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Mindfulness Practice in the Collegiate Voice Studio: A Case Study

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UNIVERSITY OF MIAMI

MINDFULNESS PRACTICE IN THE COLLEGIATE VOICE STUDIO:
A CASE STUDY

By

Elena Blyskal

A DOCTORAL ESSAY

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Doctor of Musical Arts

Coral Gables, Florida

May 2018

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A CASE STUDY

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Mindfulness Practice in the Collegiate Voice Studio:
A Case Study.

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Research continuously acknowledges mindfulness—the practice of purposefully, nonjudgmentally paying attention in the present moment—as a technique to reduce anxiety, improve attention and working memory, and overall enhance physical, mental, and emotional wellbeing. While the college years are often tumultuous, mindfulness can be a viable means of reducing student anxiety while enhancing one’s learning experience, particularly for the highly demanding lifestyles of music students. Musicians who undergo mindfulness training have reported reduced performance anxiety, increased performance quality, more focused practices, and improved positive affect, among other published results. Mindfulness may be especially beneficial for musicians who are singers, who require heightened physical awareness and psychological resilience to perform successfully.

Despite these advantages, few institutions regularly offer courses or training in mindfulness or related mental performance skills. Private voice teachers have an opportunity to bridge this gap in their studios. This essay presents a case study that incorporated formal mindfulness practice into the voice lessons of three music majors. The purpose of this study was to investigate if mindfulness enhanced the students’ experience of learning vocal technique, as well as if it reduced students’ general anxiety.

The results were gathered using both quantitative scales and open-ended interviews, and they suggested that mindfulness did reduce general anxiety and enhance students' learning experience, particularly by improving focus and stress management coping skills. Some results suggest that mindfulness was particularly beneficial for learning vocal technique, but further research is needed to form a strong conclusion. Overall, this study can be used as a model for voice teachers who wish to proactively address aspects of mental performance with their students.

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TABLE OF CONTENTS

Chapter	Page
1 INTRODUCTION	1
Problem Statement.....	4
Background.....	6
Need for the Study.....	9
Purpose of the Study and Research Questions.....	12
2 LITERATURE REVIEW	13
Mindfulness Explained	13
Mindfulness and Health	15
Mindfulness and Cognition.....	18
Mindfulness in Higher Education.....	20
Mindfulness and Musicians.....	24
Rationale of Mindfulness for Voice Students.....	28
Conclusion.....	29
3 METHOD	30
Overview.....	30
Participants.....	31
Measures	32
Methodology.....	33
General Outline of Practices and Assignments.....	35
Explanation of Practices and Assignments.....	37
4 RESULTS	39
FFMQ Results.....	40
State-Trait Anxiety Inventory Results	45
Interview Results	47
5 DISCUSSION.....	51
Discussion of FFMQ Results.....	51
Discussion of Interview Results.....	53
Discussion of State-Trait Anxiety Inventory Results	56
Suggestions for Further Research.....	57
Interview Results	59
BIBLIOGRAPHY.....	61
APPENDIX A: Interview Transcriptions.....	67
APPENDIX B: Mindfulness Follow-Up Questionnaires.....	79
APPENDIX C: Mindfulness Practices.....	89
APPENDIX D: Five Facets of Mindfulness Questionnaire.....	99
APPENDIX E: State-Trait Anxiety Inventory, Form Y-1 and 2.....	102

Chapter 1

Introduction

The musician's lifestyle is far from easy or stress-free. The nature of performance demands musicians to overcome personal inhibitions and express themselves,¹ often for an audience of people they have never met. Auditions and rejections are part of a musician's routine, and it can be easy to subconsciously base one's self-worth on a job offer – or lack thereof. Musicians often spend years in lessons and in the practice room, striving to fix mistakes in search of perfection and approval. Throughout this process, musicians are likely to fixate on the past or future, whether trying to replicate a past run-through or worrying about an upcoming competition. Over time, musicians may become disillusioned with their chosen path and experience lapses in self-efficacy, self-worth, focus, and motivation. Finally, compounding all these is performance anxiety, which is experienced in varying degrees among most musicians and is often debilitating enough to interfere with performance.² The musician's lifestyle contains considerable hardships; yet despite them, each performer must deliver a perceived product. Any tension or stressor may be detrimental to the performance.

These stressors can be exacerbated for musicians who are also college students. College students face the challenges of maintaining a well-balanced lifestyle amidst academic demands and social pressures. Issues of time management, independent living, work-school balance, and post-graduation concerns can all be factors in a student's

¹ Lynn Eustis, *The Teacher's Ego: When Singers Become Voice Teachers* (Chicago: GIA Productions, 2013): 5.

² Virginia Farnsworth-Grodd, "Mindfulness and the Self-Regulation of Music Performance Anxiety," (PhD diss., University of Auckland, New Zealand, 2012): 13.

mental distress.³ This developmental stage of emerging adulthood (ages 18-29) is marked by the uncertainty of both unanswered questions and limitless possibilities.⁴ Both of these may feel overwhelming for the individual who is no longer a child, yet not fully an adult.⁵

Today's college students also face challenges that did not exist with previous generations. Those born into an age of smartphones and social networks have learned to communicate and function via media multitasking and instant gratification. This phenomenon has been continuously linked to negative impacts on youths' attention, memory, academic performance, and self-regulation,⁶ as well as cognitive control and socioemotional functioning.⁷ This suggests an increased tendency towards mindless behaviors with negative consequences, making today's students especially ripe for the benefits of mindfulness.

Research indicates that rates of student stress, anxiety, and depression remain alarmingly high, and that academic environments seek new ways beyond counseling to

³ Brenda G. Wristen, "Depression and Anxiety in University Music Students," *Update: Applications of Research in Music Education* 31, no. 2 (2013): 21, accessed March 31, 2017, <http://dx.doi.org/10.1177/8755123312473613>.

⁴ Jeffrey Jensen Arnett, "Emerging Adulthood: A Theory of Development from the Late Teens Through the Twenties," *American Psychologist* 55, no. 5 (May 2000): 469, accessed March 3, 2018, <http://dx.doi.org/doi:10.1037//0003-066X.55.5.469>

⁵ Holly Rogers and Margaret Maytan, *Mindfulness for the Next Generation* (New York: Oxford University Press, 2012): 6.

⁶ Kaitlyn E. May and Anastasia D. Elder, "Efficient, Helpful, or Distracting? A Literature Review of Media Multitasking in Relation to Academic Performance," *International Journal of Educational Technology in Higher Education* 15, no. 13 (2018): 1, accessed March 4, 2018, <https://doi.org/10.1186/s41239-018-0096-z>

⁷ Winneke A. van der Schur, Susanne E. Baumgartner, Sindy R. Sumter, and Patti M. Valkenburg, "The Consequences of Media Multitasking for Youth: A Review," *Computers in Human Behavior* 53 (December 2015): 204, accessed March 3, 2018, <https://doi.org/10.1016/j.chb.2015.06.035>

treat these issues.⁸ Not all students who suffer seek treatment, and research indicates that music students are no exception to this.⁹

To this author's knowledge, there is no quantitative research measuring the stress of singers as compared to instrumentalists. However, learning to sing can be a unique and complicated process – for singers have no separate instrument to direct their attention to besides the instrument inside themselves.¹⁰ Says acclaimed teacher Lynn Eustis:

We have a lifelong connection with our voices, and we can never put down the instrument and walk away, even for a few minutes. Our identities are closely intertwined with our voices, often in ways that have nothing to do with music...Over time we come to believe that our most authentic self-worth is founded on our vocal talents...*My voice equals me; therefore, if my voice doesn't live up to others' standards, neither do I as a person.*¹¹

Each singer's instrument is invisible; with no buttons or keys to push, singers learn over time to detect and connect particular physical sensations with more and less desirable sounds, a relationship that they often depend on their teacher to confirm.¹² The voice is also the only instrument which doubles as the primary means of communication and expression in everyday life. As such, singers often hold a strong relationship

⁸ Liselotte N. Drybe, Matthew R. Thomas, and Tait D. Shanafelt. "Systematic Review of Depression, Anxiety, and Other Indicators of Psychological Distress Among U.S. and Canadian Medical Students." *Academic Medicine* 81, no. 4 (April 2006), 355, accessed December 3, 2016, <https://www.ncbi.nlm.nih.gov/pubmed/16565188>.

⁹ Wristen, "Depression and Anxiety in University Music Students," 20.

¹⁰ Anthony E. Kemp, *The Musical Temperament, Psychology and Personality of Musicians* (New York: Oxford University Press, 1996): 173.

¹¹ Eustis, Lynn, *The Teacher's Ego: When Singers Become Voice Teachers*, 2-3.

¹² Kemp, *The Musical Temperament*, 174.

between voice, identity, and self-esteem. Thus, problems in singing are often linked with problems in mental health, and vice versa.¹³

Problem Statement

While the college years are ones where some attempt to cope with anxiety through escapism, mindfulness—facing what is here and now—can be an effective alternative for maintaining mental health. Mindfulness is understood as one’s purposeful attention to his/her present moment experience, a physical and mental awareness cultivated by meditation and other contemplative practices.¹⁴ Over the past forty years, Western science has increasingly acknowledged mindfulness as a way to reduce anxiety, increase focus, and improve quality of life. Considering the demands of university music study, mindfulness may be an effective practice for student musicians. However, few institutions offer courses in mindfulness or mental performance skills. For those institutions that do, it is often the case that such a course is not required for a music degree. This curricular exclusion becomes a problem when music majors’ health and psychological well-being begins to suffer. Performance anxiety, depression, self-doubt, and attention disorders are critical yet common issues that can be detrimental to musicians’ performances and careers. Students may then seek out mindfulness as a solution for a now-established problem when mindfulness could have been a regular practice from the beginning of the student’s study. As teachers who see their students on a one-on-one basis, private studio instructors have a unique opportunity to bridge this gap

¹³ Sarah Elizabeth Stedman, “Singing and Self: The Psychology of Performing” (DMA diss, Northwestern University, 1985): 1, 63, 65.

¹⁴ J. Mark G. Williams and Jon Kabat-Zinn, eds. *Mindfulness: Diverse Perspectives on Its Meaning, Origins, and Applications* (New York: Routledge, 2013): 25.

in their studios. Voice teachers and students may find mindfulness particularly beneficial, considering the physical awareness and psychological resilience needed to sing successfully.

After examining the foundations of mindfulness, this study will address mindfulness' current uses among musicians and in higher music education, as well as its benefits that may uniquely apply to voice students. This study will ultimately investigate the effectiveness of including formal mindfulness practices in eight weeks of vocal study. The hypothesis is that mindfulness, when taught alongside traditional vocal technique, can positively enhance the experience of learning to sing. (In this study, vocal technique is defined by the concepts students learn that enable healthy, efficient, and effective singing: breath management, alignment, tension release, micro-muscular awareness, resonant tone, and text communication.) Alongside other teaching tools, mindfulness can be a viable vehicle for learning in the vocal studio.

This study will also evaluate the effectiveness of mindfulness in alleviating music students' anxiety. The hypothesis is that a more mindful learning experience can alleviate the mental health¹⁵ of students who are accustomed to a product-based, right-or-wrong learning environment. Csikszentmihalyi's research supports this:¹⁶ When a student is fully invested in a learning process – without the pressure of a perfect product – he or she

¹⁵ For the purposes of this study, mental, emotional, and psychological health are included under the cumulative term of mental health. The author does not claim to make any mental health diagnoses.

¹⁶ Mihaly Csikszentmihalyi, *Flow: The Psychology of Optimal Experience* (New York: Harper & Row, 1990): 112.

may experience a feeling of joy.¹⁷ Among other elements, this joy includes the relaxation of everyday anxiety and the fading of self-consciousness.¹⁸

Background

Mindfulness became more widely recognized in 1979, when scientist Jon Kabat-Zinn founded the Mindfulness-Based Stress Reduction Clinic at the University of Massachusetts Hospital.¹⁹ While his approach to mindfulness has roots in ancient Buddhism's *sati* (awareness) and *vipassana* (development of insight),²⁰ it was Kabat-Zinn's secular definition that contributed to mindfulness' growing appeal: "Mindfulness is awareness...paying attention in a particular way, on purpose, in the present moment and non-judgmentally."²¹

The awareness mindfulness cultivates is twofold, encompassing both (1) a focused awareness on something specific and (2) a broader awareness of oneself and one's surroundings in the present moment.²² While the body exists in the present moment by nature, the mind usually gravitates towards the past or future (e.g. ruminating, reminiscing, worrying, or planning). Mindfulness invites practitioners to connect mind and body in the present without changing any circumstances. Instead of striving to clear

¹⁸ Mihaly Csikszentmihalyi, *Flow: The Psychology of Optimal Experience*, 112.

¹⁹ Zinn and Williams, eds., *Mindfulness: Diverse Perspectives on Its Meaning, Origins, and Applications*, 25.

²⁰ *Ibid.*

²¹ Jon Kabat-Zinn, *Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life* (New York: MJF Books, 1994): 4.

²² Anne-Marie Czajkowski, "Mindfulness for Singers: A Match Made in Heaven," Voice Workshop, November 11, 2015, accessed March 11, 2017, <http://www.voiceworkshop.co.uk/mindfulness-for-singers-a-marriage-made-in-heaven/>

the mind, eliminate unpleasant thoughts, or cling to pleasant ones, practitioners acknowledge each thought with acceptance and detachment, letting each experience be what it is.²³

Nearly any action of daily living can be an informal mindfulness practice, such as eating, walking, or conversing. However, formal practices teach the individual to experience these two “awarenesses” from a more concentrated perspective. There are two common entry points for practitioners who may benefit from the structure of formal practice. The breath awareness meditation invites the practitioner to focus on the sensations of the breath as an anchor for attention. The body scan invites the practitioner to cultivate awareness of each area of the body from head to toe, releasing any perceived physical tension.²⁴

Research demonstrates that mindfulness can significantly reduce stress, anxiety, and depression. Mentally, mindfulness practitioners practice separating their perceptions of the past and future (e.g. ruminating, worrying, avoiding, wanting) from their present and true experience. Physically, mindfulness activates the parasympathetic nervous system, which reduces the sympathetic nervous system’s fight-or-flight response to stress and anxiety.²⁵ This counter-response, which Herbert Benson defined as the “relaxation

²³ Saki Santorelli and Jon Kabat-Zinn, *Mindfulness-Based Stress Reduction (MBSR): Standards of Practice*, (Worcester, MA: Center for Mindfulness in Medicine, Health Care and Society, 2012), 1, accessed April 9, 2016, http://www.umassmed.edu/contentassets/24cd221488584125835e2eddce7dbb89/mbsr_standards_of_practice_2014.pdf

²⁴ Saki Santorelli and Jon Kabat-Zinn, *Mindfulness-Based Stress Reduction (MBSR): Standards of Practice*, (Worcester, MA: Center for Mindfulness in Medicine, Health Care and Society, 2012), 1, accessed April 9, 2016, http://www.umassmed.edu/contentassets/24cd221488584125835e2eddce7dbb89/mbsr_standards_of_practice_2014.pdf

²⁵ Holly Rogers and Margaret Maytan, *Mindfulness for the Next Generation* (New York: Oxford University Press, 2012): 42.

response,” reduces heart rate and muscle tension, deepens and slows breathing, stimulates slower, low-frequency alpha brain waves, and even reduces blood pressure.²⁶

These ideas are introduced in Kabat-Zinn’s eight-week mindfulness-based stress reduction (MBSR) program. Studies of this program report the benefits of mindfulness for symptoms of general anxiety, panic disorder;²⁷ social anxiety, depression, and low self-esteem,²⁸ among others. In addition, mindfulness has been shown to thicken brain areas associated with attention and sensory processing,²⁹ as well as activating the area associated with positive affect and immunity.³⁰ Mindfulness has gained widespread popularity alongside this research, and Kabat-Zinn’s MBSR – as well as similar contemplative training programs – are now available worldwide.

The research surrounding mindfulness and music performance is still young, but the results indicate promising benefits for musicians. Researchers have found that mindfulness practice can decrease symptoms of performance anxiety,³¹ and musicians have even reported improved performance quality due to these new coping mechanisms for anxiety.³² Musicians have also noted more enjoyment and higher performance quality

²⁶ Herbert Benson, “The Relaxation Response,” in *Mind Body Medicine: How to Use Your Mind for Better Health*, edited by Daniel Coleman and Joel Gurin, 233. New York: Consumer Reports, 1993.

²⁷ Kabat-Zinn et al, “Effectiveness of a Meditation-Based Stress Reduction Program in the Treatment of Anxiety Disorders,” 936-943.

²⁸ Goldin and Gross, “Effects of Mindfulness-Based Stress Reduction (MBSR) on Emotion Regulation in Social Anxiety Disorder,” 83-91.

²⁹ Lazar et al, “Meditation Experience is Associated with Increased Cortical Thickness,” 1893–7.

³⁰ Davidson, “Alterations in Brain and Immune Function Produced by Mindfulness Meditation,” 564-70.

³¹ Chang et al, “Effects of Meditation on Music Performance Anxiety,” 126-130.

³² Lin et al, “Silent Illumination: A Study on Chan (Zen) Meditation, Anxiety, and Musical Performance Quality,” 139-155.

while playing a piece mindfully rather than merely replicating a past performance; listeners who heard both recordings preferred the mindful performance as well.³³

Researchers have also examined the longer-term benefits of mindfulness for music students. In one study, university voice majors taking a group mindfulness class reported improvements in vocal technique (e.g. breath management, tension release, tone quality, and text communication). Reasons cited included their greater focus in practice and lessons, more developed physical and aural awareness, and a better physical memory of muscular sensations. In addition, their teachers reported that the students were more receptive to teachers' comments, better prepared for the lesson, and more likely to maintain positive affect.³⁴

Need for the Study

Studies suggest that mindfulness may be a worthwhile practice for musicians to improve both performance and quality of life. In addition to anxiety reduction, mindfulness offers the benefits of sharpened attention, stronger stress coping mechanisms, greater enjoyment in music-making, and even higher quality performance. However, most existing studies have researched the effects of an eight-week course, independent from the students' other coursework. Many music schools do not offer mindfulness or mental skills courses on a regular basis. Interest in a more holistic music education is growing, but many institutions have yet to acknowledge the physical and mental skills of performance equally. To the best of this researcher's knowledge, there are no music schools who regularly employ performance psychologists to treat their

³³ Langer et al, "Orchestral Performance and the Footprint of Mindfulness," 125-136.

³⁴ Czajkowski and Greasley, "Mindfulness for Singers," 211-233.

musicians as needed, as opposed to the numerous universities who regularly employ mental health professionals for their athletes.³⁵ (Dr. Don Greene, performance coach famous for his Centering strategy and author of books such as *Audition Success* and *Performance Success*, was a faculty member at Juilliard from 1998-2001 and from 2004-2007. He taught one graduate level course in Performance Enhancement, which continues to be offered, as well as master classes for instrumentalists, singers, and conductors.³⁶ While his contributions to the field are noteworthy, his or his successor's employment does not appear to equate that of a full-time professional to treat musicians as needed, as a collegiate athlete might have.) Given the proven research and results surrounding mindfulness, it would be beneficial for universities to make these practices consistently available for students.

Consistent practice over time is essential for training any new skill, mindfulness included.³⁷ While the relaxation response is often felt immediately, repetition is necessary for long-term psychological and physiological changes to occur.³⁸ Skills outside formal vocal technique (e.g. acting, presentation, mental skills) are often discussed towards the end of the semester in preparation for final performances and juries. Rather than introducing mindfulness as a last-minute solution, including it

³⁵ Kristina Driskill, "Symptoms, Causes, and Coping Strategies for Performance Anxiety in Singers: A Synthesis of Research," (DMA diss., West Virginia University, 2012): 6, accessed May 3, 2016, <http://gradworks.proquest.com/3530413.pdf>.

³⁶ Don Greene, Ph.D., LinkedIn page, accessed January 8, 2018, <https://www.linkedin.com/in/don-greene-ph-d-87132052/>

³⁷ Santorelli and Kabat-Zinn, Santorelli and Kabat-Zinn, *Mindfulness-Based Stress Reduction (MBSR: Standards of Practice*, 12.

³⁸ Herbert Benson, "The Relaxation Response," in *Mind Body Medicine: How to Use Your Mind for Better Health*, edited by Daniel Coleman and Joel Gurin, 252. New York: Consumer Reports, 1993.

throughout the semester could demonstrate the importance of maintaining a committed practice. It would also reinforce the teacher's emphasis on the process, not product, of learning to sing.

Private instructors have a unique opportunity to address this in their work. Their typical role is to train their students to sing at their best, and they often know their students well. Personalized one-on-one instruction lends itself to building a relationship of trust.³⁹ However, the outcomes of mindfulness practice in private vocal instruction have yet to be extensively researched.

Mindfulness is a performance technique that can be taught and reinforced regularly alongside other vocal performance skills. The physical techniques of singing are frequently interwoven during each voice lesson, yet singing is not solely a physical task.⁴⁰ Singers must possess the internal body awareness and sensory memory to detect and remember the desired sensations for each sound. Mindfulness may offer singers additional strategies to cope with the mental aspects of singing: performance anxiety, auto-pilot performance, self- and external criticism, and blocks in creativity.⁴¹ By introducing students to mindfulness practices, teachers may foster student growth in ways that address the whole musician, not just the physical instrument.

³⁹ Bajia, Ayn T. "What Do I Assume? A Critical Thinking Approach Integrating Critical Thinking and Student-Directed Learning" (DMA diss., James Madison University, 2015): 74, accessed December 1, 2016, <http://commons.lib.jmu.edu/diss201019/10/>

⁴⁰ Jahn, Anthony F., M.D. "Mindful Practice: A Medical Perspective," Anthony F. Jahn, M.D, last modified 2015, accessed March 10, 2017, http://www.earandvoicedoctor.com/article_1_01_2015.html

⁴¹ Lorenza S. Colzato, Ayca Ozturk, and Bernhard Hommel, "Meditate to Create: The Impact of Focused-Attention and Open-Monitoring Training on Convergent and Divergent Thinking," *Frontiers in Psychology* 3, no. 116 (April 2012): accessed March 31, 2017, <http://dx.doi.org/doi:10.3389/fpsyg.2012.00116>.

Purpose of the Study and Research Questions

The purpose of this case study is to investigate the effectiveness of formal mindfulness practice on both student's vocal technique and anxiety in the collegiate voice studio. The study will also account for additional outcomes for students after their mindfulness practice in lessons. The following research questions will be addressed:

- (1) Can practicing mindfulness positively enhance the experience of learning vocal technique?
- (2) Can practicing mindfulness in the private studio help reduce the general anxiety of university music students?

Chapter 2 Literature Review

Mindfulness Explained

Modern mindfulness practice stems from ancient Buddhist practices of *sati* (awareness) and *vipassana* (development of insight).⁴² Mindfulness began to receive widespread Western recognition in 1979, when scientist Jon Kabat-Zinn founded the mindfulness-based Stress Reduction Clinic at the University of Massachusetts Hospital.⁴³ Kabat-Zinn approached mindfulness from its Buddhist roots in *sati* and *vipassana*. He studied with Buddhist teacher Thich Nhat Hahn and taught and studied at the Insight Meditation Society.⁴⁴ However, mindfulness practitioners need not identify as Buddhist, religious, or spiritual. Kabat-Zinn sought to adapt mindfulness to a secular, clinical approach for treating stress, pain, and illness. His efforts resulted in the Stress Reduction Clinic and the Center for Mindfulness in Medicine, Health Care, and Society at the University of Massachusetts Medical School. Kabat-Zinn's secular definition remains most commonly used among researchers and practitioners: "Mindfulness is awareness that arises through paying attention in a particular way, on purpose, in the present moment and non-judgmentally."⁴⁵

While mindfulness practitioners do often experience clarity of mind, it is a common myth that they practice with the intention to clear the mind, to eliminate

⁴² Kabat-Zinn and Williams, eds., *Mindfulness: Diverse Perspectives on Its Meaning, Origins, and Applications*, 25.

⁴³ *Ibid.*

⁴⁴ Jeff Wilson, *Mindful America: Mutual Transformation of Buddhist Meditation and American Culture* (New York: Oxford University Press, 2014): 35.

⁴⁵ Kabat-Zinn, *Wherever You Go, There You Are*, 4.

thoughts, or to practice positive thinking.⁴⁶ Mindfulness practitioners seek to focus their attention solely on their present experience.⁴⁷ Whether that experience be positive, negative, or neutral, practitioners accept it without judgment or attempt to change it. This awareness can be cultivated through formal and informal practices. Practitioners are often introduced to mindfulness through formal practices, including sitting meditation (e.g. awareness of breath, body, thoughts, and emotions), body scan (i.e. a gentle “sweeping” of the body for perceived tension, done seated or supine), walking meditation, and yoga. However, informal mindfulness practices can also be easily woven into daily living. Such informal practices include awareness of pleasant and unpleasant events and deliberate awareness of everyday activities (e.g. eating, driving, conversing, etc.).⁴⁸ The Center for Contemplative Mind and Society acknowledges additional contemplative practices as overlapping with mindfulness, including moments of silence, compassion, and journaling.⁴⁹

Kabat-Zinn asserts that practicing mindfulness can significantly reduce stress, anxiety, and depression. “...The simple act of recognizing your thoughts as thoughts can free you from the distorted reality they often create and allow for more clear-sightedness and a greater sense of manageability in your life.”⁵⁰ As we separate our thoughts from our reality, we separate our perceptions of the past and future from the present. These ideas

⁴⁶ Santorelli and Kabat-Zinn, *Mindfulness-Based Stress Reduction (MBSR: Standards of Practice)*, 20.

⁴⁷ *Ibid*, 14.

⁴⁸ *Ibid*, 6.

⁴⁹ Daniel P. Barbezat and Mirabai Bush, *Contemplative Practices in Higher Education: Powerful Methods to Transform Teaching and Learning* (San Francisco: Jossey-Bass, 2014): 10.

⁵⁰ Kabat-Zinn, *Wherever You Go, There You Are*, 4.

are introduced and practiced in Kabat-Zinn's eight-week Mindfulness-Based Stress Reduction (MBSR) program, which originated in his Stress Reduction Clinic and is now available worldwide. More than 24,000 people have completed the program,⁵¹ and the study of MBSR has generated related programs such as Mindfulness-Based Cognitive Therapy (MBCT), Mindful Self-Compassion, and Mindful Eating. These programs have MBSR at their core but are designed for specific demographics. For instance, MBCT teaches patients diagnosed with depression how to explicitly recognize and respond to negative thoughts early on in the program.⁵² The MBSR program has been researched often, and studies substantiate the varied healing effects of mindfulness.

Mindfulness and Health

Mindfulness has been found to reduce symptoms of anxiety, stress, depression, and pain while improving overall quality of life. Kabat-Zinn's 1992 study is generally acknowledged as the first to report that mindfulness can reduce symptoms of generalized anxiety disorder, panic disorder, and depression.⁵³ In this study, twenty-two participants diagnosed with generalized anxiety disorder, panic disorder, or depression completed Kabat-Zinn's MBSR program. This eight-week course teaches informal and formal mindfulness meditations as well as their applications to daily living. Each weekly class is

⁵¹ "About MBSR," Center for Mindfulness in Medicine, Health Care, and Society, UMass Medical School, accessed January 8, 2018, <https://www.umassmed.edu/cfm/mindfulness-based-programs/mbsr-courses/about-mbsr/>

⁵² "MBCT and MBSR: The Differences," Center for Mindfulness in Medicine, Health Care, and Society, UMass Medical School, accessed January 8, 2018, <https://www.umassmed.edu/cfm/mindfulness-based-programs/mbct-courses/about-mbct/mbct-mbsr-differences/>

⁵³ Jon Kabat-Zinn, Ann O. Massion, Jean Kristeller, Linda Gay Peterson, Kenneth E. Fletcher, Lori Pbert, William R Lenderking, and Saki F. Santorelli, "Effectiveness of a Meditation-Based Stress Reduction Program in the Treatment of Anxiety Disorders," *American Journal of Psychiatry* 149, no. 7 (July 1992): 936, accessed October 8, 2016, http://www.columbia.edu/itc/hs/medical/cp4/client_edit/topic4/sg3b1.pdf.

two hours long, in addition to a 7.5-hour silent retreat in the sixth week. Weekly reports from therapists and participants were obtained throughout the study, and they were submitted monthly for three months following the study. It was found that twenty out of twenty-two participants reported reduced symptoms of panic, anxiety, fear, and depression – results that were maintained not only during the course but also at a three-month follow-up.⁵⁴

Almost twenty years later, Goldin and Gross confirmed similar findings within an emotional framework: reduced symptoms of anxiety, depression, and low self-esteem in MBSR participants with social anxiety disorder.⁵⁵ Since MBSR was believed to affect emotional regulation by altering cognitive-affective processes, Goldin and Gross theorized that it could be beneficial to patients suffering from social anxiety disorder, which is characterized by “emotional and attentional biases as well as distorted negative self-beliefs.”⁵⁶ These emotional reactions were studied using functional MRIs, which examine brain activity by observing changes in blood flow. While reacting to negative self-beliefs and negative emotions (e.g. “People always judge me”) during the fMRI, each participant was instructed to follow cues for both breath-focused attention (e.g. “Shift your attention back to the breath”) or distraction-focused attention (e.g. “Count

⁵⁴ Kabat-Zinn et al, “Effectiveness of a Meditation-Based Stress Reduction Program in the Treatment of Anxiety Disorders,” 936.

⁵⁵ Philippe R. Goldin and James J. Gross, “Effects of Mindfulness-Based Stress Reduction (MBSR) on Emotion Regulation in Social Anxiety Disorder,” *Emotion* 10, no. 1, (2010): 83.

⁵⁶ *Ibid.*

backwards from 168”).⁵⁷ Each participant then completed an eight-week MBSR course, followed by the same fMRIs and emotional regulatory tasks.

After the MBSR course, participants showed reduced symptoms of anxiety, depression, and low self-esteem. During the post-MBSR breath-focused regulatory task, participants also demonstrated decreased negative emotion experience and reduced activity in the amygdala (the body’s alarm system). Given that MBSR students are trained in breath meditation rather than attention-focused distraction, this result is reasonable. The researchers concluded that MBSR may reduce emotional reactivity and improve emotional regulation, particularly for patients with social anxiety disorder.⁵⁸ That is, mindfulness may enhance the ability to respond healthfully to emotions and self-beliefs, rather than reacting negatively to perceived social threats.

Davidson’s study was the first to suggest a relationship between mindfulness and positive affect⁵⁹ – an important addition to previous studies that reported only decreases in negative symptoms. Twenty-five healthy employees underwent eight weeks of MBSR, and their brain activity was measured via EEG before, immediately after, and four months following the course. The EEG was used to measure electrical impulses of the brain (thus indicating activity) at a nearly immediate rate. The brain waves were recorded during baseline conditions and in response to positive and negative emotional

⁵⁷ Goldin and Gross, “Effects of Mindfulness-Based Stress Reduction (MBSR) on Emotion Regulation in Social Anxiety Disorder,” 85.

⁵⁸ *Ibid.*, 83.

⁵⁹ Richard Davidson, Jon Kabat-Zinn, Jessica Schumacher, Melissa Rosenkranz, Daniel Muller, Saki F. Santorelli, Ferris Urbanowski, Anne Harrington, Katherine Bonus, and John F. Sheridan., “Alterations in Brain and Immune Function Produced by Mindfulness Meditation,” *Psychosomatic Medicine* 65, no. 4 (2003): 564– 70, accessed October 8, 2016. <https://www.ncbi.nlm.nih.gov/pubmed/12883106>.

cues. For the first time, a significant increase was noted in the meditators' left-sided anterior activation, which is associated with positive affect. This same study also tested mindfulness' effect on immune function. At the end of the eight-week course, each participant in both groups was given the influenza vaccine. It was later found that the meditators developed increased antibody titers to the influenza vaccine over the control participants. An increase in antibody titers was predicted by the left-sided anterior brain activation. Therefore, it was confirmed that mindfulness may both increase positive affect and improve immune function.⁶⁰

Mindfulness and Cognition

Mindfulness cultivates deeper attention, which can be either internal with a particular focus or external to encompass a complete present experience. This improved attention (and to follow, cognition) has been measured and demonstrated in the research of Amishi Jha. Jha's experimental study observed individuals who were new to mindfulness before and after a mindfulness course and retreat. Upon their completion of neuropsychological tasks, it was found that the participants' attentional subsystems of alerting, orienting, and conflict monitoring were all enhanced after the mindfulness course.⁶¹ Jha's later study found that mindfulness boosted both positive affect and working memory capacity, an attentional function that regulates emotions while processing cognitive demands. That is, mindfulness may prevent emotional intrusions

⁶⁰ Davidson et al, "Alterations in Brain and Immune Function Produced by Mindfulness Meditation," 564.

⁶¹ Amishi P. Jha, Jason J. Krompinger, and Michael J. Baime, "Mindfulness Training Modifies Subsystems of Attention," *Cognitive, Affective, & Behavioral Neuroscience* 7, no. 2 (2007): 109, accessed April 2, 2017, <https://www.ncbi.nlm.nih.gov/pubmed/17672382>.

and cognitive failures that can occur during times of high stress, while attempting to maintain attention and memory during completion of a task.⁶²

The practice of paying attention not only alters brain activity but also changes the brain's physical structure. In Lazar's study, twenty experienced mindfulness practitioners underwent MRIs to assess cortical thickness.⁶³ MRI images of the brain reported that the prefrontal cortex – the brain area associated with attention and sensory processing – was thicker in the mindfulness practitioners than in the control group. This prefrontal cortical thickness was further pronounced in older, more experienced participants. This suggests a relationship between years of meditation experience and cortical thickness, despite the prefrontal cortex's tendency to thin with age. This was the first study to show evidence for brain plasticity dependent upon meditation experience.⁶⁴

Farb, Seagal, and Anderson's study also linked mindfulness training to sensory awareness, showing a sharper sensory acuity and a heightened awareness of stimuli inside the body.⁶⁵ A third study found additional changes in brain structure after a relatively short period of mindfulness training. After eight weeks of practicing mindfulness for only thirty minutes daily, Holzel and her researchers found that the

⁶² Amishi P. Jha, Elizabeth A. Stanley, Anastasia Kiyonaga, Ling Wong, and Lois Gelfand, "Examining the Protective Effects of Mindfulness Training on Working Memory Capacity and Affective Experience," *Emotion* 10, no. 1 (2010): 54, accessed April 2, 2017, <http://dx.doi.org/10.1037/a0018438>.

⁶³ Sara W. Lazar, Catherine E. Kerr, Rachel H. Wasserman, Jeremy R. Gray, Douglas N. Greve, Michael T. Treadway, Metta McGarvey, Brian T. Quinn, Jeffery A. Dusek, Herbert Benson, Scott L. Rauch, Christopher I. Moore, and Bruce Fischl, "Meditation Experience is Associated with Increased Cortical Thickness," *NeuroReport* 16 no. 17 (2005): 1893, accessed April 8, 2016, <http://nslc.wustl.edu/courses/Bio3411/woolsey/Readings/Lecture11/Lazar%20NeurRep'05.pdf>.

⁶⁴ *Ibid.*

⁶⁵ Norman A. S. Farb, Zindel V. Seagal, and Adam K. Anderson, "Mindfulness Meditation Training Alters Cortical Representations of Interoceptive Attention," *Social Cognitive and Affective Neuroscience* 8 (2013): 15, accessed April 3, 2017, <http://dx.doi.org/10.1093/scan/nss066>.

brain's grey matter (neural cells that tend to decline with age) actually thickened in the hippocampus, which is the brain's primary region for memory. Furthermore, they found a thinning of grey matter in the amygdala, the brain's main "alarm system" for producing stress and anxiety.⁶⁶

Finally, a recent meta-analysis of twenty-one studies and 123 brain images confirmed that mindfulness indeed alters at least eight areas of the brain, including those associated with meta-awareness, extroreceptive and introreceptive body awareness, memory, self and emotional regulation, and intrahemispheric and interhemispheric communication. These changes were found to be both consistent and of medium magnitude, which indicates promising and reliable effects of mindfulness.⁶⁷

Mindfulness in Higher Education

Mindfulness in a college curriculum may still be the exception rather than the norm. However, literature indicates a growing need for mindfulness and related contemplative approaches in higher education. Educators and school administrators alike assert that higher education may not be as effective or meaningful as it could be.⁶⁸ The typical Western educational model focuses on analytical thought, abstract concepts, and scientific outcomes, which often excludes personal integration with the course material.⁶⁹

⁶⁶ Britta Holzel, James Carmody, Mark Vangel, Christina Congleton, Sita M. Yerramsetti, Tim Gard, and Sara W. Lazar, "Mindfulness Practice Leads to Increases in Regional Brain Grey Matter Density," *Psychiatry Research* 191, no. 1 (January 2011): 36, accessed March 3, 2018, <https://doi.org/10.1016/j.psychresns.2010.08.006>

⁶⁷ Kieran C. Fox, Savannah Njeboer, Matthew L. Dixon, James L. Floman, Melissa Ellamil, Samuel P. Rumak, Peter Sedlmeier, and Kalina Christoff, "Is Meditation Associated with Altered Brain Structure?" *Neuroscience & Behavioral Reviews* 43 (June 2014): 48, accessed March 3, 2018, <https://doi.org/10.1016/j.neubiorev.2014.03.016>

⁶⁸ Barbezat and Bush, *Contemplative Practices in Higher Education*, 7.

⁶⁹ *Ibid.*, 4.

In fact, Harvard psychology professor Ellen Langer states that the product-driven, often mindless behaviors we develop are largely in part to our education:

From kindergarten on, the focus of schooling is usually on goals rather than the process by which they are achieved. This single-minded pursuit of one outcome or another, from tying shoelaces to getting into college, makes it difficult to have a mindful attitude towards life. Questions of “Can I?” or “What if I can’t do it?” are likely to predominate, creating an anxious preoccupation with success or failure rather than drawing on the child’s natural, exuberant desire to explore.⁷⁰

If students are not encouraged to personally integrate with the material – to deepen awareness of their own thoughts, experiences, and reactions – then they may have difficulty identifying what they are learning and why it is meaningful.⁷¹ Facts are memorized and tasks are performed without implication of how the course material is relevant to students’ lives or to society. Harry Lewis, former Dean of Harvard College, writes: “[Universities] have forgotten that the fundamental job of undergraduate education is to... help [students] grow up, to learn who they are, to search for a larger purpose for their lives, and to leave college better human beings.”⁷²

Teachers and researchers recognize this need for deeper exploration and inquiry in higher education.⁷³ The connection of mindfulness to education can be found as early as 1890, when psychologist William James wrote: “The faculty of voluntarily bringing back a wandering attention over and over again is the very root of judgment, character

⁷⁰ Ellen J. Langer, *Mindfulness* (Cambridge, MA: Da Capo Press, 1989): 33-34.

⁷¹ *Ibid.*, 8.

⁷² Harry R. Lewis, *Excellence Without a Soul: How a Great University Forgot Education* (New York: Public Affairs Press, 2006): xii.

⁷³ Barbezat and Bush, *Contemplative Practices in Higher Education*, 8.

and will... An education which should improve this faculty would be the education par excellence.”⁷⁴

Educational theorist and reformer John Dewey also advocated for student experience and reflection in his 1938 writing *Experience in Education*.⁷⁵ More recently, the Center for Contemplative Mind in Society has focused its efforts on bringing mindfulness and other contemplative practices into higher education. Beginning in 1997, this organization has sponsored annual fellowships for educators from varied disciplines, teaching practical methods for weaving contemplative practices into the fellows’ respective courses.⁷⁶

Research indicates that mindfulness practice may cultivate an enriched learning experience for students. A cumulative study documented the growing use and benefits of contemplative pedagogy in North American higher education. The researchers conducted interviews and questionnaires for college educators regarding contemplative practices in their teaching. 117 out of 152 respondents reported using contemplative pedagogy with numerous benefits: students made deeper connections between subjects, found greater meaning in their studies, and confirmed decreased anxiety,⁷⁷ as well as enhanced their critical thinking and problem solving.⁷⁸

⁷⁴ William James, *Principles of Psychology* (New York: H-Holt and Company, 1890): 424.

⁷⁵ John Dewey, “Experience and Education,” *Educational Forum* 50, no. 3 (1986): 241, accessed December 3, 2016, <http://dx.doi.org/doi:10.1080/001317286093335764>.

⁷⁶ Barbezat and Bush, *Contemplative Practices in Higher Education*, 202.

⁷⁷ Maia Duerr, Arthur Zajonc, and Diane Dana, “Survey of Transformative and Spiritual Dimensions of Higher Education,” *Journal of Transformative Education* 1, no. 3 (July 2003):205, accessed December 1, 2016, <http://dx.doi.org/doi:10.1177/1541344603001003002>.

⁷⁸ *Ibid.*,189.

In the book *How Learning Works: Seven Research-Based Principles for Smart Teaching*, Ambrose and her colleagues evaluate research showing the benefits of contemplative pedagogy, promoting students' emotional regulation, self-awareness, and metacognition (i.e. the awareness of one's own thinking). They concluded that students who cultivate self-awareness and self-monitor their learning have greater learning gains, retention rates for the material, and problem solving skills than those who do not.⁷⁹

Arguably, the most researched aspects of mindfulness and education involve students' mental health. The Spring 2017 National College Health Assessment reported that 60.8 percent of undergraduate students felt overwhelming anxiety within the past year,⁸⁰ 25 percent of students felt overwhelming anxiety within the past week,⁸¹ and 24.2 percent felt that anxiety negatively impacted their academic performance.⁸² Student stress, anxiety, and depression rates are alarmingly high, and universities are seeking other ways to treat these issues in addition to counseling.⁸³

Bamber and Schneider published a synthesized narrative review of fifty-seven studies examining the effectiveness of mindfulness on stress and anxiety in college students. The majority of studies showed a decrease of stress and anxiety, which may

⁷⁹ Susan Ambrose, Michael W. Bridges, Michele DiPietro, Marsha C. Lovett, and Marie K. Norman, *How Learning Works: Seven Research-Based Principles for Great Teaching* (Hoboken, NJ: Wiley, 2010): 198.

⁸⁰ *American College Health Association-National College Health Assessment II: Reference Group Undergraduate Executive Summary Spring 2017* (Hanover, MD: American College Health Association, 2017): 14, accessed February 13, 2018, http://www.acha-ncha.org/docs/NCHA-II_SPRING_2017_UNDERGRADUATE_REFERENCE_GROUP_EXECUTIVE_SUMMARY.pdf

⁸¹ *Ibid.*

⁸² *Ibid.*, 6.

⁸³ Dyrbye et al, "Systematic Review of Depression, Anxiety, and Other Indicators of Psychological Distress Among U.S. and Canadian Medical Students," 355.

demonstrate considerable promise for the treatment of students' mental health.⁸⁴

Furthermore, mindfulness appears to have stronger effects for students over other stress management interventions, such as progressive relaxation. One study took eighty-three students who experienced mental distress and separated them into a control group and two interventions: mindfulness and relaxation. While both interventions indicated an increase in positive mood and a decrease in distress, the mindfulness group reported a unique decrease in distracting and ruminating thoughts and behaviors.⁸⁵ Another study, which compared college students in interventions of mindful breathing, loving-kindness, and progressive relaxation, found that students in the mindful breathing group reported less frequency of negative thoughts, as well as less negative reactivity to these thoughts when they occurred.⁸⁶

Mindfulness and Musicians

The research surrounding mindfulness and music performance is still young, but studies indicate promising advantages for musicians. Early research focused on the relationship between mindfulness and performance anxiety. The first empirical study was published in 2003, when Chang, Lin and Midlarksy studied the effects of an eight-

⁸⁴ Mandy B. Bamber and Joanne Kraenzle Schneider, "Mindfulness-Based Meditation to Decrease Stress and Anxiety in College Students: A Narrative Synthesis of the Research," *Educational Research Review* 18 (2016): 1, accessed March 31, 2017, <http://dx.doi.org/doi:10.1016/j.edurev.2015.12.004>.

⁸⁵ Shamani Jain, Shauna L. Shapiro, Summer Swanick, Scott C. Roesch, Paul J. Mills, Iris Bell, and Gary E.R. Schwartz. "A Randomized Controlled Trial of Mindfulness Meditation Versus Relaxation Training," *Annals of Behavioral Medicine* 33, no. 1 (February 2007): 11, accessed March 3, 2018, https://doi.org/10.1207/s15324796abm3301_2

⁸⁶ Greg Feldman, Jeff Greeson, and Joanna Senville, "Differential Effects of Mindful Breathing, Progressive Relaxation, and Loving-Kindness Meditation on Decentering and Negative Reactions to Negative Thoughts," *Behaviour Research and Therapy* 48 (2010): 1002, accessed March 3, 2018, <http://doi.org/10.1016/j.brat.2010.06.006>

week mindfulness meditation course on nineteen volunteers who were undergraduate and graduate music majors.⁸⁷ The experimental group completed the MBSR-informed course and then performed a public concert. The control group performed the concert as well but would complete the meditation course three months later. The researchers administered pre-tests and post-tests of music performance anxiety, state anxiety, and performance concentration. During the final concert, the experimental group experienced reduced performance anxiety symptoms, while the control group did not. Post-test results indicated no difference in state anxiety or performance concentration, but Chang did note the added benefit of an “increase in relaxation pleasure, even in the period immediately before the performance.”⁸⁸

A similar study measured the relationship of mindfulness practice, music performance anxiety, and music performance quality.⁸⁹ After an eight-week meditation training, participants experienced a decrease in performance anxiety symptoms and reported improved performance quality in the final concert. Meanwhile, the control group (without meditation training) showed a negative relationship between performance anxiety and performance quality. The researchers hypothesized that the experimental

⁸⁷ Joanne Chang, Elizabeth Midlarsky, and Peter Lin, “Effects of Meditation on Music Performance Anxiety,” *Medical Problems of Performing Artists* 18, no. 3 (September 2003): 126, accessed October 8, 2016, https://www.researchgate.net/publication/234040043_Effects_of_meditation_on_music_performance_anxiety_Medical_Problems_of_Performing_Artists.

⁸⁸ Joanne Chang, Elizabeth Midlarsky, and Peter Lin, “Effects of Meditation on Music Performance Anxiety,” 126.

⁸⁹ Lin et al, “Silent Illumination: A Study on Chan (Zen) Meditation, Anxiety, and Musical Performance Quality,” 139.

group developed stronger anxiety coping mechanisms with mindfulness training; therefore, mindfulness may have a positive effect on performance quality.⁹⁰

While research in the relationship between mindfulness and anxiety is popular, studies show mindfulness to benefit musicians in additional ways. Langer's study examined performance quality and enjoyment from both a performer and an audience perspective.⁹¹ Orchestral members were instructed to play the same piece twice with two intentions: the first to recreate the best performance they can remember, the second to consciously notice new, subtle nuances in the music as they play. The musicians noted more enjoyment in playing and improved performance quality during the second set of instructions. These instructions imply that the musicians played mindfully, as they had to attend to their present experience without preconceived notions of what the piece should sound like. This corresponds with clinical studies of mindfulness that show a positive effect on creative thinking and flexible problem solving,⁹² both of which are necessary for musicians who must perform "in the moment." When audience members were played both recordings of the orchestra's work, the majority enjoyed and preferred the mindful performance as well.⁹³

More recently, researchers have explored the longer-term effects of mindfulness throughout music students' study. In Farnsworth-Grodd's study, music students

⁹⁰ Lin et al, "Silent Illumination: A Study on Chan (Zen) Meditation, Anxiety, and Musical Performance Quality," 139.

⁹¹ Ellen Langer, Timothy Russel, and Noah Eisenkraft, "Orchestral Performance and the Footprint of Mindfulness." *Psychology of Music* 37, no. 2 (April 2009): 125, accessed April 11, 2016, <http://dx.doi.org/10.1177/0305735607086053>.

⁹² Colzato et al, "Meditate to Create," 116; Jonathan Greenberg, Karen Reiner, and Nachshon Meiran,

⁹³ Langer et al, "Orchestral Performance and the Footprint of Mindfulness," 125.

completed three questionnaires during a four-month semester: one at the start of the semester, the second four months later and one week prior to a solo performance exam, and the third within forty-eight hours of the performance. These questionnaires assessed elements of each student's musical experience: performance anxiety symptoms, coping strategies, thought intrusion, avoidance, and the five facets of mindfulness (acting with awareness, non-judgment, non-reactivity, observation, and description). Results suggested that by the end of the semester, students' awareness of mindfulness allowed them to regulate their emotions more efficiently, leading to reduced performance anxiety in the final performance.⁹⁴

Finally, Czajkowski and Greasley studied the experience of university voice majors who took an eight-week mindfulness course tailored for singers.⁹⁵ Results were obtained by reports from both the students and their voice teachers. Students reported improvement in vocal technique (e.g. breath management, tension release) due to their greater focus in practice and lessons, more developed physical and aural awareness, enhanced problem solving skills, and a better physical memory of muscular sensations.⁹⁶ Their teachers also reported that the students' mindsets improved for both lessons and private practice. Students were more receptive to teachers' comments, better prepared for the lesson, and more likely to maintain positive affect.⁹⁷

⁹⁴ Farnsworth-Grodd, "Mindfulness and the Self-Regulation of Music Performance Anxiety," 3.

⁹⁵ Czajkowski and Greasley, "Mindfulness for Singers," 221-222.

⁹⁶ *Ibid.*

⁹⁷ *Ibid.*, 224.

Rationale of Mindfulness for Voice Students

Considering the findings of Czajkowski and Greasley, as well as results from the studies discussed earlier in this chapter, the benefits of mindfulness may be especially applicable to voice students. Like all performers, singers must cultivate skills in focused attention, emotional regulation during stress, and creative thinking. Musicians often aim to stay in the present moment to avoid auto-pilot in performance. A deeper engagement with the music can make both the learning process and the performance product more rewarding.

Due to the nature of their craft, singers can especially benefit from the sharpened sensory awareness that mindfulness cultivates. Singers can also benefit from a stronger working memory to retain sensations and sounds, especially as they cannot hear themselves as others hear them. These can aid a process that is physically, cognitively, and emotionally difficult: playing an invisible instrument, one often inseparable from one's identity, while relying on subjective outside ears to do it. Kemp explains:

...in a performance it is the vocalist's personality that is presented, together with any vocal defects that are perceived as belonging directly to him or her. Singers cannot project their problems onto troublesome reeds, ticking pads, and other technical difficulties; there are very different boundaries in operation...

That the processes of learning to sing are so subjective seems to encourage a plethora of contradictory theories, which may leave singers at best bemused, and at worst, highly anxious and constantly unsure about whether they are performing correctly or doing themselves untold damage. Singing students may well find themselves moving from teacher to teacher in constant search for a "guru" who, by use of a particularly form of metaphor, somehow manages to "speak their language." This whole process may be very anxiety-provoking.⁹⁸

⁹⁸ Kemp, *The Musical Temperament*, 174.

Conclusion

Whether we consider students' state of mind, the depth of their learning, or the quality of their work, these studies indicate that mindfulness can enrich the student's experience in higher education. The life of a student musician is often arduous, with difficulties ranging from audition rejection and self-judgment to performance anxiety. This chapter's research indicates that mindfulness shows promise in reducing music students' anxiety. Furthermore, mindfulness can be a gateway for musicians to deeply engage with their learning material and regain enjoyment for their chosen path. Finally, the unique physical, cognitive, and emotional demands of singing make mindfulness especially appropriate for the voice student.

Chapter 3 Method

Overview

This case study investigated the effectiveness of formal mindfulness practices in the collegiate voice studio. The ultimate goal of this case study is to create a resource for voice teachers who wish to incorporate mindfulness into their lessons. The following questions were addressed:

1. Can practicing mindfulness in the private studio positively enhance the experience of learning vocal technique?
2. Can practicing mindfulness in the private studio help reduce the general anxiety of university voice students?

The studies in Chapter Two have already examined and reported the benefits of mindfulness for musicians, students, and music students. These benefits affect multiple facets of the student musician, such as playing technique, performance authenticity, mental health, and mindsets towards playing, learning, and performing. Studies cited in the previous chapter confirm reduced performance anxiety, enhanced performance quality, deeper enjoyment in music making, improved positive affect, healthier emotional regulation, and increased clarity and depth of learning. While research indicates the benefits of mindfulness for both students and musicians, this case study is only the second to apply these benefits expressly for student musicians who are solo (non-choral) singers. To the author's knowledge, it is also the first study to examine the regular use of mindfulness practice in the vocal studio, rather than in a separate eight-week course. During this study, mindfulness practices were incorporated into the voice

lessons of three music majors over the course of one semester, reporting both their individual and shared experiences.

Participants

Three student participants were recruited from the Frost School of Music. An advertisement was posted offering eight free voice lessons. Criteria for participation included enrollment as a music major at the Frost School of Music. Each participant was given a contract that explained the mindfulness practices to be completed both during and outside weekly voice lessons. Each participant confirmed their commitment to participate by signing this contract.

The participants were comprised of one graduate male and two undergraduate female students. Ages ranged between 19 and 23, and majors represented included music composition and music education. One student had taken voice lessons before and studied voice as a principal instrument. Another student had some experience with solo singing but had never taken voice lessons. The third student had experience with choral singing but (aside from a few weeks at a summer music camp) had never taken voice lessons. The latter two students were trained on other instruments that they continued to study, such as flute and trombone. Names have to been changed to ensure anonymity, and the participants will be heretofore referred to as Daniel, Alison, and Emma.

Research Design

This case study included a pre-test and post-test research design. At the first lesson and following the last lesson, the researcher administered measures of the Five Facets of Mindfulness and the State-Trait Anxiety Inventory. At the end of the study, participants participated in semi-structured one-to-one interviews with an unbiased graduate Frost School of Music student. The interviewer asked participants about their

general experience with mindfulness in voice lessons and in outside practice; the effect of mindfulness practice on their learning in lessons, voice practice, vocal improvement, mindset, and any additional effects noticed in the participants' daily lives. Each interview is transcribed from a recording and included in Appendix A.

Measures

Both quantitative and qualitative measures were selected to evaluate the effects of mindfulness. In addition to the qualitative interviews, the following quantitative measures were selected based on their reliability and success in similar studies.⁹⁹

Five Facet Mindfulness Questionnaire (FFMQ). The Five Facet Mindfulness Questionnaire, included in Appendix D, is a critical measure that evaluates mindfulness in five facets: Observing, Describing, Acting with Awareness, Non-Judging of Inner Experience, and Non-Reactivity to Inner Experience. These facets are evaluated through thirty-nine statements (e.g. "In difficult situations, I can pause without immediately reacting") that are rated on a scale of 1 (never or very rarely true) to 5 (very often or always true). This measure was developed with the intent to examine, define, and describe mindfulness' multidimensional nature for assessment purposes. When creating this scale, researchers performed an analysis of five separate mindfulness questionnaires, out of which arose five distinct elements of mindfulness that corresponded to psychological literature and could be consistently assessed.¹⁰⁰

⁹⁹ Farnsworth-Grodd, "Mindfulness and the Self-Regulation of Music Performance Anxiety," 318; Czajkowski and Greasley, "Mindfulness for Singers," 211; Lin et al, "Silent Illumination: A Study on Chan (Zen) Meditation, Anxiety, and Musical Performance Quality,"139.

¹⁰⁰ Ruth A. Baer, Gregory T. Smith, Jaelyn Hopkins, Jennifer Kreitemeyer, and Leslie Toney, "Using Self-Report Assessment Methods to Explore Facets of Mindfulness," *Assessment* 13, no. 1 (March 2006), 28, accessed February 12, 2018, <http://dx.doi.org/doi: 10.1177/1073191105283504>

State-Trait Anxiety Inventory (STAI), Form Y. The State-Trait Anxiety Inventory, included in Appendix E, is a measure used to assess the presence and severity of anxiety symptoms. This scale is unique in that it measures two types of anxiety. State anxiety describes anxiety in a specific situation perceived as a threat, while trait anxiety describes the baseline tendency to respond anxiously in general, regardless of the situation.¹⁰¹ There are twenty items for state anxiety (e.g. “I am tense; I am worried”) and twenty items for trait anxiety (e.g. “I worry too much over something that doesn’t really matter”). Each item is rated on a four-point scale, ranging from “almost never” to “almost always” Scores range from 20-80, with higher scores suggesting more severe anxiety.¹⁰²

Methodology

While voice lessons often follow a traditional structure, the voice teacher must allow for a degree of flexibility depending on each student’s needs. A typical voice lesson consists of warmups, vocalises, and repertoire. Usually, these are preceded by an opening conversation where the teacher and student review the student’s past week of singing, as well as any other issues that need to be discussed. At this time, the student and teacher can acknowledge the student’s personal state in that moment.

Following this conversation, a ten-minute formal mindfulness practice was conducted at each lesson. Each practice allowed time for questions or discussion

¹⁰¹ Mark D. Gellman and J. Rick Turner, eds. *Encyclopedia of Behavioral Medicine*, s.v. “anxiety,” (New York: Springer, 2013), accessed March 3, 2018, https://dx.doi.org/10.1007/978-1-4419-1005-9_1090

¹⁰² Laura J. Julian, “Measures of Anxiety: State-Trait Anxiety Inventory (STAI), Beck Anxiety Inventory (BAI), and Hospital Anxiety and Depression Scale-Anxiety (HADS-A),” *Arthritis Care & Research* 63, no. S11 (November 2011), S467-S468), accessed February 13, 2018, <http://dx.doi.org/doi:10.1002/acr.20561>

afterwards. A randomized control study at the Center for Koru Mindfulness, a leading center in teaching mindfulness to college students, reports ten minutes as an appropriate duration for this age group.¹⁰³ Practices were selected and adapted from those used in a typical eight-week mindfulness class. These practices were adapted to fit the singer's unique demands and to accommodate a voice lesson's time constraints. In leading the practice, scripts were adapted and excerpted from meditations that are free, available for public streaming, and/or used successfully in other courses such as Mindfulness-Based Stress Reduction, Koru Mindfulness, and Mindfulness for Singers.

To encourage consistent practice, mindfulness homework was assigned to be completed alongside the student's voice practice. This homework included a daily ten-minute practice, a brief mindful exercise, and a journal. Students were encouraged to use their journals at least once a week to record any thoughts, ideas, sensations, or breakthroughs that occurred during voice practice. It could also have been used to respond to the weekly mindful assignments. These assignments were chosen following the example of other successful courses such as Mindfulness-Based Stress Reduction, Koru Mindfulness, and Mindfulness for Singers. The author distributed MP3 practice tracks for each student via Google Drive.

¹⁰³ Jeffrey M. Greeson, Michael K. Juberg, Margaret Maytan, Kiera James, and Holly Rogers, "A Randomized Controlled Trial of Koru, A Mindfulness Program for College Students and Other Emerging Adults." *Journal of American College Health* 62, no 4 (2014):231, accessed March 31, 2017, <http://dx.doi.org/10.1080/07448481.2014.887571>.

General Outline of Mindfulness Practices and Assignments

Week One.

Practice: Breath Awareness meditation.

Assigned Practice: Ten-minute Breath Awareness meditation before each voice practice session, or at another time of the day.

Exercise: Be fully aware of one everyday task, such as brushing your teeth or taking a shower. Experience the task through as many senses as possible (the warmth and pressure of the shower, for instance).

Week Two.

Practice in Lesson: Ten-minute Body Scan.

Assigned Practice: Ten-minute Body Scan before each voice practice session, or at another time of the day.

Exercise: Take note of one pleasant event that happens each day.

Week Three.

Practice in Lesson: Ten-minute Mindful Movement (head, neck, shoulders, waist, etc.)

Assigned Practice: Ten-minute Mindful Movement, alternated with one other practice you've completed, before each practice session or at another time of the day.

Exercise: Take note of one pleasant and unpleasant event that happens each day.

Week Four.

Practice in Lesson: Ten-minute Labeling Thoughts meditation.

Assigned Practice: Ten-minute Labeling Thoughts meditation, alternated with any of the above practices, before each practice session or at another time of the day.

Exercise: Notice one time (or more) when you feel stuck/blocked/numb/shut down.

Week Five.

Practice in Lesson: Ten-minute Labeling Feelings meditation.

Assigned Practice: Ten-minute Labeling Feelings meditation, alternated with any of the above exercises, before each practice session or at another time of the day.

Exercise: On your next trip to the practice room, rehearsal, lessons, or anywhere else, take a mindful walk. Notice how it feels and everything around you.

Week Six.

Practice in Lesson: Mindful Listening meditation.

Assigned Practice: Ten-minute practice using any of the above exercises, before each voice practice session or at another time of the day.

Exercise: Mindfully listen to a piece you sing, either a recording of another singer *or* yourself, absorbing yourself in each note and moment as they occur. Notice what thoughts or feelings come up.

Week Seven.

Practice: Mountain Meditation.

Assigned Practice: Daily ten-minute practice of your choice on your own, without audio.

Exercise: In practice, sing through each lesson piece without stopping. What is that like?

Take a few moments of stillness after each run-through before continuing your practice.

Week Eight.

Practice: Practice of student's choice.

Assigned Practice/Exercise: What form will your practice take now?

Data Collection

With the exception of two makeup lessons due to illness, hour lessons were scheduled at the same day and time each week for a total of eight weeks. Measurements in the five facets of mindfulness and state/trait anxiety were collected before the first lesson and after the final lesson. Semi-structured interviews evaluating the student's experience were completed at the end of the study.

Explanation of Practices and Assignments

These practices were chosen based on their applicability to the physical, cognitive, and/or emotional needs of a student singer. For example, Breath Awareness may deepen the singer's awareness of natural breathing and how it can be applied to breath management, an essential aspect of vocal technique. Body Scan and Mindful Movement can awaken the singer's awareness of micro-muscular sensations, as well as any extraneous tensions to release. Besides encouraging healthy alignment and body awareness, Mindful Movement also coordinates physical movements with the breath cycle, a larger-scale version of the singing process. Mindful Listening invites the singer to deepen aural awareness when listening to herself and others, as well as to discover new nuances in repertoire. Finally, Labeling Thoughts and Feelings can empower a singer to cope with emotions surrounding self-judgment, criticism from others, and performance anxiety.

Assignments and exercises were chosen for similar reasons. Journaling is a valuable tool for a singer to engage in higher-level thinking and deeper practicing between lessons.¹⁰⁴ It encourages the singer to reflect on, respond to, and take ownership

¹⁰⁴ Beverly Lapp, "The Art of Reflection in Music Learning," *American Music Teacher* 62, no. 1 (August/September 2012), 32.

of the learning process, rather than preparing a product and then waiting to react to the teacher's instructions. The recording of pleasant and unpleasant events allows a singer to analyze her lifestyle – including singing – from a more balanced perspective. Singing through a piece without stopping encourages a singer to stay “in the moment” – or conversely, to realize when she is out of the moment. Moments of silence between the run-through and the following work allow the singer to avoid an immediate judgmental reaction.

Chapter 4 Results

This study intended to answer the following questions:

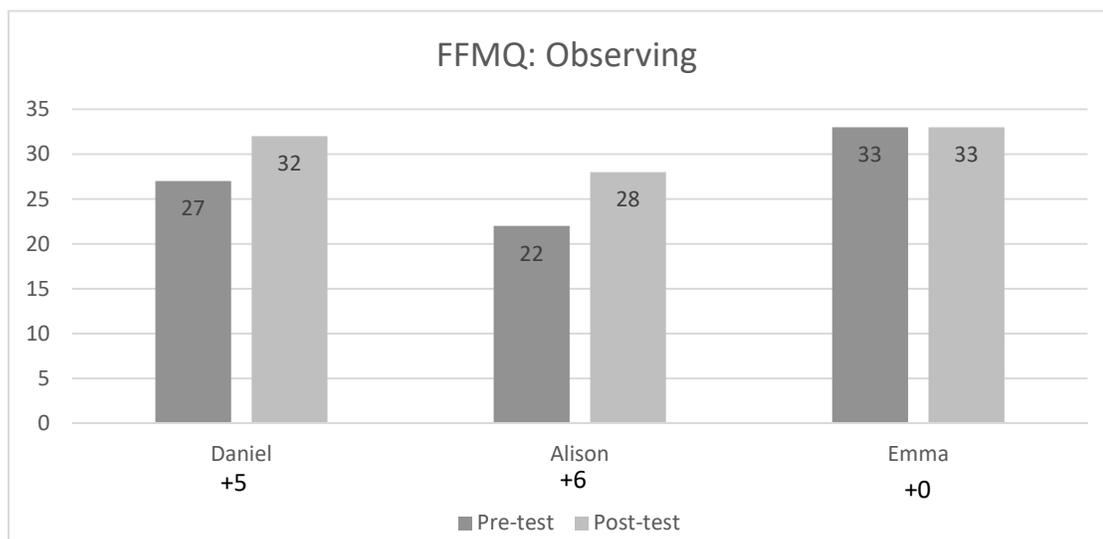
1. Can practicing mindfulness in the private studio positively enhance the experience of learning vocal technique?
2. Can practicing mindfulness in the private studio reduce the general anxiety of university music students?

To answer these questions, the participants offered feedback via two scales, open-ended interviews, and a series of follow-up questions which are included in Appendix B. To assess the contribution of mindfulness to any change in participants' experiences, the Five Facets of Mindfulness Questionnaire measured trends of mindfulness in one's everyday life using five facets: Observing, Describing, Acting with Awareness, Non-Judging of Inner Experience, and Non-Reactivity to Inner Experience. The State-Trait Inventory measured anxiety in reaction to both specific situations (state anxiety) and as an overall, day-to-day experience (trait anxiety). As both of these scales are non-specific to music, the open-ended interviews and follow-up questions provide key information into each participant's experience with learning singing alongside mindfulness.

FFMQ Results

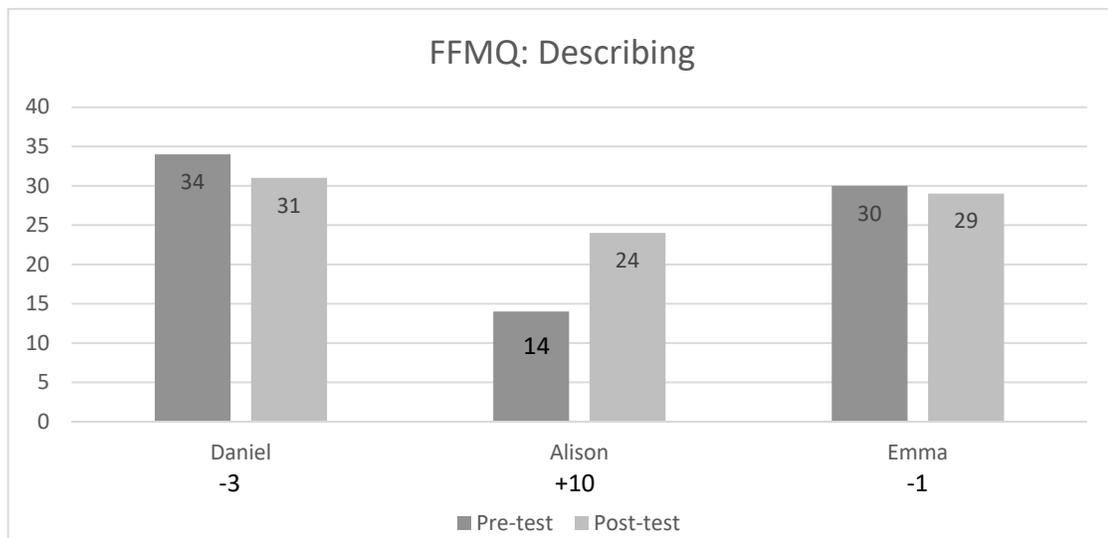
Observing

The first facet of the FFMQ, Observing, surveys the participant's awareness of sensory information received from his/her environment, as well as awareness of resulting thoughts, feelings, or behaviors. Exemplary statements in the FFMQ include "I pay attention to sensations, such as the wind in my hair or sun on my face." Daniel's and Alison's scores increased by five and six points, respectively, while Emma's had no change but remained moderately high at 33. Alison, whose score increased the most, reported observing improvements in both her vocal and trombone performances, and that mindfulness increased her awareness over physical singing behaviors such as alignment. While Emma's score did not change, her interview responses indicate an increase in observation skills over the semester: "The body scan one definitely had me more aware over myself and where I was and what I was doing."



Describing

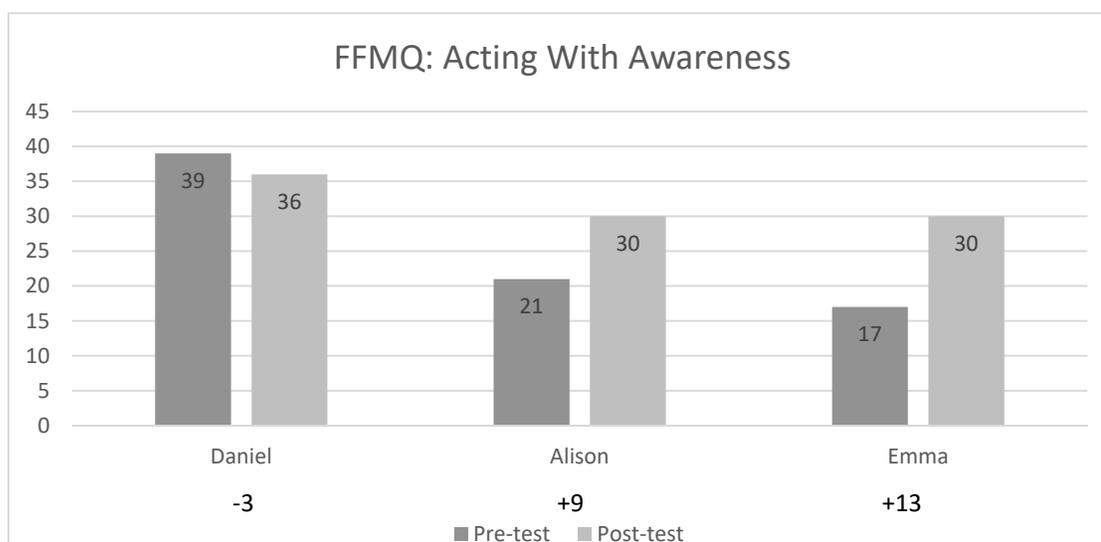
The second facet, Describing, surveys the participant's ability to clearly describe one's own experience: thoughts, feelings, sensations, etc. This facet is illustrated in the FFMQ by such statements as "I'm good at finding words to express my feelings." Alison's score increased by a considerable ten points, while Daniel and Emma's decreased by three and one points, respectively.



Acting with Awareness

Acting with Awareness examines the participant’s ability to perform a task with attention and focus, rather than autopilot or past- or future-thinking. Exemplary statements in the FFMQ include “It seems that I am ‘running on automatic’ without much awareness of what I’m doing.” While Daniel’s score decreased by three points, both Alison’s and Emma’s increased by nine and thirteen points, respectively.

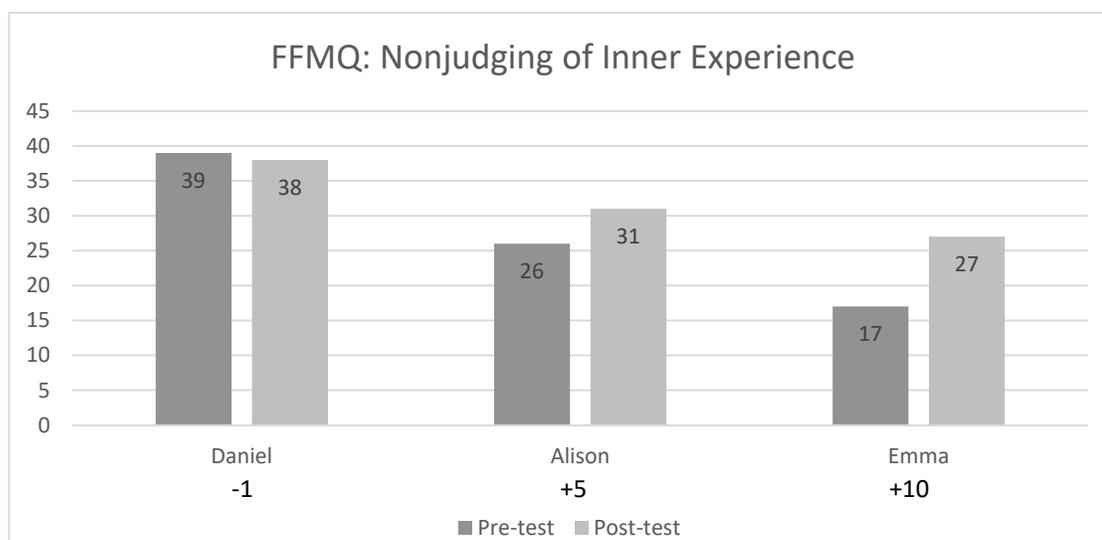
All participants noted an increase in focus during their interviews, which in turn helped them feel both calmer and more productive throughout their lessons and practice. Daniel reported that “[It] was easier to get into this... sense of ‘This is what we’re here for,’ as opposed to... ‘I have something else outside of lessons that I should be thinking about.’... I think you often go into [music-making] with a sense of distraction from your craft or whatever you’re doing.” Emma commented, “I think I was more productive, I think I learned more, I think I gained more and absorbed more because I was... focused on what I was doing.”



Nonjudging of Inner Experience

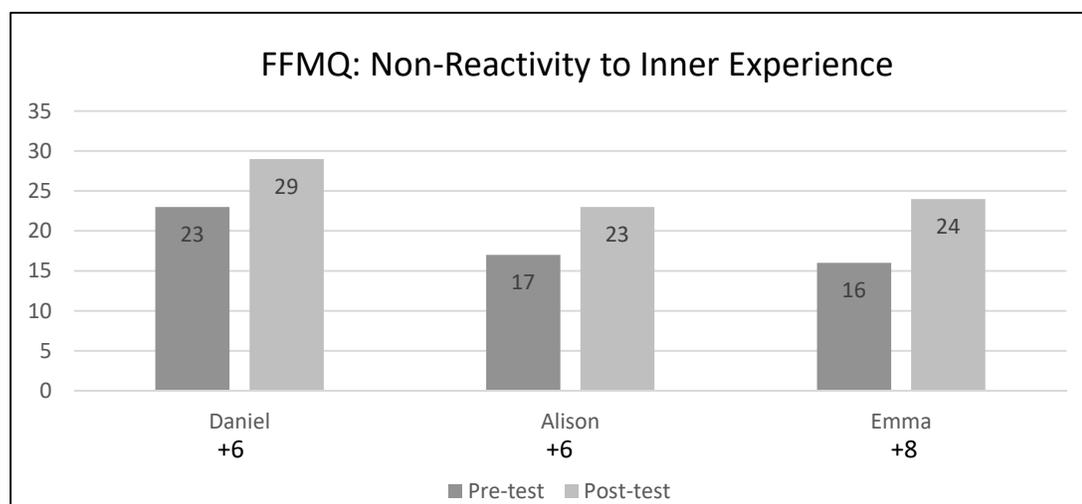
The fourth facet, Nonjudging of Inner Experience, examines the participant's tendencies towards self-judgment – i.e. the labeling of thoughts, emotions, or behaviors as good or bad, with the latter often followed by negative self-talk. Exemplary statements in the FFMQ include “I tell myself I shouldn't be feeling how I'm feeling.” Alison's and Emma's scores increased by five and ten points respectively, while Daniel's dropped by one point.

Emma, whose score increased the most, described this change during the interview when discussing the journal, which was assigned to participants for recording thoughts, ideas, and experiences regarding their singing and mindfulness practices. “I hold things in, and [the journal] was a place for me to get it out and for me to express frustration and for me to say how I was really feeling, and then I don't hold all the negative with me and I can go function as a normal human being without holding on to everything negative.”



Non-Reactivity to Inner Experience

The fourth facet, Non-Reactivity of Inner Experience, surveys the participant's ability to pause and maintain calm before immediately reacting in unpleasant situations. Exemplary statements in the FFMQ include, "When I have distressing thoughts or images, I just notice them and let them go." This was the sole category in which all three participants' scores increased: Daniel's and Alison's each by six points, and Emma's by eight points. Alison noted the usefulness of mindfulness practice in maintaining calm before performances. Emma reflected how beneficial it was to have the skill to "take a moment and [say] 'Everything's okay. You don't have to stress.'" Finally, Daniel reported his increased ability to "avoid giving... distractions more attention than they needed". In this context, he was recounting the auditory distractions from other rooms during mindfulness practice in lessons. However, these distractions can be invasive and frustrating during moments of quiet, and Daniel's non-reactivity in these moments could carry over to more challenging situations.

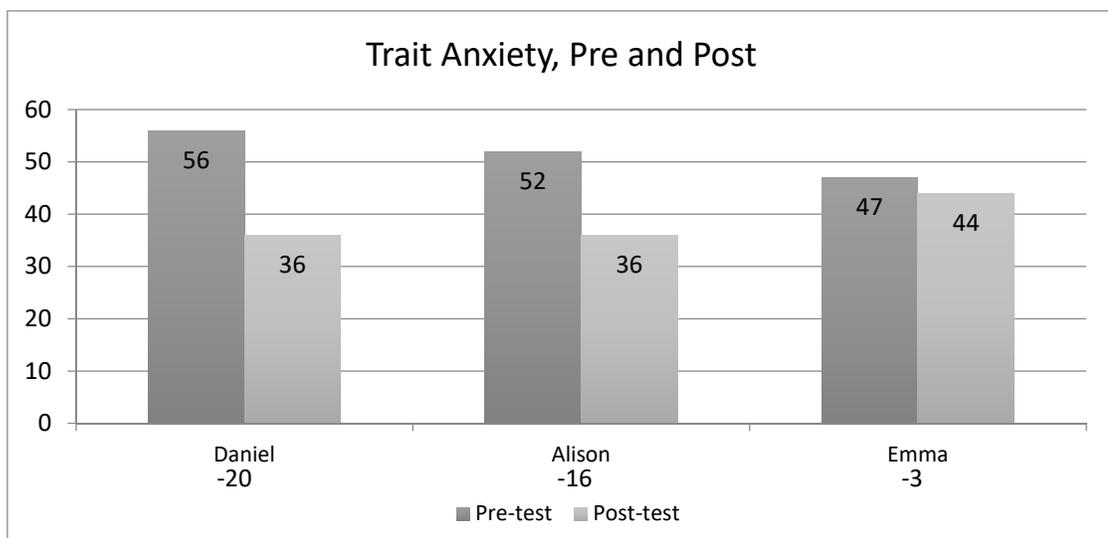
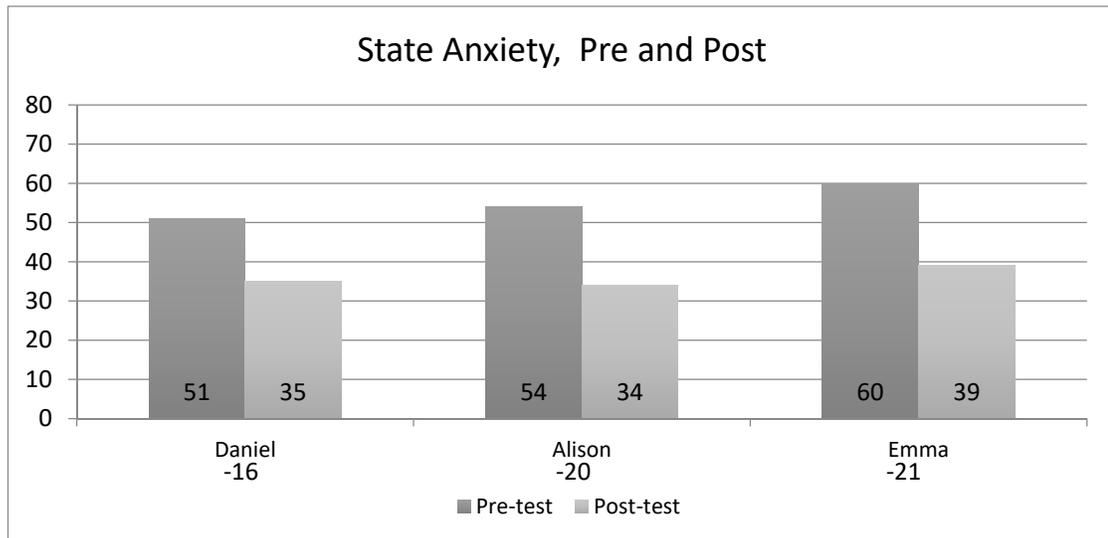


State-Trait Anxiety Inventory Results

Each participant's scores report a decrease in both state and trait anxiety by the end of the study. Daniel began the study reporting a higher instance of trait anxiety (56) over state anxiety (51). His state anxiety score dropped by 16 points; his trait anxiety score dropped further by 20 points. At the close of the study, his state and trait anxiety scores leveled to being only one point apart (35 and 36, respectively). STAI-Y scores can range from 20 to 80, with higher numbers indicating greater anxiety. Therefore, Daniel's scores of 35 and 36 indicate a moderately lower level of anxiety, falling within the bottom 25 percent of possible scores for both forms of anxiety.

Alison began the study with similar scores in both state and trait anxiety (54 and 52, respectively). Her post-test results indicate a state anxiety decrease by 20 points and a trait anxiety decrease by 16 points. Her final scores were 34 for state anxiety and 36 for trait anxiety, which like Daniel's, put her in the bottom quarter of possible scores for both forms of anxiety.

Emma began the study with a state anxiety score of 60, which placed her in the upper 50 percent of possible scores. Her post-test score for state anxiety was 39, indicating a decrease of 20 points. Meanwhile, her trait anxiety score change was more minimal than the others', decreasing from 47 to 44.



Interview Results

During the interviews, each study participant reported effects from mindfulness practice that enhanced their learning experience. Common themes that arose included increases in focus, physical awareness, productivity, and calm in stressful situations. The transcription of each interview is included in Appendix A.

Daniel

Focus was a recurring theme throughout Daniel's interview; he stated that by practicing mindfulness, it was easier to "center" his focus for the singing part of the lesson. Daniel described the mindfulness practice as "a moment of peace to separate myself from everything else... Everything that wasn't voice was essentially released." These initial ten minutes of mindfulness allowed him to "ease into the lesson" and let go of outside concerns that may have otherwise impeded his learning experience. Twice, he described this experience as a sense of "This is what we are here for."

Daniel's increase in focus engendered additional positive effects. He reported an increase in productivity during the lesson, as well as heightened physical awareness during singing itself. The body scan was especially helpful for Daniel; this exercise was the most reliable for him to achieve the level of self-awareness necessary for voice lessons. He explained:

Not sure about [an increase in aural awareness], but definitely [physical awareness] because...my focus during my mindfulness practices would be completely on my own self as opposed to some external stimuli or idea. And even if there was something like, say, the snare drum playing on the second floor, I would try to avoid giving those distractions more attention that they needed. So as a result, when we did start singing, I already had that in my mind.

While Daniel reported positive effects from mindfulness, he also felt unclear at times regarding the correlation between the mindfulness practice and singing itself. The

relationships of singing to breath awareness and body scan were easier to recognize. In contrast, he found the labeling of thoughts and feelings less immediately relatable. Daniel explained that these brought up the most “day-to-day” concerns and that he felt the need to “detach” his own body from his mind. While he did not dislike these exercises, he found it more difficult to sit with thoughts and emotions. In addition, he mentioned that mindfulness may not have been as effective towards the end of the semester, when he felt more stressed about his mock jury. However, he then spoke positively of mindfulness’ effects on his stress level, both within and outside music: “There were moments where I think if it weren’t for mindfulness, I would have probably gone crazy. With mindfulness...I didn’t have to carry around the weights of emotional stress in whatever capacity that was during the semester.”

Most of all, Daniel felt that mindfulness practice was effective for facing the challenges that accompany music making. While issues of technique and motivation are legitimate, he reflected that many challenges for musicians also arise from being “distracted from their craft.” Mindfulness gave him a sense of understanding and readiness to encounter these difficulties.

Overall, Daniel responded positively to the mindfulness practices. While he began the study by completing the homework every day, this commitment waned as his semester grew busier. However, he actually found more benefit in completing the homework when needed, rather than stressing to make room in an already packed schedule every day. Knowing this, Daniel wishes to continue practicing mindfulness periodically, stating that he now has a “reference point” when needed.

Alison

Like Daniel, Alison's first impression of mindfulness practice was her heightened focus during lessons. She described it as a way to "be in the here and now, versus being worried about everything. I could focus on just what I was doing in my voice lesson." Similar to Daniel, she also described an increase in physical awareness, especially her alignment. She reported feeling more relaxation and vocal ease, noting a correlation between relaxed sensations and healthy singing. Alison mentioned improvements in her singing several times, saying that she "sounds completely different" and noticing similar effects in her trombone performance.

Alison's most significant result was the effect of mindfulness on her stress level, both within and apart from music. She reported using breath awareness before auditions and performances. She also found this meditation useful for handling an interpersonal conflict. "When I'm stressed out, or when I'm going to perform, it's been useful for me to be able to calm myself and focus on something else in those situations."

Alison also responded positively overall to the mindfulness practices. She stated that her experiences were consistent from week to week. She found the body scan and labeling thoughts and feelings exercises to be the most beneficial. She completed the mindful homework reportedly half of the time, but appreciated the opportunity for reflection. She plans to continue practicing mindfulness using exercises from the study, ideally every time she practices music.

Emma

The first result Emma mentioned was an increase in focus. Like Daniel, she commented that the ten minutes of mindfulness allowed her to let go of outside concerns

that would have otherwise impeded her learning, focus on singing itself, and be more “on top of [her] game” for the lesson. In turn, this increase in focus generated other positive learning outcomes:

I’m a very high energy person, and usually when I go to something I’m running from something else to get to the thing. And so, to have those ten minutes...I think I was more productive, I think I learned more, I think I gained more and absorbed more because I was chilled out and...focused on what I was doing.

Besides more lasting learning, Emma also reflected on positive singing outcomes.

She reported feeling more vocal ease and a heightened sense of physical awareness while singing, especially due to the body scan. She also noticed improvement in her singing when she would precede her voice practice with a mindfulness practice. This improvement, however, was limited to days when she felt stressed. On days when she felt relaxed, she recalled that the mindfulness brought about sleepiness instead.

Stress management was the most significant effect for Emma. The assigned journal allowed her to acknowledge negative emotions and let them go rather than dwelling on them. She also reported that mindfulness gave her permission to set more realistic expectations, rather than feeling compelled to overachieve and experiencing stress as a result. Exercises such as the mountain meditation and labeling thoughts and feelings were most beneficial for Emma. She commented how these exercises, among others, were able to “change [her] whole mood and outlook on everything.”

Like her colleagues, Emma responded positively overall to the mindfulness practices. These experiences were mostly consistent, exempting one week when her stress level was exceptionally high. She completed the mindful homework less consistently due to time constraints, but she appreciated having the journal. She plans to continue practicing mindfulness at least every couple of days.

Chapter 5

Discussion

The purpose of this study was to evaluate whether mindfulness practice could (1) positively enhance the student's experience of learning vocal technique and (2) help reduce the anxiety of university music students. Each student completed two measures at the beginning and end of the study: the Five Facets of Mindfulness Questionnaire to examine mindfulness' contribution to any changes in the student's experience, and the State-Trait Anxiety Inventory to measure anxiety as both an overall state and as a reaction in specific situations. As neither of these scales address musical situations, each student participated in a one-on-one, open-ended interview to offer deeper insight into their experiences.

This chapter will discuss the participants' results as they relate to each research question and measure. In addition, it will examine the study's design and limitations, with both potential conclusions and recommendations for further research.

Discussion of Results

First, it was investigated whether mindfulness practice could positively enhance the experience of learning vocal technique. The results for this question were gathered from the interviews and the Five Facets of Mindfulness Questionnaire, which compared each student's experience of mindfulness at the beginning and end of the study and thus revealed the increase (or decrease) of mindfulness in their lives.

Discussion of FFMQ Results

When considering the FFMQ results alone, the effects of mindfulness varied from student to student. The one facet of mindfulness in which all participants reported an increase was Non-Reactivity to Inner Experience. Daniel and Allison reported an

increase in the first facet, Observing. Emma reported no change but remained at a score that was comparable to the other participants' increased post-test scores.

The facets of Describing, Acting with Awareness, and Nonjudging of Inner Experience garnered more divergent results. Alisson's Describing score increased by ten points, while Daniel and Emma's decreased by one and three points, respectively. One potential reason for Alison's considerable increase might be that this was her first solo singing experience. Over time, voice students are often encouraged to describe their own kinesthetic experience rather than relying on teacher feedback. Since voice lessons were new to Alison, this novelty coupled with the mindfulness practice may account for the dramatic increase in her score, compared with Daniel and Emma who already had solo singing experience.

For both Acting with Awareness and Nonjudging of Inner Experience, Alison and Emma reported considerable increases. Alison's scores increased by nine points for Acting with Awareness and five points for Nonjudging. Emma's scores increased by thirteen points for Acting with Awareness and ten points for Nonjudging. Meanwhile, Daniel's score decreased by three points for Acting with Awareness and one point for Nonjudging. Daniel shared in his interview that he felt stressed about the mock jury towards the end of the semester; this may have accounted for his score decrease in both facets. Another potential reason for these decreases (including Daniel and Emma's Describing decrease) might be the FFMQ's questions, which pertain to general living rather than music-making. As will be seen, the interview results reported a more consistently positive contribution of mindfulness to the voice lessons. However, the FFMQ does confirm the contribution of mindfulness in each student's everyday life. It

may also highlight facets of mindfulness in which students showed particular growth, both within and apart from music.

Discussion of Interview Results

Alone, the FFMQ's results are inconclusive for this study. However, the interview results suggest that mindfulness positively enhanced each student's overall learning experience. All three students unanimously mentioned an increase in focus, which helped them attend to the activity of singing with greater clarity and purpose. They commented that beginning the lesson with mindfulness allowed them to let go of outside concerns that may have otherwise distracted them or slowed their progress. Emma most specifically commented on her experiences connecting mindfulness, focus, and learning: "To have those ten minutes... I think I was more productive, I think I learned more, I think I gained more and absorbed more because I was chilled out and I was like, focused on what I was doing."

Other recurring themes in the interviews included increased physical awareness during the act of singing, increased productivity, and healthier stress management. Both Alison and Emma stated that they felt more vocal ease as a result of practicing mindfulness, and Daniel remarked that mindfulness helped him more effectively handle the challenges that arise in music lessons. Alison credited her vocal improvement throughout the semester to mindfulness, and all three students expressed the desire to continue practicing after the study. These factors – particularly the improvements in focus and stress management – suggest that mindfulness indeed enhanced the student's overall learning experience.

The idea that mindfulness can enhance the learning of vocal technique specifically has more general support from these results. Participants reported broad effects of mindfulness in their singing. All three participants felt more physically aware during the act of singing itself, and Alison and Emma reported feeling greater vocal ease. Alison remarked that the relaxation she felt after mindfulness practice was important for singing, although it was unclear if she was referring to feeling physically released, mentally calm, or both. Interestingly, Alison stated that she sounds “completely different from last year,” that she has “gotten a lot better about performing,” and that mindfulness has helped calm her anxiety before performances and auditions. Besides these general comments, the participants mainly discussed their improved focus and stress management, not vocal technique. Daniel remarked that he could see the correlation of some mindfulness practices to learning voice (e.g. breath awareness and body scan), but he was less clear about other practices’ association with singing. While there may be a general relationship between mindfulness and learning vocal technique, it would be a larger leap to claim that mindfulness helped these students become improved singers.

There are several potential reasons for this weaker connection between mindfulness and vocal technique. First, the study’s interviews were purposefully designed as open-ended to allow students to respond freely. From the students’ responses, greater focus and healthier stress management were major results from the study. However, given that one objective was to examine mindfulness’ effects on learning vocal technique, more specific and closed-ended questions regarding vocal technique would have been useful to answer this question with more certainty. Considering this, more specific follow-up questionnaires for each participant were

administered. The participants' responses, while not a part of the official results, are included in Appendix B. These responses indicate that mindfulness did directly contribute to their progress of learning to sing. Participants reported positive changes in their ability to release physical tension, to focus on and identify sensations, to learn effective breath management, and to cope with symptoms of performance anxiety.

Another change in the research design could be the choice of interviewer. It was thought that an interviewer separate from the researcher would ensure candid responses from the participants. Conversely, an interviewer who was not present for the study may not have sensed which topics to pursue further. Even if there was not a question planned, it would have been useful to hear Alison elaborate on what she specifically felt had improved about her singing, or where in the body Daniel felt more physically aware. More specific answers might have been gleaned if the researcher had conducted the interview, simply based on the familiarity with each student's journey. Future studies should consider either preparing more pointed questions or allowing the researcher to administer the interview.

Finally, the limited duration of a voice lesson did not allot a great deal of time for discussing the practices. After general pleasantries and a ten-minute mindfulness practice, less than fifty minutes were left in each lesson to cover vocal technique and repertoire. The researcher invited each student to share feedback or questions after each practice, and she connected the practices to situations in singing as they arose (e.g. self-criticism during a run-through to labeling thoughts and feelings). However, students did not always volunteer feedback after a mindful practice, and – true to letting an experience be what it is – the researcher honored their silence rather than pressing them with

questions or explanations. It was the researcher's intent that with eight weeks of practice inside and outside of voice lessons, the students would draw their own connections between mindfulness and studying voice. However, more structured teaching of mindfulness may have been needed for students to make these connections.

This is the first known study to examine mindfulness practices in private voice lessons, rather than in a mindfulness group class setting. These mindfulness group classes have structured time by their nature for explanation and discussion, so it is easy to see how those classes may help students build stronger connections. Learning mindfulness is also enriched in a group setting, when students can share and learn from each others' experiences.¹⁰⁵ The relationship between teacher and student is different than the relationship between student peers, and a future study could consider achieving this group learning environment with a studio class.

Discussion of State-Trait Anxiety Inventory Results

The researcher investigated whether mindfulness practice could reduce the anxiety of music students. The results were gathered from the State-Trait Anxiety Inventory, with some additional comments from the interviews. These responses were more consistent, with all participants reporting a drop in state and trait anxiety by the end of the study. The decreases were considerable, ranging between sixteen and twenty points each and dropping each participant from a level of nearly moderate anxiety into the lowest 25 percent of possible scores. The one exception to this was Emma's trait anxiety, which dropped by only three points.

¹⁰⁵ Holly Rogers and Margaret Maytan, *Mindfulness for the Next Generation* (New York: Oxford Univeristy Press, 2012): 9.

These quantitative results are supported by the participants' interviews. During her interview, Emma frequently identified herself as a "high-energy" and "high-stress" person. While mindfulness may have contributed to lowered anxiety in specific situations (e.g. a singing performance), it may have had less effect on her overall high level of stress and anxiety. Nevertheless, Emma reported during her interview that her most significant result was how easy it felt to calm herself in stressful situations: "[Mindfulness] really can change your whole mood and outlook on everything... this really brought me down to earth and helped me to set realistic goals instead of trying to overachieve in everything I did."

Daniel and Alison reported reduced anxiety and stress during their interviews as well. Alison reported using breath awareness to help calm herself during auditions, performances, and other anxiety-inducing situations. Meanwhile, Daniel commented that mindfulness gave him the clarity and resilience to handle the stressors of being a music student, both inside and outside of lessons: "There were moments where if it weren't for mindfulness, I would have probably gone crazy." As predicted, the results suggest that mindfulness practice in the private studio can indeed reduce the anxiety of music students.

Suggestions for Further Research

Case studies are limited by nature due to their small sample size. Therefore, this study may function as a precursor for further research that surveys a larger population of student singers. Future studies may also incorporate a control group as other studies have done, with one group receiving mindfulness training and another group receiving no training or a different type of relaxation training. It would be worthwhile to measure the

effects of mindfulness for undergraduate students compared with graduate students, or beginner singers compared with experienced singers. It would be interesting to investigate if more experienced singers would report more nuanced effects on their vocal technique, such as micro-muscular sensations, rather than a beginning singer who may simply report lower stress levels. This study was limited in its use of less experienced solo singers rather than vocal performance majors, who may more thoroughly experience the pressures and demands of singing that mindfulness may benefit. Vocal performance majors were not used during this study to avoid potential conflict with their preexisting instructors' teaching methods.

Future studies should consider modifying the exercises and assignments of the study. A five or seven-minute mindfulness practice may be more appropriate to ensure enough time for singing and discussion of the practice as it relates to singing. Another way to ensure dialogue would be to collect each student's journal and return the following week with comments. In this study, the journal was an anonymous tool to be used privately by each student as they saw fit. However, this journal could possibly fill the void for mindfulness discussion without taking time away from the lesson. This would follow the organization of other mindfulness classes, such as MBSR and Koru Mindfulness, in which weekly mindful logs are submitted to encourage dialogue and accountability.

Researchers with more space could incorporate more active mindfulness exercises, such as walking. These movement-based practices are beneficial for students who feel sleepy or restless during seated practices,¹⁰⁶ and singers often need to consider

¹⁰⁶ Holly Rogers and Margaret Maytan, *Mindfulness for the Next Generation* (New York: Oxford University Press, 2012): 83.

how their bodies move through space. However, having a larger quiet space would be necessary rather than a small practice room.

Finally, future studies could include a mindfulness scale developed specifically for musical situations. Until then, it would be prudent for future studies to include a similar qualitative measure like the interview. This interview should have both open-ended and closed-ended questions ensuring the most relevant and complete data collected. It may also be worthwhile to include a performance at the beginning of the study to mirror the mock jury at the end of the study, with each student completing the scales before and after each performance. This may provide a more reliable comparison for students' levels of both anxiety and mindfulness.

Summary

The purpose of this study was to investigate whether mindfulness practice in the private voice studio could (1) enhance the experience of learning vocal technique and (2) reduce the anxiety of university music students. Three music majors participated in eight weekly voice lessons, each of which began with a ten-minute mindfulness practice, and a mock jury at the end of the semester. Mindful homework was also assigned.

The results suggest that mindfulness practice can positively enhance one's overall learning experience, with students reported an improvement in focus and stress management as their strongest results. Some results also suggest that mindfulness can enhance the experience of learning vocal technique in particular, with students reporting greater vocal ease and heightened physical awareness while singing. However, these responses are limiting in order to form a strong conclusion. More specific questioning is needed to adequately answer this question, the results of which are included in Appendix

B. Finally, the results of this study suggest that mindfulness practice in the private studio can reduce the anxiety of music students. Overall, this study can be a potential template for further investigation of mental skills in the private studio. Furthermore, it serves as a starting point for teachers who wish to proactively address mental performance with their students.

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Appendix A

Interview Transcriptions

Daniel

INTERVIEWER: So, please feel free to be as candid and as open as you feel comfortable. Congratulations! You're almost at the end of the semester. How do you feel about your jury a little while ago?

DANIEL: *(laughs)* I thought it went pretty well overall. One of the things was that I didn't rehearse with the pianist, so it was a little... different. *(laughs)* But other than that I thought it went well.

INTERVIEWER: You had eight voice lessons this semester, each starting with a mindfulness practice. Can you tell me a bit about what that was like for you?

DANIEL: The lessons? The lessons were really good, I think. For the most part I came in prepared, and I had a moment at the beginning of each lesson to just let it all go... like, everything that wasn't voice was essentially released. *(laughs)*

INTERVIEWER: And how about – what about the mindfulness experience part – what was that like for you?

DANIEL: I think for me, within lessons, mindfulness felt like a moment of peace within the very crazy days sometimes during this semester. So, it was nice to have almost like a different set of tools I could use to separate myself from everything else.

INTERVIEWER: Did you have any expectations going in or reactions regarding the mindfulness?

DANIEL: Going in, I wasn't completely certain wasn't mindfulness was, so I wasn't... I had really no expectations like that would say, "Oh, I know what this is going to be." Instead what I found kind of through the course of the semester in lessons was that it was something I could use not just for lessons in voice but also in general in music, but also life.

INTERVIEWER: Did it feel easy; did it feel challenging?

DANIEL: it was a bit challenging at first, because I think giving myself that space was not easy, especially with kind of everything that happened before lessons with Irma. *(laughs)* It was not easy kind of to just let go of everything and just focus on the mindfulness practice in the given time. But it became... it became kind of part of a daily routine, so it was easier to find that space within my schedule and within my mind.

INTERVIEWER: Do you think these ten minutes of mindfulness influenced the rest of the voice lesson, and if so, how?

DANIEL: I think in certain aspects they did; I'm not sure completely about the rest of them. But I know that they did help with kind of just centering my focus with, like, "This is what we are here for," so having that mindfulness kind of allowed me to center myself within the different – the specific parameters that we would be studying. With that said, I'm not sure if it was so helpful necessarily with the actual voice material, like the actual practicing of the voice. Although I do know with some mindfulness exercises, especially breathing, are directly related to the exercises at hand. So, I think it was almost like a correlation that made it sometimes useful. Sometimes I wasn't completely sure, so...

INTERVIEWER: Did it affect your focus, concentration, learning experience, productivity?

DANIEL: Yeah! I definitely felt much more productive. (*laughs*) I mean, it was easier to get into this like, the sense of "This is what we're here for," as opposed to like, thinking at the back of my head, "Oh, I have something else outside of lessons that I should be thinking about." So mindfulness gave me that space necessary that at the beginning of lesson would be nice to just kind of ease in to the rest of the lesson. Yeah.

INTERVIEWER: Did it increase awareness over what you were doing, physically and aurally?

DANIEL: Definitely physically. Not sure about aurally, but definitely physically because it was almost like you were completely... your focus, that is, *my* focus during my mindfulness practices would be completely on my own self as opposed to some external stimuli or idea. And even if there was something like, say, the snare drum playing on the second floor, I wouldn't – I would try to avoid giving those distractions more attention that they needed. So as a result, when we did start singing, I already had that in my mind. I already had that kind of aura, like, set in stone.

INTERVIEWER: And were these experiences consistent, or did they vary from week to week?

DANIEL: Hmm, that one's a little tricky... because I think there was a sense of consistency with regards to, like, the regiment – so I kind of got into this...this schedule, almost, like I would go every week and have a lesson and I'll have mindfulness. And so I think in a way, it got a little detached towards the end, where I wasn't completely focused necessarily on the lesson itself. Like, I think there was this kind of difficult diffusion. (*laughs*) That said, it might also have been that I had a jury and I was much more stressed out about, like, singing itself. So the mindfulness wasn't as effective, maybe, necessarily, as a result.

INTERVIEWER: You were also assigned mindful homework for each week – a formal practice, an informal exercise, and a freeform journal to record any observations with your singing, mindfulness practice, or both. What was that like, and how often were you able to do it?

DANIEL: The mindfulness exercises – the homework themselves – I would do, I would say...at the beginning, I would do it every day. So maybe for half of the study I did it every day. And then it kind of loosened, less and less and less (*laughs*) essentially as I got busier. But by the end, I think, in a weird paradoxical kind of way, I felt that I didn't need them as much, and that whenever I did do them, I would appreciate them a lot more because I already understood what they were for. So it might have been this last week or the past two weeks that I did it only twice or three times a week, but those two or three times were much more helpful than trying to do it every day and almost freaking myself out because I'm like, "Oh, I have to figure out when I'm going to find those ten minutes!" So having those ten minutes just maybe on Tuesday or Thursday was much more helpful. That would be enough, in certain regards. With regard to the journal, I definitely wrote every day. It's the same thing – I wrote every day, but I guess like three quarters of the way through I just kind of dropped off. It was just like, too much. (*laughs*) I wrote in, maybe, two or three times in total those last two weeks. Maybe like once or twice a week. But it was just...I think...it might've been because I was doing it the same time as the mindfulness exercises – so it was more so getting that sense of proportion...the need, "Oh, maybe I don't need to write as much this week as next week, because I know I have more stress or less stress."

INTERVIEWER: I'm going to pause just to move this [recorder] away from the vent...Was there any correlation you noticed between how often you practiced and your process in singing and/or mindfulness?

DANIEL: How often I practiced... Um... Well, I talked about the mindfulness, like, it became less and less of a thing. In a way, for singing, I found that more useful to think if I practice every day and then kind of, like, take that mindfulness throughout multiple days into my practice, it became much more efficient, I think, than as I did at the beginning - which was "Do mindfulness every day and sing every day, do all my vocal exercises" just because I had in my mind – like, it was very fresh and new. I hadn't taken any lessons before in voice and mindfulness. The novelty of both things was still a little bit...it took a while to settle in, so after it had started to settle in, I think I understood that if I sing...I pretty much practiced every day throughout the entire study, but having that mindfulness kind of feed back into it was more helpful to do it every several days.

INTERVIEWER: And did you have a favorite mindfulness practice?

DANIEL: I liked the Body Scan just because I felt like I knew how to do it best, like I understood the process of it most. Um... and I knew that I could always rely on that to understand myself, like a kind of self-realization. Whereas some of the other ones seemed a bit maybe esoteric, like a little bit more...like I kind of had to detach my own body. (*laughs*) Mind and body had to be separated.

INTERVIEWER: Do you remember which ones those were – Breath Awareness, Mindful Movement, Mindful Listening, Labeling Thoughts, Labeling Feelings, Mountain Meditation?

DANIEL: I think the Labeling Thoughts and Labeling Feelings were the ones that kind of felt that way. And there's definitely a place for those – I'm not saying that they were something that I didn't feel like it was useful, as much as maybe... only once or twice during the week would I do those, as opposed to, "Oh, I'm going to do a mountain study" every day. *(laughs)*

INTERVIEWER: So those were your least favorite?

DANIEL: I wouldn't say my least favorite, but the ones that I think brought up the most...like, the most...day to day things. So it would be more so understanding myself as I had said before, like detached, they would allow for detachment. I think those were the most difficult to kind of go through in a way, because you had to confront in a lot of ways your own thoughts and emotions, which isn't always easy. *(laughs)*

INTERVIEWER: *(laughs)* Did you have a least favorite?

DANIEL: Least favorite...hmm. Not really. I wouldn't say I had a least favorite.

INTERVIEWER: That's fine. If anything, what about learning mindfulness has been most helpful for you?

DANIEL: Mindfulness has been helpful in getting a good sense of how to approach some of the kind of preliminary difficulties you go in with music. Because for me, it's often been...you go to say, a lesson – whether an instrumental lesson or composition or theory or whatever, and you get this idea that, like, "Oh, I have some sort of issue, I have to fix it." And sometimes, it is a technical issue or some sort of way you practice. But I think often you go in with a sense of, like, distraction from your craft or whatever you're doing. And having the meditations definitely helped in understanding that before you go in for a lesson. So it wouldn't be as daunting of a task going in "Oh, I have all these things I need to elaborate on during the lesson."

INTERVIEWER: And are there any other effects that you notice in any other non-singing areas in your life - so for example, stress management, interpersonal relationships, etc.?

DANIEL: Yeah! Well, there were the moments where I think if it weren't for mindfulness, I would have probably gone crazy. *(laughs)* Literally! *(laughs)* Or maybe figuratively, I'm not sure. Just because this semester has been quite a doozy. And having that... again, I keep coming back to space. It's like understanding that with mindfulness, I could not...I didn't have to carry around the weights of emotional stress in whatever capacity that was during the semester. So I think going forward, even if I don't necessarily do mindfulness every day, it definitely allows me to have some sort of reference point.

INTERVIEWER: Do you think this is something that you'd like to continue practicing?

DANIEL: Yeah! I think it wouldn't be like a day-to-day basis, but in a way, I think the entire time – these eight weeks – have been showing me that that's not necessary. Like, it's not necessary to get the full extent of mindfulness exercises. It might be in certain cases, of course, but I think when I know I have something that would benefit from it, I would definitely go back to it.

INTERVIEWER: Anything else you want to talk about at all – things you want to share? Comments, thoughts, concerns?

DANIEL: Beethoven is hard. *(laughs)*

INTERVIEWER: *(laughing)* Beethoven is hard?!

DANIEL: Beethoven is hard! I mean, that goes without saying, though... And yeah, I enjoyed it! I think I definitely had a really good experience overall. Elena was great, just like, very grateful to have met her and to have had her as a teacher. And especially her introducing this mindfulness as a topic. Because I think... I'm not sure, if anyone could introduce mindfulness the same way she did. And not just from like a pedagogical perspective, but also like more a personality-perspective. I think you have to have a certain level of patience, which I think she has, and there were points where I definitely... where *I* was impatient. So I kind of had to defer to her. And so she was definitely there.

INTERVIEWER: Great, anything else?... No? Wonderful, thank you so much! Do you know there's a mindfulness group that meets on Wednesdays?

DANIEL: Yes, in the library.

INTERVIEWER: Yes! It's wonderful. So I highly recommend it. Great, well, thank you so much.

DANIEL: Thank you. It's at a 9am, right?

INTERVIEWER: Yeah, that's the time.

DANIEL: Yeah, I teach at that time. That's why I couldn't do it.

INTERVIEWER: Oh, yeah, that's right, I couldn't do it last year because I taught at that time, and I couldn't do it until last week because I've been tutoring at that time, so...

DANIEL: Yeah, but it's okay, because I had lessons this semester.

INTERVIEWER: Yeah! And you have the skills. Awesome, thank you so much.

DANIEL: Thank you!

Interview Transcription
Alison

INTERVIEWER: Thank you for coming in. I'm going to ask you some questions if that's okay.

ALISON: Yup.

INTERVIEWER: So, please be as candid as open as you want, as honest as you like – just feel comfortable, you can say whatever you want. Congratulations! You're almost at the end of the semester. How do you feel about your jury a little while ago?

ALISON: Um... I think it went pretty much as I expected it to. Like, it was my first singing jury, because my principal instrument is trombone. So I think it went well, and I think I've gotten a lot better over the semester about performing.

INTERVIEWER: Good. So you had eight voice lessons this semester, each starting with a mindfulness practice, right? Can you tell me a bit about what that was like for you?

ALISON: Um, I always thought it was a really good way to get focused. Like, it always made me focus on what I was doing, to like, be in the here and now versus being worried about everything, I could focus on just what I was doing in my voice lesson.

INTERVIEWER: And did you have any expectations going in?

ALISON: Um...I kind of thought that would happen, but I wasn't sure that it would happen.

INTERVIEWER: Okay. And did it feel easy, challenging?

ALISON: I think it varied by day with what I had going on in my life.

INTERVIEWER: Do you think these ten minutes of mindfulness influenced the rest of your voice lesson, and if so, how?

ALISON: Um, yeah, they definitely, like I said – they made me more focused on what I was doing. And it just makes you feel more relaxed in general. So it's important to be relaxed for singing, obviously. That definitely helped me.

INTERVIEWER: Did it shift your mood at all? Did you feel more vocal ease or difficulty?

ALISON: I'd say it was easier, if anything.

INTERVIEWER: And did it increase over what you were doing, physically and aurally?

ALISON: Yes. Because one concept is like, staying grounded in your feet planted on the floor, and I shift all the time when I'm singing. So... yes.

INTERVIEWER: And were these experiences consistent, or did they vary from week to week?

ALISON: Um... Mostly consistent. I thought about the same things every week, I guess.

INTERVIEWER: You were also assigned mindful homework for each week – a formal practice, an informal exercise, and a freeform journal to record any observations with your singing, mindfulness practice, or both. What was that like, and how often were you able to do it?

ALISON: I like to reflect on what happened. Um, I definitely could've done it more, I just would do it and practice and then go do something else, so I'd forget to write it down, but it was useful.

INTERVIEWER: Were you ever able to do that work, or was it hard to do?

ALISON: I did it probably like half the time. *(laughs)*

INTERVIEWER: That's totally fine. And was there any correlation you noticed between how often you practiced and your process in singing and/or mindfulness?

ALISON: Just in general?

INTERVIEWER: Yeah, in general. So...did you notice a tie between how much you had practiced mindfulness or how much you had practiced singing, and then your results in your process?

ALISON: Well, I think... just from the lessons having, like, something to practice specifically, I saw a lot of improvement just because this was my first time taking voice lessons. So I practiced... I mean, I saw a lot of improvements in myself over the semester.

INTERVIEWER: How so?

ALISON: Um, like, performance-wise, I was better. My voice just sounds like... I have recordings from myself from last year and I just sound completely different this year for some reason, well, obviously, it's because of singing lessons.

INTERVIEWER: And that is for trombone?

ALISON: Yeah.

INTERVIEWER: And how has it affected, if at all, your practice of trombone and performance of trombone?

ALISON: I actually am also doing better at trombone because of this as well, just in general. Some of the techniques... like breath awareness is really helpful when you're super nervous before an audition. I've used that multiple times.

INTERVIEWER: Did you have a favorite mindfulness practice? Some examples are Breath Awareness, Body Scan, Mindful Movement, Mindful Listening, Labeling Thoughts, Labeling Feelings, Mountain Meditation.

ALISON: I liked the Labeling Thoughts and Feelings ones.

INTERVIEWER: And why was that your favorite?

ALISON: I liked it because you could just give it a label and then move on. *(laughs)*

INTERVIEWER: And do you have a least favorite?

ALISON: Uh... not really. I can't think of one I didn't really like.

INTERVIEWER: If anything, what about learning mindfulness has been most helpful for you?

ALISON: Like when I'm stressed out, or when I'm going to perform, it's been useful for me to be able to calm myself and focus on something else in those situations.

INTERVIEWER: And in terms of effects that you notice in other non-singing areas of your life, do you see mindfulness as being helpful there, too? Outside of singing or performing?

ALISON: Yes. Like, for example, I got in this argument with my friend, like this big argument. And I was super riled up. But then I did some breath awareness, this meditation thing, and I felt a lot better. *(laughs)*

INTERVIEWER: Good! Do you think mindfulness is something you'll continue practicing, and if so, how often?

ALISON: Yes. I want to try to do it every time I practice, but sometimes there's just so much going on, but... I definitely think it's useful. Very useful.

INTERVIEWER: And how would you practice mindfulness before you practice?

ALISON: Sort of like what I did in my voice lessons. That's what I would do.

INTERVIEWER: A particular exercise that you did?

ALISON: I like body scans... and the labeling.

INTERVIEWER: Great. Anything else, anything you want to say? All thoughts and feelings are welcome... whatever else you have to share.

ALISON: I feel like I said everything I wanted to. *(laughs)*

INTERVIEWER: Okay. Good. Thank you so much! I appreciate your time.

ALISON: Thank you!

INTERVIEWER: And you know Tim Conner runs the Wednesday mindfulness?

ALISON: Yes! I actually went to one of them before I started voice lessons, and I was like, "Oh, I get it!" *(laughs)* Yes, he's great.

INTERVIEWER: Wonderful guy.

ALISON: I love him. He's my teacher for trombone.

INTERVIEWER: Yeah. Well, thank you so much. Take care.

ALISON: Thank you.

Interview Transcription

Emma

INTERVIEWER: So I have some questions, if that's okay. Please be as candid and open as you feel comfortable. All thoughts and feelings welcome, so please share whatever you have. Congratulations! You're almost at the end of the semester. How do you feel about your jury a little while ago?

EMMA: It went *so* well – like, I was not expecting it to go as well as it did. I was pretty nervous, and I was not feeling fully prepared just because of finals this week and everything – I just had so much to do. And I walked in, and it was like – I don't even know what happened. It went so well.

INTERVIEWER: Great. You had eight voice lessons this semester, each starting with a mindfulness practice. Can you tell me a bit about what that was like for you?

EMMA: I loved the mindfulness. It really, um... it really... it was really a highlight of every week for me. It calmed me down through the stress of school and through everything, like, to have that. And like, I did it on my own too, I practiced, I filled out my home logs and everything, but like, but to have the one that was mediated, that was Elena doing it... it was like, this is my moment of mindfulness at the beginning of each lesson. It was so helpful for me; it was really grounding.

INTERVIEWER: Did you have any expectations going in?

EMMA: Um... I mean, yes and no. I definitely was hoping it would do what it did for me. I was hoping that it would be something to look forward to, that it would help me to de-stress and to chill out and just like, be able to do things. And it definitely did. Yeah, expectations wise, that's basically it.

INTERVIEWER: Did it feel easy; did it feel challenging?

EMMA: It was surprisingly easy to get in the habit of the meditation.

INTERVIEWER: Do you think these ten minutes of mindfulness influenced the rest of your voice lesson, and if so, how?

EMMA: I was definitely more focused and more on top of my game because of it. Because... um, I'm a very high energy person, and usually when I go to something I'm running from something else to get to the thing. And so, to have those ten minutes... I think I was more productive, I think I learned more, I think I gained more and absorbed more because I was chilled out and I was like, focused on what I was doing.

INTERVIEWER: Did it shift your mood? Did you feel more vocal ease? More vocal difficulty?

EMMA: Vocal ease for sure. It was definitely easier. And it helped my mood for the most part, I think, to just chill out, to take a second and be like, “Everything’s okay. You don’t need to stress out.” It had me in a good place.

INTERVIEWER: Did it affect your focus, concentration, learning experience, productivity?

EMMA: Definitely was more focused, more productive. I got a lot more done with meditation.

INTERVIEWER: Did it increase awareness over what you were doing, physically and aurally?

EMMA: I think so. Like, the Body Scan one definitely had me more aware over myself and where I was and what I was doing. So yes.

INTERVIEWER: And were these experiences consistent, or did they vary from week to week?

EMMA: I think there was definitely at least one week that I was just way over hyper stressed about everything and I was just like “argh!” But for the most part it was every week, the focus.

INTERVIEWER: You were also assigned mindful homework for each week – a formal practice, an informal exercise, and a freeform journal to record any observations with your singing, mindfulness practice, or both. What was that like, and how often were you able to do it?

EMMA: I did it a couple of times a week for sure. Couldn’t get it in every day just because of scheduling. But I definitely liked having the journal. Being able to kind of get out things has always something for me. I hold things in, hold things in, hold things in, and this was a place for me to get it out and for me to express frustration and for me to say how I was really feeling, and then I don’t hold all the negative with me and I can go function as a normal human being without holding on to everything negative.

INTERVIEWER: Was there any correlation you noticed between how often you practiced and your process in singing and/or mindfulness?

EMMA: I think my singing was definitely... if it was a day that I was super high stressed, I did the mindfulness before singing, I was better. But if it was a day that I was kind of chilled out, the mindfulness thing would just make me sleepy. *(laughs)*

INTERVIEWER: *(laughs)* Did you have a favorite mindfulness practice?

EMMA: I liked the one with the mountain. A lot. That was kind of cool, like, the grounding. And the labels... labeling things.

INTERVIEWER: And did you have a least favorite?

EMMA: Not really. I liked them all.

INTERVIEWER: If anything, what about learning mindfulness has been most helpful for you?

EMMA: Just kind of becoming more aware of how easy it really is to calm down and to chill and like, how much just sitting in silence for ten minutes, or sitting with a track for ten minutes can change everything. It can change your whole mood and your whole outlook on everything.

INTERVIEWER: Are there any effects that you notice in other non-singing areas of your life – for example, stress management, which I know you mentioned, interpersonal relationships, etc.?

EMMA: I think it definitely helped with stress management a lot, because I'm a very high stress person, and I put a lot of expectations on myself that are sometimes too high. And this really brought me down to earth and helped me to set realistic goals instead of trying to overachieve in everything I did.

INTERVIEWER: And do you think mindfulness is something you'll continue practicing? If so, how would you practice it and how often would you practice?

EMMA: Well, I have the Calm app and will probably continue to do that at least every couple of days if I can. Sometimes even finding ten minutes is hard, but it did make such a difference for me that I will continue to use it.

INTERVIEWER: Any other thoughts you have, anything else you'd like to share?

EMMA: Not particularly... I just think it was a really good study. I'm really glad that I participated in this.

INTERVIEWER: Good! If you have any other thoughts, you're welcome to share. Otherwise, thank you so much.

EMMA: Thank you!

Appendix B Follow-Up Questionnaires

This post-study questionnaire included a deeper inquiry into each participant's experience with mindfulness as it related to their learning of vocal technique. Each participant noted a correlation of mindfulness practice to their vocal progress, confirming that mindfulness affected their learning of breathing for singing, their capacity to focus on and identify sensations, and their ability to sense and release physical tension. Each participant also credited mindfulness for their increased ability to stay "in the moment" during performance. Each participant commented on how they were less nervous or more stable than they anticipated during the mock jury, crediting mindfulness for either their decrease in performance anxiety symptoms or for their increase in coping skills for said symptoms. Finally, each participant reported a change in their voice practice, stating that mindfulness enabled them to feel more relaxed, focused, or both.

Individually, Daniel reported that mindfulness helped him focus rather than ruminate during performances, although he would have liked further explanation into how mindfulness practice could specifically be incorporated into singing. Alison reported a change in self-judgment over the course of the study, stating that she is now more accepting of her performances. Emma reported a change in her reactivity during lessons, noting that she no longer interprets criticism so harshly.

Daniel's Follow-up Questionnaire

1. Please think back to your mock jury. How did you feel before, during, and after it?
 - Before the mock jury, I definitely felt a sense of nervousness associated with any performance but at the same time, I could calm myself down using the mindfulness exercises we had been doing the entire semester. During the jury itself, I was much more stable than I thought. That is, I felt like I could keep going even if I messed up. Nerves were present but did not hold me back. Afterwards, there was a sense of accomplishment and relief though more of the former rather than the latter.

2. If you experience anxiety in performance situations, did you notice any change in these symptoms over the semester?
 - Yes
 - No
 - I don't experience performance anxiety

3. If you answered yes, please explain.
 - I was definitely more calm in the mock jury than I would be in other performance situations.

4. If applicable, do you think mindfulness has contributed to this change in performance anxiety symptoms?
- **Yes**
 - No
 - N/A
5. If applicable, when have you experienced this change in performance anxiety symptoms?
- Before mock jury
 - **During mock jury**
 - Before other performances
 - **During other performances**
 - Before/during both mock jury and other performances
 - N/A
 - Other:
6. You have mentioned the vocal progress you made throughout the semester. What technical progress do you think you've made?
- I have a better grasp of how to practice voice without overexerting myself.
7. In your opinion, did mindfulness contribute to your progress in learning vocal technique?
- **Yes**
 - No
8. Or, do you think your technical progress would have happened regardless of the mindfulness?
- Yes
 - **No**
9. If you have additional comments for #7 and/or #8, you may enter them here.
10. Did mindfulness practice affect your learning of breathing for singing?
- **Yes**
 - No
11. Did mindfulness practice affect your awareness of or ability to focus on body sensations while singing?
- **Yes**
 - No

12. Was it easier and/or quicker to identify sensations that felt “wrong” or “right” while singing?
- **Yes**
 - No
13. Was it easier to recall these sensations during practice and performance?
- **Yes**
 - No
14. Could you feel vocal/body tensions and let go of them more often or more easily?
- **Yes**
 - No
15. If you answered yes to any of #10-14, please explain.
- During performance, I usually tend to get rather tense and my hands get cold/clammy. Mentally addressing these issues has been a lot easier after going through the mindfulness study. Identifying tensions and releasing them was certainly a factor in my jury and I think in other performances as well.
16. Do you often judge your voice, voice lessons, practice, or performances as being “good” or “bad”?
- Yes
 - **No**
17. If yes, did you notice any change in self-judgment over the semester?
- Yes
 - No
18. If yes, what changed and how so?
19. Has your reaction to criticism during lessons changed over the semester?
- Yes
 - **No**
20. If yes, what changed and how so?
21. Did you find that mindfulness affected your ability to stay “in the moment” while performing, rather than going on auto-pilot or overthinking?
- **Yes**
 - No
22. If you have additional comments for #21, you may enter them here.
- Overcalculation was a big problem for me in performance since I used to think a lot about all of the factors that go into a good performance, try to apply as much as possible throughout a concert/recital/jury/etc. However, mindfulness

allowed me to find ways to keep my attention on a singular aspect of performance rather than stressing over how everything would go.

23. When you practiced mindfulness before practicing voice, did you notice any change in your voice practice?

- **Yes**
- No

24. If yes, what was the change?

I started to loosen up over time.

25. If you could have changed anything about the study, would you?

- **Yes**
- No

26. If so, what would it be?

- I would have liked to hear about the integration of mindfulness throughout the voice lesson much more. This was addressed in certain cases during lessons but I think talking about how mindfulness could help with specific warm-ups or sections within a song specifically would have been much more helpful in incorporating mindfulness in individual practice. I understood mindfulness as a preparation for practicing voice but its place in practice itself was a bit less clear.

Alison's Follow-up Questionnaire

1. Please think back to your mock jury. How did you feel before, during, and after it?
 - Before I felt a bit nervous, during I was also nervous, and after I felt like I was not sure how it went. However, I don't think I was too nervous for the situation.

2. If you experience anxiety in performance situations, did you notice any change in these symptoms over the semester?
 - **Yes**
 - No
 - I don't experience performance anxiety

3. If you answered yes, please explain.
 - I definitely think my performance anxiety has improved. I still get nervous, but I feel like I have more ways to manage it now than I did before this semester.

4. If applicable, do you think mindfulness has contributed to this change in performance anxiety symptoms?
 - **Yes**
 - No
 - N/A

5. If applicable, when have you experienced this change in performance anxiety symptoms?
 - Before mock jury
 - During mock jury
 - **Before other performances**
 - **During other performances**
 - Before/during both mock jury and other performances
 - N/A
 - Other:

6. You have mentioned the vocal progress you made throughout the semester. What technical progress do you think you've made?
 - I think I have improved in my confidence which essentially helps all aspects of my singing.

7. In your opinion, did mindfulness contribute to your progress in learning vocal technique?
 - **Yes**
 - No

8. Or, do you think your technical progress would have happened regardless of the mindfulness?
- **Yes**
 - **No**
9. If you have additional comments for #7 and/or #8, you may enter them here.
10. Did mindfulness practice affect your learning of breathing for singing?
- **Yes**
 - **No**
11. Did mindfulness practice affect your awareness of or ability to focus on body sensations while singing?
- **Yes**
 - **No**
12. Was it easier and/or quicker to identify sensations that felt “wrong” or “right” while singing?
- **Yes**
 - **No**
13. Was it easier to recall these sensations during practice and performance?
- **Yes**
 - **No**
14. Could you feel vocal/body tensions and let go of them more often or more easily? *
- **Yes**
 - **No**
15. If you answered yes to any of #10-14, please explain.
- Overall, I feel much more aware of how my body is feeling.
16. Do you often judge your voice, voice lessons, practice, or performances as being “good” or “bad”?
- **Yes**
 - **No**
17. If yes, did you notice any change in self-judgment over the semester?
- **Yes**
 - **No**
18. If yes, what changed and how so?
- I feel like I am now more accepting of my performances.

19. Has your reaction to criticism during lessons changed over the semester?
- Yes
 - No
20. If yes, what changed and how so?
21. Did you find that mindfulness affected your ability to stay “in the moment” while performing, rather than going on auto-pilot or overthinking?
- Yes
 - No
22. If you have additional comments for #21, you may enter them here.
23. When you practiced mindfulness before practicing voice, did you notice any change in your voice practice?
- Yes
 - No
24. If yes, what was the change?
- I felt more in tune with my body and more relaxed so it was easier to tell what I might have been tensing up.
25. If you could have changed anything about the study, would you?
- Yes
 - No
26. If so, what would it be?

Emma's Follow-up Questionnaire

1. Please think back to your mock jury. How did you feel before, during, and after it?
 - I felt confident before, although a bit nervous. During it I felt like it was going well, and after I really felt like it had gone really well.

2. If you experience anxiety in performance situations, did you notice any change in these symptoms over the semester?
 - **Yes**
 - No
 - I don't experience performance anxiety

3. If you answered yes, please explain.
 - I was able to find ways to calm myself down more through the mindfulness exercises.

4. If applicable, do you think mindfulness has contributed to this change in performance anxiety symptoms?
 - **Yes**
 - No
 - N/A

5. If applicable, when have you experienced this change in performance anxiety symptoms?
 - **Before mock jury**
 - **During mock jury**
 - **Before other performances**
 - **During other performances**
 - **Before/during both mock jury and other performances**
 - N/A
 - Other:

6. You have mentioned the vocal progress you made throughout the semester. What technical progress do you think you've made?
 - I think I opened myself up to listen more about how to really find the right places to put my voice.

7. In your opinion, did mindfulness contribute to your progress in learning vocal technique?
 - **Yes**
 - No

8. Or, do you think your technical progress would have happened regardless of the mindfulness?

- Yes
- No

9. If you have additional comments for #7 and/or #8, you may enter them here.

10. Did mindfulness practice affect your learning of breathing for singing?

- Yes
- No

11. Did mindfulness practice affect your awareness of or ability to focus on body sensations while singing?

- Yes
- No

12. Was it easier and/or quicker to identify sensations that felt “wrong” or “right” while singing?

- Yes
- No

13. Was it easier to recall these sensations during practice and performance?

- Yes
- No

14. Could you feel vocal/body tensions and let go of them more often or more easily? *

- Yes
- No

15. If you answered yes to any of #10-14, please explain.

- Overall the mindfulness really helped me find a sense of calm in my performances and abilities.

16. Do you often judge your voice, voice lessons, practice, or performances as being “good” or “bad”?

- Yes
- No

17. If yes, did you notice any change in self-judgment over the semester?

- Yes
- No

18. If yes, what changed and how so?

19. Has your reaction to criticism during lessons changed over the semester?
- **Yes**
 - No
20. If yes, what changed and how so?
- I've learned not to take it as harshly.
21. Did you find that mindfulness affected your ability to stay “in the moment” while performing, rather than going on auto-pilot or overthinking?
- **Yes**
 - No
22. If you have additional comments for #21, you may enter them here.
23. When you practiced mindfulness before practicing voice, did you notice any change in your voice practice?
- **Yes**
 - No
24. If yes, what was the change?
- I was more focused.
25. If you could have changed anything about the study, would you?
- Yes
 - **No**
26. If so, what would it be?

Appendix C Mindfulness Practices

Breath Awareness¹⁰⁷

Take this time to settle in, with a moment to notice how you're sitting... letting your back be alert, but not rigid or uncomfortable. Notice the contact your feet have with the floor; the contact your back and seat have with the chair; the contact of your hands however they rest in your lap.

Take a moment and find the place in your body where you most vividly experience the sensation of your breath. Perhaps you notice it in the rise and fall of your chest, the rise and fall of your belly, the air entering and leaving your nostrils, even the sound of your inhale and your exhale. It doesn't matter; simply the place that's easiest for you. Once you've settled on a place, allow your attention to rest there. Ride the sensations of your breath, one breath at a time. You don't have to change anything or even to breathe as you might to sing – wherever and whatever your breath is now is fine.

You might notice that your mind starts to wander. Other thoughts and plans may trickle in. That's perfectly normal; thinking is what the mind does. When that happens, simply notice that your mind has wandered without any judgment. See if you can release them rather than trying to get rid of them. You may try to acknowledge them for what they are – thoughts, not necessarily truths – and set them aside. Without judging your mind for having wandered or your thoughts for what they may be, gently redirect your attention back to your breath. If it helps you, you can quietly say to yourself “in” with each inhale, and “out” with each exhale.

Where are you now? Whenever you notice, bring your attention back to your breath. This is a moment of true awareness – cultivating patience and compassion. Time and time again, return to your breath, observing whatever sensations you feel with interest and curiosity.

As you stay seated in this awareness, expand your awareness to once more include your whole body as you observe it breathing. Let yourself relax in these sensations a few moments more, and know that you can always return to the breath whenever you need to. May the benefits of this practice stay with you for the rest of the day.

¹⁰⁷ Adapted from Holly Rogers and Margaret Maytan, “Koru Breath Meditation,” Koru Mindfulness, streaming audio, accessed September 18, 2017, <http://korumindfulness.org/guided-meditations/>

Body Scan¹⁰⁸

Today we'll be focusing our attention on sensations that we feel in our body, and we'll use these sensations to anchor our awareness to our present moment experience. You might find that your mind frequently wanders away from the anchor. See you if can notice when your mind has wandered, and without making judgments about yourself or your ability to do this, gently bring your attention back to the sensations of your body.

Allow your eyes to gently close. Take this time to settle in, with a moment to notice how you're sitting... letting your back being upright and tall, but not rigid or uncomfortable. Notice the contact your feet have with the floor; the contact your back and seat have with the chair; the contact of your hands however they rest in your lap. Allow these contact points to sink through the chair and floor, and let go of any expectations you might have, allowing every practice to be as different as it is.

Let's take a moment to become aware that you are breathing. Let your attention rest at the chest, allowing it to ride the natural rise and fall of breathing.

Sending your awareness now to your belly, and feeling the rise and fall of the breath here, as well as any other sensations you may notice.

You might notice tightness or tingling, the feeling of air or your clothes against your skin. You might feel sensations of being light or heavy, warm or cool, pulsing or pulling or prickling, or maybe nothing at all. It makes no difference; you are not trying to change anything, just to see what is actually happening in this moment. And with each inhalation, allow your attention to focus on these sensations; with each exhalation, allow any tension and tightness to release. Inhale, sharpen your focus; exhale, release tension.¹⁰⁹

You might notice that your mind has wandered. That's normal; thinking is what the mind does. You might feel bored or twitchy. Allow yourself to approach these sensations with curiosity: What precisely is twitchy? What are the physical reactions of being bored? See whether you can just notice that your mind has wandered, and with an attitude of kindness and patience, bring your attention back to the sensations in your body.

Continue similarly for the seat, lower back, upper back, shoulders, back and front of the neck, throat, jaw, lips, tongue, roof of mouth, teeth, cheeks, nostrils, muscles around the eyes, forehead, and crown of head. Move downwards through each arm, hand, and

¹⁰⁸ Adapted from Anne-Marie Czajkowski and Alinka Greasley, "MFS Body Scan," Mindfulness For Singers, 2015, streaming audio, accessed September 18, 2017, <http://www.mindfulnessforsingers.co.uk/mfs-body-scan.mp3>

¹⁰⁹ Adapted from Holly Rogers and Margaret Maytan, *Mindfulness for the Next Generation* (New York: Oxford University Press, 2012): 77-78.

finger, noticing any warmth or tingling in the hands. Move downwards from hips to legs to feet, noticing any sensation of pants, socks, etc.

Before you finish, take a few moments to slowly scan your awareness through your body from head to toe. If you notice any remaining areas of tightness, let your awareness settle there for a few more moments. And again, if your mind has wandered, gently escort it back to the sensations in your body or your breath.

If you think of your body as a musical instrument, the body scan is a way of tuning it. You can practice this long or short, sitting or standing, lying in bed at night or in the morning. Allow yourself to cultivate a newfound appreciation for your body, and how much it can serve as a vehicle for embodying here and now what is deepest and best in yourself, including your dignity, your talent, your vitality, and your mind when it is open.¹¹⁰

When you hear the sound of the bell, make a commitment to bring this level of awareness to all of your activities for the rest of the day.

¹¹⁰ Jon Kabat-Zinn, *Come to Your Senses*, in *MBSR Handbook (MaineHealth)*, edited by Mary Bitterauf, August 2016, 9-10, accessed March 3, 2018, <http://mainehealth-media/learning-resource-center/mindfulness/mbsr-handbook-single-page-final.pdf?la=en>

Mindful Movement¹¹¹

Listen to the wisdom of your body. The end sensation from any movement should be mild to moderate, not painful. If you experience any discomfort from a movement, you can stop and concentrate on the breath until you feel comfortable again to resume.

1. Start in a mountain pose, becoming aware of the breath as it moves and out.
2. Bring your arms slowly out to the sides and up over your head, and back down as you slowly lower your arms to your sides, coordinating the movement of your breath with the movement of your body.
3. Repeat with a gentle squat on the inhale and returning to mountain on the exhale.
4. On the third time, bring your palms and fingers together above your head and become aware once again of your breathing. (Are you holding your breath as you hold your arms?) Feel the stretch through your arms, armpits, and rib cage.
5. Release your arms slowly back down, being fully aware of any gravity, space, heaviness, and perhaps a wave of relief once your arms reach your sides.
6. Return to mountain pose and close your eyes for a moment. Scan your body for any changes you might feel, and release any tensions you don't need.
7. Inhale one again and raise your arms, clasp your hands above your head, and exhale into a side stretch. Your hip can shift to help you feel a nice stretch along your side. See what it feels like to breathe in and out here, and only go as far as you're comfortable.
8. Inhale back to center, then exhale into a side stretch on the other side.
9. Return to mountain and once again, become aware that you are breathing. Notice any sensations that may have come about from these stretches – warmth or coolness, spaciousness, looseness, tension, tingling, or stretching.
10. Slowly drop your chin to your chest and let your ear fall towards your right shoulder. Take care to ensure that your ear comes to meet your shoulder, not your shoulder to your ear. Breathe in and out as you feel the stretch on the opposite side of your neck. Inhale back to center, then exhale and repeat on the other side.
11. Drop chin to chest once more, bring your head to neutral, then allow your head to drop straight back, breathing and giving into gravity as you feel the stretch in your throat and chest. Bring your head to neutral and return to mountain.
12. Slowly roll your shoulders in big circles in both directions. Return to mountain.
13. With your feet slightly wider than hip width, allow your spine to twist from side to side, and letting your arms flap with momentum as you raise up on your toes.
14. Return to mountain, noticing the feeling of being alive in your body right now.
15. Go into a forward fold, dropping your chin to your chest, curling forward at the waist, and allowing only your feet, ankles, and lower legs to hold you up. Breathe here, feeling your shoulders release and your back and abdomen expand.
16. Slowly uncurl your body back to standing until you reach mountain. Close your eyes, breathe, and notice any sensations here once more.

¹¹¹ Adapted from Anne-Marie Czajkowski and Alinka Greasley, "Mindful Movement," *Mindfulness For Singers*, 2015, streaming audio, accessed September 18, 2017, <http://www.mindfulnessforsingers.co.uk/mindful-movement.mp3>

Labeling Thoughts¹¹²

Close your eyes, and take a moment to notice the feeling of your feet resting against the floor, your seat and back against the chair, and the feeling of your hands wherever they make contact in your lap.

When you feel ready, allow yourself to be reminded that you are breathing. Bring your attention to gently settle on your breath, wherever you feel it most vividly – your chest, your nostrils, your belly, even the sound of your breath. Use the sensation of your breath as your anchor into the present moment as you watch your breath moving in and out.

Before long, you'll notice that your mind has wandered. When you notice that you're thinking, see if you can silently say to yourself: "thinking." Apply the label "thinking" to these thoughts and then release them, letting them fade into the background as you come back to your breath.

When thoughts pull you away again, again label these thoughts as "thinking." Using a label to help you notice can change your perspective slightly on the thoughts. They may help you see them as just thoughts, making it a little easier to notice them and to let them go.

You might notice that the same kind of thoughts keep coming back. If so, you can choose a different label – planning, judging, worrying – and let them go. You might notice repeated thoughts of remembering, wanting, or whatever label comes to mind. It's just a tool for you to notice your thinking, change your perspective, and let the thoughts go as you return to your breath. If you spend a lot of time wondering what label to use, feel free to go back to just "thinking" and move on, even if you have to come back to the breath a hundred times.

Where are your thoughts now? What are your thoughts now? Can you notice and accept each one of them, letting them pass through your mind without clinging to them, or judging them, or judging yourself for having them?

At the sound of the bell, make a commitment to bring this level of awareness, curiosity, and kindness to the rest of your day.

¹¹² Adapted from Holly Rogers and Margaret Maytan, *Mindfulness for the Next Generation* (New York: Oxford University Press, 2012): 103-104.

Labeling Feelings¹¹³

Let your attention settle on the sensations of your breath. Briefly scan your body from head to toe and let go of any residual tension you might be holding. You may want to think about what brought you here today, this semester, why you chose mindfulness, why you chose singing. How does it feel to be you today – what is it that you need?

Watching as the breath moves in and out, cultivating curiosity, patience, compassion, humor, as you just watch the breath, begin to see the workings of your mind.

As you watch your breath, you may notice that thoughts start to arise. Instead of fighting them, try labeling them – thinking, wanting, planning, judging, worrying. Allow the label to give you a bit of distance on your thoughts, and let the thoughts go as you come back to your breath.

Sometimes the same thought keeps coming around, like a certain suitcase at an airport baggage claim. You might notice that these thoughts are sometimes fueled by some underlying feeling... some emotion or sensation. You can label those feelings just as you label your thoughts... calmness, anxiety, fear, irritability. Perhaps you're excited, happy, restless, or sleepy. Then again, if you find you're struggling to find the right label, just use "feeling" like how we use "thinking". Opens you up to whatever you're experiencing in the moment, with no judgment or need to change any of it.

Where are you now? Notice where your mind is. Come back to the breath, labeling thoughts, labeling feelings, coming back to the breath.

As you continue this awareness of your thoughts, feelings, and your breath, see if you can expand this awareness to include your whole body breathing in this room. Take a moment to sense the spaciousness of yourself in this room and in your mind, and recognize that there is room in your life for everything that you're thinking and feeling, and there's room to be made around those thoughts and feelings, too. If spaciousness is something you sense, and if it is a pleasant sensation to you, allow yourself to enjoy these sensations a little longer – and know that you can always come back to the breath whenever you need to.

If you set an intention at the beginning of the lesson, you may wish to recall it now. Silently commend yourself for carving out time in your day to be press pause, to be still – and allow yourself to feel a sense of gratitude. With the sound of the bell, you can gently come back into the room and allow your eyes to open. May you carry this curiosity, kindness, and awareness with you into the rest of your day.

¹¹³ Adapted from Holly Rogers, Holly Rogers and Margaret Maytan, *Mindfulness for the Next Generation* (New York: Oxford University Press, 2012): 116-117.

Mindful Listening¹¹⁴

Bring your attention to the movements of the breath in the body for a few minutes, until you feel reasonably settled. Then expand your attention to take in the body as a whole, as if the whole body were breathing, helping you to be aware of all the sensations in the interior landscape of your body. When you're ready, allow the focus of your attention to shift from sensations in the body to sensations of sound – remaining open to sounds as they arise.

There's no need to go searching for sounds or listening out for particular sounds, or identifying the origin of sounds. Instead, simply remain open to receive sounds from all directions as they arise – sounds near, sounds far, sounds in front, behind, to the side, above or below. Sounds of your breath, sounds inside your body, sounds in the building.

Notice any tendency to label sounds as they are received – voices outside, instruments in other rooms, the air conditioning, doors opening and closing – or to judge whether you like them or not. See if you can notice how we may want to cling more to sounds we like and tune out ones we don't, how easily distractions can come, how easily sounds can create a narrative. If you notice this, come back to the sounds themselves and allow them to be just as they are, as if you were hearing them for the very first time so they were brand new to you... cultivating a sense of wonder for this ability to hear so much that we so often take for granted.

You may find that you are thinking about the sounds. See if it is possible to reconnect with direct awareness of their qualities (patterns of pitch, timbre, loudness and duration), rather than their meanings, implications or stories about them.

Whenever you notice that your awareness is no longer focused on sounds, gently acknowledge where the mind has moved to and then retune the attention back to sounds as they arise and pass away from moment to moment.

Some sounds are easily hidden by other more prominent sounds. See if we can be alive to those, too, and noticing the space in between sounds – the silence. You may hear one sound overlapping with another; the interplay between sound and silence. You might also be aware of the space out of which the sounds arise. Simply hearing what is here be heard, moment by moment, without much judgment or thought.

Now, allow the sounds fade into the background, as your new object of interest is your thoughts. Instead of thoughts being a distraction, see if they can become your focus. They may be thoughts about what you're doing now, what you've already done, or what you'll do next. They may be positive, negative, or neutral thoughts. See if it's possible to observe them all as they come, stay a while, and then go. Eventually, see if you can detect the moment when they dissolve.

¹¹⁴ Danny Pennman and Mark Williams, "Sounds and Thoughts Meditation," *Mindfulness: Finding Peace in a Frantic World*, August 11, 2011, accessed September 18, 2017, [http://http://franticworld.com/sounds-and-thoughts-meditation/](http://franticworld.com/sounds-and-thoughts-meditation/)

There's no need to try and control your thoughts in any way, just letting them come and go on their own, just the way they did with sounds. When thoughts arise in the mind, see them coming and going like clouds passing across the sky. Your mind, like the sky, your thoughts, like the clouds, sometimes large, sometimes small, sometimes dark, sometimes light, but the sky remains, and the clouds will eventually disperse.

From time to time, you may find that your mind gets caught up in your thinking...no longer observing your thoughts and feelings, but getting caught inside them. When that happens, congratulate yourself for realizing this, and simply return to observing your thoughts as events that arise, stay a while, and then leave.

For the last few moments, come back to focus on the sound of your breathing. And remembering that wherever you are, whatever you experience, whenever you feel your mind scattered and dispersed by the events of the day, your breath is always available to nourish you and help bring you back into the present moment... into a sense of stillness and peace.

Mountain Meditation¹¹⁵

As you sit here, picture in your mind's eye as best you can the most beautiful mountain that you have seen or can imagine. Just hold the image or the feeling of this mountain in your mind's eye, letting it gradually come into greater focus. Even if it doesn't come as a visual image, allowing the sense of this mountain and feeling its overall shape, observing its shape, its lofty peak high in the sky, the large base rooted in the rock of the earth's crust, its steep or gently sloping sides, noticing how massive it is, how solid, how unmoving, how beautiful both from afar and up close.

Perhaps your mountain has snow at the top and trees on the lower slopes. Perhaps it has one prominent peak, or a series of peaks, or a high plateau. Whatever image it is, sit with the image of this mountain, observing it, noticing its qualities. And, when you feel ready to, see if you can bring the mountain into your own body so that your body sitting here and the mountain in your mind's eye become the same. So that as you sit here, you share in the massiveness and the stillness and the majesty of the mountain. You become the mountain, rooted in the sitting posture. Your head becomes the lofty peak, supported by the rest of the body. Your shoulders and arms the sides of the mountain, your seat and legs the solid base rooted to your chair. Experiencing a sense of uplift from deep within your pelvis and spine. With each breath, becoming a little more of a breathing mountain, unwavering in your stillness, a rooted, unmoving presence.

As you sit here, become aware of the fact that as the sun travels across the sky, the light and colors and shadow change moment by moment in the mountain's stillness. Night follows day and day follows night – through it all the mountain just sits, experiencing change in each moment, yet always just being itself. It remains still as the season flow into one another, and as the weather changes day by day and moment by moment.

In summer, there's no snow on the mountain except on the peaks or the crags shielded by direct sunlight. In the fall, the mountain may wear a coat of brilliant colors, in winter a blanket of snow and ice. In any season, it may be shrouded by clouds and fog, or pelted by ice. People may come to see the mountain and say how beautiful it is, or say that it's not a great day to see the mountain, but none of this matters to the mountain, which stays itself no matter what, seen or unseen, day or night, hot or cold.

At times visited by snow and rain, by wind and unthinkable storms, through it the mountain sits. Spring comes, streams overflow with the waters of melting snow, through it all the mountain continues to sit unmoved by what happens on the surface. And in the same way, as we sit here, we can learn to experience the mountain. We can embody the same unwavering stillness and rootedness in the face of everything that changes in our own lives. We have our own periods of lightness and darkness, color and drabness; certainly we experience storms in the outside world and in our own minds.

¹¹⁵ Jon Kabat-Zinn, "Mountain Meditation," Guided Mindfulness Meditation, Series 2, recorded 2014, SoundsTrue B00I627EAS, CD.

By becoming the mountain in our practice, we can adopt its strength and stability for our own. We can use its energies to support our energy, to encounter each moment with clarity and strength. It may help us to see that our thoughts and feelings are very much like the weather on the mountain. Our weather is not to be ignored or denied, it is to be encountered, honored, and felt, and held in awareness. By holding it in this way, we come to know a deeper stillness and wisdom.

Appendix D
Five Facets of Mindfulness Questionnaire

Description:

This instrument is based on a factor analytic study of five independently developed mindfulness questionnaires. The analysis yielded five factors that appear to represent elements of mindfulness as it is currently conceptualized. The five facets are observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience.

Please rate each of the following statements using the scale provided. Write the number in the blank that best describes your own opinion of what is generally true for you.

1	2	3	4	5
never or very rarely true	rarely true	sometimes true	often true	very often or always true

- _____ 1. When I'm walking, I deliberately notice the sensations of my body moving.
- _____ 2. I'm good at finding words to describe my feelings.
- _____ 3. I criticize myself for having irrational or inappropriate emotions.
- _____ 4. I perceive my feelings and emotions without having to react to them.
- _____ 5. When I do things, my mind wanders off and I'm easily distracted.
- _____ 6. When I take a shower or bath, I stay alert to the sensations of water on my body.
- _____ 7. I can easily put my beliefs, opinions, and expectations into words.
- _____ 8. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.
- _____ 9. I watch my feelings without getting lost in them.
- _____ 10. I tell myself I shouldn't be feeling the way I'm feeling.
- _____ 11. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.
- _____ 12. It's hard for me to find the words to describe what I'm thinking.
- _____ 13. I am easily distracted.

- _____ 14. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.
- _____ 15. I pay attention to sensations, such as the wind in my hair or sun on my face.
- _____ 16. I have trouble thinking of the right words to express how I feel about things.
- _____ 17. I make judgments about whether my thoughts are good or bad.
- _____ 18. I find it difficult to stay focused on what's happening in the present.
- _____ 19. When I have distressing thoughts or images, I "step back" and am aware of the passing.
- _____ 21. In difficult situations, I can pause without immediately reacting.
- _____ 22. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.
- _____ 23. It seems I am "running on automatic" without much awareness of what I'm doing.
- _____ 24. When I have distressing thoughts or images, I feel calm soon after.
- _____ 25. I tell myself that I shouldn't be thinking the way I'm thinking.
- _____ 26. I notice the smells and aromas of things.
- _____ 27. Even when I'm feeling terribly upset, I can find a way to put it into words.
- _____ 28. I rush through activities without being really attentive to them.
- _____ 29. When I have distressing thoughts or images I am able just to notice them without reacting.
- _____ 30. I think some of my emotions are bad or inappropriate and I shouldn't feel them.
- _____ 31. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.
- _____ 32. My natural tendency is to put my experiences into words.
- _____ 33. When I have distressing thoughts or images, I just notice them and let them go.
- _____ 34. I do jobs or tasks automatically without being aware of what I'm doing.

- _____ 35. When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.
- _____ 36. I pay attention to how my emotions affect my thoughts and behavior.
- _____ 37. I can usually describe how I feel at the moment in considerable detail.
- _____ 38. I find myself doing things without paying attention.
- _____ 39. I disapprove of myself when I have irrational ideas.

Scoring Information:

Observe items: 1, 6, 11, 15, 20, 26, 31, 36

Describe items: 2, 7, 12R, 16R, 22R, 27, 32, 37

Act with Awareness items: 5R, 8R, 13R, 18R, 23R, 28R, 34R, 38R

Non-Judging items: 3R, 10R, 14R, 17R, 25R, 30R, 35R, 39R

Non-Reactivity items: 4, 9, 19, 21, 24, 29, 33

Reference:

Baer, Ruth A., Gregory T. Smith, Jaclyn Hopkins, Jennifer Kreitemeyer, and Leslie Toney. "Using Self-Report Assessment Methods to Explore Facets of Mindfulness," *Assessment* 13, no. 1 (March 2006): 27-45. Accessed February 12, 2018, <http://dx.doi.org/doi: 10.1177/1073191105283504>

Appendix E
State-Trait Anxiety Inventory, Form Y-1
Self-Evaluation Questionnaire

Please provide the following information:

Name _____ Date _____ S _____
 Age _____ Gender (Circle) **M** **F** T _____

DIRECTIONS:

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

VERY MUCH SO
 MODERATELY SO
 SOMEWHAT
 NOT AT ALL

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

State-Trait Anxiety Inventory, Form Y-2 Self-Evaluation Questionnaire

Name _____ Date _____

DIRECTIONS

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

	<i>ALMOST NEVER</i>	<i>SOMETIMES</i>	<i>OFTEN</i>	<i>ALMOST ALWAYS</i>
21. I feel pleasant.....	1	2	3	4
22. I feel nervous and restless	1	2	3	4
23. I feel satisfied with myself.....	1	2	3	4
24. I wish I could be as happy as others seem to be	1	2	3	4
25. I feel like a failure	1	2	3	4
26. I feel rested	1	2	3	4
27. I am "calm, cool, and collected".....	1	2	3	4
28. I feel that difficulties are piling up so that I cannot overcome them.....	1	2	3	4
29. I worry too much over something that really doesn't matter.....	1	2	3	4
30. I am happy	1	2	3	4
31. I have disturbing thoughts	1	2	3	4
32. I lack self-confidence.....	1	2	3	4
33. I feel secure	1	2	3	4
34. I make decisions easily	1	2	3	4
35. I feel inadequate.....	1	2	3	4
36. I am content	1	2	3	4
37. Some unimportant thought runs through my mind and bothers me	1	2	3	4
38. I take disappointments so keenly that I can't put them out of my mind.....	1	2	3	4
39. I am a steady person.....	1	2	3	4
40. I get in a state of tension or turmoil as I think over my recent concerns and interests	1	2	3	4