the results are reported by construct, below.

***Stress*.** For the Stress construct, six out of eight students reported the mindfulness exercises reduced stress. Their responses were brief but included phrases such as, "Mindfulness helped reduce the stress by reminding me to think about the present and the only the task in front of me,"; "I felt overwhelmed at times with my other life activities and the mindfulness exercises really did help calm me down and refocus"; and "I wasn't particularly stressed to begin with, but they did slightly help with it." Two students said the mindfulness exercises did not influence their stress because they did not do them consistently, or at all.

***Focus*.** Students elaborated more for the Focus construct, with all the students who participated in the mindfulness exercises reporting that it did help them focus and concentrate. Students also reported that being mindful helped with emotional regulation. All responses had one of the following words or phrases: calm, focus, refocus, recollect, maintain focus, clear my mind of distracting thoughts, and concentrate. For example, students wrote "Yes, the mindfulness exercise help me focus. It helped by relieving my anxiety"; "When I was calm and done with the exercise, it helped me better concentrate

on the assignment"; "It did help me a lot. I sometimes get caught up in my emotions, stress, and anxiety that giving up may be easier. With these exercises, they helped me realize that giving up wasn't an option"; "They helped me refocus, calm down, and recollect myself to focus on one thing at a time as opposed to the whole assignment at once."

Connectedness. The final open-ended prompt asked students to explain if the mindfulness exercises helped or did not help them feel connected to the class, students, or instructor. The responses indicated that the exercises did not influence most students' feelings of connectedness to the other students or to me. Two students did respond that "Yes, it helped me better connect in the class assignments" and "It helped me feel more connected to the class" but did not elaborate much beyond that. However, two other students did say that they felt more connected to themselves, their thoughts, and their actions because of the mindfulness exercises. Overall, unlike the definitive statements students made regarding the benefits of mindfulness for stress reduction and focus, the responses to this prompt were more ambiguous and did not suggest a substantial impact. However, it is interesting to note that in the quantitative survey portion of MOLS, the majority of students did respond positively to specific statements on connectedness with activities, course content, other people, and the class itself.

Summary of the qualitative MOLS findings. The findings from the open-ended response items indicate that all students who remained in the course and participated in the mindfulness exercises benefited from these initial mindfulness practices. Students who participated in the exercises provided compelling quotes about how mindfulness reduced their stress in various ways and helped them to calm down, focus on their

assignments, and not give up. While most of the students did not report substantial effects from the mindfulness exercises on increased connection, specifically to other students or the instructor, students did report feeling more connected to themselves and their thoughts and actions. And, as mentioned previously, items in the *Connectedness* construct for the quantitative portion of MOLS (Table 19) indicated 75% of students reported higher levels of connection regarding connection to daily activities, course content, and other students, and 88% of students agreed with the quantitative survey item that stated that the exercises made the class *itself* more relatable and friendly.

In-Course Narrative Reflection Prompts. As described in the intervention timeline in Chapter 3, students had several opportunities to write about their experiences using the mindfulness exercises. I coded these narratives looking for key words and phrases that reflected the three constructs through which I defined online learning experience: focus, stress reduction, and connectedness. I collected data from the periodic in-course narrative assignments in Weeks 1- 15, and report on my findings, below.

Week 1. Week One included a *One Minute Mindfulness* assignment that asked students to write a couple sentences about their experience using mindfulness in response to the following two prompts: *What did you feel before you started the mindfulness activity?* and *What did you feel afterwards?* This exercise was optional. Ten out of 17 students responded. Because I coded this early in the semester, I was able to differentiate between students who finished the course and those who eventually dropped or withdrew.

All students who participated in this assignment and who finished and passed the course reported that the activity decreased their stress and increased their focus. Quotes from those students include: "When I first started doing the exercise it felt a bit silly. But

once I closed my eyes and was only hearing the sound of my breathing, the anxiousness started to go away"; "Once the minute stopped and I opened my eyes I felt relaxed and kind of happy"; "Before doing this exercise I was a little stressed and anxious. This video helped me calm down and to not worry about little things that were going on around me"; "I feel the outcome of this exercise is definitely positive. I enjoyed taking a few seconds out of my day to just breathe, relax and re-focus"; and "Before I started the mindfulness exercise I felt like skeptical about actually benefiting from this exercise. I felt tired and I had many different things going on in the back of my head from previous events that happened throughout the day. But I noticed during the exercise my usually upbeat heart rate started to slow down and my head almost physically felt lighter after the exercise was over."

Students who did not complete the course but participated in the first week mindfulness exercise also described benefits. The following is a particularly powerful description "Before I listened to the video, I actually felt that there was a million things wondering in my mind. I felt my thoughts were branching out like a spider web, making more thoughts appear. I had to listen to the video 3 times because each time due to me getting distracted. After listening to this video, I felt more relieved and free. I really don't know how to correctly phrase it, but my mind felt light, and honestly it was a good feeling."

Week 4. Week four contained an end-of-module non-graded, optional mindfulness exercise. The reflection asked students to *Explain how and if your experience using mindfulness before writing changed your online learning experience and discuss how the*

exercise(s) were helpful or not helpful to your approach of the assignment or course. Three students who passed the course and one student who did not responded.

Of the students who passed the course, one said "Mindfulness exercises helped me pay better attention in what I was writing about. Keeps me focused on the assignment. Using mindfulness before writing has changed my experience when starting an assignment. I think its made may experience a lot easier. That I'm not getting lost or frustrated." The second student wrote "Upon approaching these writing assignments I was working on assignments from another class. Taking time to calm down and relax and refocus myself in between assignments and classes made it easier to transition. I was more calm and accepting of the assignments that were due and my head was clear to think about my writing." And the third student reflected "The exercises are always helpful, being a person with a high stress level. I can come back to class after performing my mom duties, to three children, and take a moment to myself before beginning. Even if I am not doing school work, I use these exercises to calm myself throughout the day, I have to remind myself to take time for me and regain my focus."

The student who did not pass or finish the course also reported benefits: "The exercise was helpful. When writing summaries on other people's work, you kind of go back and forth with thoughts, I have to talk to myself and ask what is this section trying to tell me and keep my focus, otherwise my brain will be going overboard with thoughts if I didn't keep my focus."

At this point in the course, all students who participated in the exercises reported positive benefits in stress reduction and increased focus. However, only four students out of the ten who participated in the Week One exercise responded and participated in this

Week 4 exercise, in spite of the positive benefits reported in Week One. When I examined withdrawal dates, I noticed I lost four students before the Week Four assignments were due.

Week 5. After noticing my loss of students and the low participation in the optional exercises, I changed Week 5 to an extra credit assignment worth 5 points. In Week 5, of the 13 remaining students, four submitted this extra credit assignment. The assignment asked students to *Try this mindfulness exercise to reduce your stress and immediately afterwards, write about your experience and how it did or did not affect you*. I found once again, all responses centered around stress reduction or increased focus, as exemplified by the following quotes: "At first it seemed kind of weird but getting in between the exercise I started to relax. Not thinking, keeping my mind empty of thoughts. I think it was useful. I felt less stressed about the assignment and with a better attitude," and "After listening to the mindfulness practice I found that at first I thought it was boring but after a while I started to engage myself in the exercise I found out that it was calming without myself even realizing it. Later I found that it was useful in my assignments that I had due and it cleared up my mind where I was able to focus on my assignments and complete them without wasting any time." All four students who participated in this extra credit were students who ultimately passed the class.

Week 9. Week nine is the end of a writing module, meaning students have gone through the entire writing process spanning over several weeks and have submitted a final draft to me for grading. There were two mindfulness activities in this module, the one previously discussed in Week Five and one in Week Seven. As part of Week Nine's

reflection, students were asked two questions, one about their mindfulness experiences in the course so far, and one about course content and outcomes.

As an instructor, I am required to withdraw non-participating and non-responding students, and so before Week Nine's assignment was due I had to withdraw four students, bringing the class number down to the 9 students who would ultimately go on to finish the course. Five students out of the nine remaining students responded to this assignment. Four students said the mindfulness was beneficial, while one student said it did not help specifically with the writing assignment. Quotes from students who benefited included, "The stress relieving exercise helped me by slowing down my heart rate. When having a lot of homework to do I personally tend to feel overwhelmed with the work but the exercise calmed me down and helped me focus on one portion of the paper at a time," and "The exercise helped me on the research and essay writing. Not because it made me necessarily relaxed, but because it allowed me to think about the ideas and things I could write on my essay, and it also let me analyze the sources I found in my head." As with the previous exercises, the responses mainly highlighted mindfulness benefits related to stress and focus.

The student who indicated that the mindfulness exercises were not helpful said, "The mindfulness exercise didn't help too much in terms of how I wrote the research paper." However, that student did not say why.

Week 11. The in-course narrative prompt for Week 11 was part of a 3-part discussion assignment, for which Part I specifically addressed mindfulness. At this point in the course, students had five opportunities to practice mindfulness exercises and three opportunities to read about mindfulness's benefits. Part I was to complete a mindfulness

activity and respond to the following prompt: *How did the mindfulness exercise affect or not affect the way (attitude, mindset, emotion) you approached the assignment*. First, I will describe the responses of the two students who did not pass the course and conclude with the 7 students who did pass the course with a 70% or higher.

The students who did not pass the course (59% and 40% final grade) still reported positive benefits from engaging in the mindfulness assignment. One student said, "Before taking the mindfulness exercise I was somewhat confused and was starting to get stressed over the assignment. I made myself think that it was hard and didn't know what to write but after taking the mindfulness exercise that changed. Taking the exercise allowed me to give myself time to read over it again and concentrate as well as not be stressed." The other student who did not pass said, "By doing the mindfulness exercise it helped me approach the assignment with an open mind and be calmer." Both non-passing students submitted the work for one of the assignments due in Week 11, but despite reporting benefits from mindfulness related to stress relief and increased focus, neither student submitted the other assignments for that week.

The seven remaining students, all of whom passed the course, reported similar benefits. Five students reported it reduced their stress, as indicated by these quotes: "Before reading the assignment it seemed much harder than it was and I started to stress out. After doing the mindfulness exercise I settled down and was able to concentrate on the assignment," and "Doing the mindfulness exercise helped to relieve my stress for this assignment." One student reported that the mindfulness exercise made her realize there are many perspectives in the world and she is more mindful of others' opinions now. That was the closest response I found to finding the construct of connectedness.

Week 15. The week fifteen discussion board was an optional reflection assignment. The discussion board asked students to revisit their narratives in Week One when they wrote about their goals and stressors. For this discussion board, students were asked to discuss how they used mindfulness and how mindfulness influenced their writing and online writing experience. Four of the nine remaining students responded to this reflection. Unlike the survey qualitative items, the discussion boards are not anonymous, and therefore I was able to determine that all four students who responded to this optional reflection passed the course with an A.

As with the previous assignments, I looked for and coded responses using the three constructs of stress, focus, and connectedness. With regard to stress, three of the four students wrote how mindfulness assisted them through stressful situations. One student used mindfulness as she realized her stress was becoming unmanageable, writing that "I started to feel stressed and like I was incapable of completing some assignments. The exercises helped me think of ways I could find assistance." Two students equated anxiety with stress and said the exercises helped reduce their stress induced anxiety, as described in the following phrases: "it really did help relieve my stress…and be less anxious" and "definitely helped me to reduce my anxiety."

The students also described benefits of mindfulness related to focus. All four students stated mindfulness helped them clear their minds and either focus or refocus, as exemplified by the following quotes: "I do a mindfulness exercise to help free my mind of unnecessary thoughts"; I did let life get the better of me…I was able to strengthen myself and even used the mindfulness techniques that I was taught to help me refocus myself"; "These exercises reminded to slow down"; and "it made it easier for me to get

started with the assignments." Students did not provide any comments for this prompt related to connectedness.

Summary of the qualitative In-Course Narrative Reflection Prompt findings. The findings from the periodic in-course reflections indicated that from the initial assignment in Week 1 through the final reflections in Week 15, students who participated in the mindfulness exercises reported that in various ways and to various extents mindfulness helped them to decrease their stress and increase their focus. Mirroring the findings from the MOLS data, students did not report benefits from mindfulness in terms of connection that suggested substantial impact on this construct. With the exception of one response to a Week 9 prompt about the extent to which mindfulness helped with assignments specifically, every participating student reported some degree of benefit from engaging in mindfulness exercises. Nevertheless, although the students reported that they all benefited from mindfulness, particularly with respect to stress reduction and increase focus, student attrition was still high: by Week 4, four students out of 17 had dropped; by Week 9, eight students had dropped, leaving nine students who ultimately completed the course.

Summary of Results

Research Question 1. The first research question for this study asked**:** *To what extent do the course's mindfulness exercises influence students' use of general mindfulness?* To answer this question, I used both quantitative and qualitative data from the pre- and post-intervention Freiburg Mindfulness Inventory (FMI) survey.

Quantitative findings from the FMI. To briefly review, the FMI has 14 items that measure different facets of mindfulness and offers response choices ranging from 1 *(Rarely)* to 4 *(Almost Always).* To facilitate my analysis, I combined the survey items into

four constructs that represent some aspect of general mindfulness use: *Being Present*, *Self-Awareness*, *Self-Compassion*, and *Stress Relief*. I calculated an overall mean for each construct, and also calculated Likert scale frequency distributions for each question in each construct in order provide a more fine-grained understanding of the students' levels of general mindfulness. To provide further clarity for the analysis, I combined the frequency responses for Almost Always and Fairly Often into an indication of *Higher Levels* of the characteristic being measured, and *Occasionally* and *Rarely* into an indication of *Lower Levels* of the characteristic.

The descriptive statistics provided in Tables 12 – 15 show an overall decrease in construct means from Pre-Survey to Post-survey for *Being Present* (2.80 to 2.52), *Self-Awareness* (2.68 to 2.44) and *Stress-Relief* (2.53 to 2.37). Self-Compassion was the only construct with showed an increase in the overall mean (2.41 to 2.67).

The data from frequency distributions for the individual survey items in each construct generally reflected the trend in the overall construct means, although some individual construct items did increase from pre- to post-survey for two constructs that showed an overall decrease in the construct mean. For the construct *Being Present*, the levels of presence represented by two construct items decreased from pre- to post-survey, reflecting the decrease in overall construct mean, but the level for one item, *I feel connected to my experience in the here-and-now,* increased from 56% to 67%. Similarly, for the construct *Self-Awareness*, levels of awareness decreased in three of the four items, again reflecting the decrease in the overall construct mean, but increased slightly for *I watch my feelings without getting lost in the*m (50% to 56%).

Qualitative findings from the FMI. The analysis for the three open-ended questions at the conclusion of the FMI was conducted by coding the responses by emerging themes, words, or phrases that reflected the four pre-determined mindfulness survey constructs (being present, self-awareness, stress relief, self-compassion), or any words or ideas associated with mindfulness generally.

Findings from the pre- and post-surveys' open-ended questions indicated that while 76% of students in the pre-survey had a working knowledge of, and some experience with, general mindfulness prior to the intervention, the post-survey responses from the seven students who participated in the course's mindfulness exercises suggested a more complete understanding of mindfulness and its uses and benefits. It is interesting to note that the post-survey responses addressed three of the four constructs (Being Present, Self-Awareness, Stress Relief), but did not refer specifically to aspects of Self-Compassion, which is the only construct that showed a quantitative increase in the overall construct mean and in three of the four construct items.

Research Question 2. The second research question for this study asked**:** *How and to what extent does students' use of mindfulness practices influence their online learning experience?* For the purposes of this study, I defined *online learning experience* in the context of three of many benefits of mindfulness: focus, stress reduction, and connectedness. To answer this question, I used quantitative and qualitative data from the Mindfulness and Online Learning Survey (MOLS), and qualitative data from in-course narrative reflection prompts.

Quantitative findings from the MOLS. This survey was administered at the conclusion of the intervention, after the students had had the opportunity to participate in

nine in-course mindfulness exercises. The survey responses were organized into four constructs: general mindfulness use and beliefs, and the three constructs defining students' online learning experience (stress reduction, focus, and connectedness). The responses to the survey for each construct indicate that between 88% and 100% of the students who participated in the mindfulness exercises used some aspects of mindfulness throughout the course, and found it to be helpful in areas of stress reduction, focus, and connectedness.

Qualitative findings from the MOLS. As described previously, the findings from the open-ended response items indicate that all students who remained in the course and participated in the mindfulness exercises benefited from these initial mindfulness practices. Students who participated in the exercises provided compelling quotations about how mindfulness reduced their stress in various ways and helped them to calm down, focus on their assignments, and not give up. While most of the students did not report substantial effects from the mindfulness exercises on increased connectedness in ways described in the prompt, students did report feeling more connected to themselves and their thoughts and actions.

Qualitative findings from the in-course narrative reflections. The findings from the periodic in-course reflections mirrored and reinforced the findings from the qualitative MOLS data. With a focus primarily on stress reduction and focus, students who participated in the mindfulness exercises reported substantial benefits from their mindfulness practice.

However, as described previously, even though students found their mindfulness practices to be extremely beneficial in certain ways, there was nevertheless a high rate of student attrition. The implications of these findings will be discussed in Chapter 5.

Chapter Five

Discussion

Chapter Five is a discussion of what my findings suggest in relation to the research questions and problem of practice, and the implications of my findings for future practice. First, I will briefly describe the context for my study and discuss research findings from Chapter Four. I then discuss implications of my study and hypotheses about why attrition in my course remained high despite the intervention. The chapter concludes with recommendations for next steps.

The Challenges for Students

Students in my online course wrote about their goals. Many students, including those who did not complete or pass the course, set a goal at the beginning of the course to get an A. What happened?

As discussed in Chapter 1, community college students are different from 4-year university students. According to the College Board, "It is well documented that community colleges serve a large proportion of minority, first-generation, low-income, and adult students" (Ma & Baum, 2016). For these students, going to college at all, going back to college, and navigating college takes stamina and perseverance. If community college students are underprepared in any way, the aggravation and stress of going to college may cause students to drop or not persist.

The population at GWCC is dynamic and diverse. We have students returning as adults, students from the on-site high school, freshmen entering from high school, an ESL and a refugee population. Online courses, as discussed in Chapter 1, can seem like a panacea for both students and for colleges. They create educational access, have high

enrollment, and create tuition revenue. Yet, as the results show, despite interventions intended to keep and help students, a high percentage of online community college students drop or stop participating.

I sit in meetings and participate in committees where our dialogue centers around the college experience, for students. We know, statistically, who the students are. But, it is the responsibility of faculty and staff to work individually with our students so they may realize their educational and career goals. Students attending community colleges, as discussed in Chapter One, can be underprepared and lack skills necessary to navigate a college setting. Consequently, online learning, while seeming like an attractive pathway, can be yet another frustrating barrier to college success. A number of students in this study withdrew within the first 4 weeks, and then more stopped participating in the course by mid-semester. As an online instructor, I do not know why students stop participating and the college does not collect data to find out why students drop online courses. However, as the research suggests, community college students' lives are full and complex: most work full-time, many have families, some lack computer skills or proper internet and computer requirements, and most struggle with time-management.

It is the on-going mission of the district and GWCC to understand student barriers to success. This study elucidates the complexity of community college students' lives as well as the complexity of the college's role in learning. Faculty, staff, and administrators work daily to ensure students' needs are met and barriers removed. Online learning should and does create educational access. And yet student attrition is still higher in online learning than traditional learning, and so it is the job of faculty and administration to assess online learning frequently, develop a deeper and more nuanced understanding of

its potential and its challenges, and work to make learning online as innovative, accessible, and effective as it was meant to be for our students.

Discussion of Research Findings

Seventeen students initially participated in this study. Then, four students withdrew before Week 4. Only one student contacted me to inform me of her withdrawal because she was beginning a new job and did not want to overstress herself. I offered to create flexible due dates and work with her so she could continue, but she declined. The other three students were withdrawn for administrative reasons, personal issues or financial aid reasons.

By Week Four, I had 13 remaining students and the class was moving forward. The first major writing project began in Week Five. By Week Nine, I had four non-participating students who I tried unsuccessfully to contact and then had to withdrawal for attendance/non-participation. The nine students remaining went on to complete the course.

RQ 1. Research question one asked about the extent to which the course's mindfulness exercises influence students' use of general mindfulness. I wanted to know whether students' use of general mindfulness benefits such as presence, focus, or awareness were influenced by the mindfulness intervention. Results of pre-survey data indicated that students already had working knowledge of what mindfulness is and how to use it. They answered the qualitative items sometimes with uncertainty, yet described accurately what mindfulness is and its benefits.

When students took the post FMI general mindfulness survey, the overall construct means did not change significantly and in fact, the pre-survey construct means

were higher than the post-survey means construct means for three of the four constructs, as described in Chapter 4. Similarly, the frequency distributions for the individual survey items in each construct generally reflected the trend in the overall construct means, although some individual construct items did increase from pre- to post-survey for two constructs that showed an overall decrease in the construct mean.

I have three theories about why there was little change in means between the pre- and post-surveys, with some of the constructs even showing lower means at post-survey. First, students reported having relatively high levels of knowledge of mindfulness and its benefits before the intervention. To explain the lower post-survey means, students may have learned more about mindfulness and its application and benefits during the intervention and then answered the post-survey with a new perspective and more nuanced understanding, causing the means to be lower. A second hypothesis is that students who did not participate in the mindfulness exercises still took the post-survey, thereby lowering the mean of each construct. Finally, the results may reflect a flaw in the survey design. As explained previously, to facilitate my analysis I combined the FMI survey items into four constructs that represent different aspects of general mindfulness application (*Being Present*, *Self-Awareness*, *Self-Compassion*, and *Stress Relief),* In retrospect, as I reflected on the quantitative survey results, I calculated the Cronbach alpha internal consistency for each construct I created and found that only one construct, Being Present, resulted in an alpha above .7. This suggests that the items in each of the constructs may not have been closely enough related to provide reliable results.

As a result, these quantitative findings did not provide much clarity about the effectiveness of the intervention's mindfulness exercises. The findings from the open-

ended questions in the pre- and post-survey did shed a little more light on the question. While responses to the pre-survey open-ended questions indicated that 76% of students had had a working knowledge of, and some experience with, general mindfulness prior to the intervention, the post-survey responses from the seven students who remained in the course and participated in the course's mindfulness exercises indicated that those students had obtained a more complete understanding of, and experience with, the uses and benefits of mindfulness. More specifically, the remaining students seemed more confident about what mindfulness is and reported that they found doing the mindfulness exercises reduced their stress, helped them focus, and reminded them to stay present.

And yet only these 7 students passed the course with a 70% or higher. Seventeen students took the FMI pre-survey. At the beginning of the intervention, those 17 students reported mostly knowing what mindfulness is and also wrote they were optimistic about passing the course. Research on mindfulness from Chapter Two suggests that students who apply mindfulness to their studies and lives see many benefits. However, students in this course dropped or withdrew regardless of them reporting mindfulness knowledge and application, and despite their optimism about goal setting.

RQ 2. Research question two asked: *How and to what extent do students' use of mindfulness practices influence their online learning experience?* Students' online learning experience was measured with three constructs: stress reduction, focus, and connectedness. Quantitative and qualitative data from the Mindfulness and Online Learning Survey (MOLS), and qualitative data from in-course narrative reflection prompts were used to answer this question.

Six students who reported using the mindfulness exercises throughout the course took the post-intervention MOLS. The responses to the survey for each construct indicated that at least 88% of the students, and in most cases 100% of the students, used aspects of mindfulness during the course and found the exercises helpful in areas of stress reduction, focus, and connectedness.

Similarly, MOLS' qualitative responses indicated that all students who remained in the course and participated in the mindfulness exercises benefited from these initial mindfulness practices. As reported in Chapter 4, students clearly described how mindfulness reduced their stress in various ways and helped them to calm down, focus on their assignments, and not give up. While most of the students did not report substantial effects from the mindfulness exercises on increased connection, specifically to other students or the instructor, students did report feeling more connected to themselves and their thoughts and actions.

The In-Course Narrative Prompts provided more insight into how students applied mindfulness, and mirrored the MOLS findings in that every student who participated in the mindfulness exercises, regardless of the grade they were currently getting, benefitted from the mindfulness exercises, particularly in areas of stress reduction and focus. It is important to note, however, that throughout the intervention a number of students who indicated a positive understanding of the benefits of mindfulness in the pre-survey and in some of the initial prompts still did not participate fully, if at all, in the mindfulness exercises. I created extra credit and required assignments so more students would participate. It seems from the survey responses that students believed mindfulness was effective in relieving stress and increase focus, and yet if the assignment was not

required, a lower percentage of students than expected participated after the initial Week 1 exercises. Students were not participating even though they reported knowing mindfulness's benefits.

Any exposure to mindfulness, as research states in Chapter Two, can give students a valuable tool for living, and the students' quotes about the positive effects of mindfulness clearly indicates that the intervention did positively influence them. But regardless of students' experiences with mindfulness and its benefits, the intervention of mindfulness did not keep students enrolled. Why?

Revisiting the In-Course Narrative Reflection Prompts. To try to make sense of my findings in the broader context of the lives of my students, I revisited my in-course narrative reflections to look beyond questions about the efficacy of mindfulness and to try to understand more deeply how the intersection of their lives outside of college with their college online experiences may be playing out.

The student's discussion board writing in response to the in-course narrative reflection prompts in Week 1 and Week 15 provided personal information about my students' goals and struggles. These students have reported common stressors in life (kids, moving, working, etc.) that would be difficult to manage for anyone. Adding part time or full-time student to a stressful life may increase stress. Students report they are optimistic yet the data from this study reveals students could not maintain that momentum and some were unsuccessful. Below are student discussion board responses from the first and last weeks of class followed by my own discussion of their meaning and implication.

The course began with a discussion board where, traditionally, students introduce themselves and share a few personal aspects of their lives. This semester, I asked students to introduce themselves and write a short narrative describing their lives, anticipated stressors, and strategies or solutions for overcoming those stressors. The questions for the first discussion were: *1.) What is happening in your life? 2.) What kind of stresses or responsibilities do you have this semester and how will you deal with multiple things at once?*

This study occurred in the fall semester of 2017, during a tumultuous and racially charged period of a new presidency. I taught an in-person class during this semester as well. Since I teach writing, students choose topics that must first affect them or their community as well as topics that are current and specific. Consequently, students wrote frequently about immigration concerns, mainly deportation of family members and friends and the fear that Deferred Action for Childhood Arrivals (DACA) may end.

The level of concern I saw in my face-to-face students prompted me to wonder if my online students were suffering with the same fear and anxiety. Students were struggling with issues beyond their control. There is no way for me to know now if any of my students online or otherwise are DACA recipients or if the tumultuous political culture were causing them additional stress. But what I do know is students on GWCC's campus during the fall of 2017 were worried about their futures.

To understand students in a writing class, it is important to hear their stories in their own words. Students at the beginning of the course sounded enthusiastic and optimistic. Many students, student who did not finish/pass the course, reported they

would get an A. By Week Four, many of those same students had already withdrawn. Three withdrawn student responses are below:

Week One Introductory Discussion Board.

***Student 1*:** Instructor withdraw for non-participation/attendance 10/18

1.) A year and a half ago I moved to Phoenix, AZ. My short term academic goals are to get accepted into the LPN program or RN concurrent program. My long term goal is to be an air force labor and delivery nurse.

2.) A lot of things are currently going on in my life and changing rapidly. I currently work full time and I am starting a new part time job. I am still getting used to Arizona and functioning out here with a lack of support because I do not have any family or friends out here, just my boyfriend and our dog. I am learning new ways to do with the stresses of the semester as well as this new environment. I have signed up for group workout classes, because it not only gives me a way to unwind and burn off some stress, but it's a way to meet new people. I also did the 24 hour plan, before it was assigned because I learned at a previous school that you have to plan for everything you need to allocate sleep time, friend time, study time, television time, drive time, cook time, shower time and relax time. I do this weekly so I can plan my week and I try to stick to it.

***Student 2*:** Student Initiated Withdrawal 9/21

1.) I was born and raised in Phoenix, Arizona! A short term academic goal of mine is to pass all my classes this semester with an A. Things happening in my life? Well I recently got a job! I will also be going to school full-time as well as working full-time. Which can add a lot more stress and responsibilities to my plate.

2.) The reason why I said this would bring more stress and responsibilities in my life is because I will need to manage my time better so that everything fits into my day. By managing my time and having a positive attitude, I feel that I would be able to set myself up for success.

***Student 3*:** Instructor Initiated Withdrawal for non-participation/attendance 10/18

1.) I am from Phoenix. I was born and raised here. My short term academic goal would be to finish this class without slacking off, finish all the coursework on time and pass this class with an A.

2.) This is my first class coming back after a year, and it took me a while to build up the courage to re-enroll. I have two kids, and is the sole caregiver for my grandmother. I also have a full -time job, and very recently just managed to break my glasses and I am blind without my glasses. I'm not going to lie, sometimes I feel like so many things are piling on to my stress every day. I'm able to deal with all these things by making time for myself by going to the gym, or taking a walk. And try to be manage my time more wisely so I can manage, school work, and my family.

The remaining five withdrawn students have similar discussion stories. Most of them specifically said they wanted to receive an A, had full time jobs, multiple stressors, and many things happening in their lives. The assignment requested students to reflect on how they would deal with multiple issues at once and most answered with one or two ideas of how they would manage. However, all eight students did not complete the course.

Week 15 Discussion Board. This post discussion board was part of the RQ2 in-course assignment, but Week One and Week Fifteen responses are important to compare. Attrition was high in this course. Examining students' responses in their entirety reveals the optimism in the beginning of the course, and begs the question of why, in the end-of-semester discussion, only nine students remained and only seven were passing.

In Week Fifteen, I asked students to reflect on their first discussion post and explain if mindfulness influenced their writing and whether the mindfulness intervention was useful, useless, or changed their online writing experience. This section of narrative data provides more insight into how, if any, the mindfulness intervention affected their online learning experience, and provides insight into the lives of the students' pre-intervention and post-intervention. Below are student responses to the final discussion board which asked students to "*Explain whether the habits of mind and mindfulness influenced your writing.*"

Seven out of the 17 students passed the course with a 70% or higher needed to earn college credit. Two students who stayed in the course did not pass. Below are Week Fifteen Discussion Board responses from students who did pass the course and used the mindfulness intervention. I am inserting these narratives to provide a better understanding of student stressors and subsequent course completion in their own words. This data was coded and then analyzed for the three constructs of Online Learning Experience. Although a summary appears previously in Chapter Four, but I felt it was important to consider their full responses here:

> ***Student One.*** Originally, when I started the course, I had no idea what mindfulness was. Slowly, but surely I gained some knowledge. I can say I wasn't

too knowledgeable on the topic as I am in this present time. After understanding the purpose of mindfulness activities, I did incorporate mindfulness when completing my assignments. I mainly use mindfulness in diverting all unnecessary thoughts and only concentrate in what is in front of me and not worry about the future.

Student Two. I believe mindfulness and habits of mind has helped me with my writing. At first, I was skeptic about the exercises, but it really did relieve my stress. Helped me be less anxious when starting an assignment. Helped me be more responsible, and more confident on my writing. Now before starting an assignment I do a mindfulness exercises to help free my mind of unnecessary thoughts.

***Student Three*.** I am glad I was able to strengthen myself and even use the mindfulness techniques that I was taught to help me refocus myself. I did let life get the better of me but the mindfulness exercises really did assist me in recollecting myself and pushed me to have faith and believe in myself that I could not give up and I could reach my goal.

In the beginning of this class I was really unsure of the mindfulness exercises. After a few exercises, I actually began to research places for yoga and meditation and also included my fiancée and we both agreed we would like to participate in both together. I do have a really busy life and these exercises reminded me to slow down and take time to myself. When it came to my assignments and writing, these exercises came in handy. I started to feel stressed and like I was incapable of completing some assignments. The exercises helped me refocus and helped me

think of ways I could find assistance. I used the mindfulness exercises multiple times this course and they were very helpful.

Student Four. Overall, I feel as though the mindfulness exercises were beneficial to my writing experience. For the first handful of mindfulness exercises I don't believe I was being as open-minded to them as I should have been. Over time I took them more and more seriously. The last several in particular have definitely helped me to reduce my anxiety when going into a new assignment- especially when starting the essays from scratch. It's difficult to say with certainty whether or not doing the exercises improved my writing or not but it certainly made it easier for me to get started with the assignments.

As reported in Chapter 4, students who stayed in the course reported that the mindfulness exercises did influence their online learning experience and made them feel less stressed and more focused and present. These students were successful in the course, and they all reported that mindfulness helped them, However, 58% of students who began my class, even when writing that they were optimistic about getting As and meeting their goals, and even though they reported that they had benefitted from the initial mindfulness exercises – 58% were unable to persist or withdrew from the class.

Implications

In Chapter 1, I discuss and explore the larger, national problem of attrition. Online learning is unable to keep students enrolled and research suggests that the reasons students do not complete an online class are often personal reasons. Students report time management, stress and multiple life events keep them from completing online courses.

This intervention attempted to address the attrition issue by using mindfulness to mitigate stress reactions and unpredictable life events, and to increase focus and connectedness.

After coding and analysis, I discovered that my students were originally very optimistic and had obtainable, realistic goals for the class. By the end of the course, however, only 7 out of 17 students passed. Since GWCC does not have an exit survey and attempts to contact students were unsuccessful, I used their in-course narrative responses, which gave me a glimpse into their life stories, to explore why students may not have finished or passed the course despite the intervention, teacher presence, and sound course design. My findings have led me to consider that although mindfulness provided many important benefits for students that can help students not only with immediate challenges of college but also challenges in life, mindfulness is not a silver bullet, and cannot, in itself, overcome the multiple personal and societal pressures and stressors that many of our community college students face.

Education is a discipline of invention and re-invention, meaning educators are always trying to find new ways to teach that engage and retain students. At the heart of our work, is student success. As educators we examine and analyze current challenges in order to find solutions to better support our students. In search of effective solutions, educators often will turn to approaches that appear on the educational radar as potential winners – approaches like mindfulness, which is currently seen as having tremendous potential to effectively address the social and emotional needs of students.

I would argue that it is important that we as educators resist the urge to rely too much on any one approach as a panacea. It is important that we realize the benefits of mindfulness and incorporate it into our courses, but as only one tool that will contribute

to student success, and continue to investigate and address the larger societal issues that are contributing to the attrition rates we currently see.

Online teaching and learning swept into colleges pretty rapidly because it was seen as a disruptive technology. It allows us to offer hundreds or thousands of students educational access while reducing students' burden of finding transportation or finding time to attend class in the middle of a 40 hour work week while raising a family. Perhaps online learning was too much too fast, and did not allow educators to pause long enough to critically assess their online pedagogy and structures, either as individual instructors and course designers, or from an institutional perspective.

Mindfulness began many centuries ago as part of Eastern Buddhist Philosophy. The world and our culture continue to be in continual chaos and disarray. People, for thousands of years, have turned to practices that soothe the soul or put the mind at ease. Mindfulness is not a new idea but it recently has become a culturally accepted way to relieve one's stress, increase focus, and be more connected to the moment. Mindfulness will stay, but mindfulness in education, while having the potential to effectively address issues of stress, focus, and connectedness, could soon be another swing of the pendulum if not implemented well, or if asked to solve challenges it cannot, in itself, solve.

There is a myriad of options for implementing mindfulness in one's classroom practice or as part of another research study. More than affecting attrition, students' use of mindfulness in this intervention influenced students stress and focus by decreasing stress and increasing focus. Future areas of research could be comparative groups of face to face versus online mindfulness studies.

Next Steps

By infusing psychological factors such as mindfulness into online course design, educators have the potential to reimagine an ever-changing but inconsistently effective educational mode. Going forward, I would recommend departments and divisions look at their online learning structure and their expectations for making online learning effective for students at risk of not completing the course. At least in my context, I would recommend exit surveys, the implementation of early intervention procedures for students who abruptly stop participating, and better instructor training for how to design courses that are content driven *and* humanistic. Online learning has been shown to be effective and advantageous in many research studies, but teaching and learning online is still riddled with challenges around course quality, well-trained faculty, complex demographics, and attrition.

Next steps for GWCC are in progress. Title V colleges receive a national grant from the Department of Education that funds special programs and initiatives in community colleges. As a Title V college, GWCC receives that grant. Right now, GWCC is in year 3 of the 5 -year grant and is using the money to address several institutional goals, including decreasing student completion time (GateWay is a two-year community college but completion time varies from 2-5 or more years). This means the college has to identify barriers that keep students from successfully completing courses and earning degrees or certificates. A brief summary from our institutional effectiveness office states:

> National assessments of trends in supporting success at community colleges (AACC, NCCBP), especially among underrepresented minorities have clearly identified the length of completion as having a negative correlation with student

success and degree completion. These activity objectives focus on accelerating student completion through a variety of strategic innovations that support students at the course and program level, providing academic support for increased student completion.

One barrier to student completion, among several, is online course attrition. GateWay is spending time and money on figuring out how to effectively reduce attrition rates and develop higher quality online courses.

Conclusion

The research and related studies cited in Chapter Two suggest that learning online is cost effective for colleges and convenient for students. However, attrition is high and as educators, we must put our students' success first. Online learning works well for some students but not for others, so the responsibility is on the college to develop a plan to better serve online students. This study sought to examine one such way to improve online course delivery and keep students enrolled and successful.

What this study concludes is that barriers affecting student success online are complex. Student attrition is high in online courses for a multitude of broad and context-specific reasons. Through my research for this study, I offer one tool – mindfulness – for community colleges, including GWCC, that are continuously striving to make post-secondary online learning both accessible and effective for students. Like teaching generally, online pedagogy and online teaching practices are subject to the proverbial swinging pendulum. To avoid the pendulum swinging back on the incorporation of mindfulness as an effective tools for supporting students' social and emotional needs, educators should incorporate mindfulness into their online course design in a sustained

and thoughtful way, as *one* support for fostering student engagement and success, but also with the recognition that multiple other factors must be addressed in order to make online learning effective for our community college students.

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APPENDIX A

FREIBERG MINDFULNESS INVENTORY

Freiburg Mindfulness Inventory

Description:

The purpose of this inventory is to characterize your experience of mindfulness. Provide an answer for every statement as best you can. Please answer as honestly and spontaneously as possible. There are neither 'right' nor 'wrong' answers, nor 'good' or 'bad' responses. What is important to us is your own personal experience.

1	2	3	4
Rarely	Occasionally	Fairly often	Almost Always

I am open to the experience of the present moment.	1	2	3	4
I sense my body, whether eating, cooking, cleaning or talking.	1	2	3	4
When I notice an absence of mind, I gently return to the experience of the here and now.	1	2	3	4
I am able to appreciate myself.	1	2	3	4
I pay attention to what's behind my actions.	1	2	3	4
I see my mistakes and difficulties without judging them.	1	2	3	4
I feel connected to my experience in the here-and-now.	1	2	3	4
I accept unpleasant experiences.	1	2	3	4
I am friendly to myself when things go wrong.	1	2	3	4
I watch my feelings without getting lost in them.	1	2	3	4
In difficult situations, I can pause without immediately reacting.	1	2	3	4
I experience moments of inner peace and ease, even when things get hectic and stressful.	1	2	3	4
I am impatient with myself and with others.	1	2	3	4
I am able to smile when I notice how I sometimes make	1	2	3	4

life difficult.

1.) What do you know about mindfulness?
2.) Explain how you have used mindfulness in this course or in general.
3.) How has mindfulness helped you?

APPENDIX B

MINDFULNESS AND ONLINE LEARNING SURVEY

Mindfulness and Online Learning Survey

The purpose of this survey is to learn about your beliefs and uses of mindfulness during this course.

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

General Mindfulness Use and Beliefs

1. I participated in the mindfulness exercises.
2. I found the mindfulness exercises helpful for completing class assignments.
3. The mindfulness exercises helped me 'be in the moment' during class assignments.

Construct One: Stress Reduction

4. I believe practicing mindfulness can reduce stress.
5. I felt calmer or less stressed after completing the mindfulness exercise before an assignment.
6. The mindfulness exercises throughout the course helped be mindful of my feelings as I approached course work.

Construct Two: Focus on the present

7. I believe a practice of mindfulness can help people focus on one thing at a time.
8. The mindfulness exercise (s) helped me focus my attention on an assignment.
9. I actually felt like I was being 'present' and 'in the moment' after completing the mindfulness exercise (s).
10. I thought more about being mindful because of the mindfulness exercise (s).

Construct Three: Connectedness with self and others:

11. I believe a mindfulness practice can help me feel more connected to daily activities.
12. The mindfulness exercises helped me feel more connected and interested to the content of the course.
13. The mindfulness exercises helped me feel more connected to other people in the course even though the course was online.
14. I believe the mindfulness exercises make the class more relatable and friendly.

Open Ended Items – Please answer in sentences or short paragraphs.

15. Explain if the mindfulness exercises influenced or did not influence your stress in the class.
16. Explain if the mindfulness exercises did or did not help you focus in the class.
17. Explain if the mindfulness exercises helped or did not help you feel connected to the class, students, or instructor.