

The Interconnection of Mindfulness and Meditation Practices with Vocal Technique and Performance: A Practice-Led Literature Review

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COMPONENT 1: PROJECT PORTFOLIO

1.1 Introduction

Current research shows that combining mindfulness and meditation with vocal technique is promising. As vocal teachers see the limits of only teaching technique without awareness of the body, they are using mindful methods as the basis of a more holistic approach to vocal training (Czajkowski, 2015). This leads to the question: How do mindfulness and meditation change a singer's technique, performance quality, and well-being? Looking into this question fills a hole in mainstream vocal training, which often overlooks psychological and attentional aspects (Brown, 2021). Both practitioners and educators want solid ways to integrate these ideas into vocal training. This study looks at current research that supports both the theory and practice of adding these ideas (Tan et al., 2020).

In the world of vocal training, singers face many pressures that make psychological skills especially relevant. These include frequent public evaluation (concerts, recitals, juries), competitive environments, and strong identity ties to their voices (Papageorgi et al., 2013). Research on performance anxiety shows that technical preparation alone does not entirely protect against self-criticism and worry (Chida et al., 2009). Cognitive, emotional, and focus related factors may play a role in overall performance quality (Papageorgi et al., 2013). This research seems to support the idea of a more holistic approach to vocal pedagogy. Most mainstream vocal pedagogy texts give little space to psychological aspects of singing (Titze, 2000). When mindfulness is mentioned, it is often treated briefly or anecdotally, instead of being grounded in empirical research (Cohen et al., 2022). This report hopes to bring scattered findings from these multiple disciplines into a more coherent picture that can inform evidence-based practice.

Even though singing is predominantly physical, it also links to both cognitive and emotional processes as well (LeBoutillier & Marks, 2003). Traditional vocal training stresses mechanical exactness (breath, tone, pitch, etc.). Still, new data shows that being aware and mindful of your body's responses can actually help with technique

(Birkeland et al., 2024). Mindfulness, or being aware in the moment without judging, touches on this idea (Bishop et al., 2004). The reasoning behind combining mindfulness with vocal work comes from several frameworks. The first, the body awareness (somatic consciousness) model, says that knowing your body helps make motor control more efficient (Moseley & Flor, 2012). The second model recognizes that the brain can change (neuroplasticity); focused attention can rewire the brain, improving both how we act and control feelings (Tang et al., 2015). The third model, the mind-body link idea, sees that our thoughts and emotions affect our physical bodies, which can affect how we sing (Porges, 2011). Together, these frameworks may suggest that vocal training is not limited to building muscular patterns, but also about shaping how singers notice, interpret, regulate mental and emotional experiences while using those muscular patterns (Damasio, 2010). Therefore, when mindfulness practice is integrated into vocal study, it has the potential to influence both the quality of technical execution and the experience of performing (Czajkowski, 2015).

Modern studies say that singers who use mindfulness might see improved results. They might feel less nervous, focus better, have improved breath coordination, and sense their bodies better (kinesthetic feedback). These changes can help support learning vocal technique (Baer et al., 2006). The idea of a back-and-forth process (hermeneutic circle) helps us deepen understanding, as practice shapes theory and theory shapes practice (Boell & Cecez-Kecmanovic, 2010).

Aim

This study aims to develop a nuanced understanding of how mindfulness and meditation influence vocal technique, performance, and the well-being of those who practice them. It also aims to critically evaluate the theoretical models that explain any effects. Lastly, it aims to explore practical uses of combining these practices.

Objectives

- Identify and synthesize research that examines how mindfulness and meditation influence vocal performance in terms of neurobiology, psychology, and

physiology (SMART goal: Specific, Measurable, Achievable, Relevant, Timebound)

- Examine how these practices improve breath control, awareness of resonance, accuracy of intonation, and emotional expression in singing.
- Assess current teaching approaches that include mindfulness in vocal training, noting what works well, what the limits are, and how they can be applied in different vocal settings.
- Reflect critically upon personal learning progress and what it means for teaching singing based on evidence.

The objectives and the chosen methodology are closely linked. The first objective was addressed by the deliberate search through diverse disciplinary aspects, reading across several fields of study (Hölzel et al., 2011; Titze, 2000). The second and third objectives were pursued by focusing specifically on studies involving vocal music performers, as well as pedagogical frameworks that describe incorporating mindfulness into lessons (Brown 2021). The final objective was grounded in the hermeneutic stance that the researcher's understanding and pre-understanding are part of the line of inquiry itself (Boell & Cecez-Kecmanovic, 2010).

Expected Learning Outcomes

After completing this study, I will be able to:

- Demonstrate a solid grasp of current research linking mindfulness and vocal practice. Summarizing key findings across types of studies and explaining how they relate to vocal musicians specifically.
- Assess theoretical models that explain how the mind and body work together in vocal development. Discuss strengths, limitations, and implications for singers.
- Turn research results into useful teaching ideas that I can use in my own teaching. Develop short mindfulness plans that I can use in my personal performance practice as well as in my teaching practice.
- Explain the limits, contextual factors, and practical challenges of using mindfulness in vocal instruction.

- Reflect on changes in my professional understanding and find specific ways to apply what I've learned to my work. Articulate how engaging with the literature using a hermeneutic approach may shift my assumptions about vocal practices.

These outcomes are directly supported by the narrative, hermeneutic review design. This design requires sustained engagement with sources across disciplines. It also requires continual reflection on how the new information reshapes my own practices as a vocal teacher and performer (Boell & Cecez-Kecmanovic, 2010). By focusing on vocal pedagogy, this report looks to ensure that what is learned is transferable to real teaching scenarios, rather than mere abstract theory.

1.2 Activities, Methodologies, and Resources

Rationale for Narrative Review with Hermeneutic Circle Framework

This research uses a narrative literature review methodology, along with ideas from the hermeneutic circle. The review includes peer-reviewed articles from databases including PubMed Central, SAGE Journals, Cambridge Core, and SCOPUS, using search terms like 'mindfulness singing,' 'meditation vocal technique,' and 'somatic awareness and voice.' It includes both studies and reviews published mainly between 2015 and 2025. The study focuses on publications that are peer-reviewed or have strong grey literature, are directly related to mindfulness/meditation or vocal performance, discuss mechanisms or outcomes, and are credible because of institutional affiliation or research reputation. Sources not in English and studies without strong evidence or methods are not included.

After selection, information was coded for key themes and proposed mechanisms (neurological, psychological, somatic). These themes evolved as the reading progressed in line with hermeneutic approaches. Patterns and gaps across the studies

were then interpreted in relation to the research questions and theoretical frameworks described above.

Resources used are database access, open-access repositories (PMC, SSRN), interlibrary loan services, and reference management software. The hermeneutic approach allows for repeated searching. Initial searches identify basic literature to establish vocabulary, and later searches target new themes and contradictions found while reading (Boell & Cecez-Kecmanovic, 2010). The search strategy was refined repeatedly as new terms were discovered within the literature (for example, “interoception,” “body scan,” “somatic,” etc.) (Boell & Cecez-Kecmanovic, 2010). Reference lists, and tracking citations also helped to locate additional sources for study.

Instead of a systematic review, which needs a firm question and criteria, this research uses a narrative review based on hermeneutic circle ideas. Systematic reviews are good for specific questions, but they don't work well for exploratory research in social sciences and humanities (Boell & Cecez-Kecmanovic, 2010). The link between mindfulness and vocal practice isn't well-defined enough for a systematic review. A strict search would likely miss important cross-disciplinary literature from fields like neuroscience, psychology, and vocal pedagogy.

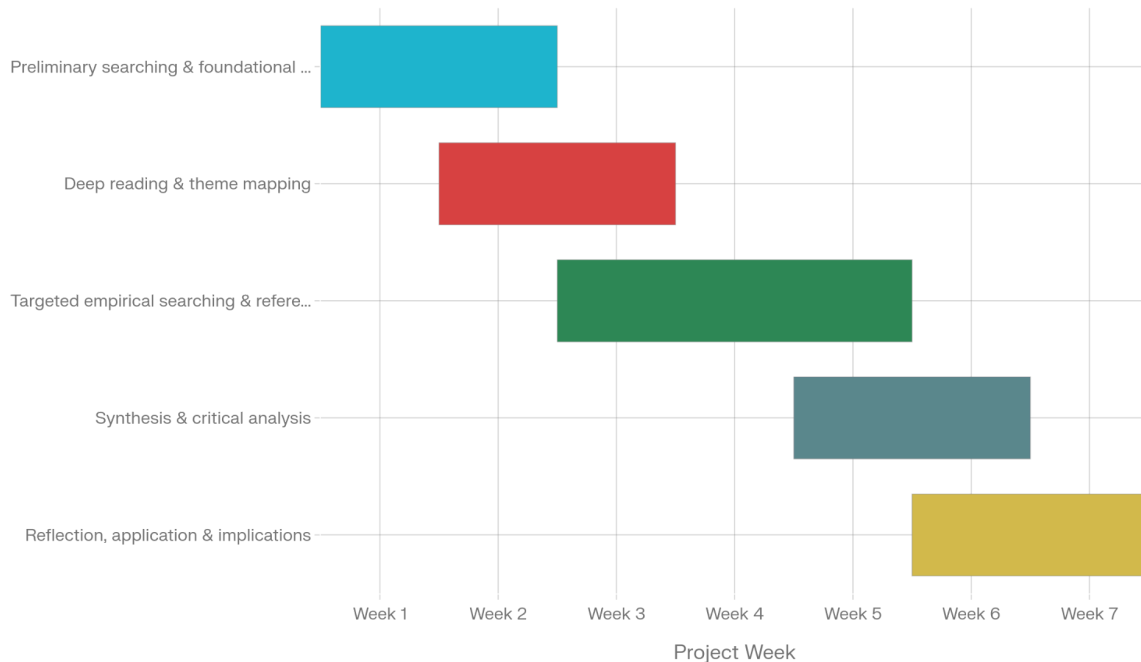
The hermeneutic circle works well for this report topic because it reflects the research process. Starting with basic texts builds vocabulary, and later reading clarifies what is relevant and reveals connections that weren't clear at first. This back-and-forth between individual studies and an overall understanding shows real scholarly progress.

Use of AI

AI tools were used in a limited way to find literature, test paper structures, refine grammar, and clarify difficult concepts, theories, and texts. The author is responsible for all decisions about sources, interpretations, and the final writing, ensuring they align with the project's goals and academic standards.

Literature Review Project Timeline (7 Weeks)

Five overlapping phases from preliminary search to reflection



COMPONENT 2: PROJECT REPORT

2.1 Introduction

The human voice uniquely blends body, mind, emotion, and art (Titze, 2000). Current vocal coaching often splits these areas, treating method as skill independent of mental and emotional aspects (Verdolini et al., 2006). Verdolini argues that this split hurts both voice progress and singer well-being. Emerging studies in neuroscience, psychology, and music education find that contemplative practices (like mindfulness and meditation) greatly improve vocal method, performance, and well-being by connecting mind and body (Brown, 2021; Tan et al., 2020).

This inquiry is significant beyond academic interests. Vocal educators everywhere encounter singers with worry, stress, and skill blocks that standard methods can't fix (Papageorgi et al., 2013). At the same time, mindfulness is now a common tool for mental health and performance enhancement (Goleman & Davidson, 2017). Combining these areas may give teachers evidence-based ways to help the whole performer: mentally, emotionally, physically, and artistically.

As both a private vocal coach, and as an Elementary Music educator, I encounter many of the problems described above. In particular, the issues of 'stage fright,' and the emotional fluctuations of adolescence. By looking at this research through the lens of the hermeneutic principle, and understanding that knowledge grows as we talk about different ideas, I hope to gain a careful understanding that considers both the possibilities and potential limitations of mixing meditation and voice.

2.2 Literature Review

Definitions

In the realm of education, a widely accepted concept is that clear definitions are key for productive talks within a variety of subjects. Mindfulness means knowing what is happening in a present moment without judging, which is cultivated by focus exercises (Kabat-Zinn, 2003). Meditation has many methods: watching breath (anapanasati), body scans, kindness practices, and repeating mantras; these help grow mindfulness (Bhikkhu Bodhi, 2005). Voice teachers use special changes: mindful singing (focusing on the current moment when singing), voice meditation (using the voice as the main focus), and breathing exercises (connecting breath and body) (Brown, 2021).

This careful naming is important because studies sometimes may mix up methods (Ospina et al. 2007). Some studies on meditation and singing look at meditation before singing, while others add singing into meditation, like mantra chanting or humming (Tan,

Gooley, & Farbood, 2020). The effects are different: meditation before singing might help focus and lower worry, while singing meditation trains body awareness through voice (Prakash, Boominathan, & Mahalingam, 2002) . Knowing these changes makes it clear how different methods have different results.

The changing meanings also show that these methods exist in between areas; they are not just skill training or just meditation. Instead of seeing this as unclear, I am finding that it is better to see the mix as its strength. If I wish to help the whole singer, I need ways that go beyond the false choice between skill work and mental work (Feldenkrais, 1972). I think it also merits stating that I've never found a one-size-fits-all approach to teaching or learning anything. Therefore, I am inclined to believe the same would be true here. By learning more and utilizing both of these approaches, I may be able to find what suits my student or their goal best.

Neurobiological Aspects

Studies using brain imaging and physiology explain how mindfulness brings about vocal changes, going beyond just personal stories to provide a clearer, mechanism-based explanation (Tan, Gooley, & Farbood, 2020). Current brain science shows that mindfulness meditation leads to noticeable changes in the brain's structure and function, especially in areas that handle attention, control of emotions, and awareness of the body's internal state (Hölzel et al., 2011). What's especially relevant for voice training is that meditation raises the amount of gray matter in the insula and anterior cingulate cortex. These areas are key for understanding bodily sensations and thinking about oneself, which is vital for getting proprioceptive feedback when singing (Tanaka et al., 2014). Functionally, mindfulness strengthens the link between the prefrontal cortex and the limbic system, giving better mental control over emotional responses and reactions that often lead to unwanted tension in the larynx, throat, and neck muscles (Critchley et al., 2004).

Neuroscientific studies that directly look at the voice offer even more specific evidence. A 2025 study using fMRI examined how combining mindfulness with vocal improv

affected music performance anxiety (Boland et al. 2025). It found that doing vocal improv in mindful states activated brain networks in the front and temples while also lowering activity in the amygdala, which is the brain's fear center (Tan et al., 2020). Research on the autonomic nervous system shows that music mindfulness practices quickly change parasympathetic activity, lowering the body's arousal level that usually comes with performance anxiety and vocal tension (Birkeland et al., 2024).

These brain changes lead to better vocal skills through a few paths: First, better awareness of inner sensations allows singers to sense their throat and breathing patterns more precisely, helping them fine-tune their vocal output (Tanaka et al., 2014). Second, better emotional control lowers defensive throat tension, letting the voice flow more freely (Dahl et al., 2015). Third, stronger executive function helps singers stay focused during performances, preventing the wandering mind and anxiety that are common in nervous performers (Tang et al., 2015). Fourth, shifts in the autonomic nervous system from a fight-or-flight response to a rest-and-digest state create a relaxed alertness that's best for vocal performance (Porges, 2011).

These explanations clarify vocal improvement, basing it on neuroscience rather than just mystery. Being exact is important: now we can say not just that mindfulness helps singers but also which brain systems are involved and how they cause particular vocal results (Hölzel et al., 2011). This level of detail allows for moving from research to actionable methods based on proof. This is especially important in my own practice as most of the students I work with are children and adolescents. Understanding brain development and the effects of these methods on the brain is ethically imperative for my practice. It also allows me to speak from a place of knowledge and expertise, which fosters a sense of comfort and security in my students.

However, brain science alone can't fully explain vocal change. The studies find links and ways, but human vocal growth is still very complicated, involving learning from culture, mixing emotions, improving aesthetics, and personal quirks that resist simple scientific reasons (Sacks, 2007). The best way to understand it is to mix clear scientific

explanations with the understanding that it's very complex (Sacks, 2007). Brain paths are the base, but real vocal skill comes from creating meaning, mixing emotions, and having clear intentions that go beyond brain mapping (Damasio, 2010).

Empirical Evidence

Research using mixed methods gives solid facts that mindfulness/meditation exercises make clear, positive changes in different parts of vocal skill and performing (Brown, 2021). The best evidence comes from the Mindfulness for Singers program, which has been studied across many iterations. Initial work by Czajkowski (2015) had eight university singers do an eight-week mindfulness course along with voice lessons. Before and after the course, they were tested using the Five Facet Mindfulness Questionnaire (FFMQ), which showed big improvements in all five areas of mindfulness (Baer et al., 2006). The singers and their teachers also said they saw major gains (Czajkowski, 2015): singers felt more aware of their bodies, had better breathing, less extraneous tension, better focus, and less performance anxiety. Teachers who didn't know which singers had the mindfulness training could pick out 6 of the 8 based only on how their voices had improved. This dramatically shows how well the intervention worked. A repeat study by Brown (2021) with a larger sample set agreed with these results and showed that those doing mindfulness were more focused in lessons, had better body awareness that helped their singing, less performance anxiety, more expression when performing, and better teamwork. Looking at specific skills, reports show that mindfulness especially helps with breathing coordination (allowing fuller, more controlled breath support), awareness of small muscles (allowing precise control of the throat), vocal tone (by lowering tension and improving resonance), and emotional connection (by improving present-moment connection to the meaning of the lyrics) (Czajkowski, 2015).

In regards to performance anxiety specifically, studies say that singers using combined mindfulness-vocal improv exercises have lower anxiety scores, more confidence, and say that their anxiety turns into focused interest instead of fear that ruins their performance (Brown, 2021; Tan et al., 2020). One study on vocal improv in mindful

settings found that improv seemed to make mindfulness work even better, maybe because it needs the singer to handle breathing, throat control, and intonation while staying aware and non-judgmental (Tan et al., 2020).

Both Brown (2021) and Cohen et al. (2022) recruited participants who volunteered for mindfulness interventions within university programs. This self-selection may result in over representation of students who were already highly motivated and open to such practices. Conversely, this means that there may be an under-representation of students who are skeptical, have more demands on their time, or are struggling with more pronounced anxiety. These considerations limit how far their positive findings can be assumed to apply to a broader base of singers.

Research on specific vocal proficiencies gives more mixed results. A 2022 study looked at whether short-term mindfulness meditation improved pitch, dynamics, and vocal resonance in music students. It didn't find any major changes, though there were some signs of better dynamics and resonance (Cohen et al., 2022). The authors think that this might be because the study didn't last long enough or because the testing methods weren't adequate enough to show any real changes. It's worth noting that longer exercises and better testing usually do show positive results, suggesting that the amount of training and how you measure it are paramount (Tan et al., 2020).

Czajkowski's (2015) targeted mindfulness course used a more intensive 8-week design embedded into a regular vocal study program. This differs from Tan et al. (2020) which examined the more immediate impact of brief, improvisational singing interventions in a lab context. The former provides some indication of how mindfulness can be woven into ongoing pedagogy, albeit with limited control over variables. The latter allows for stronger inferences with regards to short-term effects on neurological and anxiety measures. However, it tells us less about practical transfer over time. Considering these designs together underlines the idea that different methodologies answer different parts of the overall question.

All of the evidence together shows that mindfulness has positive results in many areas, especially lowering anxiety and improving attention/awareness, with less consistent results on specific technical things. This difference is important: mindfulness seems to work mostly by changing the cooperation between mind and body (lowering anxiety, improving focus, controlling emotions, awareness of the body) (Hölzel et al., 2011). To me, this appears to make the conditions more supportive for vocal technique to grow, rather than directly training technique. In other words, the singer's better awareness and less anxiety allow them the mental and emotional space to learn technical skills. Whether that learning fully happens depends partly on how good the regular technical instruction is that goes along with the mindfulness practice (Ericsson, 2008).

This research encourages me to rethink how vocal technique grows. Through my undergrad work to obtain my teaching degree, I was told that teaching sees technique as learned through clear instruction and practice of mechanical steps. This research suggests that the mental, emotional, and physical situation in which technique grows is just as important. A singer with less anxiety, better body awareness, and good focus learns technical skills faster and better than a singer who is just as well-taught but remains anxious and tense (Chorpita et al., 2007). For me, this changes mindfulness from being just another choice to being a key part of learning technique. It also suggests that great vocal teaching must address the whole person (attention, emotion, and physical awareness), not just the mechanics (Karpinski, 2000).

Mechanisms of Breath Coordination and Vocal Resonance

Mindfulness practice has clear results on breath coordination and resonance awareness, two basic vocal skills (Czajkowski, 2015). This happens through a greater awareness of the body and less tension (Kabat-Zinn, 2003). Breath is key to vocal sound, but in my experience, many singers (especially young singers) have bad breathing habits. These include shallow chest breathing, holding their breath when stressed, and not breathing in time with their singing. Mindfulness practices, like pranayama in yoga or breath meditation in Buddhism, can help singers understand their breathing better (Ospina et al., 2007). Ospina suggests that with this knowledge, they

can learn to control their breathing patterns. Studies show that singers who take mindfulness courses do tend to become more aware of their breathing (Brown, 2021). They can tell when tension is limiting their breath and can breathe from their diaphragm even when stressed (Czajkowski, 2015).

Resonance also shows improvement with mindfulness (Czajkowski, 2015). Good vocal resonance needs relaxed throat muscles and the optimal shape of the vocal tract resonators (Titze, 2000). This can be challenging because it means relaxing while still actively singing. When people experience performance anxiety, their throats can get tense and they lose awareness of those sensations, which makes resonance worse (Papageorgi, Creech, & Welch, 2013). Mindfulness lowers tension from anxiety and makes singers more aware of the feeling of resonance (Brown, 2021). Pranayama practices, like humming, help singers feel resonance and relax their bodies, which supports good vocal sound (Prakash, Boominathan, & Mahalingam, 2022). These things suggest that breath and resonance may especially benefit from mindfulness practices. They depend on relaxation, awareness, control, and focus, which mindfulness helps build (Keng, Smoski, & Robins, 2011). Unlike technical skills that take a long time to learn, breath and resonance can often improve quickly with mindfulness because it addresses the root issue: tension and lack of focus (Kabat-Zinn, 2003).

This brings up a teaching question in my mind: would it be better to begin vocal lessons, (or even general music lessons that involve singing or wind instruments) with mindfulness-based breathing awareness instead of regular breathing exercises? Some new research suggests it might. Some studies show that starting with mindfulness improves students' ability to learn and keep better breathing habits (Czajkowski, 2015). To my mind, this means that the order of teaching could be imperative: building body awareness and lowering tension first makes it easier to learn the technical parts. This changes my usual way of teaching, where technique comes first, and psychological work comes later. This idea is worth thinking about: could mindfulness-first methods be a better way to learn? I plan to keep this question in mind for future modules and research projects.

Attention, Performance Anxiety, and Emotional Regulation

Mindfulness meditation may greatly lower performance anxiety and increase emotional control and attention (Keng, Smoski, & Robins, 2011). These changes are very useful since many vocal problems come from the mind, not the body (Papageorgi, Creech, & Welch, 2013). From my own teaching experience, I recognize that performance anxiety is a common issue for singers of all levels. Anxiety can cause a series of problems: worry starts the nervous system, which makes the heart race, breathing shallow, and releases adrenaline (Porges, 2011). This tightens the throat, raises tension in the voice box, and makes it harder to sing, which subsequently further increases anxiety (Papageorgi, Creech, & Welch, 2013). Common ways to deal with performance anxiety include cognitive strategies (Chorpita et al., 2007). Mindfulness works in a different way: instead of fighting anxiety, it helps performers notice their anxiety without letting it take over (Kabat-Zinn, 2003). A singer can notice their racing heart and tight throat but also know that these feelings don't reflect their actual singing skill. This realization allows them to keep performing even when anxious (Csikszentmihalyi, 1990).

Studies seem to support these results. When comparing singers trained in mindfulness to others during performances, it was noted that the mindfulness group had the same physical anxiety signs but felt less anxious (Brown, 2021). In Brown's study, this group was more focused on their performance and sang better, seemingly because of attention. The mindfulness group also stayed aware of their singing instead of getting lost in anxious thoughts. They stated that this focus helped their singing. They also said that their anxiety changed: instead of feeling panicked, they felt focused intensity or performance energy.

Mindfulness may also help with emotional expression in singing. Many singers have a tendency to control their emotions too much, either through tension or by overthinking them (Papageorgi, Creech, & Welch, 2013). Mindfulness helps them experience and portray real emotion (Brown, 2021). It builds awareness of feelings, allows emotions to be present without causing performance anxiety, and maintains technical command so

that the emotions come through in their voice (Keng, Smoski, & Robins, 2011). Brown's study (2021) also shows that mindfulness improves the ability to show emotional content through tempo, phrasing, and tone.

This data presented me with a new way to look at performance psychology. Instead of seeing anxiety as a problem to get rid of, mindfulness suggests it can be redirected energy (Bishop et al, 2004). This strikes me as important: trying to remove anxiety can lead to too much focus on control, while redirecting attention allows for useful energy while lowering mental interference (Kabat-Zinn, 2003). Also, emotional expression improves not by trying to insert falsified emotion but by creating the focus needed for real emotion to show (Brown, 2021).

To me, these ideas go past performance anxiety and ask questions about psychological growth in artistry. I believe that great vocal expression needs a certain level of psychological skill: the ability to access real emotion while keeping technical control, the ability to perform even when nervous, and the willingness to be open emotionally in public. These are all psychological skills that mindfulness may help build by creating distance from thoughts and emotions without disconnecting from them. This means that attending to psychological growth, not just technical training, could be key to vocal teaching (Cohen et al., 2022).

Limitations, Contextual Factors, and Barriers to Implementation

Even though research shows real benefits (Tang et al., 2015), there are limits and situations that affect how well mindfulness and vocal work can be implemented in real-world settings (Ericsson, 2008). There are things to consider. First, many studies have limited sample sets of people who volunteer for mindfulness programs (Ospina et al., 2007; Keng et al., 2011). In these studies, volunteers are likely already interested in these methods. Therefore, the results might not apply to all singers. Second, the length of the programs varies, making it hard to know how long a program needed (Kabat-Zinn, 2003; Keng et al., 2011). Third, measuring results can be tricky. Some studies use clear steps, but others rely on what people say they feel (Baer et al., 2006).

Fourth, the placebo effect might play a role: if singers believe mindfulness will help, they might improve partly simply because of that belief (Zeiden et al., 2011).

There are also issues in practice. Many voice teachers don't have enough mindfulness training to teach it well (Czajkowski, 2015; Crane et al. 2021). School programs often don't have enough time for both technical training and mindfulness work (Cohen et al., 2022). Some singers don't find value in psychological methods and prefer strictly technical training (Papageorgi et al., 2013). Sticking with mindfulness practice is necessary, but consistency may be difficult (dropout rates are about 25-50%) (Davis et al., 2022; Gullo et al., 2025). Also, mindfulness programs need to be personalized, meaning that general programs are less helpful than ones that are adjusted to fit each person's needs (Ericsson, 2008). Things that affect results include culture (how comfortable people are with mindfulness varies), age (younger and older singers might have different results), genre (the advantages may vary between types of singing), and basic anxiety levels (singers with anxiety problems may need clinical help along with mindfulness) (Chida et al., 2009; Chorpita et al., 2007; Papageorgi et al., 2013; Keng et al., 2011).

These limits suggest that we can't assume that research results apply to all singers in all situations. Instead, the data supports a more careful idea: mindfulness is good for many singers in the right situations, especially those with performance anxiety and those who can commit to practice (Cohen et al., 2022). However, it's good to remember that mindfulness is just one tool among many, and may not be the best for everyone.

Acknowledging these limitations actually may make the claims for mindfulness-vocal integration stronger. It means the field is growing: researchers are admitting what they don't know and can't prove (Brown, 2021). The most flawed research would claim that mindfulness works for everyone without exception. This limits the scientific viability of said research. The more current research attempts to look honestly at limits, suggesting that future research should explore whether shorter programs are good enough to be worth using in limited time; whether combining mindfulness and technical training is

better than either alone; and how to customize mindfulness programs to each singer's psychological traits and learning styles (Czajkowski, 2015; Brown, 2021; Cohen et al., 2022; Papageorgi et al., 2013) .

Synthesis: How Mindfulness and Vocal Growth Integrate

A look at these studies in neurobiology, psychology, and pedagogy shows clear ways that mindfulness may impact vocal abilities. This is based on the idea that singing is a physical skill affected by our mental state (Hölzel et al., 2011). As discussed, singing involves careful control of throat muscles, breathing, and sound, mental processes like focus, managing emotions, and feeling confident; and artistic elements, such as showing real emotion and communicating with others (Sacks, 2007). Often (as I was taught), traditional teaching methods separate these parts, focusing predominantly on technique and hoping the rest will follow. But, my research here shows that these areas are closely linked. For example, if you're nervous, your throat gets tight, which hurts your singing. If you can't focus, you miss small vocal cues needed to improve. If you're not emotionally invested, your singing might be technically good but lack feeling and connection. My findings indicate that mindfulness helps bring these parts together by improving body awareness, reducing anxiety, and improving focus. This creates the right mental and physical state for learning technique, relaxing, and expressing emotion (Hölzel et al., 2011). Mindfulness doesn't directly teach singing or replace technique. Instead, it makes the mind and body ready for vocal technique to grow, helping people learn, improve, and express themselves better (Tang et al., 2015). It bears mentioning that this idea is similar to what's found in sports psychology, where top athletes use both physical and mental training. Mindfulness has become a key part of mental training in sports (Goleman & Davidson, 2017). Singing, like sports, needs physical control, focus, and mental strength, so it may also benefit from this integration (Williams & Keram, 2014).

2.3 Conclusion and Suggestions for the Future

Professional Development Implications

What I've learned can change how I teach singing to include mindfulness. I now think some teaching methods may be worth trying. A Mindfulness for Singers course uses an eight-week plan with weekly mindfulness lessons and singing practice, mixing mindfulness exercises into warm-ups (Czajkowski, 2015). Another method (albeit older, but still used and worth mentioning in this context), vocal coaching with body awareness, uses movement and mindfulness to improve technique and mental presence (Feldenkrais, 1972). Some programs use short meditations before practice to sharpen focus and lower anxiety (Brown, 2021).

Some teaching suggestions to integrate mindfulness that I discovered in my research include the following: Start lessons with body scans or breathing exercises to relax before singing; Use mindfulness cues in technique (e.g., bring awareness to your diaphragm instead of pushing it); Spot tension and learn to release it through bodily awareness, not just willpower; Make my studio or classroom a place where singers feel safe to express emotion without fear (Kabat-Zinn, 2003). These tips change the focus of my teaching without needing to change the whole plan. I feel they will fit easily with regular singing and classroom lessons, taking little extra time but improving results. However, this means I need to learn more about mindfulness itself. I can't teach what I don't know. This means finding a teacher program, or professional development seminar that includes mindfulness training and understanding of the mind-body link (Rogers, 1961).

I also realize that it may not be easy, or quick to make these changes. My experience with learning and teaching the art of singing usually focused on technique, and mental aspects were often ignored, even though they are clearly important. Changing this mentality and personal culture will take time and support. I also need to practice what I preach, which means using these ideas in my own singing. That way I can share real, experiential knowledge, not just abstract information. This will take personal effort

(Schön, 1983). Even so, I feel I now have a good base of information to back up the use of these practices in voice lessons.

Considerations for Further Study

This review also brings up limits and questions that still need answers. This is a relatively new area, therefore bigger studies that last longer are needed. Also, we don't yet know the best ways to implement these ideas into action. Is it enough to take classes on mindfulness alone, or should they be a standard part of learning vocal techniques? How often and for how long should someone use these practices to get real, consistent results? How might these mindfulness methods need to change based on different types of singing, age groups, and cultures? How can teachers add these things to their programs while dealing with little time? Future studies would benefit from looking for answers to these questions, as well as finding the best ways to include these ideas in different teaching situations. I'd also be curious to know if starting mindfulness early in voice training leads to better results in the long run, and how things like personality, learning style, and past experience with meditation change how someone responds to these practices (Keng et al., 2011).

Most importantly, this research asks me to rethink what makes great vocal development. In my experience, simply knowing the techniques is often not enough to foster real artistry. But, while I have come by the artistry intuitively, I have struggled to help my students achieve the same results. If I wish to grow real artists (not just people who are good at singing mechanics), I should pay attention to the integration of mindfulness techniques. I can use meditation practices that are based on evidence and that we are starting to understand better through brain science and psychology.

2.4 Reflection

The Hermeneutic Circle

The way this study was directed followed a hermeneutic circle approach, which means that understanding deepened bit by bit through reading different sources and expanding from there, rather than through a set plan (Boell & Cecez-Kecmanovic, 2010). At first, I thought vaguely that mindfulness may help singers, but I wasn't sure how or by how much. Early searches gave me some basic information. Things like interoception, mindfulness facets, and somatic awareness only made sense when I saw how researchers were using them. Articles that reviewed the topic gave me a starting point for understanding, so I could make sense of later studies. This mirrors Boell and Cecez-Kecmanovic's claim that initial searches rarely capture all relevant work.

In this sense, the hermeneutic process worked as it should: my understanding got deeper over time. For example, initially I thought the vocal benefits were mostly psychological (less anxiety). But, as I read more about the neurological benefits, I saw things I had missed before. The changes in the brain, the nervous system, the pathways for feeling the body. These things didn't disagree with the psychological view, but they made it richer, revealing facets I had not considered before. This is a good example of hermeneutic deepening: the whole (a good understanding of mindfulness and vocal work together) changed as I understood the parts (individual studies) better, which then let me understand new parts even better (Boell & Cecez-Kecmanovic, 2010).

The most helpful hermeneutic learning was when I reflected on my own prior assumptions. Boell and Cecez-Kecmanovic (2010) note (drawing on Heidegger) that and I was concerned that students, colleagues, parents, and administrators would reject mindfulness as being too emotional and not based on real proof. Because of this, I gave more weight to neuro science data (which seemed more serious) than to personal experiences of those that teach these concepts. However, as I learned more, I saw that different kinds of proof can be equally beneficial. Teachers being able to tell which singers had mindfulness training just by hearing them is as relevant as fMRI data, just measured in a different way. This encouraged me to reassess the thinking that some

proof is “better” than others. Instead, I started to see that there are different ways to demonstrate that something is true (Gadamer, 1979).

Limitations of My Own Understanding

I admit that even after this research study, there are some limits to what I understand. I've mostly looked at research and ideas from the West. This study could be better if I knew more about how other traditions see vocal practice (like the focus on meditation in Gregorian chant, the focus on presence in Quranic recitation, or how Indian classical vocal work connects with yoga). Also, my research focused mostly on one area of singing (Western art music). I might learn different things if I looked at popular music, folk music, or other vocal practices from around the world. Lastly, it is important to note that, as I selected what to read, there is a chance that other researchers might see different patterns or give different weight to certain proof, depending on their own background and assumptions.

I also know that the way I learn probably affected how I looked at the material. I'm better with words and abstract concepts, so I might have given more importance to theories and language analysis. A researcher who learns differently might have organized the same information in a different way. The hermeneutic circle says that understanding is never neutral. What I've created is my own view, not an objective description (Boell & Cecez-Kecmanovic, 2010). Others could create different understandings from the same information, and they could be just as effective and relevant.

Ethical Considerations

There are several ethical things to reflect upon. When I suggest adding mindfulness to vocal work, I need to avoid saying that it is universally applicable and beneficial. The research suggests benefits for many, but falls short of applying to everyone. I should also be mindful not to claim more than the evidence actually shows. The research is admittedly exciting, but there is still more to explore, therefore exaggerating what is known would be unethical. I should make sure I consider possible risks, as well. Some people have difficult emotions come up during meditation (Britton et al., 2021). Teachers

who don't know how to give psychological support could hurt students by pushing mindfulness too hard without knowing when someone needs actual psychological therapy (Baer et al., 2019).

It is also important to think about who can access these kinds of methods and training. Mindfulness training takes time and effort that not all students may be able to manage. Money can also be a significant barrier to getting adequate instruction. Ethically, we should make sure these programs are available to people from various economic backgrounds, should they desire to try them. Quite possibly most importantly, we need to be respectful of the cultures from which mindfulness originates. Mindfulness traditions developed from specific religious and cultural contexts. When we bring them into Western teaching, we need to acknowledge where they came from, not just take them out of context, leading to appropriation (Said, 1978).

Performance Practice Plans

Beyond my role as a teacher, this research has really changed how I think about the act of singing, as a performer. I now understand that vocal technique benefits from considering psychological and neurological aspects that I had mostly ignored. I also understand that performance anxiety isn't just something to overcome with willpower; it actually gets in the way of the precise muscle control and body awareness that my technique needs. On the other hand, paying attention to psychological development doesn't take away from technique, but it makes the best conditions for learning it. This new way of thinking has changed my work in a few ways.

First, I have developed an action plan to practice mindfulness more consistently myself (beyond addressing spikes in anxiety). I want to expand my understanding by experiencing it. I plan to begin meditating every day, and keeping a journal to note how my focus changes, and seeing how my own performance anxiety responds. Second, I'm thinking again about how my practice time is structured. Usually, I begin right away with technical exercise work. By adding 5-10 minutes of breathing or body awareness at the

start of my practice time I hope to improve focus and become more open to technical advice when I receive coaching. Third, I'm changing the vocabulary I use with myself. Instead of "flex your diaphragm" I plan to use terms that foster awareness (e.g. "notice what your abdomen does as you breathe" or "notice where you feel tension as you hold this phrase"). By implementing this plan, I hope to gain the insights needed for me to clearly guide others from a place of experience and expertise.

Teaching Practice Plans

Above all, I've been thinking about how to use what I've learned in my work as a vocal coach and music teacher. Here are my next steps: I'll keep up my personal meditation, as it's key to my teaching. I plan to try adding short mindfulness exercises into lessons with private students who agree to it, and pay close attention to whether it helps each student and in which ways. Before pushing for widespread classroom incorporation, I'll pursue training to improve my skills. I'll also keep an eye on new studies, especially those that look at who benefits most and which methods work best in the classroom and private studio contexts.

I think there's value in promoting mindfulness in my larger profession as a classroom music and choir teacher. After collecting some clear data, I can begin discussing it with colleagues, showing good outcomes with small trials, and slowly growing acceptance within the larger vocal pedagogy community in my state. Effective change takes time and agreement. Pushing too hard could cause problems. Instead, I'll incorporate these ideas in my own way, invite colleagues to watch and discuss, and let the evidence speak for itself.

Importantly, this study has also reminded me to remain curious. I started this research thinking I understood how to administer great vocal teaching. I am now beginning to see how much I do not know and how much more research there is to be studied. This makes me eager to keep learning, listen to what students find helpful, and be open to findings that could change my views. I believe that great teaching isn't just about technical skills but also about a real drive to grow. This means fostering my willingness

to learn, changing my mind when presented with new evidence, and expanding the methods that I use to teach. This study has added to my growth while also showing just how much there is still to know.

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