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FOSTERING FLOW: INVESTIGATING FLOW EXPERIENCES IN

VOCAL AND CHORAL MUSIC EDUCATION

A Dissertation in

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by

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ABSTRACT

Interests in how Csikszentmihalyi's (1975) flow theory relates to music learning has been a focus for music education scholars for over two decades. This document aimed to reveal that which contributed or inhibited flow experiences in vocal/choral education settings to arrive at a theory of fostering flow for singers.

I completed two research studies in search of situational and personal factors surrounding the flow experience in a choral rehearsal context and varied settings for a solo-vocalists. A third study, a comparative analysis of mindfulness and flow experiences, was conducted to further solidify a theory of fostering flow for singers. The following overarching research question guided this multi-study investigation: How might the flow experience be fostered in vocal/choral music education settings?

The purpose of the first study (chapter three) was to investigate a conductor and singers' flow experiences in the choral rehearsal setting. This mixed method investigation used Creswell's (2014) Sequential Explanatory model which included quantitative data collected from a self-reporting instrument and qualitative data in the form of interviews, field notes, reflections, emails, and images. Participants included singers and a conductor from a nationally recognized university choir located in the mid-Atlantic United States ($n = 40$). A difference of proportions analysis revealed a relationship between the proportion of singers who experience flow when the conductor experiences flow. Logistic

regression was administered using data from 37 flow experience moments (n = 37). A p-value of < .05 indicates that singers' flow experience was a significant factor for the conductor's flow experience: log-odds that the conductor flow experiences increase by 10.76 when the singers experience flow. A difference in proportion across 23 songs rehearsed was calculated after separating the conductor's and the singers' flow experience showing a relationship between the conductor and singers' flow experiences in relation to repertoire. Qualitative data findings reveal flow contributors and inhibitors from the perspective of the director and from students who experienced flow frequently and less frequently during data collection. Findings resulted in the following themes all profoundly connected to repertoire: relationships, purposeful music making, focused awareness, musicality, body connection, and musical experience. A "Focused Awareness Ensemble Pedagogy" model was constructed transforming results into a practice of fostering flow in the rehearsal setting.

The purpose of the second study (chapter four) was to investigate personal and situational factors from a singer's perspective before, during, and following potential flow moments. This qualitative single case study aimed to thoroughly examine Csikszentmihalyi's (1975) flow theory and used grounded theory data analysis methods to arrive at a theory of fostering flow for singers. The information rich participant, "Keri," was an undergraduate involved in private voice studio lessons who sang with a variety of ensembles on and off a university

campus in the mid-Atlantic region of the United States. Data from interviews, journals, field notes, social media, and video/images were transcribed and analyzed through NVivo software; coded; and constructed into higher order categories including the central phenomenon, control over consciousness. A proposition statement offered hypothesized themes related to higher order categories including support system, health, portraying repertoire, feedback, enjoyment, and self-actualization. These six categories included situational and personal factors that affected control over consciousness, the central phenomenon, making flow moments possible or impossible for Keri to achieve.

The purpose of a third study (chapter 6) was to provide a comparative analysis further solidifying theory of fostering flow for singers in vocal/choral education settings. Studies one and two of this document revealed descriptive factors from the data indicative of mindfulness research. A deeper investigation of mindfulness research followed by a modified qualitative comparative analysis was deemed an advantageous next step to solidify theory of fostering flow in vocal/choral education settings. Flow theory elements from Csikszentmihalyi's (1996) research are compared and analyzed alongside mindfulness experiential elements as discussed by Lutz et al. (2015) in a phenomenological model of mindfulness practice experience using an investigator created "Inventory of Mindfulness Orientation to Flow Experience." Results are represented by a

temporal model of the flow experience indicating the role of mindfulness as an associate to a successful flow experience.

These three studies provided a thorough understanding of the flow phenomenon resulting in practical approaches to foster flow during music learning. Pedagogy which includes suggestions outlined in the "Focused Awareness Ensemble Pedagogy" for group contexts as well as mindful approaches to music making may result in affording flow experiences for music learners. Music education research thus far has provided a solid foundation of flow in music learning endeavors. Research results from this investigation may provide a lens from which to move in new directions for fostering flow in music education settings.

Keywords: flow, Csikszentmihalyi, optimal experience, mindfulness music, choral, choir, chorus, positive psychology, mindfulness, music education, mixed methods flow, singing, performing, rehearsing, perspective, conscious control, consciousness, coping, singing, music education, meditation, awareness

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Thousands of former students inspired this project, for which I am eternally grateful. I have been making music for years with many that have taught me much more than I have taught them. I am forever grateful for the *flow* moments with many beautiful singing souls. Keep singing!

I have been blessed with an incredible support system of family and friends, both living and deceased. Those in my support system formed the foundation of this accomplishment. Without their place along the journey, my achievements would not have been possible. They have encouraged me, challenged my thinking, allowed me to grow, and loved me regardless of outcomes. May you feel my gratitude extending across many miles and planes of existence.

Finally, I would like to dedicate this dissertation to my son Ryan. He rekindled my inner child, allowing curiosity and joy to flow freely. His tenacity and kindness have motivated me to persevere in hopes he will see the limitless possibilities of his own human spirit.

CHAPTER 1

Introduction

Even when children are taught music,

the usual problem often arises: too much emphasis

is placed on how they perform,

and too little on what they experience.

from *Flow: The Psychology of Optimal Experience*

Mihaly Csikszentmihalyi, 1990, p.112

Vignette

I feel the lyrics pass through me as individual sensations, each part of the words and whole phrases riding on my breath. Tones emanating from deep inside unfold seamlessly, effortlessly, outward into a dreamy space. It hardly feels like I am the one singing; it is just happening through me. Air moves in time with the music- breathe in, sing out, breath in, sing out- while the body rises and falls fluidly with a rhythmic pulse. The music's pulse is felt throughout my body and in concert with other singers surrounding me. We rock in unison, forming a spontaneous dance of breath, body, and sound. We are encompassed in a surreal bubble as the ebb and flow of our bodies synchronize with the music. Nothing else exists but this moment of musicking. Time has been left behind. Worries and distractions hold no place in my mind. Only music making is clear as all else is forgotten in the background. Lyrics carry with them intention as I deliver the

meaning of each phrase with effortless eloquence. This is it, exactly how I hoped

it would be. I should be ecstatic. Instead, I feel calm and completely sure how to

deliver the song every step of the way. The song ends, my body is still, I hold my

breath and savor the moment in wonderment. My fellow choir members and I

look at one another with wide eyes and growing smiles for affirmation that

something extraordinary really did happen. Did I imagine it? I felt something

mystical. A feeling I want to feel again and again.

Reasons for Musicking

Musicians make music for many different reasons. For some, social

engagement is a primary motivation to participate in music. Small (1998) posits

musicking is about cultivating "desired relationships" including between people

as well as with ourselves and our bodies (p. 183). These music encounters may

range from an "insider" who is "privy" to the "rituals" of the classical music

scene (p. 23) to those participating in "great rock festivals" experiencing music as

a "magical presence," a "catalyst" for "human encounters" (Small, 1998, p. 45).

In either example, the musicking is happening both outside and inside an

individual. It may be physical and simultaneously intellectual. The intellectual

side may include feeling a part of an elite world such as in an orchestra concert at

Carnegie Hall, rock 'n' roll at Woodstock, or composing a song at home.

Physical aspects may arise in any music situation if the body feels moved

by the music. Keil (1994) has determined some music more than others provoke

the physical. He refers to such music as the "engendered feeling type," such as jazz or early rock 'n' roll, which "appears to be a serious referential flirtation, if not an out-and-out romance," between music and dance (Feld & Keil, 1994, p. 56). Perhaps the enjoyment of this relationship includes the body acting as a conduit through which music passes. Gabrielsson's (2010) described such a "surrender to the experience" (p. 13) after analyzing 522 participant descriptions of their "strongest, most intense" (p. 6) music experience. One such experience is abbreviated in the following description of a strong reaction to Finnish tango music:

> I was filled by an enormous warmth and heat. I really swallowed all the notes that were streaming out in the air, not a single note, effect or sequence missed my hungry ears. The music became so distinct. I was captivated by each of the instruments and what they had to offer me. Nothing else existed! I was dancing, whirling and really gave myself up to the music and the rhythms, overjoyed—laughing. Tears came into my eyes—however strange that may seem—and it was as a further sign, some kind of liberation. The music set me free from my sober everyday life. (Gabrielsson, 2010, p. 8)

Data from this study revealed "feelings/emotions" are a most frequently reported characteristic of strong music experiences (Gabrielsson, 2010, p. 27). Sacks, a former professor of neurology and physician, postulates music "calls to

both parts of our nature- it is essentially emotional, as it is essentially intellectual"
(Sacks, 2008, p. 312). This calling may invite a person to discover through music
creativity or vicariously explore a culture. Patricia Campbell discusses music as a
"pan-human phenomenon," including "cognitive, cultural, and somatic and
embodied dimensions" (Sarath et al., 2017, p. 26). The calling may be more
focused on the inward experience causing an authentic connection to the
composition. World-renowned choral director Weston Noble offers such a
description: "to sense the depth of our inner person is vital to our ability to sense
the unique 'special world' of a composition" (Freer, 2007a, p. 10).

The "Self" While Musicking

The idea of music altering the self, both losing oneself and expanding the
boundaries of self, has been associated with different terminology. For example,
"transcendent" music experiences are "marked by the performer's sense of being
a part of something larger than oneself" (Bernard, 2009, p. 4) where "one feels
boundaries fall away between oneself and the surrounding environment" (Yaden
et al., 2017, p.145). Gabrielsson's (2010) study regarding strong emotional music
experiences organized data into "transcendental aspects" (p. 18). Results included
narrative descriptions of "out-of-body experiences" such as "musicians watching
their own performance" (p. 12). Feld writes about this phenomenon and terms it a
"lift-up-over" experience (Feld & Keil, 1994, p. 115). The impetus of this term
was Feld's research involving Kaluli people on the island of Papua New Guinea.

Feld described feeling lifted and carried with the Kaluli music while enveloped by sound textures. Of particular interest to Feld were folklore songs involving the transformation of the deceased Kaluli people into birds. These transformed ancestors are believed to communicate through birdsong, which provided a fundamental contribution to Kaluli music creation and ceremony (Feld, 2012). Feld addressed a picture of a young Kaluli dressed as a bird for a ceremony. The photo is too blurry to make out a man, a result from being photographed and making quick movements. Visible are only feathers making him look more like "a bird, a bird as a man, a man as a bird" as he no longer is separate from the experience (Feld, 2012, p. 238).

Keil and Feld (1994) developed a construct of extraordinary music experience that includes bodily sensations termed "grooves" (p. 22-24). Music that is "reveling in repetition" but also contains "slight variations" becomes "magical, hypnotizing, mesmerizing" (Keil & Feld, 1994, p. 23). The role of improvised music material is essential in their description of grooves, including examples such as Motown, polka, early rock 'n' roll, and of the indigenous Kaluli people. Keil posits these groove experiences result in acquiring a "participatory consciousness" that may allow musicians to get "into ecological synchrony with ourselves and with the natural world" (Feld & Keil, 1994, p. 97).

Peak experiences, a term conceived by Maslow (1962), also includes the idea of a transcending self. His description of moments during a peak experience seems to indicate an unfolding of self into the world:

> As he gets to be more purely and singly himself he is more able to fuse with the world…That is, the greatest attainment of identity, autonomy, or selfhood is itself simultaneously a transcending of itself, a going beyond and above selfhood. The person can then become relatively egoless. (Maslow, 1962, p. 99)

Following such an experience has been described as an "intense unity" (Yaden et al., 2017, p. 143) or feeling "…more together than before, not only internally but also with respect to other people and to the world in general" (Csikszentmihalyi, 1990, p. 41). Research in this area seems to indicate a contradicting enigma of losing oneself while simultaneously expanding the self to connect to multiple selves during a single intense music experience.

A Mindful Music Experience

Mindfulness literature uses similar language pertaining to separating the self and connections to others. John Kabat-Zinn, initial developer of mindfulness-based stress reduction (MBSR) programs, was essential to the movement that prompted mindfulness practices into the western world of therapy and decades of mindfulness research. Kabat-Zinn (1994) claims mindfulness "has everything to do with waking up and living in harmony with oneself and with the world" (p. 3).

His definition of mindfulness is as follows: "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003, p.145). Research connecting mindfulness and music experience is largely "unmapped" territory (de la Cruz & Rodríguez-Carvajal, 2014). Mindfulness research from the field of psychology, including both mindfulness and exceptional music experiences, appears non-existent. A mindfulness term for transcendence, loss of self, and connections to others during music experiences had not been offered at the time of this investigation.

Music education research, however, has connected mindfulness and music experiences such as performance anxiety (Farnsworth-Grodd, 2012; Diaz, 2018), solo vocal education (Czajkowski & Greasley, 2015), and general well-being through mindful music making (Auerbach & Delport, 2018). However, extraordinary experiences, such as those previously described, were not the focus of these investigations. More closely related to investigations of mindfulness and described intense music experiences involve mindful interventions followed by measures of attentive listening (Diaz, 2011), piano class activities (Parente, 2011), and self-compassion during individual practice (Lavery-Thompson, 2018). These three music studies juxtaposed mindfulness with the theoretical framework termed "flow" (Csikszentmihalyi, 1975, 1990, 1993, 1996, 1997; Csikszentmihalyi, M. & I.S. Csikszentmihalyi, 1988), an optimal experience.

Flow

Flow is the most researched theory pertaining to intense, optimal experiences. The idea of "flow" was conceptualized by Csikszentmihalyi (Csikszentmihalyi, 1975). The term "flow" resulted from participant interviews describing an optimal experience where their actions seemed to flow with a current (Csikszentmihalyi, 1975, p. 36). His participants described flow as a "sense of effortless action they feel in moments that stand out as the best in their lives" (Csikszentmihalyi, 1997, p. 29). His early flow research garnered this narrative data from an "outstanding composer" and moments described while composing music:

> You yourself are in an ecstatic state to such a point that you feel as though you almost don't exist. I've experienced this time and time again. My hand seems devoid of myself, and I have nothing to do with what is happening. I just sit there watching it in a state of awe and wonderment. And it just flows out by itself. (Csikszentmihalyi, 1975, p. 44)

There is not a single definition of flow offered by Csikszentmihalyi. Instead, he provides elements reiterated from interviews describing the flow experience: having clear goals; receiving immediate feedback; balancing challenge with skill; action and awareness merge; distractions are excluded from consciousness; no worry of failure; self-consciousness disappears; time is

distorted; and the activity becomes autotelic (Csikszentmihalyi, 1975, 1990, 1993, 1996, 1997; Csikszentmihalyi, M. & I.S. Csikszentmihalyi, 1988).

The final element where the activity becomes autotelic, is a consequence of flow following the experience. Often those who have had one flow experience with an activity are attracted back to the activity again and again just for the sake of doing it. The result is intrinsic motivation toward that activity, or the activity becomes autotelic. An experience with such qualities of engagement and motivation may be a useful aim in any education setting, including music. Consider flow in relation to thriving music students and programs. It may be possible a program that fosters the environment for flow experiences may have motivated students from music activity to music activity and season to season. A program such as this would include goals of fostering flow experiences during the process of learning music in the general music classroom, ensemble rehearsals, and during performances.

Accompanying descriptions of the flow experience include the loss of self and feelings of interconnectedness with those with which you are surrounded as well as beyond the immediate environment. For example, Csikszentmihalyi (1996) describes that the "musician feels at one with the harmony of the cosmos" resulting in a paradox: "the self expands through acts of self-forgetfulness" (p. 112-113). Following an episode of flow, one emerges with a "stronger sense of self-concept" and feeling as they stepped "out of the boundaries of the ego and

have become part, at least temporarily, of a larger entity" (Csikszentmihalyi, 1996, p. 112). These quality experiences may contribute to character development. A topic worth exploring for educational endeavors which include guiding students in self-awareness and awareness of others.

Many questions surround the idea of flow as it is a phenomenon which relies on self-reported data to investigate. My questions concern the role of flow in vocal/choral education settings. What can be learned from flow research that may assist in fostering flow? How might educators use Csikszentmihalyi's flow findings to foster the experience during music practice and performance? Are there rehearsal techniques being used that guide students toward flow? What role might repertoire have in encouraging or inhibiting flow? How might a singer's perceptions affect the ability to achieve flow?

Flow and the Singing Experience

The choral/vocal education setting may have exceptional value for researching the flow phenomenon. The experience of flow and singing has been noted as having a special relationship. Csikszentmihalyi has found that the "common elements of this Flow Experience are especially clear in activities such as singing in a choir" (Gilbert, 1995, p. 14). Gabrielsson (2010) found frequent strong music experiences were associated with singing in a choir. He discussed possible factors of this result:

The voice gets support and resonance from others… One is part of

something greater, sharing the expression and power that the choir may

achieve. It may act as confirmation and may increase self-confidence, in

combination with collective pride in the choir's achievements. Moreover,

choir singing often generates close social relationships. (Gabrielsson,

2010, p. 23)

Unique aspects of choral discourse and flow were investigated by Freer

(2007a) who found the "qualities of optimal experiences defined by Mihalyi

Csikszentmihalyi are implicit in the conversations that choral conductors have

about choral music" (p. 18). An investigation of 141 choral conductor interviews

cross-referenced with flow characteristics revealed a "power to enlarge the

musical experience" specifically for those participating in choral music (Freer,

2007a, p.17). Supporting Freer's conclusions are accounts such as this from

conductor Richard Cox: "One of the great things that happens in choral groups is

that people of all kinds and stations and abilities can get a very real sense of

togetherness, and common concern, and accomplishment. In a choral context this

might go beyond what they might be likely to do otherwise" (Freer, 2007a, p.17).

As a singer and conductor of choirs, I have had an abundance of flow

experiences in choral settings. The experiences have motivated me to investigate

how might fostering flow for vocal/choral education settings occur. The design of

this investigation takes into consideration the group dynamics of flow and the

individual singers experiencing flow. Features in vocal/choral settings examined include relationships among choral members and with the conductor; rehearsal structure pertaining to repertoire and discourse; and feelings of interconnectedness and the expansion of self. In addition, qualitative data collection considered the overarching relevance of an individual's perceptions to their ability to achieve flow.

Perception is of particular importance to achieve the balance between challenge and skill element of flow. Csikszentmihalyi (1993) described the balance as "one's perceived ability to act" matched with the activities challenge (p. 178). The challenge is a subjectively measured and matched by a person's perception of their own skills. This makes fostering flow in any education setting contingent on the perception of the students.

Walters (2016) has considered the perception of singers as it relates to choral score analysis. His publication guides conductors toward fostering the challenge and skill balance element of flow in choral rehearsals by anticipating singer perceived "trouble spots" (Walters, 2016, p. 17). Identifying "salient and potential challenges" through score study may enable conductors to "foster the perception of high challenge-skill balance" for the singers' flow experiences (Walters, 2016, p. 16). The present study pursued multiple factors of perception in addition to repertoire such as music making experience; social interactions among singers; and interactions between singers and conductor or mentors.

Investigating Flow

This investigation of fostering flow includes three studies. The first study took place in a choral rehearsal setting and used a mixed-method design to elucidate factors associated with fostering flow. The second study was a single case study that investigated both environmental factors and the inner experience of flow from a vocalist's perspective.

During the process of researching flow for studies one and two, mindfulness became a reoccurring theme while both reviewing literature describing flow as well as the process of achieving flow among participants in these studies. It became apparent a movement toward fostering flow might include mindfulness to assist in shaping moments before, during and after flow. Csikszentmihalyi, as a result of several years researching positive psychology, posits the key to happiness is "control over consciousness" and accomplishing flow exemplifies mastering such control (Csikszentmihalyi, 1990). This kind of conscious control is implicit in language describing the "mechanisms" of mindfulness practice where "one learns to attend to the contents of consciousness, moment by moment" (Shapiro et al. 2006, p. 375). Mindfulness associated language was abundant in the data from studies one and two. As a result of these parallelisms between mindfulness and flow, a third study ensued to investigate mindfulness juxtaposed with the inner experience of flow in a comparative analysis. Each study aimed to expose theory of fostering flow in education,

specifically choral/vocal music education. This document addresses questions surrounding this objective:

- Are there rehearsal techniques that guide singers toward flow?

- Do specific repertoire selections incite the flow experience more than others? How do rehearsal conditions around those songs compare? How might approaching repertoire in solo singing compare?

- What role does movement or overall body connections have in attaining flow?

- How might a singer's perceptions affect the ability to achieve flow? What individual perceptions exist that inhibit or encourage flow?

- How might environmental factors surrounding a flow experience, including context and time, inform an approach to foster flow for singers?

- What role, if any, might mindfulness have in accomplishing and fostering flow?

The purpose of this investigation was to thoroughly examine flow in hopes to answer the following research question: How might the flow experience be fostered in vocal/choral music education settings? Empirical investigations garnering clear ways to foster the experience for students are limited. Fostering flow experiences appear exceedingly useful to incite engaged music learning and for the general well-being of students. Csikszentmihalyi (1988) might also add an

improvement to humanity overall. His research led him to hypothesize the role of flow in the "evolution of consciousness-and hence, the evolution of culture and ultimately the evolution of the human species." This evolution results in an opening of "consciousness to experience new opportunities for being that lead to emergent structures of the self" (Csikszentmihalyi, M. & I.S. Csikszentmihalyi, 1988, p. 29). Flow is an allusive phenomenon; however, fostering flow may be worthy of exploration for the good of music education, our students and possibly the future of humanity.

CHAPTER 2

This literature review examines research, various publications, and presentations pertaining to Csikszentmihalyi's flow theory research. Literature covered includes research of the flow phenomenon from positive psychology as well as flow publications concerning education. Music education research thus far has provided a solid foundation of flow specific to music learning endeavors. This review will provide a lens from which to move in new directions to research fostering flow in vocal/choral education settings.

Literature Review

Flow has been a topic of interest to music education research for over two decades. Flow theory, however, was conceptualized by Csikszentmihalyi in the early 1970s (Csikszentmihalyi, 1975, 2014b). He describes flow as a "sense of effortless action" people "feel in moments that stand out as the best in their lives" (Csikszentmihalyi, 1997, p. 29). Csikszentmihalyi was initially inspired by observing those who found enjoyment in activities despite living in post-world war Europe. Csikszentmihalyi set out to interview those who participated in activities just for enjoyment rather than external gains. The term "flow" resulted from these participant interviews describing an optimal experience where they seemed to flow with a current (Csikszentmihalyi, 1975).

There is not a single definition of flow offered by Csikszentmihalyi; rather, elements that describe the flow experience. Participants perceived the flow

state as having a sense of complete control as worry and distractions are absent from consciousness; action and awareness are merged; and experiencing the flow moment outside the confinements of time (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997; Csikszentmihalyi, M. & I.S. Csikszentmihalyi, 1988). Csikszentmihalyi's research revealed conditions that may instigate flow including having a clear set of goals; a perception of balance between the activities challenge and one's skills; as well as clear and immediate feedback along the way (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997; Csikszentmihalyi, M & I.S. Csikszentmihalyi, 1988). Having had one flow experience attracts a person back to the activity again and again just for the sake of doing it, resulting in the activity becoming intrinsically motivated, also referred to as autotelic. An experience with such qualities of engagement and motivation may be a useful aim in any education setting.

Csikszentmihalyi (1990) declares the opposite of the flow state is psychic entropy (p. 39), a "condition of inner disorder" (p. 37) characterized by an inability to focus on a task as a result of being overwhelmed by inner and external distractions. Consequently, he posits operating from activity to activity in flow may result in overall happiness (Csikszentmihalyi, 1990). Included in the moments that follow a flow experience are feelings of connectedness to others, a sense that everything is well, and of being in harmony with yourself as well as those around you. These positive outcomes in mental state contributed to a branch

of psychology aimed at mental health prevention through enhancing human well-being, positive psychology (Csikszentmihalyi, 2014b). If students' positive mental health is a goal in education, knowledge of how to foster flow in an educational setting for students may contribute to this goal.

These characterized elements of the flow experience appear to be a natural fit for education. For example, flow could be a means for assessing whether teachers' expectations are appropriate for their students' skill level using the balance of challenge and skill condition. Also, it is worth considering the autotelic nature of flow as a motivating tool for classroom activities. However, the conditions for flow are not the only factors that determine a successful entry into the flow state. Csikszentmihalyi has researched cultural paradigms, personality traits, and various structures supporting those likely to experience flow. He considers flow to be a panhuman experience, "regardless of social class, education, culture, gender; this phenomenon, this inner state, seems to be universally present" (Csikszentmihalyi, 2014c, p. 138). However, his research also indicates that an inability to have control over consciousness, such as self-conscious thoughts, prevents flow. Thus far, music education research has not focused on this inner experience of flow.

The nature of flow's inner experience makes it difficult to observe, predict, foster, and research in general. The inner experience of flow requires a lack of self-consciousness, including no worry or fear. Flow is an elusive

phenomenon determined by a person's perceptions and inner experience (Csikszentmihalyi, 1993). How might this inner space be researched? Considering the countless individual perceptions of students, how might educators assist in fostering this complex phenomenon?

This literature review will survey Csikszentmihalyi's flow theory and music education research on flow to inform the overarching aim of the studies contained in this document: to discover how fostering flow in choral/vocal education settings may occur. Even though the depth of research in this area is limited, there have been promising publications providing a breadth of possibilities to consider. The present investigation intends to fill in the missing pieces of fostering flow, and the following publications informed the process of this discovery.

The Emergence of Positive Psychology

Following World War I and II, the field of psychology turned its gaze toward mental illness. There was an attempt to break away from behaviorist psychology in search of solutions using a humanistic approach. Initiators of a new movement came from such authors as Jung, Terman, and humanistic psychologists Maslow and Rogers (Csikszentmihalyi, 2014c; Khatib et al., 2013). The divergence inspired a new wave of psychology, positive psychology, which focuses on the prevention of mental illness. Positive psychology differs from the disease model of treating mental illness as it aims to build positive qualities in life

as opposed to treating cognitive malfunction (Csikszentmihalyi, 2014c). An optimized human experience became the focus for founding fathers of positive psychology research such as Csikszentmihalyi.

In 1998, Seligman became president of the American Psychological Association (APA) and made it his mission to place positive psychology as a top priority for scientific inquiry. Positive psychology, a term coined by Maslow and adapted by Seligman, is defined by the American Psychological Association as "a field of psychological theory and research that focuses on the psychological states (e.g., contentment, joy), individual traits or character strengths (e.g., intimacy, integrity, altruism, wisdom), and social institutions that enhance subjective well-being and make life most worth living" (American Psychology Association, n.d.)

Csikszentmihalyi

The endeavor to find the "positive features that make life worth living" in a field focused on pathology had been Csikszentmihalyi's initial research (Csikszentmihalyi, 2014c). In Europe following WWII, a young Csikszentmihalyi noticed some adults lost much and were "dispirited" and others kept their serenity despite the devastation. This dichotomy prompted him to ask, "What sources of strength were these people drawing on?" (Csikszentmihalyi, 2014c). Other questions ensued as Csikszentmihalyi observed individuals who found enjoyment in life by participating in "time-consuming, difficult, and often dangerous

activities for which they receive no discernible extrinsic rewards"
(Csikszentmihalyi, 2014c).

Discovering Flow

In 1975 Csikszentmihalyi published *Beyond Boredom and Anxiety*,
outlining research results from interviews with hundreds of people sharing
accounts of extraordinary experiences. These experiences occurred during a
variety of activities such as sports, dancing, music composition, and rock
climbing. Despite their differences, the accounts of their individual experiences
had similar characteristics. Results indicated a similar experience across the
various activities frequently described as "a unified flowing from one moment to
the next" (Csikszentmihalyi, 1975). As a result of these iterative accounts, the
term *flow* was applied to this conscious state attained during the activities.

Csikszentmihalyi defines flow through descriptions of his participants as
well as investigated characteristics of the experience: "The autotelic
experience…[is] a very specific experiential state, so desirable that one wishes to
replicate it as often as possible" (Csikszentmihalyi, M & Csikszentmihalyi, I.S.,
1988, p. 29); "The state in which people are so involved in an activity that nothing
else seems to matter; the experience itself is so enjoyable that people will do it
even at great cost, for the sheer sake of doing it" (1990, p.4); "the feeling when
things are going well as an almost automatic, effortless, yet highly focused state

of consciousness" (1996, p. 110); and the sense of "effortless action they feel in moments that stand out as the best in their lives" (1997, p.129).

Csikszentmihalyi performed numerous studies of flow, which allowed him to refine characterizations of the experience. He developed a construct outlining characteristics organized as "elements," "conditions," "features," or "dimensions" (Csikszentmihalyi, 1975, p. 38-51; 1990, 48-70; 1993,178-179; 1997, pp. 29-32; M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988, p. 32-33). I have provided a succinct list of nine main elements from Csikszentmihalyi's 1996 publication (pp. 111-113):

- Clear Goals

- Immediate feedback

- Challenge and skill are balanced

- Action and awareness merge

- Distractions are excluded from consciousness

- No worry of failure

- Self-consciousness disappears

- Time is distorted

- Activity becomes autotelic

In the collected works of Csikszentmihalyi, these characteristics are grouped into categories (Csikszentmihalyi, 2014b, p. 230-233). It is from these categories I will expand on Csikszentmihalyi's elements found in the flow experience.

The Nature of Flow: "Three Subjective Characteristics"

The Merging of Action and Awareness

Csikszentmihalyi (1975) has indicated the merging of action and awareness as "…the clearest sign of flow" (p.38). There is cohesiveness between the actions a person in flow is taking in the present moment and mental focus on those actions. For example, a dancer limits their field of awareness on their movements in alignment with the music unraveling moment by moment. "By limiting the stimulus field, a flow activity allows people to concentrate on their actions and ignore distractions" (Csikszentmihalyi, 1975, p.48). This includes distractions in the immediate environment, such as coughing in the audience and distractions from thoughts. The dancer does not stop to ask, "Will I be able to complete this turn with precision?" as they are immersed in the activity as it unfolds moment to moment. "Flow is the result of intense concentration on the present" (Csikszentmihalyi, 1996, p. 112). Self-reflection is absent in order to narrow the field of awareness on what is to be accomplished, a "one-pointedness of mind" (Csikszentmihalyi, 1996, p. 112). An interview with a professional dancer describes this intense concentration:

> Your concentration is complete. Your mind isn't wondering, you are not thinking of something else; you are totally involved in what you are doing. Your body feels good. You are not aware of stiffness. Your body is awake

all over…you feel relaxed, comfortable, and energetic. (Csikszentmihalyi, 1975, p.39)

In the flow state there are no concerns from the environment. The performer is not trying to impress anyone as they are experiencing a loss of self-consciousness; those "burdens" are not in the present moment (Csikszentmihalyi, 1996, p. 112). Ruminating about the unfortunate tumble at last week's rehearsal would negate the flow experience. The "self" is removed from the equation as the performer has "stepped out of the boundaries of the ego" (Csikszentmihalyi, 1996, p. 112).

A Sense of Control

The elimination of worry and rumination is, in part, a result of activities with clear goals. Flow may be accessible during activities that have clear rules, structures, or boundaries with which the participant is well acquainted through experience. Basketball has clear rules and goals; dancers have boundaries and choreography; singers have lyrics, rhythm and pitches; actors have blocking and dialogue; and conductors have scores, meter patterns, and cues. As a result of the boundaries, there is no need to think about what needs to be done, it is clear, "…action follows upon action according to an internal logic that seems to need no conscious intervention by the actor" (Csikszentmihalyi, 1975, p.36). Here Csikszentmihalyi's reference to an "actor" is not literal; he is referring to the person experiencing flow at that moment.

The performing actor, here as a flow participant example, has spent copious hours learning stage directions, blocking, memorizing lines, timing, speech inflection, body language, and the like. A performing actor who achieves flow perceives they have the skill to meet the performance's challenge as a result of the rehearsed structures in place. While in flow, the actor is unconcerned with failure, "the issue does not even come up" (Csikszentmihalyi, 1996, p. 112); they are putting into action what has been rehearsed within the context of an acting performance. The actor may deviate as a result of environmental factors, or inner dialogue may change the course of expressive delivery. Moments such as these would be deterrents away from the flow experience, and the actor may or may not re-enter the state of flow to regain a sense of control.

Altered Sense of Time

Participants have reported a distorted perception of time during flow. For example, the ice skater's quick spin may stretch in perception to feel like ten minutes or a person playing a slot machine at a casino for hours may be unaware of the profuse amount of time passed. Ritzer and Stillman (2001) talk about a "time-space compression" in casinos resulting from the removal of timekeepers and windows to create "a dream-like state in which the passage of time seems not to be occurring or not to matter." In flow, the focus is acutely on the activity and not on time passing.

Csikszentmihalyi posits, "our sense of how much time passes depends on what we are doing" (1996, p. 113). One loses the sense of time while performing activities where conditions are met for a flow experience. For example, the rehearsal of different songs in a choral setting can appear to move more quickly or slowly depending on our perception of the activity. Perhaps while rehearsing the first song, the conductor is well aware of time as it passes too quickly, knowing there is much to accomplish that day. The conductor realizes they have to move on to rehearse the next song. During the rehearsal of the second song, the conductor and singers are engaged, passages are being expressively phrased, and all involved are working toward a common goal. The conductor loses complete track of rehearsal time as a result of gaining new ground in the song. They look at the time, and all are surprised by the amount of time that has passed. "They may be dumbstruck that so much time flew by; or they may feel that time stood still, and marvel that there was time to experience so much" (Csikszentmihalyi & Nakamura, 2018, p. 106). Csikszentmihalyi indicates time passes differently, but not only more quickly or slowly, just distorted. "…hours pass by in minutes, and minutes can stretch out to seem like hours" (Csikszentmihalyi, 1990, p.49). It is as if time is forgotten.

The Conditions of Flow

In order for a flow experience to occur, Csikszentmihalyi outlines three specific conditions from the list of flow elements: a clear set of goals; a balance between perceived challenge and skills; clear and immediate feedback.

Clear Set of Goals

When the activity is a structured experience, participants are able to channel their attention. There are rules, boundaries, and procedures which are all part of the action. The purpose is clear, they know what needs to be done and there is a definite plan of how to proceed of which the participant is clearly aware.

A structure may seem counterintuitive to the creative process. Artists do not always have clear goals when approaching a creation of artistic expression. Csikszentmihalyi (1996) suggests artists develop an "unconscious mechanism that tells him or her what to do" which is described as a "voice," having "visions" or inspiration from a "Muse" (pp. 114-115). He compares this experience to that of solving problems and the joy of discovery in the new insight. Being "tricked by the mystery" of venturing into "unexplored territory" is the pull to create (Csikszentmihalyi, 1996, pp.114-115). Once this challenge has presented itself, the drive to create leads to the application of artistic skills. It is at this point the conditions for flow are present, including clear goals. Clear goals are interrelated with the skill of the participant and the challenges presented during the activity.

A Balance Between Perceived Challenges and Perceived Skills

Another component of Csikszentmihalyi's flow theory is that a person's perception of their abilities or skills is "well matched" for the activity challenge making the condition "intrinsically fragile" (Csikszentmihalyi et al., 2014b, p. 232). Both their skills and the challenge are subjective perceptions. Perception may allow one to be primed for a flow experience or to lack confidence in their ability to balance the challenge with skill as a person's "perception of the demands and abilities, not necessarily their objective presence" is the ultimate determination (Csikszentmihalyi et al., 2014b, p.232). The flow experience is a state where doubt that a person's own skill is not a match for the challenge may cause worry or anxiety, preventing or ending the experience. This also means if the perception that the challenge is not enough to match the perceived skill, boredom or apathy may occur. Therefore, the rare occasion of flow is fragile as it only occurs when the perceived skill is in balance with the perceived challenge. Additional conscious states, not considered flow but still enjoyable, may result instead; arousal or control (Csikszentmihalyi, 1997, p. 32). A movement toward flow may be achieved while in a state of arousal but, also possible, is the person might slip into apathy to avoid anxiety. Although being in a state of control such as apathy may feel more content, there is a lack of acute focus needed to be pulled into a flow state (see figure 2.1).

Figure 2.1

The Quality of Experience Resulting from the Perception of Challenge and Skill
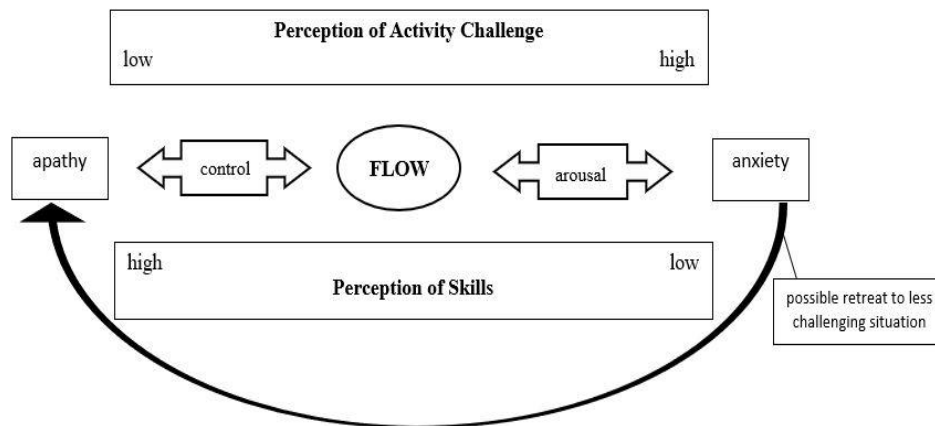
Note. The model represents the perceived challenge and skill balance as described by Csikszentmihalyi (1997, pp. 30-33). Flow is possible when the condition of balance exists between one's perceived challenge and one's perceived skill. The perception of high challenge and low skill may result in "anxiety" while the perception of low challenge and high skill may result in "apathy." A state of "arousal" or "control" may be pulled toward flow or away from flow into "anxiety" or "apathy" respectively. If anxiety is too difficult with which to cope, a retreat to apathy may occur.

A person in flow "belongs to a rational cause-and-effect system in which what he does has realistic and predictable consequences" (Csikszentmihalyi, 1975, p. 36). During games, it may shift depending on the competition. For example, when playing a much better opponent, frustration or anxiety may ensue

where the perception of skill does not meet the challenge presented by the competition. The opposite is true when playing a much weaker opponent; the lack of competition may lead to boredom (Csikszentmihalyi, 1975). However, considering that the level of skills and challenges are based on perception, the challenges may be limitless. Therefore, the goals become a necessary component to focus and achieve the merging of action and awareness. Goals need to be "clear and compatible" with the person's skill and the activity (Csikszentmihalyi, 1997, p. 30).

Consider the politician expected to speak publicly to large groups of people. There are many challenges in public speaking, and in the case of the politician, there is frequent competition from their political opponents. Suppose the public speaker has a speech impediment. Speech delivery presents moment to moment challenges during this competitive scenario which may include being clearly understood, communicating with confidence, as well as phrasing their political position in a way that motivates listeners. The challenge and skill balance depends on the chosen goals set prior to their speech. Having clear goals is essential, "…not because it is achieving the goals that is necessarily important, but because without a goal it is difficult to concentrate and avoid distractions" (Csikszentmihalyi, 1997). The politician chooses to block out distractions unrelated to their goal, narrowing their field of awareness on what would

accomplish those goals and, if they perceive their skills match the challenges, then flow may be possible during their speech.

Clear and Immediate Feedback

As previously established, pausing to reflect while in the flow state results in the cessation of the flow experience. The flow experience will be interrupted if negotiating changes in the environment with questions like, "Do I possess enough skill or do I stress?" A person experiencing flow relies on quick and immediate feedback in order to proceed with fluidity. Csikszentmihalyi (1975) describes an experience different from "everyday reality" as "action and the evaluation of action [are] automatic and hence unproblematic." In the "reduced reality of a flow episode, one clearly knows what is 'good' and what is 'bad'" (Csikszentmihalyi, 1975, p. 46-47).

A unique study of stand-up comedians revealed that creating humor for an audience involves "tuning in" to the audience as comedians "must be sensitive to audience reaction and tune their act accordingly" (Greengross et al., 2012, p.79). Responses from the audience (feedback) make it clear when a joke went well or did not. While in the flow state of performing, the challenge of a comedian is to maneuver their routine, resulting from moments that arise from audience reactions. The comedian's skill determines the ability to do so. Therefore, the flow experience includes an interplay with the environment, including "tactile, visual and aural feedback" as the situation unfolds to respond with skill

(Csikszentmihalyi & Nakamura, 2018, p. 108). The clear goals and perception of feedback in the moment elicit appropriate use of skill for perceived challenges. This is all part of the inner experience of flow where "you don't conquer anything except things in yourself" (Csikszentmihalyi, 1975, p. 47). In this example of the comedian, the skill to use the laughs as feedback to build or adjust their routine in that moment supersedes any self-consciousness that may have taken over their consciousness.

Autotelic Traits

The first introduction of Csikszentmihalyi's research on flow did not call the experience flow; rather, an autotelic experience (1975). Csikszentmihalyi derived the term from Aristotle as explained below:

> flow has also been called an 'autotelic experience', a term Aristotle used to describe states that have goals (telos) which are contained in themselves (auto); and we have called 'autotelic activities' those activities that are pursued mainly in order to provide such experiential rewards.
> (Csikszentmihalyi & Nakamura, 2018, p. 110)

Why not then call flow an autotelic experience? Csikszentmihalyi (1975) justified the autotelic experience would be synonymous with the flow experience if it were not for the occasional usefulness of extrinsic motivation to initially attract a person to the activity. Ryan and Deci (2000), who investigated motivation in relation to self-determination theory, situate intrinsic motivation on

the peripheral of extrinsic motivation. Having exposure to flow that may have been initially motivated by extrinsic rewards attracts a person back to the activity, which then becomes an end in itself. This loop of motivation continues as greater goals are set and challenges presented to inspire the person to improve their perceived capacity in order to meet evolving challenges. However, "if a person tries too hard to make the activity enjoyable, the experience of flow is unlikely to occur" (Csikszentmihalyi & Nakamura, 2018, p. 111). Flow is a "holistic sensation that people feel when they act with total involvement" rather than striving to achieve a specific sensation (Csikszentmihalyi, 1975, p. 36).

Consider participants of performing community groups who have little to no extrinsic invested interest in dedicating extensive time rehearsing, performing, and often traveling. Higgins' ethnomusicology research involved observing and interviewing such groups including community band, choirs, and theatre ensembles; Interethnic Youth Music Festivals; virtual music relations; at-risk teenagers in music groups; elderly in traveling performing groups; the Buddy Beat meetings to promote mental health through drumming; and multiple performing events driven by purposeful change. These various groups make an enormous effort to raise funds, outreach to the community, rehearse regularly and often travel despite economic, physical, or personal challenges. Participants are doing it for reasons beyond external motivation as they are rarely compensated and do not receive accolades as would professional performers. Higgins supposes,

"this type of 'investment' creates environments conducive to meaningful music making" (Higgins, 2012, p. 159). Such motivation and dedication would be an asset to any performing arts program in communities and in education. The flow experience may be a factor for this level of intrinsic motivation worth considering.

Flow Experiences in Education

> The roots of knowledge do not necessarily have to be bitter.
>
> from *Applications of Flow in Human Development and Education*
>
> Csikszentmihalyi, 2014c, p. 129

Maslow and Peak Experiences

Maslow's research and writings have been influential in education as well as influential to Csikszentmihalyi's research on flow. Maslow's work included the phenomenon outside of everyday life experiences he called peak experiences (PE). Participants in Maslow's research similarly describe these experiences compared to those interviewed in Csikszentmihalyi's research. Maslow considered them "cognitive happenings" occurring as a "parental experience, the mystic, or oceanic, or nature experience, the aesthetic perception, the creative moment, the therapeutic or intellectual insight, the orgasmic experience, certain forms of athletic fulfillment,…and other moments of highest happiness and fulfillment" (Maslow, 1962, p. 69). A difference between peak experiences and flow experiences is in the population believed by the researchers most likely to

achieve them. Maslow posits the peak experience is most likely to occur with those who have reached the level of self-actualization, the highest level in the hierarchy of needs. Therefore, the educational framework Maslow proposed includes meeting the need for self-actualization before benefiting from a peak experience. Maslow perceived a self-actualized person as "more truly himself" and, thus, the goal of humanity is to self-actualize (Maslow, 1962, p. 91). Csikszentmihalyi's research has revealed flow experiences can happen to anyone of any culture, gender, socioeconomic status, and age calling flow a "panhuman" experience (M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988, p. 364). There is a distinct exclusivity for those described as able to achieve a peak experience in Maslow's writings that does not occur in the writings of Csikszentmihalyi. Csikszentmihalyi describes flow in universal terms. It may be possible the distinction reflects a difference in the population samples of the two researchers rather than the experience.

Maslow's research on the peak experience subsequently resulted in a philosophy of what he calls "B-psychology." Values are obtained during a peak experience as well as being a self-actualized person. In his collection of personal journal writings, "B-values," "B-cognition," "B-psychology," "B-love," are intertwined with peak experiences, self-actualization and being in the world with an axiological framework addressing human ethics. He describes being in a peak experience a state of consciousness that may or may not represent reality: "That's

the way the world looks in the peak, in B-cognition…. this doesn't prove that it is

the way it really is" (Maslow et al., 1979, p. 111). The language differs from

Csikszentmihalyi's flow descriptions as Maslow's language has mystery and

religious tones surrounding the experience. Maslow writes in his journal, "instead

of 'B' psychology, maybe call it 'psychology of religion', to speak of B-

psychology as the psychology of the eternal or sacred" (1979, p. 112). This

viewpoint may contribute to his position that the peak experience is not something

we can "command," but rather, "it happens to us" (Maslow, 1962, p. 82). This is a

different view from that of Csikszentmihalyi, where he posits conditions for

affording the flow experience, such as having clear goals and balancing challenge

with skill (Csikszentmihalyi, 1975, 1990, 1993, 1996, 1997; Csikszentmihalyi, M.

& I.S. Csikszentmihalyi, 1988). Even with this different perspective, the two

researchers describe the experience with language that is directly comparable.

One could infer that Csikszentmihalyi and Maslow describe the same experience.

Csikszentmihalyi's Framework for Flow in Education

In the introduction of Csikszentmihalyi's collected works, he reminisces

on decades researching flow and finding purpose. He considers his flow research

good for humanity by changing the everyday experience. Csikszentmihalyi

(2014c) believes schools are a venue to teach youth what it means to "truly" live

(p. xxii). For Csikszentmihalyi, this includes being "able to express one's unique

individuality, to hone one's strengths to their limits, while becoming fully part of the human network, and contributing to it" (Csikszentmihalyi, 2014c, p. xxii).

This realization came a few years after Csikszentmihalyi's (1975) first publication introducing flow, where he saw the value in his flow inquiries regarding how to make flow possible in everyday life, work, and school. Csikszentmihalyi (2014c) posits that problems with student learning are not intellectual or cognitive but rather "affective," "emotional" and "motivational" (p. 130). Multiple studies on thousands of adolescents suggest it is "indeed possible for schools to provide autotelic experiences" (Csikszentmihalyi, 2014c, p.130).

Challenge and Skill from the Perspective of an Adolescent. The balance of challenge and skill is not only an essential characteristic of flow but also a way to engage students allowing flow to occur. 526 students from 13 schools were investigated by Shernoff, Csikszentmihalyi, Schneider and Shernoff from separate geographical locations throughout the United States collecting data for over five years (Csikszentmihalyi, 2014c, pp. 475-494). The investigators used the Experience Sampling Method (ESM) randomly prompting students during the school day to enter their location, activity, and affective and cognitive experiences. Results suggest optimal engagement "appears to be promoted by a moderate difference between the challenge of a task and an individual's skills" (Csikszentmihalyi, 2014c, p. 489). Csikszentmihalyi discusses a spiral method of learning which provides continued engagement, "individuals naturally learn by

mastering skills one step beyond one's current skills; nevertheless, the challenge for teachers is to provide tasks slightly too difficult to master at one's present skill level, but that can be mastered with the acquisition of new skills" (Csikszentmihalyi, 2014c, p. 489). Data from the same study also suggests other balances that are important to student engagement, including activities that are academically intense but also foster positive emotions. Ideally, teachers may develop activities that arc experience as challenging and relevant, yet also allow students to feel in control of their learning environment and confident in their ability. These are activities in which students concentrate, experience enjoyment, and are provided with immediate, intrinsic satisfaction that builds a foundation of interest for the future" (Csikszentmihalyi, 2014c, p. 491).

The balance of challenge and skill may also be applied to students with behavioral challenges. Flow can be used for "good" or "bad" purposes as it is an "energy" that people "seek out" (Csikszentmihalyi, 2014c, p.140). Skills for disruption, violence, and bullying are some of the most effortless skills to acquire. A child that perceives they have no other skills falls into such a pattern. "What counts is not the objective challenge, but the subjective challenge that the child perceives." Csikszentmihalyi believes this should be a goal of education, to "direct flow" to be used for "productive" rather than "destructive" purposes (Csikszentmihalyi, 2014c, p.140-141). Such a model includes the "bored" kids who are attracted to "cheap thrills" originating from an "inability to structure

experience in pleasurable ways" (Hunter & Csikszentmihalyi, 2003, p. 29).

Results from a study using ESM data, which measured "boredom" and "interest,"

had the hypothesis that a "chronic experience of interest" may be a measure for

"psychological health," while "chronic boredom" a sign of "psychic dysfunction"

(Hunter & Csikszentmihalyi, 2003, p. 27). Results from the study of 1215 high

school juniors and seniors attending 33 public schools across the United States

conclude differences in the social class of community (SCC) "occur in poor and

upper middle classes, where poor *Interested* students outnumber *Bored* ones and

upper middle class *Bored* students outnumber *Interested* ones" (Hunter &

Csikszentmihalyi, 2003, p. 29). Research in this area continues to develop but is

useful as educators consider flow to engage all students.

During a presentation for educators, Csikszentmihalyi offers

characteristics that facilitate flow in education. Suggestions include that teachers

avoid invoking self-consciousness; allow an organic development of interests;

emphasize process versus product; and encourage autonomy (Csikszentmihalyi,

2014c, p. 144-145).

Avoid Invoking Self-Consciousness. Csikszentmihalyi posits that self-

consciousness is a distractor that prevents students from focusing and processing

information during instruction and, thus, prevents flow. Removing "threats to

ego" that make children feel "vulnerable, stupid, and inferior" avoids reported

rumination throughout the day, which competes with focusing on the learning

material. He also mentions avoiding "praising students too much" in front of the class as it causes them to feel self-conscious in front of their peers, concerned they will be viewed as a teacher's pet (Csikszentmihalyi, 2014c, p. 144).

Additional research data implies the strength of the individual student's self-esteem is significantly higher in "interested" students, verses "bored" students. This "suggests that Interested students enjoy a more durable positive self-concept, while Bored students are less stable and negative in their self-assessment" (Hunter & Csikszentmihalyi, 2003, p. 33). One might infer that genuinely interested students with autotelic characteristics might react differently to "threats to ego" compared to those considered bored, thus impacting their capacity for flow.

Allow Organic Development of Interests. The way activities occur during learning may affect flow. For example, changing goals arbitrarily, possibly resulting from time restraints, would interrupt the flow. Interrupting activities with announcements may cause a disjunct activity. Csikszentmihalyi (2014c) posits that a more ideal approach for flow would be to allow "organic development of their interest in a way that is necessary for somebody to really experience flow" (p. 145). Allowing for stretches of exploration time supports "psychological capital." Students become invested in the learning reaping "dividend that comes from acting with interest" (Csikszentmihalyi, 2014c, p. 145).

An environment conducive to organic development would allow for informal learning based on the teacher's awareness of student's individual skill sets. The lecture format aimed at the average student may result in student disengagement as students search for meaning in the challenge (Csikszentmihalyi, 2014c).

Process Versus Product. Focusing on the process rather than results during instruction may also encourage flow. For this portion of Csikszentmihalyi's presentation, he gives an example in music education:

> One of the obstacles is when a child gets the message that the only reason to play music, to learn music is so that they can end up in Carnegie Hall 20 years later…what's the point of playing music if you don't enjoy it? That's the whole reason that people invented music: because it transports you to a different plane of experience while you are listening or playing….unfortunately, very often, instead of keeping the tension going between the enjoyment of the moment and the long-range result, we sacrifice the moment for the sake of what will come in some distant future. (Csikszentmihalyi, 2014c, p.145)

A product could be considered a possible career in music or a formal performance. Csikszentmihalyi's research also revealed activities in education such as fine arts were reported to produce the most engagement and flow as a result of the "academic intensity" and "requiring discipline" while promoting the

highest levels of motivation (Csikszentmihalyi, 2014c, pp. 490-491). This is an optimum balance for a flow experience. An example of an imbalance occurs when subjects take written exams where "students reported the highest level of academic intensity but the lowest level of motivation" (Csikszentmihalyi, 2014c).

Autonomy. An "ideal teaching situation" is to allow "control and freedom" where the teacher becomes more like a "conductor in the orchestra," or a facilitator (Csikszentmihalyi, 2014c, p.144). Stepping back and letting students be in charge of their own learning is not what Csikszentmihalyi is suggesting. It is important to guide students with their goals and teach them how to recognize feedback. Here Csikszentmihalyi discusses how this characteristic relates to creative activities:

> So in creative activities, the goals and the feedback are not clear and you have to learn to produce it yourself, but even when you're teaching a child, the ultimate service you can give a child, the ultimate gift you can give a child is to teach the child how to develop their own goals and respond to their own feedback, give feedback to themselves. That's when they become autonomous. (Csikszentmihalyi, 2014c, p. 143)

Teachers would guide students toward self-directed goals and how to get feedback for themselves so that they are "no longer dependent" on the teacher's response. In the study conducted by Hunter and Csikszentmihalyi (2003), they discuss the life-long implications of autonomy, interest, and flow. Because

interest "requires action," those who "experience a great deal of interest in their lives would also likely believe they are the volitional force behind their actions." This is the "sense of personal effectiveness arising from being the causal agent of one's life" (Hunter & Csikszentmihalyi, 2003, p. 33-34). In addition, a higher level of engagement was reported by students "during group work and individual work" than "listening to a lecture, watching TV/video, or taking a test," suggesting that "individual work can be equally engaging as group work from the perspective of flow theory" (Csikszentmihalyi, 2014c, pp. 489-490).

Flow Experiences and Music Education Research

In Csikszentmihalyi's keynote speech to the American Choral Director's Association in 1994 on the topic of flow, he surmises "music may be one of the purest ways to get this experience" (Csikszentmihalyi, 1995, p.13). Maslow supposes when awareness of the body is melded with music making it is "statistically likely" a "good path to peak experiences" (Maslow, 1968, p.168). Patrick Freer found flow characteristics "implicit" in descriptions of the choral experience when investigating interview data from some of the most accomplished choral conductors of the 19th century (Freer, 2007a, p.18). Investigating flow in the music education setting where the experience occurs naturally appears to be a productive environment for learning more about the phenomenon.

Balancing Music Skill and Challenge

      The balance model of challenge and skill has found its way into music education research as a way to elicit flow from students during music class and rehearsals. A most notable start to the endeavor is Custodero's (1998) research with pre-school and elementary music students. Custodero developed a research instrument to assess flow during music activities, the Flow Indicators in Musical Activities Form (FIMA). This author created instrument was found useful for measuring early childhood classroom music education experience, providing a "means for teachers to evaluate student response to activities in the moment" (Custodero, 1998, p. 27). Included on the instrument were perceived challenge and performance accuracy from skill using facial expressions and musical engagement as cues from younger students who may not be able to articulate their experience. It is not required to practice music at an advanced level to experience the conscious state; flow appears available to the youngest of participating musicians (Custodero, 2002). This supports Csikszentmihalyi's research which posits typical children appear "in flow constantly" (Csikszentmihalyi, 1993, p. 191).

      The balance of challenge and skill has been investigated for the high school choral setting as well. Walter's (2014) dissertation used a variation of the flow model representing challenge and skill to analyze choral works by Jean-Baptiste Weckerlin, Johannes Brahms, and Joseph Haydn. He aimed to "situate

the current application of the high challenge-skill balance dimension of flow theory to a conductor's analysis of three standard choral works" to promote flow in an applicable choral setting (Walter, 2014, p. 30).

Instructor Discourse

Following an apparent gap in choral flow research, Freer generated a revived discussion of flow advocating for further investigation. He cited a lack of research specifically aimed at the "conductor-singer relationship" despite many conductor accounts that may contain instances of flow (Freer & Raines, 2005). Contributing to this identified gap, Freer coded and analyzed 141 previously recorded interviews published by DeVenney in 2005 with some of the most prominent choral conductors. Results are included in a three-part series of articles, the first pertaining specifically to flow (Freer, 2007a). Freer used conductor's interview responses as authentication of flow experience elements through the conductor's lens. The elements of the flow experience paralleled with conductor interview content indicate a consistent presence of flow integral to the choral experience.

Freer has also investigated flow in conjunction with instructional discourse as a determiner of student experience (Freer, 2008). Students from two different middle schools completed a self-report instrument after rehearsals on five occasions indicating flow experience as well as boredom, anxiety, and apathy. The adapted instrument was based on the qualifying conditions found in

Csikszentmihalyi's Experience Sampling Method (ESM); however, excluding electronic pager devices prompting responses of flow in real-time (Csikszentmihalyi, 2014c). Freer found that "students reported flow in rehearsals containing multiple student groupings and several changes in instructional activities," suggesting that a constructivist approach to instruction may lead to higher student affect and flow during rehearsals (Freer, 2008, p.120). These results echo the previously mentioned suggestions of organic development, process, and autonomy Csikszentmihalyi had for the education field at large (Csikszentmihalyi, 2014, Ch. 6, v3).

Age and Music Proficiency.

Flow study results have shown a variation between older or more proficient music students. For example, Kraus (2003) measured flow experiences of collegiate wind ensemble students during rehearsals using the ESM. Participants carried beepers during rehearsals randomly prompting students to indicate if they were experiencing flow. Kraus concluded years participating with the wind ensemble a possible factor for differences in flow. The more proficient ensemble students may have autotelic personality traits compared to those new to the ensemble (Kraus, 2003). Kraus discusses that participant's prior ensemble experiences may allow them to develop intrinsic motivation toward music making and, therefore, increase their capacity to have flow experiences.

Age-related differences have been investigated by Custodero (2005) as well. She expanded the age range observation from the previously mentioned study on flow (Custodero, 1998) to include children from 7 months to 8 years of age to assess indicators across cases of the flow experience. She found that observable flow indicators either increased or were maintained in a cross-case summary of all aged participants with exceptions of the measured categories "self-assignment" and "extension." The decrease of flow with age for self-assignment, autotelic, or self-rewarding activity initiatives, further supports flow theory: "self-assignment gets replaced with the new goal of honoring the teacher's assignment, self-correction becomes even more frequently demonstrated" (Custodero, 2005, p. 203). Results indicate a loss in intrinsic motivation with age as students become more aware of the teacher's goals and the appropriateness in learning environments to adhere to those goals. A decrease in the extension flow indicator, a student continuing to engage in an activity after the teacher has finished, with an increase of age from pre-school to school-aged children (Custodero, 2005). This contradicts the results from Kraus's study, although that study used a different population, collegiate students, and took place in an ensemble rehearsal environment (Kraus, 2003).

Learning Environment

Custodero (2005) contributes the flow changes with age in the previously mentioned study to the differing context from the music classroom for early

learning to an environment meant for older children: "Dispositions toward perceived appropriate behavior in learning environments" affected the decrease with age in the extension flow indicator (Custodero, 2005, p. 203). Flow changes across age were contributed to the learning environment. Learning environments concerning the flow experience have been an inquiry in other areas of music education. Diaz and Silveira (2012) studied high school participants in a summer music camp for the flow experience dimensions. He found that the social aspects of overall camp learning experience proved to elicit the most flow. Social activities and electives, including the large ensemble rehearsals, were among the most reported flow experiences at over 50%. The least cited moments of flow occurred during lessons, sectionals, and individual practice.

Flow, Mindfulness, and Music

Other research from Diaz investigates attention as outlined in the two flow dimensions merging action and awareness as well as the exclusion of distractions from consciousness. Diaz (2011) investigated the relationship between mindfulness and the flow experience and mindfulness and aesthetic response. Undergraduate and graduate student participants were randomly assigned to four groups: mindfulness + flow; mindfulness + aesthetic response; flow; and aesthetic response. A recording of a 15-minute mindfulness body scan was administered individually to the mindfulness + flow and mindfulness + aesthetic response participants before listening to the first act of Giacomo Puccini's opera *La*

Bohème. Quantitative data from a Continuous Response Digital Interface (CDRI) was recorded during the listening, followed by a questionnaire. The CDRI data from all four groups represent synchronous peaks, valleys, and plateaus during listening. This reflected the common flow relationship between the participant and the music; however, it does not indicate a significant difference from the groups that were given the brief mindfulness activity on flow and aesthetic response. Mindfulness + flow participants indicated in the questionnaire that their CDRI responses were not congruent with their actual flow experiences. The author suggests "if flow was interpreted as concentration, then responding under conditions of mindfulness might have resulted in less distraction, causing less movement of the dial as well as diminished responses to variations in the stimulus." Verbal response analysis indicates participants experienced "decreased mental distraction, increased awareness of musical characteristics, and improvements in focus" as a result of mindfulness practices prior to listening (Diaz, 2011, p. 53-54).

Lavery-Thompson (2018) researched the effects of a Mindfulness-Based Stress Reduction activity on the flow experience as well as self-compassion in a music context. He used a pretest-posttest design on experimental and control groups of collegiate musicians. Lavery-Thompson found no difference in flow experiences between experimental and control groups after 20 minutes of meditation prior to individual practicing. There were many limitations to Lavery-

Thompson's pilot studies such as low sample size, lack of randomized control group, and minimal exposure suggested in iterate mindfulness research. Notable is the interest in coupling mindfulness research with the flow experience in music education research.

<center>**Summary**</center>

In Chapter 2, the literature review on flow theory has attempted to reveal features of the phenomenon. The purpose of this research aims to provide theory and direction for music educators seeking to foster flow experiences during music learning. Flow is an attractive aim for educational settings due to its all-inclusive nature and autotelic motivational consequence (Csikszentmihalyi, 1975). Csikszentmihalyi has found flow to be an inner state achieved in a variety of ways by people of different cultures, social status, education, age, and gender which makes flow an attainable goal for all learners (Csikszentmihalyi, 1975, 1990, 1993, 1996, 1997; Csikszentmihalyi, M. & I.S. Csikszentmihalyi, 1988).

What might make the flow experience specifically crucial to music education? During music making, flow affords the musician a moment of exhilaration while acutely aware of actions necessary for music production. Attention and intrinsic motivation are yielded as a result of the engaging encounter, indicative of a rich learning experience (Meyer & Turner, 2006). Flow experiences result from an accomplished level of performance based on the performer's aptitude and current potential described as a balance of skill and

challenge during an activity (Csikszentmihalyi, 1990; Kraus, 2003). The challenge is exhilarating when a student can ride out the experience with enough motivating success and the right amount of challenge to remain focused. These moments can lead to a passion for an activity, promoting motivation to replicate the experience again and again (Csikszentmihalyi, 1975; Wu et al., 2013). The student is motivated to gain more skills and knowledge to continue progressing as a musician who experiences flow.

However, this balance of challenge and skill is subjective to each person who may "feel" their "abilities are well matched to the opportunities for action" or who may not feel they have the skill to meet the challenge (Csikszentmihalyi, 1996, p. 111). Csikszentmihalyi clarifies, the challenge is "matched by one's *perceived* ability to act" (Csikszentmihalyi, 1993, p. 178). A lack of self-confidence may prevent a person from experiencing the state of flow regardless of actual skill. Obtaining flow requires a "control over consciousness" further described as a "commitment of emotions" rather than merely "cognitive skills" (Csikszentmihalyi, 1990, p. 21). This control over consciousness is instigated the moment an individual is presented with a challenge in balance with their perceived current skill. The ability to achieve flow is not reserved for the elite musician; rather, only the perception of skill makes a difference in a classroom containing students at varying levels of musicianship. It is not a result of reaching a bar determined by a generalized checklist. All students are capable of attaining a

flow experience regardless of their current skill set should the challenge suit the student's perceptions. In part, this may explain how scaffolding appeared useful for achieving flow in the middle school choral setting (Freer, 2009). To understand the connection between flow, the instructor, the students, and perceptions of all involved would require a more in-depth investigation of the first-person experience.

The unknown, inner experience of each student leaves a gap between the activity and the flow experience. Additional inner experiences possible during an activity such as "to do" lists, insecurities, worries, emotions, judgments, environmental and social perceptions may inhibit obtaining flow if a successful control over consciousness is not achieved (Csikszentmihalyi, 1975, 1990, 1993, 1996, 1997; Csikszentmihalyi, M. & I.S. Csikszentmihalyi, 1988). How are such shifts in the conscious perspective of singers resulting in flow? Christopher Walters postulates choral conductors "emerge as stewards of their singer's (or singers') consciousness" by controlling the "content of consciousness through repertoire selection and the structure of consciousness through rehearsal technique" (Walters, 2016, p. 12). How do conductors do this? What occurs before and after flow, as observed and experienced, may be relevant to a comprehensive understanding of the flow phenomenon.

The following research question propelled this overall investigation: In what ways might flow experiences be fostered in vocal/choral music education?

This investigation aims to explore flow in vocal/choral education contexts, including first-person interpretations of the experience from the artists involved. In order to address this question, studies one and two examine learning experiences in vocal and choral settings through investigator observations and perspectives from the conductor, ensemble members, and individual singers. While research has included the flow experience in music education, limited empirical investigations were designed to examine flow within a vocal/choral context. The following chapters aim to expose the fundamental factors affecting flow experiences for vocalists in vocal/choral settings.

CHAPTER 3, Study 1

Abstract

The purpose of this study was to investigate conductor and singers' *flow* experiences in the choral rehearsal setting (Csikszentmihalyi, 1990). This mixed method study used Creswell's (2014) Sequential Explanatory model, which includes quantitative data collected from a self-reporting instrument and qualitative data in the form of interviews, field notes, reflections, emails, and images (Creswell, 2003). Participants included singers and a conductor from a nationally recognized university choir located in the Mid-Atlantic region of the United States ($n = 40$). A difference of proportions analysis revealed an association between the proportion of singers who experienced flow when the conductor experienced flow. Logistic regression was administered using data from 37 flow experience moments ($n = 37$). A p value of $< .05$ indicated that singers' flow experience was a significant factor for the conductor's flow experience, log odds that the conductor flow experiences increased by 10.76 when the singers experience flow. A difference in proportion across 23 songs rehearsed was calculated after separating the conductor's and the singers' flow experience. Results indicated an association between the conductor's and singers' flow experiences as related to the repertoire. Qualitative data findings revealed flow contributors and inhibitors from the perspective of the conductor and from singers who experienced flow frequently and less frequently during data collection.

Themes include *relationships, purposeful music making, focused awareness, musicality, body connection*, and *musical experience*, all profoundly connected to the repertoire.

Optimal Experience in the Choral Setting: Examining Flow Experience

Events Among Singers and A Conductor

The purpose of this study was to investigate conductor and singers' *flow* experiences in the choral rehearsal setting (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997; M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988). This mixed method study used Creswell's Sequential Explanatory model, which included quantitative data collected from a self-reporting instrument and qualitative data in the form of interviews, field notes, reflections, emails, video and images (Creswell, 2014). Participants included singers and the conductor from a nationally recognized university choir located in the Mid-Atlantic region of the United States (*n* = 40).

Choral Music and Flow

The conscious state of *flow* has enamored choral conductors for several years. The fascination may be attributed to leading positive psychologist Csikszentmihalyi's music connections to his flow theory shared at the Central American Choral Directors Association Division Conference in 1994. In his keynote speech, Csikszentmihalyi made some natural associations between singing and the optimal experience described as flow to members attending the American Choral Directors Association (ACDA) conference. In Gilbert's transcription of the keynote speech, Csikszentmihalyi posits flow experience

elements are "especially clear in activities such as singing in a choir" and one of the "purest ways" to accomplish flow (Gilbert, 1995).

Publications on the topic of flow related to the choral arts describe the captivating beauty of flow moments in the words of prominent conductors (Freer, 2007a). Research in music education reveal that flow enhances music learning in young children (Custodero, 2002). Teacher discourse has also been associated with the challenge and skill balance element from flow theory providing suggestions for approaching repertoire (Freer, 2008; Hopkins 2013; Walters, 2016). Although integral to examining the phenomenon, publications are tangential to the overall experience of flow occurring during choral rehearsals. It is not clear what is happening during these moments or how the many aspects of a choral setting contribute to or inhibit the inner experience of flow for singers and the conductor. Investigating flow in a choral rehearsal context was an appropriate next step toward understanding the flow experience as it relates directly to choral music learning. Investigating the blend of challenges and perceptions that have a direct impact on the flow experience of all involved was the impetus behind this investigation. This study sought to examine flow and assemble pedagogy of how flow may be cultivated in a choral rehearsal setting.

Measuring Flow in an Ensemble Setting

There is a reason studies specifically pertaining to flow during choral singing are rare. Flow is difficult to investigate. The challenges are inherent as

these phenomenological experiences are inward experiences, consequentially rendering empirical methods insufficient. Flow is a conscious state that is not easily measured while the moment is happening.

Difficulty measuring flow is particularly true in the choral rehearsal setting. Research thus far has collected self-reported data on flow in a variety of ways. Kraus (2003) collected data through beepers that sent random prompts during rehearsal to instrumental ensemble participants to answer whether flow was occurring at that moment. A Continuous Response Digital Interface (CRDI) has also been used by Diaz (2011), appropriate for measuring flow during music listening. The CRDI requires a participant to use a button or slide to record flow in real-time. However, the difficulty with using beepers or the CDRI for data collection is that they may interrupt or possibly hinder a flow occurrence. For example, in the Diaz (2011) study, participants achieved intense concentration during music listening which may have resulted in a conscious state of being immersed in the music. This concentration may have resulted in fewer adjustments of the CDRI instrument and, therefore, "diminished responses to variations in the stimulus" (Diaz, 2011, p. 54). When a person is experiencing flow, they are not thinking of anything other than the current task (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997; M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988). Pushing a button or responding to a prompt that causes the participant to anticipate a beeper, stop what they are doing and ruminate about

their current conscious state would likely inhibit the ability to "concentrate on a limited field of stimuli" necessary for flow (M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988, p. 34). This element of self-reflection, a distraction away from the task (stimuli), would be counterproductive to deeply investigating the phenomenon in an ensemble setting.

In addition to the disruptive nature of flow measuring instruments at a conscious level, they also inhibit singers from the act of singing. A singer's entire body is their instrument from the stance of their feet to the crown of their head. Singing in a chorus is a full-body experience that may also include clapping, swaying, or "choral-ography." Having a device of any kind is not cognitively or physically conducive to the whole choral music experience.

Another possible outcome of flow to consider measuring are hormone changes in the body (Kreutz et al., 2004). Hormone shifts could be a possible biomarker for flow. However, it would be challenging to isolate flow from the many other dimensions of a choral setting that may also contribute to hormone changes. Choral music participation is social, physical, and involves inner transformative development processes (Parker, 2014, 2016, 2018). Pinpointing exactly what contributed to a hormone shift would show a lack of consideration for the complexities of the choral setting.

Observing flow is also challenging. Observers cannot know with certainty if they are witnessing a moment of flow. Facial expressions cannot be used to

identify an explicit flow occurrence. Performers could outwardly act as if they are experiencing flow but, instead, they are thinking about how people perceive them. Flow is an inward experience. A person in flow does not ponder their conscious state until the flow state has passed and entered a different quality of awareness (Csikszentmihalyi, 1997). A person is only in the state of flow when they are focused only on the task (Csikszentmihalyi, 1993). It would appear the most reliable method of inquiry for the flow phenomenon is self-reporting that occurs immediately following the experience.

Self-Reporting

Methods of self-reporting reflect a variety of approaches. One example is the Jackson and Marsh (1996) Flow State Scale (FSS). This instrument was developed primarily with athletes in mind but may be used for tasks other than sports. The FFS instrument is comprised of 36 items divided into nine dimensions of flow which include challenge-skill balance, action awareness merging, clear goals, unambiguous feedback, concentration of task at hand, sense of control, loss of self-consciousness, transformation of time and autotelic experience (Jackson & Marsh, 1996). This is a useful instrument post-task when assessing if flow had been experienced. However, it does not take into account the context in which flow is occurring. Jackson and Marsh discussed that the richness and depth of qualitative data collection might be combined with a quantitative approach ensuing a complete flow construct (Jackson & Marsh, 1996, p. 31). Considering

the many aspects of the choral rehearsal, the combination of qualitative and quantitative data collection appears necessary to ascertain what contributes to the flow experience of those in an ensemble. This particular study sought to investigate the phenomenon of flow juxtaposed with the multiple elements of a choral rehearsal. Data collection of relationships with repertoire and among participants, including singers and the conductor, appeared essential to understanding how conductors encourage these optimal experiences.

Research Questions

In this study, I investigated flow in a choral rehearsal setting led by an award-winning conductor of a well-established and nationally honored choir. Data collection was obtained from three approaches: Self-reporting instrument for both singers and conductor; in-depth interviews with the conductor and with two singers, one who reported a high average of flow occurrence and one who reported a low average; field notes, images and reflections gathered by the primary investigator. Research questions were as follows:

- What is the nature of the relationship between the flow experiences of the conductor and those of the ensemble members?
- In what ways does song choice promote or inhibit the occurrence of flow events?
- In what ways might the conductor of a choral ensemble facilitate flow experiences from the singers?

Method

Design

This study aimed to record when flow moments were happening during choral rehearsals and then garner factors as to how such moments were fostered. A mixed method design was chosen for this inquiry to obtain quantifiable responses from a large group and follow up on specific findings with rich qualitative data. The American Psychological Association (2020) posits mixed methods research includes "thoughtful integration of qualitative findings and quantitative results" which lead to a "deeper understanding of the data and enhanced insights" (p. 105). Creswell's (2014) Sequential Explanatory Design for mixed methods was considered the most appropriate design. The design is comprised of a "two-phase" investigation where quantitative data is collected and analyzed so to use the "results to plan (or build on to) the second, qualitative phase" (Creswell, 2014, p. 224). In this study, procedures involved collecting and analyzing quantitative data from flow moments and using these results to inform the collection of qualitative data from interviews, field notes, video/images, and reflections. Qualitative findings were combined with quantitative results to provide "thoughtful and robust" theory of flow moments encountered in the first phase (American Psychological Association, 2020, p. 105). Both phases of data contributed to the discovery of how the flow experience is fostered in a choral rehearsal setting. Quantitative methods allowed me to identify when flow

moments were occurring and to whom, followed by rich qualitative data from descriptions in field notes and participants' elaboration of flow moments.

Participants

Participants included 39 singers from a nationally recognized choir and one conductor, an African-American male ($n = 40$). This choir was chosen for the conductor's commitment to music excellence in accord with eliciting profound expressivity from singers, as evidenced by accolades received. The demographic composition of the choir included: 54% female and 46% male; disclosed ethnicity is 46% Caucasian, 20% African-American, 5% multiracial, 3% Asian/Pacific Islander, 3% other, and 23% did not disclose. The choir's membership was comprised of collegiate undergraduate and graduate students (mean age = 20.719) as well as music majors (13%) and non-majors (87%).

Participant Recruitment for Quantitative Data Collection. A relationship was first established with the conductor through an independent study during my doctoral coursework. This enabled me to establish a regular presence in ensemble rehearsals and afforded conversations with the ensemble members. This study design considered suggestions from the conductor as well as general observations of the choir.

Following approval from the Institutional Review Board, rehearsal time was allocated for me to give a brief presentation about the study and the characteristics of the conscious state of flow. Singers were made aware of data

collection procedures and were given a choice to participate. Singers were asked

to participate by collecting the instrument as they entered the first rehearsal

scheduled for data collection. It was made clear they did not have to participate in

which case they would either not collect the instrument at the start of rehearsal or

not return the instrument at the conclusion of rehearsal. All choir members

participated and returned instruments for the rehearsals in which they were

present.

Participant Recruitment for Qualitative Interviews and

Questionnaire. As a part of the data collecting instrument, singers were asked if

they would like to participate in an interview. Singers who responded positively

were considered for the second phase of data collection. Two interview

participants (extreme flow scorers) were chosen from flow experience responses

during the first, quantitative phase. Additional singers who agreed to an interview

were sent an email questionnaire asking open-ended questions regarding flow

experiences with the ensemble and the conductor. The conductor also agreed to

participate in a semi-formal interview following the collection of data from

rehearsals, singers' interviews, and the emailed questionnaire.

Quantitative Data Collection and Analysis

Instrument Design. A researcher designed instrument was developed for

this study. A quantitative instrument cognizant of the nature of singing, the nature

of flow, and the likelihood of choral-ography used in rehearsals was considered

when designing the instrument. A goal of the instrument design was to avoid distractions inhibiting the nature of flow and progression of the choral rehearsals. The cover page of the instrument included the characteristics of flow as a reminder to the participants. Each participant was assigned a number that was marked on the cover page of the instrument. The instrument included a list of all the possible songs that may be rehearsed during five rehearsals. Under the title of the song was a circle to check "YES, I experienced a moment of flow" if the student had a flow experience with that song during rehearsal that day. An optional blank line prompting "Descriptive word(s) for your experience" was included for each song as well (see Appendix, "Study One, Self-Reporting Flow Instrument"). Students were to indicate if they had a flow moment with that particular song in rehearsal each day data were collected. They were asked to do so just following the rehearsal of the song with which they experienced flow but before the rehearsal of the next song. At the conclusion of each rehearsal, singers turned in their song packet. A new list with their assigned number was distributed at each rehearsal. The conductor received a similar prompt following each rehearsal as an email.

Three Statistical Analyses. Quantitative data from 39 singers and one conductor were collected over five rehearsals spanning two months. In order to address the research questions regarding the nature of the relationship between the flow experiences of the conductor and those of the singers, two statistical

measures were administered: a difference of proportion test and logistic regression. These measures allowed the association to be tested using both the conductor to singer and singer to the conductor as influencers of flow. The difference of proportion test measured the proportion of singers who experienced flow under the two conditions: when the conductor did have a flow experience and when the conductor did not have a flow experience. The logistic regression test included the flow experience of the singers as predictors for the conductor's flow experience.

A third test addressed the research question regarding the relevance of song choice for the participants' flow experiences. A difference in proportions analysis across the 23 songs was calculated. This test aimed to reveal synchronous flow activity between conductor and singers' flow coinciding with the repertoire.

Quantitative Results Informing Qualitative Data Collection Phase

The explanatory sequential mixed method design is characterized by using quantitative results as the foundation on which qualitative data collection is planned (Creswell, 2014). This study used a combination of extreme cases: a singer who reported low and a singer who reported a high frequency of flow; an outlier moment indicating unusually high reports of flow during one rehearsal revealed in the goodness-of-fit test; as well as evidence of a shifting relationship between conductor and singers' flow. Based on the quantitative data I made the following decisions.

Data from the self-reporting instrument were used to determine interview participants among the singers in the ensemble. Sampling procedures for selecting two singers who participated in all five rehearsals involved identifying the extreme cases of flow frequency. Of the 39 singers, eight participants did not attend all five rehearsals during data collection and were eliminated from interview consideration. All members of the choir were given an interview consent form and 17 returned the form signed. The raw data was examined for those 17 singers to select a singer who reported a high occurrence of flow and another with low flow occurrences. Singers with at least one flow experience were preferred in order to investigate that participant's experiences with and without flow. Singers who reported zero flow experiences were eliminated from interview consideration based on an assumption they may not have a frame of reference from which to compare.

The statistical evidence of an association between the conductor and singers' flow was revealed in all three measures: a difference of proportion test indicated the percentage of singers' flow relative to the conductor's flow; a logistic regression with singers as the predictor of the flow experience for the conductor flow experience; and a difference of proportion analysis across 23 songs rehearsed. The next phase of qualitative data collection considered the results in designing questions for interviews and the questionnaire; analyzing field

note observations; reviewing video/images; and the collection of supporting materials.

Qualitative Data Collection and Analysis

Following the analysis of the quantitative data, two students representing "extreme cases" were chosen to be interviewed- one who reported a high occurrence of flow and one who reported a low occurrence of flow (Creswell, 2014, p. 224). Interviewees were semi-structured using an open format where participants were asked the same questions during separate interviews and were encouraged to elaborate on their answers. Examples of questions include: Tell me about the repertoire, does it reflect your passion about singing? In what ways does [the conductor] motivate you to give your best effort?

In addition, an interview, meetings and email communications between the conductor and investigator were used as a source of data. Examples of questions asked of the conductor include: Can you tell me what happens differently when their music is memorized? What do you ask yourself when you decide on literature? He was also asked to describe moments where he experienced flow or did not with a particular song.

Singers were eager to share their flow experiences in addition to the two selected for an interview. I encouraged them to do so in person before or after rehearsals. Participants who signed the form indicating they would like to be considered for an interview were sent an email prompt with questions such as: In

what ways does [the conductor] challenge you as a singer? Tell me your most precious moment as a singer with [this ensemble].

Other forms of qualitative data were collected including investigator field notes before/during/after rehearsals, concert programs, hand-outs, class syllabus, and video/images of rehearsals. Observations of the choir and conductor spanned four semesters, two academic school years.

This study aimed to build themes of fostering flow using a "bottom up" or inductive approach (Creswell, 2014, p.186). Field notes, communications, and interview data were transcribed into textual form, color-coded, and organized into abstract concepts. These concepts were reconsidered using a back and forth technique of viewing the database which included field notes, general ensemble materials, and video/images of rehearsals. A review took place to ascertain how much of the data were evidenced in the concepts. Concepts were then refined into a set of themes.

Mixed Method Analysis

The Themes assimilated from the qualitative analysis were juxtaposed with quantitative results, then compared with flow literature and my personal experience as a choral conductor to generate theory of fostering flow in the choral rehearsal environment (Creswell, 2014, p. 65). The back and forth technique of viewing the database was applied when considering the larger picture of flow moments captured in the quantitative phase along with contextual data collected during the qualitative phase.

An outlier moment out of the 37 flow moments recorded was evidenced in the goodness-of-fit test and became a focal point during mixed method analysis. The outlier represented a moment from one rehearsal of a particular song where the conductor reported flow and self-reported flow among students was markedly higher than any other moment of flow reported. These results allowed a convergence of data from multiple sources derived from that specific moment including field notes, printed music, and descriptions from singers and the conductor. Concepts resulting from qualitative data were tested and refined using narrative and mapping techniques (Yin, 2003). The construction of a narrative and map from this particular outlier moment revealed the context of a heightened moment of flow. The process of triangulating the data for an isolated moment of flow allowed a comprehensive understanding of conditions surrounding synchronous flow in a choral rehearsal.

Findings

In keeping with the Creswell's Sequential Explanatory Design for mixed methods, quantitative data were collected first. During the collection of quantitative data, field notes were recorded as well as images and video for later analysis in the qualitative phase of this study (Creswell, 2014).

Quantitative Results

A total of 23 songs were rehearsed 1-4 times throughout the five observed rehearsals. This resulted in 37 flow experience (FE) moments from which data were collected. The quantitative data analyzed, therefore, included self-reported flow moments from the conductor and the singers ($n = 40$) as well as the moments when flow occurred ($n = 37$). Three tests were performed in order to analyze data from the self-reporting instrument: A difference of proportions analysis in order to compare the moments when the conductor experienced flow in conjunction with when the singers experienced flow; a logistic regression to determine the probability of the conductor's flow from student flow experiences; and a difference in proportion analysis so to compare the frequency of flow experiences for each song rehearsed as well as compare the flow experience of the conductor and singers relative to the repertoire.

Conductor and Singers' Flow Experience

A difference of proportions analysis revealed an increase in the proportion of students experiencing flow with the flow experience of the conductor. There

was a difference between the proportion of singers who experienced flow when the conductor experienced flow and the proportion of singers who experienced flow when the conductor did not experience flow. When the conductor experienced flow, 14% of the singers also reported flow, and when the conductor did not experience flow, only 6.6% of the singers reported flow (Figure 3.1). Singers' reports of flow decreased by nearly half when the conductor did not experience flow.

Figure 3.1

A Difference of Proportions Analysis Between Conductor FE and Singers' FE
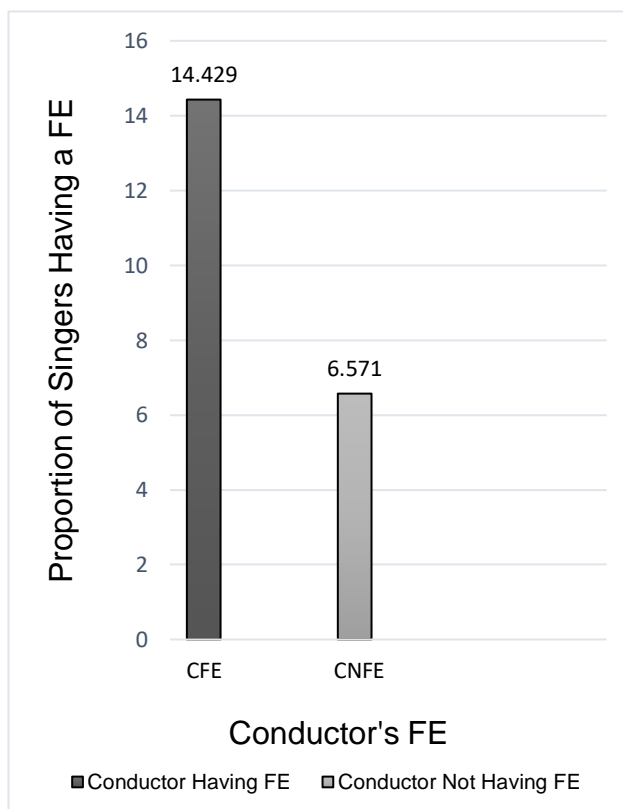
Note. Flow Experience (FE); conductor having a flow experience (CFE); conductor not having a flow experience (CNFE). The figure represents the relationship when the conductor experiences flow and when the singers experience flow. The increase of reported flow from the singers coincided with when the conductor experienced flow as well as a decrease from the singers when the conductor did not experience flow. When the conductor experienced flow, 14% of the singers also experienced flow, and when the conductor did not experience flow, 6.6% of the singers experienced flow. A 7.858% increase was reported from singers when the conductor also experienced flow.

A logistic regression test also suggested a relationship between the conductor and singer's flow experience moments. After meeting the assumptions using a goodness-of-fit test, logistic regression was administered using data from 37 flow experience moments ($n = 37$). A p-value of $< .05$ indicates that the flow experience of the singers was a significant factor in the conductor's flow experience. The log odds that the conductor flow experiences increased by 10.76 (Y' = -1.445 + 10.76) when the singers experience flow.

Repertoire and the Flow Experience

A total of 23 songs were rehearsed 1-4 times throughout the five observed rehearsals. The average flow experience with each song was calculated to compare the flow experience between songs. A difference in proportion across the 23 songs was compared for participants involved, including conductor and

singers. A difference in proportions was calculated after separating the

conductor's and the singers' flow experience. The conductor's flow experience

with each song corresponds with the singers' average flow experience in the

ensemble for that particular song (Figure 3.2).

Figure 3.2

The Proportion of Flow Experience Across 23 Songs Rehearsed
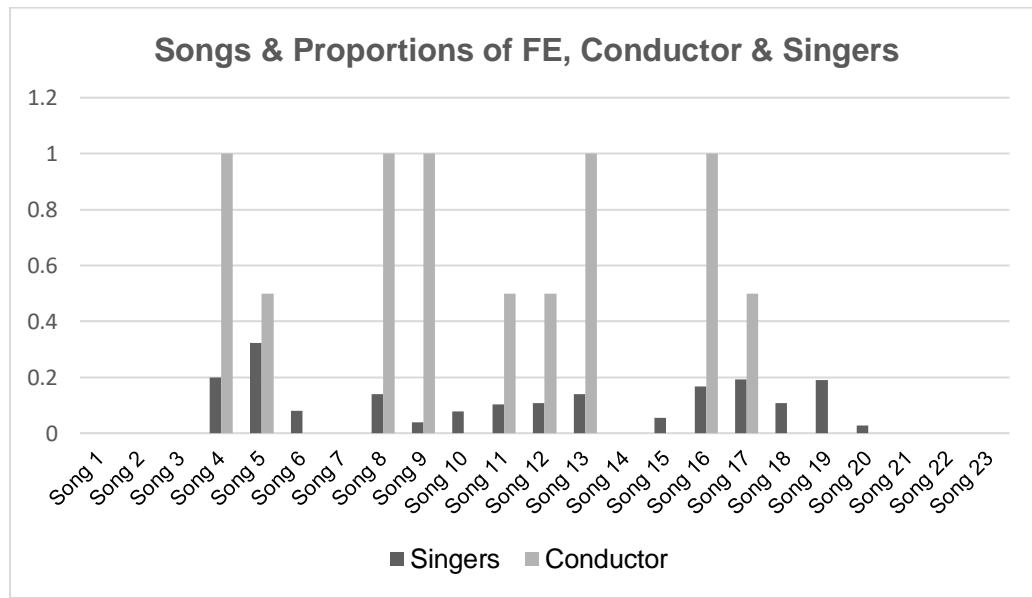
Note. This figure represents the conductor's flow experience (FE) with each song

as it corresponds with the average FE of the singers in the ensemble for that

particular song. The discrepancy between the conductor's and singers' FE is a

result of songs rehearsed varied amounts (1-4 times) and FE data from one

conductor compared to multiple singers.

Qualitative Findings

Qualitative data analysis revealed a rich picture of ways in which flow experiences occurred in this choral setting. Field notes, video/images, music scores, and participant descriptions were aligned with the flow moment data recorded during the quantitative phase. The combination of these data were used to inform interview questions. Interviews were recorded, transcribed, and coded for themes based on the most frequently occurring concepts and those most relevant to fostering flow. Themes were reviewed three additional times in conjunction with all data collected including field notes, video/images, music scores, communications, and interviews to refine the themes. Seven themes were revealed capturing the conductor and singers' perspective of the flow phenomenon in the context of the observed ensemble: *repertoire, relationships, purposeful music making, focused awareness, musicality, body connection, and ensemble experience*. The repertoire is pervasive throughout the other six themes acting as a sieve in which flow experience enablers and inhibitors are filtered (see figure 3.3).

Figure 3.3

Sieve Construct of Choral Flow Themes Framed in Repertoire
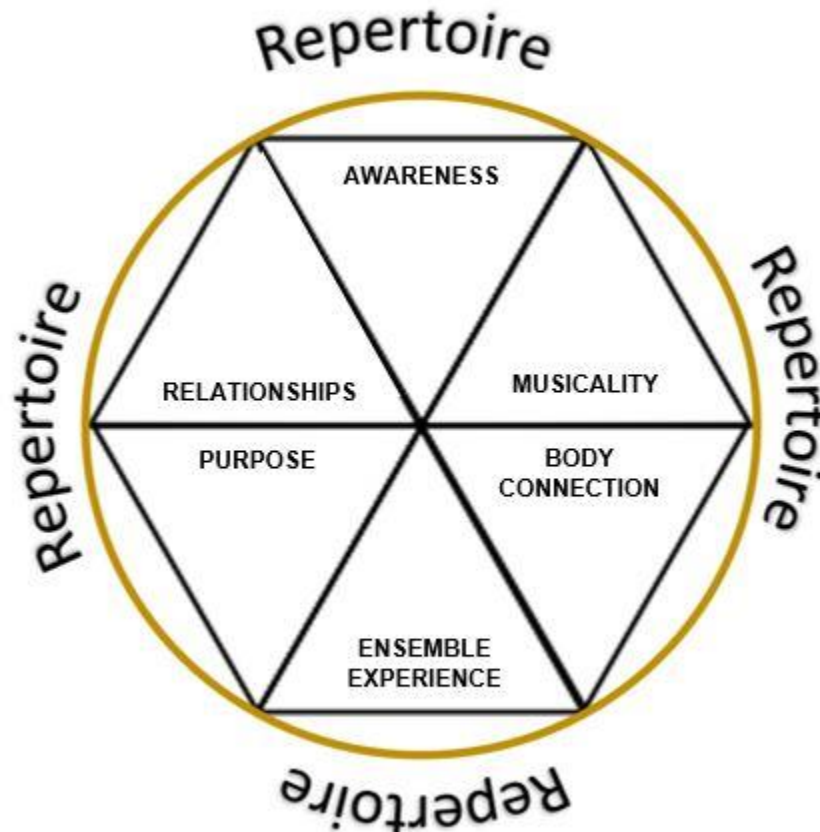
Note. The figure represents themes revealed and their unanimous relationship to the repertoire that emerged from qualitative data collection.

The Singer's Flow Experiences

It was determined "Marina" reported the lowest occurrence of the flow experience, with only one flow experience out of the five rehearsals. "Sierra"

reported the most flow experiences with a total of nine flow occurrences during four out of the five rehearsals. These were the two cases of extremes interviewed.

Ensemble Experience. The interviewees' amount of experience with this ensemble may have been an important factor in achieving flow. In the case of Marina (low FE singer), her ability to achieve flow may be related to being new to the ensemble and a first-year music major. Even though Marina had been singing in choirs most of her schooling, she described challenges from the novel environment of this ensemble . She lacked confidence and felt "inferior" much of her first year, especially since she was placed as a soprano II despite singing alto in previous ensembles. An investigator's study of the repertoire revealed that divisi occurred for roughly half the literature but, even more challenging, was the expectation that those singing soprano II join with the soprano I for the highest vocal line. She compared herself to others in her section when striving for higher notes and felt she was being critiqued. When asked if she thought this inhibited her from having flow experiences, she replied, "Definitely…there were instances where it wasn't me who messed up, but they all blamed me because I was the new person…I felt like I didn't belong there." Marina had experienced flow more regularly with her high school ensemble and was motivated to continue with the ensemble knowing she will "get there."

Sierra, on the other hand, was in her third year with the ensemble and experienced flow more regularly. She had sung in at least seven choirs since

elementary school but had never had a flow experience until singing with this ensemble. Unlike Marina, she is not a music major and does not read music. Similar to Marina, when Sierra was a first-year singer in the ensemble, she found it more challenging to experience flow "because everything is new, and you are just trying to sing all the songs right." She described the "huge learning curve" that occurs the first year but clarifies that, even though flow experiences were rare in the first year, she found them "more powerful because they were so new" compared to flow experience in her third year with the ensemble.

  Musicality. Sierra was observed in rehearsals as a leader in the alto section. Field notes documented her learning by rote, she seemed to memorize music quickly, and other altos tended to follow her. Despite her leadership role in this ensemble, she could not articulate her music skills and deferred to the conductor for such assessments. She discussed the high expectations of the conductor: "he knows our capabilities as a choir as a whole and as individuals…he's really able to tell if we are getting to that level and…motivate us to move forward." The conductor was motivated Sierra to increase her musicianship to a "level he expects."

  Marina seemed more aware of her musicality and discussed feeling as if she "needed to become a better singer to be in the choir." She pushed herself to give the conductor "exactly what he wants," which she described as "the absolute

best." She discussed the challenge of delivering for the conductor and how it relates to her flow experiences:

> I wanted to be great, so I could give him the musicality he is looking for…you have to push yourself a little bit to give him exactly what he wants. That's when the connection happens, when you work so hard and you finally get it. It's like, here it is, this is what I was looking for and it's happening right now.

Focused Awareness. Video and field note data frequently recorded the conductor reminding students to "Be present. Not just physically but mentally." Sierra described a "learning curve" that occurred during the first year of singing with the ensemble that involves paying attention so that you do not "tune out." There is an acceptance from the "veteran" members of the choir that you "just have to watch him… and he'll let you know" what to do. Field notes and videos supported this need to stay on task as the approach to the music frequently changed. One day singers are told to breathe during a measure, and the next, they are chastised for not following the conductor when carrying through with the breath marking from the previous rehearsal. The preparation of a song never reaches an endpoint. It is a process that continues to evolve even on the stage. Acute attention is required as the music making is always in the moment.

Marina elaborates on similar experiences and her fear of being "called out." She felt intimidated during the first rehearsals wondering, "is he going to

call me out, is it the day it's going to happen." Field notes indicated the conductor frequently transitioned into humor in moments where he holds sections or individuals accountable. However, that is not always the case, so singers are "on their toes" unsure of the direction he will take with his feedback: humor or disappointment. This feedback could be verbal, but it could also be in the form of his facial expressions as captured in videos. Sierra describes the conductor's method of keeping singers "on point" by his "very unique faces." She elaborates, "he's very descriptive without necessarily being vocal…He can use his face and his body." The conductor's face, body language, and "sassiness" described by multiple singers was observed as quite effective in channeling singers' attention. This display in conjunction with an ever-changing approach to the music was noted in investigator observations as "a scene difficult to ignore."

Relationships. Relationships have an influence on the flow experience the longer a singer participates with the ensemble. Multiple singers in the ensemble shared a similar story of being encouraged by alumni or current members of the choir to join the ensemble. Both interviewees were encouraged to audition by friends: Marina by an alum and Sierra by a current member. Following entrance into the ensemble, a growing connection to a web of singers associated with the ensemble ensues. Similar to a business fraternity, alumni are critical to the framework of the group: An association of alumni continue singing as a separate group with the same conductor and occasionally join the current collegiate

ensemble in performance. Personal and professional connections made among past and current members were described as creating "life support". The conductor was observed striving to keep all singers connected, encouraging social activities and performances with the alumni choir. A tradition of inviting past singers to the stage to sing "carry-over" pieces was observed and mentioned in all interviews as well as during rehearsals.

Sierra had a broad perspective of these connections as a third-year veteran of the ensemble. She recalls the numerous times the conductor shared the history of the ensemble and the statement frequently made by the conductor, "We're standing on the shoulders of our elders." She conveyed, "The people that [the conductor] has shaped before have also come to shape me." She considers the current ensemble and former members to have a "family relationship" connected by the conductor and the carry-over songs. She explains, "you can hear the history of the choir when [alumni] come up and sing with us."

Rehearsal moments with carry-over songs were different for newer members of the ensemble. Scaffolding was necessary in these situations in order to lift the group as a whole to a level of performing that was expected. This is where the conductor utilized veteran members to assist in teaching the repertoire. Often veteran members supported the whole group during performances of carry-over songs while the new singers learned how to sing it. Prior to concerts, newer members were observed huddled around a veteran member reviewing a song. This

may also occur within the rehearsal time, as was the case with *The Battle of Jericho*. The conductor's method of teaching this carry-over piece involved very little input from him. Each section was instructed to get in a circle where they sang facing one another. The conductor instructed the veterans to "tell them what they need to know," and the veteran members began to teach the newer singers. Without judgment or superiority, an exchange of pitch and rhythm corrections occurred along with articulation decisions that had been communicated to the veteran members when they first learned the song. The conductor sat at the piano and observed the exchange without comment. A final run-through concluded the teaching of that particular song, which was not sung again until the next performance.

Marina's relationships were focused within the ensemble and with the conductor. As mentioned previously, she had experienced a difficult time within her section with feelings of inferiority and struggling to sing a new part. Marina also talked about her ability to achieve flow when singing next to other parts in mixed formation. She was able to enjoy singing and not be concerned about scrutiny from those who knew her part from her section.

Even though she had negative experiences within her section, she mentioned encouraging ones with the conductor. In a private conversation with the conductor about her insecurities, she recalls his encouragement: "He believes

in you and sees the potential and he is willing to work with you [on] what you don't see in yourself."

Body Connection. Moments where flow was recorded often included physicality. Singers were moving as a unit, sometimes planned and other times spontaneously. Marina described the flow experience as "a choir that jives together…all these bodies become one body." She recalls her first flow experience in high school, "everyone was clapping and swaying, that was cool! I was so happy!" She continued, "If I can connect my voice with the rest of my body then all of it seems to come together" making the flow experience possible.

Sierra believed that "being involved" in the artistry of the group "really centers [her] as a person," She described moments of flow where the group is really moved by the music: "A feeling of being extremely happy and content…I always look around me and see how everyone else is feeling…we feed off of each other's energy…We'll always look at each other during concerts." Moments such as this were recorded in field notes where the group seemed less concerned about who is listening while they swayed as a unit, exchanged smiles, and improvised syncopated claps.

Purposeful Music Making. Most of this group's repertoire is based on the Christian faith. The conductor was not observed sharing his personal feelings on the lyrics or anything about his spiritual journey. An objective of the ensemble was to perform music composed by African-American composers. It would seem

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published choral music composed by African American composers at the time of this study was Christian-based. Of the 78% of singers that reported their spiritual/religious preference, 68% described themselves as Christian. The remaining 32% described themselves as atheists, Hindu, Jewish, spiritual (not claiming a religious denomination), or not religious. Marina and Sierra had differing views about religion and their responses to the Christian-based repertoire. Sharing the message in the music with audiences is what Marina says she liked best about singing in this ensemble:

> I like being able to influence other people with our music…somebody is always crying…someone is always standing up, got their hands in the air. They're not just understanding it but they are feeling it…That is a cool feeling.

Sierra also talked about a connection to the audience enhancing her flow experiences: "Seeing other people's reactions also helps to keep the flow moment going. You're connecting with [the audience] on a different level that you are not normally used to." However, Sierra does not contribute her flow experiences to any kind of religious, transcending experience:

> When I was more on the religious side of things, I thought the flow experience was me connecting with God- I don't necessarily think that now. I definitely think of it more as a flow experience now rather than a connection with a higher power.

When asked why she felt connected to the Christian content, she replied that she "was more attracted to the rhythm and the upbeat and liveliness of the gospel music." She described her current flow moments as "getting lost in the music."

The additional repertoire that was not Christian-based also resulted in flow experiences for singers. Examples noted in observations included repertoire with foundations in social justice or spiritually ambiguous. A couple of pieces observed fitting this description include *Wanting Memories* and *To Sit and Dream*. Even though these pieces are considered secular, they have a purpose and also seemed to elicit flow.

The Conductor's Flow Experiences

Music Making. A series of meetings occurred with the conductor during the process of designing this study as well as a semi-formal interview following interviews with the two singers. Initial meetings revealed the conductor's view regarding the importance of repertoire. This included the quality of repertoire but especially the effect on flow from the so-called "carry-over" pieces. Later the conductor indicated his flow moments are more prevalent with songs the choir knew from memory and when he can make eye contact with singers. During the interview, he described the importance of memorizing music. He explained the obstacle of holding music folders and looking at the score:

Where is their focus? It's on the score…which really acts as a barrier. As soon as you remove this barrier, whoo! (using student perspective voice), I am available to and vulnerable to whatever happens now…

Observations of these moments rehearsing memorized repertoire when he reported flow, the conductor's eyes would soften and take on a glazed-over appearance as if really listening. He also indicated he would make visual contact with singers while performing the carry-over songs, which seemed to be having a special experience and this connection would be a catalyst for his flow. Flow occurrences with music were most prevalent in performance rather than rehearsals for the conductor.

Engaging Singers. The conductor's flow moments observed during rehearsal seem to coincide with moments of challenges not directly related to music. Challenges, in his words, to "make sure that I have their undivided attention." In this case, the balance of challenge and skill indicative of a flow experience is not specific to music. Challenges balanced with the conductor's skills were evidenced in field notes and video including: a combination of setting musical intentions to create a message through the music; constant feedback; and delivering humor to maneuver the singers' attention.

Purposeful Music Intentions. A question regarding the message of the music this ensemble performs elicited this response from the conductor: "It's always music with a message. I don't care if they believe the message or not…

they have to be a great story teller in conveying the message." He was observed introducing songs in a variety of ways but he frequently guided students to find meaning in the music. At times, he would relay a story about the music in a way that conveyed the significance of that song while still leaving room for singers to find their own meaning. The significance may also be placed on the meaning of a future performance to set the precedence singers are to "stand and deliver," a phrase recorded in field notes multiple times. The meaning of the music was also given as an assignment emailed to singers; for example, "Why DO we sing?" He would check in with everyone, paying attention to each singer's answers.

The process of motivating singers to find meaning in the music took effort on the part of the conductor and was met with challenges. For example, challenges such as allowing himself to be vulnerable with singers, as well as the challenge to motivate youth to find compassion and meaning within themselves.

Feedback. There was a sense the conductor was watching and listening to each person, "I see and hear everything" he would often say. Sometimes he would offer feedback to a specific person after the whole group sang together, such as, "I like the way you did that. Now ALL the basses need to get on board!" Other times he would say, "There is a soprano who is not singing the right note." It was clear he was paying attention during rehearsals and managing how he delivered his feedback.

The conductor also varied the structure of warm-ups and rehearsals to gather feedback from students, gauging their level of attention. For example, in the over 100 rehearsals observed, warm-ups were never the same. It was clear at the start of rehearsal who was engaged and who was not as singers may or may not be following the conductor's unpredictable approach. Shifts in music elements such as tempo, pitch, and meter occurred requiring full attention. Students who were not engaged found themselves in an embarrassing moment singing or moving differently than the ensemble. In such a case, the conductor would frequently make a moment out of the mistake. He was observed with his hands on his hips, staring directly at the singer who missed the cue. He would often do so until other singers started to laugh. It was comparable to a performance the conductor would implement for the purpose of singer engagement. All of the conductor's attention appeared committed to responding to singers and delivering feedback from moment to moment.

Humor. During the first rehearsal of data collection, the method of humor was used to engage singers in what could have been an unproductive rehearsal. The usual rehearsal space was not available that night because the conductor changed the rehearsal time to accommodate singers' Super Bowl Sunday activities. There was confusion and frustration from singers. One singer commented, "I hope rehearsal will be canceled." The ensemble relocated to a much smaller room meant for storage. The room was packed with stored risers,

uncomfortable metal chairs, disgruntled singers, and a baby grand. The conductor started rehearsal quite seriously, which communicated it was time to settle down as this rehearsal would happening regardless. The singers were struggling with entrances and making pitch mistakes of which the conductor even referred to as "ugly." Morale was lower than usual when the conductor asked them to take out a piece they were in the process of learning. This directive was met with groans. The conductor's response was a comedy act. In jest, he scolded about articulation. The singers' laughter followed from recognizing one another's mistakes as well as their own. At one point, the altos were instructed by the conductor to stand up, put their hands on their hips, and face the basses who made a silly mistake. The comedic drama appeared to be enjoyed by many and singers were notably sitting up, projecting, and paying more attention in general. Even though the rehearsal space was not ideal, and singing was initially met with a lack of enthusiasm, participants went on to report a higher than average occurrence of flow (.162 FE compared to the mean at .09).

In the aforementioned scenario, the flow experience resulted from rapport among participants rather than the song. However, this light-hearted exchange seemed to change the rehearsal atmosphere, allowing for more meaningful encounters with the music reaping more occurrences of flow. The energy was palpable. Tuned chords, precision, and phrasing provided evidence the ensemble was listening to one another and were more in sync. The most intense flow

experience moment of data collection occurred during this portion of rehearsal with the song *Invocation*. Singers began spontaneously rocking in unison, singing at peak volume, displaying pleading facial expressions that were authentic and not meant for an audience. The highest reported flow compared to all rehearsals where data were collected from this moment. The music making was purposeful as the ensemble was thoroughly engaged with the lyrics and one another.

Mixed Method Results

Qualitative data from field notes, emails, interviews, and images assisted in the mixed analysis by elaborating on the quantitative data. Research questions were answered by both the aggregated results as well as descriptors from the conductor, singers, and observer. Configuration of the nature of flow in a choral setting was afforded as a result of this synthesis.

Flow Relationship Between Conductor and Singers

The data revealed a relationship between when the conductor experiences flow and when the singers experience flow. These quantitative results allowed isolation of flow moments to juxtapose them with field notes, images, singers' and conductor's descriptors. In essence, I was able to capture the flow phenomenon multidimensionally. This informed interview questions and enabled me to paint a clearer picture of the relationship between singers and the conductor. These moments of both high and low flow were informative and revealed a script where the conductor is challenged with raising singers'

awareness through his rehearsal conducting skills (balance of challenge with skill

that characterizes flow); singers are engaged; flow occurs among singers; then

feeds back into the conductor, encouraging flow from him. The result is a loop of

shifting engagement over the course of a rehearsal for both the conductor and

singers (see Figure 3.4).

Figure 3.4

Loop of Conductor and Singers' Flow Experience During Rehearsal
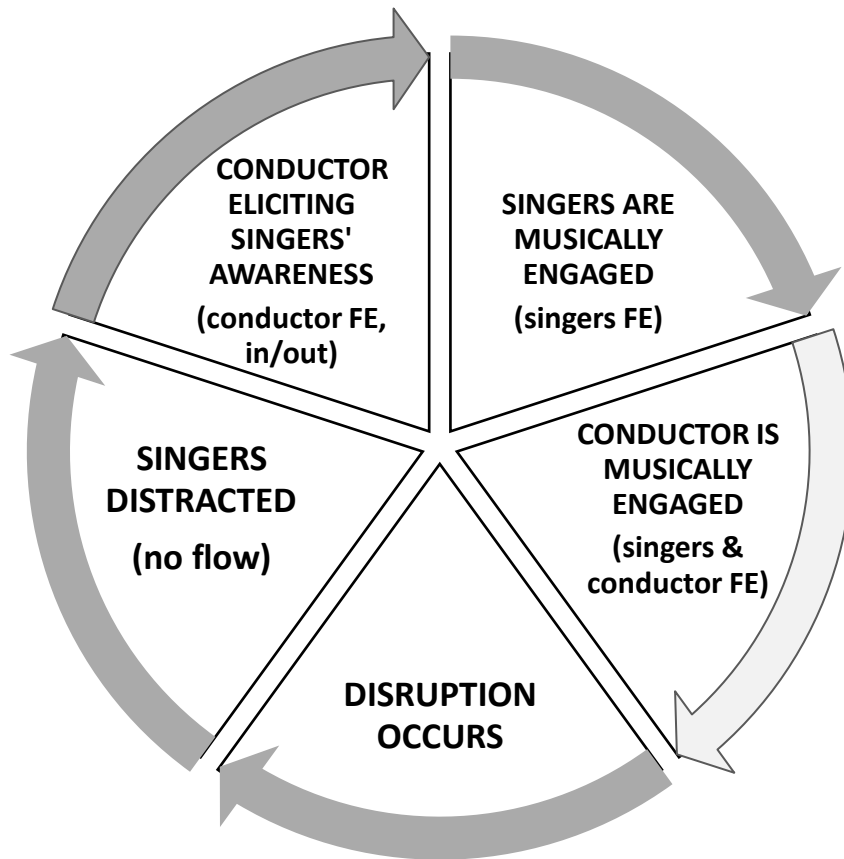
CONDUCTOR ELICITING SINGERS' AWARENESS (conductor FE, in/out)

SINGERS ARE MUSICALLY ENGAGED (singers FE)

CONDUCTOR IS MUSICALLY ENGAGED (singers & conductor FE)

DISRUPTION OCCURS

SINGERS DISTRACTED (no flow)

Note. The figure represents a loop of shifting flow experiences (FE) for both the conductor and singers during a choral rehearsal. A rehearsal started with the "CONDUCTOR ELICITING SINGERS' AWARENESS." The arrows represent causality and time: darker arrows represent time passing and causality; the lighter

arrow represents only time passing until the FE is disturbed by some kind of disruption.

Figure 3.4 was configured from the synthesis of quantitative and qualitative data. It is a depiction of how flow experiences shift throughout a single rehearsal. Observations from field notes included disturbances interrupting the flow experience such as singers walking in late to rehearsal, a singer catching a glimpse of themselves in the large mirror panels adjacent to the risers, singers fumbling with music, and the like. The experience may also be interrupted when changing songs or stopping the music to work on a particular part in the music.

Repertoire

Repertoire cannot be separated from the choral experience as it pertains to flow. The first indicator from this study was the difference in the proportion test of each song in conjunction with the conductor's flow compared to the singers' flow. However, a single song did not guarantee the same flow experience results each time it was rehearsed. Revealed from this observation was the possibility there is more to the overall flow picture than just repertoire. It is the framework of the experience with other factors contributing to or preventing the flow moments from occurring. Consider the sieve again where repertoire is the round frame encompassing the other themes resultant from the qualitative data (Figure 3.3). Without repertoire, the other factors have nothing in which to gather. Without the other factors, the sieve has no purpose.

Facilitation of Flow

A pattern of how the conductor facilitates flow became evident through the synthesis of quantitative and qualitative data. Following the quantitative data analysis, a review of field notes and video/images took place to align higher and lower flow moments with what was occurring before, during, and after singing a particular song. It became clear that the conductor's methods of engaging the students were both deliberate and reactionary. He was conscious of the singers both musically and of their level of attention. The conductor has three main approaches to connecting the singers with the music and with one another: The insistence of present moment awareness at all times; his purposeful maneuvering of unpredictability within a rehearsal structure; and his emphasis on bodily movement and articulation. This approach is outlined as a practical approach to choral music teaching titled *Focused Awareness Ensemble Pedagogy* in the discussion section.

Summary

This study aimed to answer the following research questions:

- What is the nature of the relationship between the flow experiences of the conductor and those of the ensemble members?

- In what ways does song choice promote or inhibit the occurrence of flow events?

- In what ways might the conductor of a choral ensemble facilitate flow experiences from the singers?

The investigation occurred with minimal alterations to the existing choral rehearsal structure to glean how flow experiences manifest. The results from this particular choral setting show evidence that (a) flow is occurring during rehearsals for both conductor and singers and they each have influence on the other's the ability to achieve flow; (b) repertoire plays an overarching role in the ability for conductor and singers to achieve flow; and (c) participants' perceptions of their relationships associated with the ensemble have an impact on whether flow occurs.

Flow occurrences were tested from both the conductor and singers which revealed an association between the flow experience of the conductor and that of the singers. This flow association was evident in both directions: conductor flow to singer flow and singer flow to conductor flow. These results support a "crossover" of flow "from teachers to their students" previously found in music education research (Bakker, 2005, p. 37). Results from this study also support previous research regarding the influence of students on teacher flow through the many challenges of teaching (Coleman, 2014). In this study, conductor flow is complex involving all challenges related to the task of music instruction and singer flow involves multiple challenges related to singing as well as social constructs.

Further investigation of qualitative data revealed additional details of how the conductor facilitated the flow experience for the singers and factors that inhibited the experience. A confluence of themes streams toward the ubiquitous role of repertoire. The repertoire that resulted in flow experiences contained relevant lyric content, elicited movement, and provided challenges for singers. Repertoire choice alone did not determine flow experiences. Multiple angles of approaching the songs revealed how to use repertoire for successful flow experiences. Seven themes were derived from qualitative data that assist in explaining the results of the quantitative data: *repertoire, relationships, purposeful music making, focused awareness, musicality, body connection*, and *ensemble experience* (see figure 3.3). The seven themes represent the perceptions of the participants as well as observations of the phenomenon during rehearsals. Mixed method results revealed a loop of flow activity that occurs multiple times during rehearsal (see 3.4). The activity during a rehearsal provides opportunities to balance challenge and skill to obtain flow through music making. Additional challenges for singers were evidenced in the data and include empathy with the intention of the lyrics, movement, and situational perceptions. A challenge for the conductor to overcome was engaging students throughout rehearsal. These challenges were either met with appropriate skill and flow was achieved, or they resulted in a conscious state other than flow.

Discussion

Although results from this study of a single ensemble cannot appropriately be generalized to all choral ensembles, results may be useful for conductors who seek to include flow as a goal during instruction. Validity and reliability measures were taken into consideration when designing this study. Procedures for quantitative analysis included assigning numbers for participants self-report instrument, Goodness of Fit test prior to analysis, and considering absences of participants in the design. Qualitative procedures included triangulating the data, member checking and iterative analysis when constructing themes.

Facilitating Flow Experiences

How does this conductor facilitate flow experiences? Csikszentmihalyi states that flow experiences happen when a balance between challenge and skill is accomplished (Csikszentmihalyi, 1975, 1990, 1993, 1996, 1997). Therefore, a conductor would need to accommodate multiple learners' skills with appropriate challenges to foster the flow experience for the many singers in an ensemble. This conductor's methods were anchored in making sure he had singers' attention. Methods of engagement from a lack of predictability to meaningful music making were evidenced in field notes, conversations with singers, and from interview data.

Expect the Unexpected

In general, singers in this ensemble have resigned to accept there is no typical rehearsal or expected method from the conductor. A singer shared, "I used to try and understand what he was going to do and then I gave up because it is different every time." As a result, the conductor claims that the members in this ensemble "respond well to changes." The basic structure of a choral rehearsal regularly exists: conductor greeting ensemble, warm-ups, rehearsal of literature, feedback, and announcements. That which varies during rehearsal includes: the approach to the warm-ups, how each song is taught, approach to articulation and expression, tempo, key, cues, who is expected to sing a solo, the conductor-singer interactions, and the feedback process. It is unclear what rehearsal will be like each time for the singers. Singers are kept "on their toes" not knowing what to expect. This causes stress for some new members in the early part of the school year, but eventually, most resign to going with the moment.

Warm-ups, in particular, may grab the attention of the singers. An echo speech exercise usually begins warm-ups for this group. This exercise is often comical and personal to the singers in the group. He might start with a "Hello" in his upper register and then move on to comments relevant to what is happening that day: "Here it is" or "It's Mahhhnnnnnday" (Monday). Then he might move on with the echo speech to include comments on anyone in the room about a new hairdo, a singer who had been out of town, a guest, or someone walking in late.

These statements would frequently be interspersed with comedic jabbing. The singers are to echo what he says and how he says it, including dramatic inflection and a particular articulation adding to the joviality of the activity. Warm-ups also include social interactions, such as creating a massage chain. However, warm-ups are never the same. He changes modes, meter, gestures a fermata unexpectedly, and may spontaneously cue swaying or clapping. Singers had to pay attention and respond, which set the expectation for the entire rehearsal.

A piece of music could be taught in a variety of ways. Occasionally this conductor approaches the introduction of a new song similar to a typical ensemble: starts with note and rhythm reading with assistance at the piano, followed by less piano support, a little help on troubled places, conductor accepts where it is that day and concludes with a final statement, "what do you need from me?" At which point, singers are encouraged to speak up with what they may be struggling. Should they not speak up, the expectation is they strengthen their part on their own for an unknown moment when that piece will be rehearsed again. However, this is not always the pedagogical approach the conductor assumes. New songs might be introduced by rote, particularly if the song is popular or a "carry-over" piece. When rote learning occurs, singers are not to look at their music at all. This includes avoiding jotting notes on the music or asking for specific note values. The conductor's response would be, "Just listen and watch." This can be frustrating for those used to reading music or those who struggle with

storing music in their memory. In general, this method was not initially conducive to flow experience moments for the singers. However, the memory of general notes and rhythms, as well as expression, appeared to allow for a flow experience more quickly overall.

In addition, this conductor might use recordings of former versions of the ensemble or his church choir performing in order to convey a specific style. This was the case for *I Have No Doubt*, which is to be performed gospel style and is unique in its articulation and inflections. The purpose of using the recording may have also been a result of the choir's lack of energy from a 46-hour dance marathon within the same weekend. An appropriate approach to have singers initially experience the song through a recording in the case of group exhaustion and flow. Research has indicated flow experiences may be inhibited by fatigue (Cheron, 2016).

Mentors

Mentors such as veteran or former members were frequently responsible for conveying much of the carry-over literature to the newer members. Occasionally this required quick learning and memorization of a song, such as just before a performance. On one occasion, during an observation, the challenge occurred just following warm-ups for a concert occurring that same evening. Newer singers were at full attention with wide-eyes and open ears, knowing that they will have to "stand and deliver" the song in front of an audience that day.

Carry-over songs expected to learn quickly are often homophonic and have repetitive lyrics, which made quick learning possible. An intense focus is necessary for these situations. Flow experiences were accessible in such moments for all learners: those who were teaching as mentors and those who were learning. Such a technique kept the group attentive and fresh as they were never sure what would happen. Singers resigned to the ambiguity, accepting they will know what they need to know when they need to know it.

This kind of scaffolding naturally reaped mentor/mentee relationships as both were invested in moving toward a positive experience with the music. Veterans knew from experience that it takes the whole ensemble to create the rich sound and expression necessary for special music moments. They were motivated to help newer singers to raise the musicianship level, allowing quality music moments. They would do so by merely singing their part with previously learned expression and accuracy to their sections for newer members to follow. Veterans also indicated the conductor's expectations of the music nuances. These social interactions may assist in making the ensemble environment conducive to flow experiences. Connections between social activity, scaffolding, music and flow have also been positively identified in past research from music education (Diaz, 2012; Freer, 2009; Kraus, 2003).

Memorization requirements in high-pressure situations could be difficult for some singers to balance the challenge and skill necessary for flow. Newer

singers would be expected to learn and memorize on their own notes, rhythms, and the nuances necessary to perform the songs expressively. This invoked some anxiety on the part of the newer singers. However, veteran singers would take the lead and provide the necessary information for new members to fill in the missing pieces. For Marina, the low flow interviewee, veteran members pointing out mistakes in music was perceived negatively. She assumed others thought she lacked skills, which caused her to become self-conscious. This resulted in fewer flow moments for her. However, she also indicated she felt a responsibility to the ensemble and conductor to improve her skills. She was motivated to learn the music in the way it was expected to be performed. She indicated this eventually resulted in more frequent flow moments in the latter part of the school year. Relationships between her and veteran choral members prevented flow moments initially, but the challenge of improving her skills enabled future flow moments. It is also possible that the amount of experience with an ensemble results in more flow. This was the case in Kraus' (2003) dissertation with a collegiate wind ensemble.

This ensemble has a wide radius of enthusiastic supporters. There is a large community of singers and a following of audience members that date back to the group's inception in 1991. The conductor values the connection between these groups of people invested in the ensemble and has created a community. There is an alumni ensemble consisting of former singers who perform separately

and together with the collegiate ensemble. Singers are made aware of this large

community early in the rehearsal process and learn from both the conductor and

veteran members by example to respect the community. Relationships are

fostered through social activities planned by the alumni choir, former singers

joining the ensemble on stage for certain carry-over songs, and alumni hosting

concerts at their school auditoriums and church spaces. Repeat audience members

become familiar with the singers and are also a part of this community. As a result

of these relationships, singers are motivated to carry on a tradition of singing

music expressively. They belong to something special and this causes them to rise

to meet challenges of performing at the level expected by the conductor, veteran

current members, alumni, and the audience who have come to expect an

exceptional experience. Singers strive to get to the point where they do not have

to think about accurate notes and rhythms in the music. They have to be beyond

that part of the learning process in order to enjoy and connect with one another

and the ensemble community. The role of this community during rehearsal flow

experiences depended on the singer's experience with the ensemble. A veteran

singer would get lost in imagining the performance with this community and often

fall into flow as a result of recalling the conscious space. A new singer has the

challenge of synchronizing singing, articulation, expression, memory, and

movement in hopes of sharing the experiences they are learning from the

veterans. Even though initially the challenge is too great to balance with their

skill, when the balance does occur, it can be powerful as Sierra described in her interview. These relationships play a role in the motivation to overcome the challenges and may possibly result in a flow experience.

Nowhere to Hide

Engaging the singers also occurred through the interactions between conductor and ensemble. Field notes included the conductor claiming to see and hear everything contributing to a feeling that singers had nowhere to hide. He would impress this idea from the start of rehearsals by "calling people out" individually, asking how they are doing, or about their latest activities outside of choir. Singers were expected to answer in front of the choir. The conductor would further solidify this idea during rehearsal with immediate feedback to sections and individuals. For example, he would abruptly stop and say, "Altos, WHAT are you doing?" or gesture toward an alto and say, "she's waiting on sister girl to start singing the right notes." Even though singers' faces flush or look down as if they were hoping to disappear, the same singers came back to the next rehearsal having practiced in order to avoid unwanted attention. This kind of rapport gives way to a comedy routine of sorts. He knew how to make people laugh and when to do so. This lifted the mood and engaged students when they were otherwise not engaged. The skills evidenced included engaging singers through humor and delivering effective feedback.

Leading with Purpose

This conductor selected repertoire meaningful to the ensemble and representative of African and African-American composers. The repertoire chosen included lyrics promoting social justice, the suffering of African descendants, and joy in the represented culture. Performances of the ensemble included special events themed around such subject matter for Martin Luther King Jr. events, Veterans Day, African American Music Festivals, and the like. Preparation for these events encompassed more than the written score to include communicating the intention of the performance. This is a different set of challenges presented to the singers; for example, perspective taking and expressing compassion.

In mindfulness research, the development of compassion is considered a skill. Developing such skills includes attaining an ability to imagine or empathize with another's suffering, followed by feeling compelled to alleviate the suffering (Lavelle, 2017; Roeser & Eccles, 2015; Skinner & Beers, 2016; Strauss et al., 2016). Rehearsal time included navigating this process, which is a challenge for a generation of diverse singers who have not lived through some of the experiences about which they are singing. The conductor invested a considerable amount of rehearsal time reflecting as a group. In addition, he assigned questions or promoted sharing as a group to connect singers to the music. This kind of

purposeful music making adds a layer of skill and challenge to balance for a flow experience in addition to the challenges of musicality.

The dynamics of relevant and diverse repertoire were noted in the data as a reason some singers were attracted to the group. In addition to the repertoire being diverse, the membership was also diverse. Diverse demographics and religious preferences in the group resulted in a microcosm of society where they collaborated to share music purposefully. Regardless of their beliefs, singers found a way to relate to the lyrics with devotional texts and social justice themes. Singers looked forward to sharing such lyrics with audiences. The conductor commented it was "not his intention for [the ensemble] to be political, just happened." This conductor distances himself from a direct interpretation of lyrics; rather, he sets the stage for singers to have meaningful encounters.

An example of this kind of facilitation occurred during a period of political turmoil in the United States. A group of students met with the conductor to express their concerns. This quote from Sierra explains:

> He saw that a lot of people in our choir were struggling with the current events…some of us went down… and talked to him for a while. He's able to help with different aspects that really enhance the flow experience.

The conductor had a new piece of music for the next rehearsal that included the lyrics "Don't you worry 'bout presidents. Take no anxious thought about governments…" A higher than average flow experience was reported for

that particular song at .20 compared to the mean participant flow experience at .09.

Movement

Notes on the page were only relevant briefly during the initial learning of a song. This conductor insisted on memory for most all repertoire early in the learning process, which included putting down the singers' music folder. Singers who did not have folders in their hands resulted in the ability to respond to the conductor, connect with the lyrics, and move freely. Singers were able to have their bodies free to sway, clap, perform choral-ography as well as lift their eyes to the conductor and one another. Rehearsal of music that included movement often required complete immersion in the music. To convey lyrics and move as a unit with the music required the full attention of the singers. Participants attributed flow experiences to this challenge. This is comparable to McCrary's (2001) results from a choral study: an "emotional and physical response" to the music was attributed to movement, memorization and repertoire (McCrary, 2001, p. 86). Observed in this study, immense enjoyment evidenced in singers' faces following a successful "run through" of a memorized song with movement. Often noted were joyful exclamations just after the experience.

The movement was planned at times and other times spontaneous. The singers would move even when there was not any designated movement for a song. For example, rocking back and forth or improvising claps. Many moments

were observed where breathing together resulted in a musical movement: inhaling and exhaling would cause a swelling pulse among the whole group. Entrainment was frequently observed where individual movements of singers would fall into similar movements. These moments were spontaneous and seemed to move through the choir like a wave. Field notes from the outlier flow moment noted the beauty of the synchronized breathing movement; it was as if the ensemble were breathing and singing as a single body.

Intensified movements involving parts of the body required for singing were consistently observed. The essential connections between the song and voice involved articulating the lyrics and breathing, synchronously with a section or the whole group. An acute focus was required to follow the conductor for cues to breathe or articulate in a specific way. The rhythm of the chosen repertoire was often syncopated, which provided additional challenges including accomplishing precision as an ensemble. There were also particular ways of appropriately representing the African and African American repertoire through articulation and phrasing. These specific articulations usually differed from everyday speech providing the mouth to move in unfamiliar ways.

This conductor had high standards so to represent the music appropriately. He would also provide a lesson on the diversity within literature arranged by African American composers. For example, he chose two different settings of the same text, often a spiritual. Singers had to completely focus on the arrangement to

approach the correct articulation and phrasing, which differed from the other setting of the song. The intense focus required was palpable as an observer and indicative of flow.

Focused Awareness

There were various techniques the conductor used to foster flow in the singers. Perhaps the most prevalent technique was bringing singers' attention to the present moment throughout the music learning process. The merging of action and awareness is one of the nine dimensions of flow, which was observed throughout rehearsals. Singers were exceptionally on task for most of the rehearsal. A "one-pointedness of mind" is necessary for the "intense concentration on the present" achieved in flow (Csikszentmihalyi, 1996, p. 112). In this study, it appeared to be one of the most effective pedagogical tools to induce flow.

I offer the following summary of techniques in an effort to bridge this research to practice.

Focused Awareness Ensemble Pedagogy:

- Focused awareness on the task: The conductor insists on singers' attention by regularly reminding them to "be present mentally and physically" during rehearsal. This concept corresponds with the fifth dimension in Csikszentmihalyi's flow theory, *distractions are excluded from consciousness*: "Flow is a result of intense concentration on the present,

which relieves us of the usual fears that cause depression and anxiety in life" (Csikszentmihalyi, 1996, p. 112).

- Random elements within a structure: There is a rehearsal structure that is reoccurring to which singers may feel grounded. However, within the structure, there was a lack of predictability. This made it necessary for singers to stay aware to know what to do, where to go or how to sing. As a result, students did not habituate to the rehearsal structure. Examples from this study include the changing of breath markings, musical expression or tempo. One of the "most mentioned features" of flow from Csikszentmihalyi's data is a sense of "discovery," finding "something new" about the "possibilities of interacting with the many opportunities of action that the environment offers" (Csikszentmihalyi, 1993, p. 177). The conductor's method of unpredictability provided these moments of discovery and the challenge of interacting with the changes in the moment.

- Movement: Choral singing in this participating ensemble involves intense attention on text articulation and movement as a singing ensemble. The challenge of articulation and movement, in addition to the typical challenges in choral singing, made it very difficult to focus on anything other than these music goals. This affords Csikszentmihalyi's dimensions of flow, a*ction, and awareness are merged* and *clear goals every step of the way*, as music engulfs the present moment experience expressed

mentally and physically in coordination with others (Csikszentmihalyi,

1996, p. 111).

Implications for Future Research

Choral research may benefit from testing constructs included in the

Focused Awareness Ensemble Pedagogy model. It is by these means of awareness

pedagogy in conjunction with relationships and purposeful music making this

conductor affords the flow experience for his singers. He encourages the flow

experience for his students by using key assessment elements of flow outlined

from Csikszentmihalyi before the possible flow experience. Purposeful music

making added an additional layer of challenge to balance for choral members

while providing motivation for new singers developing skills. An environment

that encourages flow was observed as a result of these critical features.

Although seemingly impossible for a teacher to predict or control, the

inner perspective may offer direction for additional research on facilitating flow

in education. Despite an environment that encourages flow, ultimately, the

singer's inner perspectives may hinder the ability to achieve flow. The flow

elements "self-consciousness disappears" or "no worry of failure" cannot be

achieved when distracted by situational factors (Csikszentmihalyi, 1996, p. 112).

The differences between inner processing found in participants may pertain to

experience with the ensemble as discovered in this study. Another possibility may

be that some singers are possessing an autotelic disposition that includes

approaching activities with interest (Csikszentmihalyi, 1975; Hunter & Csikszentmihalyi, 2003).

A body of research in the area of mindfulness has been accumulating for decades, including accounts of the inner experience and awareness (Bishop et al., 2004; Brown & Ryan, 2003; Langer, 1989; Lutz et al., 2015). Language pertaining to awareness in the present moment is indicative of mindfulness education research (McKeering & Hwang, 2019; Schonert-Reichl & Roeser, 2016). Investigating present moment awareness, one of the "core elements of mindfulness" found in the majority of mindfulness-based intervention studies in schools (McKeering & Hwang, 2019, p. 608), may prove to be an additional avenue to fostering flow in music education settings. The conductor's consistent reminder to "be present" had a similar effect as mindfulness pedagogy. Mindfulness pedagogy uses focused awareness meditation to avoid distractions by focusing on an "object" such as the breath or sound (MLERN, 2012). This is also the fifth element in Csikszentmihalyi's flow theory, distractions are excluded from consciousness. "Flow is a result of intense concentration on the present, which relieves us of the usual fears that cause depression and anxiety in life" (Csikszentmihalyi, 1996, p. 112). Investigating mindfulness as it relates to the inner and external experience of flow may prove to be useful in the endeavor to elicit flow in an education setting.

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CHAPTER 4, Study 2

Abstract

This purpose of this study was to investigate personal and situational factors from a singer's perspective before, during and after potential *flow* moments. This qualitative case study aims to thoroughly examine Csikszentmihalyi's flow theory and used grounded theory data analysis methods to arrive at theory of fostering flow in singers. Descriptive factors may demonstrate conditions in vocal/choral education that promote or prevent individual singers from having flow experiences while engaging with music. The information rich participant, "Keri", was an undergraduate involved in private voice studio lessons who sang with a variety of ensembles on and off a university campus in the Mid-Atlantic region of the United States. Data from interviews, journals, field notes, social media and video/images were transcribed and analyzed through NVivo software; coded; and constructed into higher order categories including the central phenomenon, *control over consciousness*. A proposition statement is provided offering hypothesized themes related to higher order categories including *support system, health, portraying repertoire, feedback, enjoyment*, and *self-actualization*. These six categories include situational and personal factors that affected *control over consciousness,* the central phenomenon, making flow moments possible, or impossible for Keri to achieve. Understanding the inner perspective before, during, and after flow

moments regarding these factors allows a deeper understanding of how flow might be fostered in music education settings.

Case Study of Personal and Situational Factors Surrounding Flow

Experiences in Vocal Music

Research has found environmental factors relevant to an individual's construction of flow experiences in music education (Custodero, 2002; Diaz & Silveira, 2012; Freer, 2009; Garces-Bacsal, 2016; O'Neill, 1999; Valenzuela & Codina, 2014). An educator with the objective of affording a flow experience for their students may want to consider their pupils' inner thoughts as they relate to the environment of a class setting. The previous study revealed results indicating the relevance of these inner thoughts and their subjective perspective in accomplishing flow. The meaning of perspective in this document: "the interrelation in which a subject or its parts are mentally viewed" including the "capacity to view things in their true relations or relative importance" (Merriam-Webster, n.d.). The participant perspective appeared to be an essential contributing factor in whether flow was achieved. This supports conclusions from Csikszentmihalyi's research, where elements of flow are described from an inner subjective viewpoint. For example, flow requires a process of "delimiting reality" (Csikszentmihalyi, 1975), or challenges characterized by "a sense of effortless action" (Csikszentmihalyi, 1997), and in the event "both challenges and skills are perceived to be too low," apathy rather than flow occurs (Csikszentmihalyi, 1997). However, some elements of the flow experience seem to indicate shifts in mental space to contemplate an inner experience including "no worry of failure,"

"distractions are excluded from consciousness," and "self-consciousness disappears" (Csikszentmihalyi, 1996). To assess what role the inner or subjective perspective plays in promoting flow, an acute investigation of the flow experience from an inner viewpoint was deemed appropriate.

Research Questions

The purpose of this study is to investigate personal and situational factors during flow experiences. This study's setting is specific to vocal/choral music, including rehearsals and performances both informal and formal. The impetus for the study was made clear following analysis of data from study one revealing the relevance of the inner experience to flow. This study aims to take a more in-depth look at how a singer perceives intervening conditions in multiple vocal contexts, including actions and interactions. The research questions for this study are as follows:

- What are the personal and situational factors during potential flow experiences that may inhibit or promote flow?

- How might these personal and situational factors during potential flow experiences be examined at the inner, subjective level to inhibit or promote flow?

Literature Review

An investigation of situational and personal factors was deemed necessary to discover an ideal conscious state primed for a flow experience in conjunction

with a productive environment to encourage flow. Csikszentmihalyi (1990) posited that "[o]ccasionally flow may occur by chance, because of a fortunate coincidence of external and internal conditions," however, it is " …much more likely that flow will result either from a structured activity, or from an individual's ability to make flow occur, or both" (p. 71). The environment and the individual's conscious control are factors influencing whether or not a flow experience occurs. Csikszentmihalyi (2014c) researched cultural and political structures in developed and indigenous populations and determined that particular social contexts encourage flow in everyday life more than others. The same concept has been investigated within the school environment as well as socio-cultural structures of the lives of students. In his research on adolescents who are considered statistically bored versus others who are naturally interested, he concluded that "…social environment plays a significant role in [the] development" of youth having a "…predilection for the openness to experience" (Hunter & Csikszentmihalyi, 2003, p. 34).

This concept that the environment plays a role in the flow experience is echoed in other positive psychology research. Cavanagh and Sharnoff discuss their flow theory research related to both the learning environment and internal student perceptions finding that the two are "highly related" and "… may be part and parcel of a singular overriding classroom dynamic or quality of experience." Important factors present in their investigations of flow included "positive

relationships, intrinsic motivation, emotional support, relational support, positive

self-esteem and self-concept" (Cavanagh & Sharnoff, 2015, p. 133).

Research with implications for music education has found flow frequency

disparities while investigating different learning environments. Such studies

include specialized versus non-specialized music schools (O'Neill, 1999);

different music context at a music camp (Diaz & Silveira, 2012); gender-specific

choral groups (Freer, 2009); environments conducive to children "…creating their

own optimal experiences" through musical creativity (Custodero, 2002, p.8);

conclusions suggesting the use of diverse family contexts to gain musical, cultural

capital (Valenzuela & Codina, 2014); and continuously evolving learner settings

in order to provide a loop of revised challenges (Garces-Bacsal, 2016). The inner,

subjective experience as it relates to flow has not been thoroughly investigated

and may be a determiner in accomplishing flow.

Study Design

A qualitative single-case study research design using grounded theory was

chosen to answer my research questions and develop theory. Both case study and

grounded theory methods of inquiry are considered compatible in qualitative

research (Halaweh, Fidler & McRobb, 2008). Deriving theory from case study

research closely mirrors reality and is likely to have "important strengths" such as

"novelty, testability and empirical validity…" (Eisenhardt, 1989, p. 548). The

combination of both approaches proved useful when investigating an ambiguous

phenomenon such as flow. A case study research strategy was used as a blueprint for data collection and identifying the case, whereas the iterative process of grounded theory allowed a loop of collecting data, analysis, theoretical sampling, followed by more informed data collection. Using a triangulation approach to collecting data from the case study method resulted in plenty of data to analyze throughout the investigation as a protocol for the grounded theory approach. The iterative approach from the grounded theory method was useful in organizing the self-reported flow experience data while additional field notes, video/images, and posts aided the process of dimensionalizing the data; a process of breaking a property down into dimensions defined by context such as time or setting (Strauss & Corbin, 1990, p. 61). Flow experiences rely on self-reporting (Csikszentmihalyi, 2014b; Jackson & Eklund, 2002), and this investigation aimed to explore the multiple perspectives of the inner and outer experiences of a single case. Therefore, using the grounded theory method of analysis allowed multiple opportunities to "tease out" from the lot of phenomenological data a tangible profile subject to new theory.

The Corbin and Strauss (2015) grounded theory research strategy was chosen for this study in order to more closely align the two methodologies, grounded theory and case study. Halaweh et al. (2008) states that "…it is crucial when integrating case study research with grounded theory that their philosophical assumptions are the same" (p.4). Corbin and Strauss' (2015)

approach, as opposed to the initially published approach by Glaser and Strauss (1967), allows for an initial idea of theory development based on existing literature. The Corbin and Strauss model of grounded theory interplays inductive and deductive reasoning throughout data collection/analysis. This is more closely aligned with case study research where theory development is a part of the design phase and considered "essential" when the study's purpose is to "develop or test theory" (Yin, 2003, p. 28).

Method

Case Study Selection

A "unique" and "revelatory" case was appropriate for this single-case study to allow for an in-depth investigation of the flow phenomenon (Yin, 2003). Such a person suited the population for which this study aimed to contribute as well as one involved in activities providing "sufficient" and "relevant" evidence to this investigation of the flow phenomenon. Yin discusses the "boundaries" of an "exemplary" case study indicating "…the distinction between the phenomenon being studied and its context" are given "explicit attention" (Yin, 2003, p. 162). This is echoed in the grounded theory method which seeks a variety of genre and context to allow the process of dimensionalizing data (Corbin & Strauss, 2015). A "full range" of dimensions over which the phenomenon may vary is ideal. For example, an information rich participant involved in varied formal and informal

singing settings was convenient when comparing differing conditions for iterative analysis.

For this study, an ideal participant would have multiple flow moments throughout the investigation. A person actively involved in music rehearsals and performances increased the probability of experiencing flow during this study. A singer who has had compelling music experiences reminiscent of cases found in flow literature increased the likelihood of flow experiences during data collection. Characteristics of these compelling music experiences included the ability to concentrate on a "limited stimulus field"; forget worries and separate identity while striving for "clear goals"; and obtain a feeling of control by not succumbing to distractions such as internal emotions or external happenings (Csikszentmihalyi, 2014c, p.135). In addition, O'Neill (1999) found self-motivated students to be more inclined to have flow experiences than those considered lower achieving when comparing students of differing musicianship skills. Therefore, included in the study criteria was an undergraduate student with above average singing skills who has experienced success in collegiate level music making.

Participating in a variety of music making opportunities was also considered to increase the probability and context of flow experiences during this study. Data collection from multiple rehearsals and performances of a variety of genre and context was deemed necessary. These contexts included both on and off

campus singing opportunities from solo and group performances, increasing the odds in favor of flow. The ability to communicate these experiences from different contexts using an internal perspective was also considered an asset. A participant who could provide rich descriptions of their flow experiences would most aptly assist in a well-rounded investigation of the flow phenomenon.

"Keri" was a fifth-year senior at a Mid-Atlantic university who had been a music performance major for two years and then changed her degree path to Bachelor of Arts. She participated in ensembles and voice lessons taught through the School of Music throughout her undergraduate coursework. In addition, Keri was active in making music off campus as well and considered herself a "do it yourself" singer/songwriter. For example, she "gigged" in local venues, recorded and sold her original music, created music videos for YouTube and social media, and participated in a local burlesque troupe. Conversations with Keri prior to the study revealed she was articulate and communicated her music experiences with rich description. This included compelling music experiences reminiscent of flow. Keri was also a participant in the first study, where data revealed she experienced flow moments. Keri met the participant criteria for this study and agreed to participate.

Data Collection Procedures

This study investigated personal and situational factors affecting the flow experience over the course of a school year from the perspective of a single case.

In keeping with Yin's (2003) description of a case study with strong validity, this design includes triangulation: two interviews during month two and a second during month six; observation field notes; participant's journal submissions, social media posts, video posts, and web content including blogs and articles; performance programs and video/images. Multiple sources of evidence allowed for the development of "converging lines of inquiry" which describe the advantage and process of triangulation in a case study (Yin, 2003, p. 98).

Data Sources

Interviews. Two Semi-structured, in-depth interviews occurred during month two for 48 minutes and month six for 49 minutes. Questions for the first interview were derived from field notes and social media observations. The second interview questions resulted from the analysis of participant journal entries, field notes, web content, social media observations, and the initial interview. The participant was encouraged to elaborate on answers to scripted questions and elements of free response were included in the data. It was made clear at the start of the interviews Keri did not need to provide any information about which she did not feel comfortable.

Participant Journals. Keri was asked to submit a journal for weeks she had rehearsals or performances. Journal entries reflected on the rehearsals and performances of that particular week. The environment for these journal entries included choir; burlesque troupe; vocal studio lessons and associated

performances; Keri's senior recital; informal band "gigs"; and performances as a singer/songwriter. Keri was given prompts for which she could choose to answer and elaborate. She was encouraged to reflect on what she deemed relevant to her ability to achieve or factors preventing her from achieving flow. This included thoughts and challenges before, during, and after the rehearsals or performances. Keri submitted a total of seven journals.

Field Notes, Videos, Images, and Online Material. Investigator observations included informal and formal performances and rehearsals both within the School of Music and off campus in the community. School of Music observations included weekly choir rehearsals for a period of 5 months, three days a week, for 4 hours per week. This choir performed both on and off campus frequently which included travel and overnight stays that combined to total 109 observation hours in addition to the weekly on campus rehearsals. This was a unique choral ensemble for academic credit dedicated to the performance of sacred and secular music from African and African American choral traditions. Keri also participated in the school of music opera theatre's production of *Iolanthe* by Gilbert and Sullivan. Field notes were taken at the dress rehearsal and performance where Keri played the character "Queen of the Fairies." Observations related to *Iolanthe* totaled 5.25 hours.

Investigator field note observations off campus included a performance of a theatre troupe in which Keri was involved. This troupe specialized in "vintage"

style performances similar to variety shows of the early 20th century which included music, dance, comedy, and burlesque. This observation totaled 2.75 hours. Field notes taken at all venues included on task rehearsal and performance moments as well as interactions and happenings that occurred before and after.

Online observations added to the above field notes. Keri had a website promoting herself as a singer/songwriter which included a blog. In addition, she shared a published entry about body image related to performing written for an online forum. Social media provided useful data for this study as well. Keri accepted my "friend request" on Facebook and I "followed" her on Instagram. This allowed me to note her anticipation of performances and rehearsals as well as her candid reflections following these events. Social media data comprised of Keri's typed posts, videos and images posted including YouTube video the participant shared. The access into Keri's social media activity permitted me to juxtapose the data collected (field notes and journals) with observations of her online activity in real time.

Table 4.1

Data Source Timetable for Study Two

Month	Data collected from Keri	Data collected by investigator
1	Social media Websites & video	Field notes

2	Interview one
	   Journals
	   Social media
	   Websites & video
		Field notes
		   Social media
		   Websites & video

3	Journals
	   Social media
	   Websites & video
		Field notes
		   Social media
		   Websites & video

4	Journals
	   Social media
	   Websites & video
		Field notes
		   Social media
		   Websites & video

5	Social Media
	   Websites & video
		Field notes
		   Social media
		   Websites & video

6	Interview two
	   Social media
	   Websites & video
		Social media
		   Websites & video

Data Coding and Analysis

Grounded theory data analysis typically occurs from the beginning of collection through the generation of theory (Corbin & Strauss, 2015). Initial data were collected through field work observations, which were subjected to open coding. This process involved breaking down data into "discrete parts" that were "closely examined, compared for similarities and differences, and questions

[were] asked about the phenomena as reflected in the data" (Strauss & Corbin, 1990, p.62). These newly evolved questions determined additional inquiry and informed the first interview questions. This cycle of inquiry and analysis leading to more refined inquiry continued throughout data collection. The convergence of evidence from triangulation allowed me to turn concepts into categories and analyze conditions for dimensionality.

Two main phases of data collection coincided with the two interviews over a period of 7 months. The first interview was transcribed for open coding, which led to concepts to investigate further. Six months of fieldwork followed in conjunction with participant journaling where simultaneously conceptualizing data took place; "taking apart an observation, a sentence, a paragraph, and giving each discrete incident, idea, or event, a name, something that stands for or represents a phenomenon" (Strauss & Corbin, 1990, p. 63). Following these procedures, categorizing those concepts occurred, a process of grouping concepts that seemed to pertain to the same phenomenon into categories (Strauss & Corbin, 1990, p. 65). There was a concentrated period of performance activity during months four and five of data collection related to the choral ensemble with which Keri was active. Fieldwork and analysis continued to occur. During fieldwork, the "interplay between data collection and analysis is processed simultaneously by identifying ideas emerging from the first interviews, so that the area under study becomes more focused as time progresses" (Halaweh et al., 2008, p.8).

Theoretical sampling took place through sampling concepts with possible theories proven to have "theoretical relevance" to an evolving theory (Strauss & Corbin, 1990, p. 176). Theoretical relevance was perceived by juxtaposing concepts related to events, incidents, and happenings.

The second interview questions were formulated as a result of open coding analysis, participant's journal entries, field notes, supporting documents, media posts, video, and newly emerged concepts. Axial coding followed the second interview using transcribed data from both interviews as well as all other forms of data collected and entered as text in NVivo software. This process involved reorganizing the data in order to make connections between categories from notated conditions, context, action/interactional strategies, and consequences using the "paradigm model" to yield "density and precision" for grounded theory results (Strauss & Corbin, 1990, p. 99).

Final Analysis: Deriving Theory

Constructing a theory using grounded theory procedures involved narrowing the preconceived categories into a core category through selective coding. The process of selective coding started with relating potential core categories identified by their frequent and pervasive appearance in the data. This was followed by sampling potential core categories where each possibility was validated, or not, with the data until a core category surfaced as the foundation for all other categories to be integrated. This core category integrates all categories

into a cohesive model of related conditions acting as a "master that pulls the other categories together" (Halaweh et al., 2008, p. 6). The process of concentrating coded data into a model of related conditions involved constructing a descriptive narrative. The narrative reveals the core category by other categories pointing in the direction of the most ubiquitous category. The relationship between the remaining categories and the core category, or central phenomenon (Strauss & Corbin, 1990, p. 264), support the development of properties and dimensional range of a cohesive theoretical model.

Integrating these categories to arrive at theory may be approached using various techniques. For the present study, I used the suggestion from Corbin and Strauss (2015) of "integrative diagrams" (p. 194) to contemplate the "logic of relationships" between categories (p. 195). I developed a mind map using Lucid Software, which allowed the categories to be sorted in such a way that represented the relationships of the categories that led to theory (see appendix for "Mind Map"). Finalizing theory begins with the core category, which "must be defined in terms of its properties and dimensions" (Corbin & Strauss, 2015, p. 197). Accomplishing this involved juxtaposing each category with the core category to the point of saturation so that "considerable variation" is "built into" the categories: categories are "well differentiated" and "clearly defined in terms of their properties" to include "dimensional range" (Corbin & Strauss, 2015, p. 197).

Validating theory is the final step in the process of deriving theory from the data. The proposed theory "represents an abstract rendition of that raw data" (Corbin & Strauss, 2015, p. 199). Keri was contacted to review the results to check for an accurate representation of her experience. The participant should be able to "recognize themselves in the larger sense of each category" (Corbin & Strauss, 2015, p. 199). Keri had no objections to how her story of flow was represented.

Checking for variations in the theory further validated the resulting theory. The variations pertaining to this study of investigating ways to foster flow involved examining multiple ways to view the central phenomenon. This allowed for consideration of "conditions that are operating" to "move" the case from "A to B to C" (Corbin & Strauss, 2015, p. 199). An example of such a condition would be time: moving from "A," before flow to "B," during flow to "C," after flow. The process of considering the central phenomenon from multiple perspectives and then validating a proposed theory strengthened the ultimate theory which with to conclude this single-case, grounded theory study.

Findings

An in-depth view from a singer's perspective revealed intervening conditions occurring in multiple vocal contexts. The interconnected situational and personal factors all linked to the central phenomenon, control over consciousness. Complexities of a singer's perspective of personal and situational

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factors are represented as actions and interactions, intervening conditions, contextual conditions, and consequences.

Central Phenomenon

Control Over Consciousness

The central phenomenon revealed in this singer's ability to experience flow was *control over consciousness*. Keri's flow experiences were reliant on whether she could narrow her field of awareness to that which pertained directly to performing at that moment. Other concepts were revealed which challenged or enhanced her conscious control at flow moment opportunities. Keri's preparations prior to performing included skill building, her approach to health, the portrayal of repertoire, considering feedback, and the non-musical logistics of performing. These preparations would contribute to a quality of awareness that may or may not result in a flow experience. Preparations in conjunction with what occurred during a performance provided the challenge of either being distracted or being able to attain/maintain conscious control. Acute focus on the task of singing would result in a moment of flow when conscious control was achieved as a result of overcoming the challenge of internal and external distractions. Following a performance, Keri was exposed to a new collection of factors to be considered for future flow opportunities. These factors included feedback as well as reflecting on the enjoyment and challenges that transpired during the performance.

Actions-Interactions

Performance preparations are the actions taken by Keri before a flow opportunity and included: practicing for skill building and memorization; the portrayal of repertoire including character; taking care of physical and mental health; and preparing performance logistics. Practicing prior to performing impacted what occurred during Keri's performance. For example, when she would have a memory slip while performing as a result of insufficient practice, it prevented her from achieving a flow moment. Another example includes the incorporation of new skills or a correction, such as an adjustment in the soft palate at a register break. A distracting moment while singing would begin with Keri's anticipation of the challenge in the melody approaching, then the new adjustment was made with conscious effort as muscles were not trained to adhere to the new position automatically. Keri would shift her attention to adjust, often with some insecurity or concern, or her voice would crack, and intonation might suffer. Insecurities are not conducive to achieving flow as they pull the attention away from the task and may be followed with a period of ruminating emotions that override performance focus. Evident in the data from these moments of flow where this issue occurred, she would momentarily leave the flow state and make the technical adjustments while performing. Occasionally, she returned to focus on music making and resumed flow. During the same songs in which she had to

make technical adjustments, she returned to the flow state, which is an example of control over consciousness.

Fatigue proved a more difficult challenge to overcome. Keri did not indicate flow moments in her journal entries, which included pre-performance accounts of general exhaustion. Lack of sleep or difficulty balancing her schedule did not result in any flow moments during those performances. Conversely, Keri was able to overcome perceived vocal fatigue, which often resulted in sporadic flow experiences. While performing with vocal fatigue, Keri would "save" her voice during less challenging songs and then "let go" for the songs that she considered most important or more challenging. In these moments of letting go and not being concerned about her vocal fatigue, she experienced flow moments. Keri's most consistent and elongated moments of flow were when she was rested, musically prepared, and practiced moments before performing so to be "in her head with just music." She was invested in the character. The latter was ascertained as the most relevant to Keri in relation to her flow experiences.

The external process of becoming the character with elaborate hair, makeup, and dress allowed Keri greater focus. Internal preparations of identifying with the lyrics and assuming the character's emotion and intention could assist or inhibit flow. For example, she described identifying too closely with lyrics:

When you're singing like a really strong or really emotional aria, sometimes singers will break down and cry afterwards because I think a

lot of us just get so involved in the character and the emotions…I ride the ride with them, you ride the ride with the characters… there's this aria that I sang for years "Must the Winter Come So Soon" from *Vanessa* and it's beautiful and it's about depression… and basically, she's contemplating suicide. That's kind of like the subtext. Like she doesn't ever actually say it but I thought that when the aria was first presented to me, my voice teacher said she's whiny and she is just complaining about being in her situation. And then I sang it again for a different teacher and he said she's not whining, she's depressed… and after he said that I was like, 'Oh, I know what that feels like', and I embodied it... and then I sang it again and I just like couldn't stop crying for like the rest of the day.

Keri discussed how she was learning how to take a "step back" from the flood of emotions. Mentor advice contributed to these skill building challenges. For example, Keri was guided by her voice teacher to move less on stage when performing the song again. This advice contributed to future preparations regarding how to keep a safe distance from the character:

I have learned to take a step back. I think every singer needs to do that, to take a step back… Once you hit that point… you know how it looks (meaning the emotional intent of the song), I guess, and you know how to display it, but not actually feel it.

Keri was experimenting with this balance of expression and focus during this study. This distance proved to enable flow experiences resulting from a different set of skills and challenges involving expression without feeling it on a personal level.

Guidance from mentors and others in Keri's support system also appeared in her self-talk during performances. She begins performances with a phrase in her head, "walk like a queen," when entering the stage. The advice shared during her elementary years by a neighborhood music teacher. "Make them pay attention to you," is included in her self-talk from a more recent mentor. The possibility of sharing her reflection of the performance experience also affected her self-talk. For example, journaling her reflection for this study would come to mind on the stage. While performing, she would remind herself that the point of being on stage is to enjoy singing. This resulted in her determination to focus on the music.

Keri's self-talk also served as a redirecting tool during a performance back to a flow state when encountered with distractions. Keri experienced distractions during performances such as her mom getting up from the audience or other moments when audience members appeared not to be engaged. She described initial self-talk not conducive to a flow experience, "what am I doing wrong?" Redirecting self-talk ensued that proved to reset her focus, "OK, I gotta live it up now!" An apropos example of audience distraction, redirecting self-talk, back to narrowed awareness on performing occurred during her senior recital. She was

experiencing a flow moment at the start of a challenging French aria when her throat became dry. It is nearly impossible to sing if the throat becomes too dry and worrying about it contributes to the distraction. She took a moment while singing and noticed the audience:

> I wasn't doing it for a grade and I was doing it for a group of people who all were there for me and wanted me to succeed...So I was just kind of like, 'well if I mess up my friends won't care'…in that moment I was just kind of like, 'well my throat is dry and I can't do anything about it till I get offstage and I'm not getting off, so I'm just going to do it.' But that was like one of the first times I've ever been able to do that though, honestly…

> The dry sensation, or awareness of it, went away, and she was able to gain

conscious control and reported a return to the flow state for the remainder of the aria.

Intervening Conditions

Intervening conditions represent conditions surrounding Keri both past and present. Her biography, including the wealth of performing experiences starting at age 9, contributed to her ability to achieve flow experiences at 22. Such experiences from this study's data include mentors; performing multiple genres with a variety of musicians; people in her life that economically and morally supported her; and the belief system and ethics with which she is accustomed.

This study occurred in conjunction with Keri's final semesters as a fifth-year senior in college, a unique time where many intervening conditions converged. During the first interview, Keri reflected on a moment earlier as a music major that propelled her music career toward an unexpected path. She had entered the university as a music major to pursue a career in opera performance. However, she felt her plans were thwarted when a mentor indicated she would struggle with receiving roles as a result of being "too fat," in Keri's words. Keri interpreted this as a major dissuasion, began to fall "out of love with opera" and eventually changed her degree path. She continued to be involved with the School of Music through voice lessons, courses, opera productions, and choir. She also explored informal music performing such as joining bands, a burlesque troupe, and releasing performances online of original and covered music. Her lyrics and choice of repertoire became an avenue to challenge social norms related to body image. Her reflections on performing the repertoire as it related to flow revealed both challenges and enhancing factors. For example, in descriptions of performing her original song "Elephant in the Room," she struggled with the ukulele chords:

> ….it's about being a plus-sized person… The day that I wrote it I was like hanging out with some friends who were all talking about their workout routines and their diets and they're like, 'Oh I lost so much weight and blah-blah-blah'… I was just thinking…, 'these are already small people and they're talking about getting smaller'… and, like, I've never been that

way and I never will. So, the song came from that and every time I perform it people really listen and get a little emotional, I think, which is like insane you know that I can sing something and have that kind of effect on people… It's like the biggest boost of confidence ever, every time I perform it… It's an emotional song for me and I usually get really into it and I almost always mess up the chords at least once because I'm just so into it. It's so frickin' simple and yet I mess it up every time because I'm like so focused on the lyrics and singing it passionately... There were a couple of people in the audience who had never heard my original music, so I saw their reaction to this piece and that really made me feel a little something too. Like the owner of my theater company… she came up to me afterwards and she said she was definitely moved by this piece, which is something that we talk about a lot in the theater company. You know we were a burlesque company which, you know is big on acceptance and loving yourself, and I honestly don't think I could have written this song without, like, being part of this company… So, I felt like even though I messed up I still had like an impact with the lyrics…

What was emerging as a result of body image challenges was a drive to succeed as a singer/songwriter; not only despite her shape, but *because* of her shape. Keri became involved with a burlesque troupe that encouraged positive

body image. With this troupe, Keri was able to choose her repertoire and become the "diva" characters with which she connected; strong, powerful, beautiful, and witty. Flow experiences were most consistent during this study while Keri was performing characters with which she could embody without reservations.

Exploring new venues and ways of musicking was made possible through her social capital. Keri was a part of friend and family circles that supported a "do it yourself" music career during a time in her life where failures were a low risk. The environment in which she was able to attend college provided these opportunities, including informal and formal settings, and people with similar interests with which to collaborate. As a result, Keri was able to devote her time and resources to frequently performing in varied settings, thus, increasing her chances of a flow experience. However, Keri's communication skills, persistence, and organization of her time allowed her to take advantage of social capital and environment.

The choir in which Keri sang was a performance environment that contradicted her family's belief system. Keri had been raised by a Jewish family and this choir often performed music with Christian inspired lyrics. She joined the group seeking a diverse music opportunity similar to her experiences in the metropolitan area she called home. Keri indicated that her initial years with the ensemble reaped more flow experiences than the time of this study. Her accounts of these rehearsals and performances during the study include feeling fatigued,

using less enthusiastic language, and rarely achieving flow moments. These accounts juxtaposed with her social media posts overlap a time she was feeling hatred directed toward her as a Jewish person. Keri exclaims in a post, "I have experienced more direct, firsthand antisemitism in this past year than I have in my entire life." In addition, while rehearsing Christmas music with this choir, she posted a request for others to avoid "blasting Christmas music" and to consider that the season is "uncomfortable," a "mental health challenge" for some. Keri did not report this connection to her lack of flow experiences with the ensemble during this study. The data reveals this as a possible intervening condition.

Contextual Conditions

There are four main contexts in which data was collected then analyzed: Formal music settings included choir and opera theatre; informal music included burlesque and singer/songwriter performing. Common concepts from the data revealed relationships with collaborators, the audience, and mentors in all contexts as an important for flow experiences.

Activity with fellow ensemble members before a performance was a part of the process of bonding with collaborators. Keri shared that these relationships enhanced the experience on stage. During and after a performance, the audience proved a relevant flow experience determiner as well. In general, lack of audience engagement distracted Keri from the state of flow or prevented her from having a flow experience. Findings indicated a relevant difference between the informal

and formal contexts related to audience engagement. Keri had the ability to interact with audiences in the informal contexts, whereas, in the more formal contexts, opportunities for banter or improvising were limited.

Keri was cast as the Queen of the Fairies in the opera theatre performance of *Iolanthe*. This risible character offered Keri opportunities to deliver punch lines to make the audience laugh. Just as music skill is a challenge to balance for a flow experience, delivering dialogue to achieve audience affect may be considered a skill and challenge. Portraying this character also involved mystic costumes, glitter, and elaborate makeup. The process of getting into costume, makeup, and hair for the character proved an important factor in flow experiences as a way to become the character. Keri enjoyed getting into the space where it "only matters how the character feels."

This was also the case in the burlesque context. Keri often had elaborate costumes, makeup, hair, and props. Banter with the audience in the burlesque context was more prevalent and involved improvising as a result of in the moment happenings, a greater challenge. Keri frequently commented on how much she enjoyed this setting. Audiences observed in this context called comments out to the performers and applauded sporadically when inspired while performing was in process. This differed from the audience of *Iolanthe* as it was not appropriate for audience members to call out to performers or clap during an opera.

Audience interactions and banter also existed at "gigs" in various local venues Keri performed as a singer/songwriter. Flow moments were rare or short-lived in such settings as a result of additional challenges. The challenge and skill balance was difficult due to the task of singing with equipment. Challenges such as looping and sound balance were reasonably new to Keri. These were also the context where Keri was singing and playing a recently purchased ukulele. Flow was best accomplished in this context when performing well-rehearsed music containing lyrics to which Keri could keep an emotional distance. Audience distractions were also more prevalent in this context.

An attentive audience made a difference in each observed context, with choir being the exception. Keri felt as if she could hide in a choral ensemble and would consequently lose focus:

> Well, obviously, when you're in a big ensemble it's easier to hide... Yeah, [the conductor will] know, but the audience maybe not. Yeah. So, I think sometimes I do less in choir than I do when I'm performing solo but I think that's also appropriate most of the time I would say to just stand and sing. I think sometimes that affects flow moments where I'm just kind of like it's, it's kind of easy for me to space out if I have other people that can you know, get me back on track which is awful to say I should be really focused and pulling my weight the entire time.

As previously mentioned, this ensemble frequently performed music with Christian lyrics, which often occurred in churches in front of audiences comprised of parish members. Keri sometimes mentioned the audiences and the large crosses while singing "Jesus" repetitively would have a negative impact on her ability to enjoy performing. However, this did not preclude her from having any flow experiences with this ensemble. She was able to separate her beliefs from the lyrics with particular songs that she enjoyed. The songs that gave her flow moments were from previous years with the ensemble when the group was comprised of members to which she felt a deeper connection. These songs were previously memorized and were frequently performed with elements of improvisation. Although clearly from the gospel tradition, these songs were not overtly focused on Jesus, rather, generally uplifting spiritually. She reflected in her interview, on social media and in her journal of one such a song she performed with the choir during her senior recital. She sang an improvising solo with repeated lyrics and afterward conveyed, "…something took over, and I was just totally on point. I got super into it!" Keri experienced flow throughout the song.

Consequences

The consequences of flow experiences achieved during a performance include intense enjoyment, self-actualization, and feedback. These consequences are a result of Keri's preparations before the performance. Also considered, what

occurred during and following a performance that created a loop of feedback for future flow experience conditions.

Keri's reflections and media posts indicated intense enjoyment when she experienced flow. Her descriptions of flow enjoyment included feeling really connected to the character, lyrics, fellow musicians, and the audience. This altered state of enjoyment was exceptionally distinct when Keri went into a performance with health issues such as migraines, post-surgery soreness, and non-performance related stress. She journaled about her before performance concerns that the afflictions would affect her performance. In multiple accounts, she described putting these issues out of her mind just before taking the stage or doing so while performing on stage. She would narrow her field of awareness on what needed to be accomplished, and then pain, stress, or worry disappeared. Keri frequently reported the same ailments returned following the performance. Exceptions included physical fatigue, vocal fatigue, and asthma. Flow was minimally reported for these ailments.

Moments of intense enjoyment resulted in feelings of empowerment and a more definite sense of identity for Keri. Overcoming challenges and fulfilling goals would bring Keri to a new plateau of who she was as an artist and where she wanted to go next. This apparent self-actualization resulted in new music directions and motivation to practice, compose, and continue on paths that would lead to more flow experiences.

Feedback impacted Keri's ability to achieve flow experiences before, during, and following music making activities. Prior to a performance, mentors alerting Keri to vocal technical corrections caused her to be focused on the change during a performance, which in some cases inhibited her ability to achieve flow. During performances, Keri described weaving in and out of singing focus while observing the audience's feedback. If the audience was engaged, she could feel free to focus on the music. If she noticed the audience was not engaged, she would adjust or strive for more expression. For example, she would notice facial expressions, audience members talking or looking at their phones. Awareness of the audience caused an oscillation of flow where feedback would bring her back into a flow experience or not. Audience feedback was either a distraction or a confidence boost.

Keri also received a variety of feedback following performances that included flow experiences. For example, discussions with fellow musicians on musical characteristics of that performance; selling or not selling merchandise; standing ovations; social media "likes" and comments associated with the performance or a lack of a social media response. This post-performance feedback was consequently used to improve or inhibit her direction for future performances, which may or may not include flow experience opportunities.

Propositional Statement

Concepts noted from what contributed to or inhibited from Keri's flow experiences were selectively coded and analyzed revealing higher order categories: *support system, health, portraying repertoire, feedback, enjoyment*, and *self-actualization*. These six categories made it possible or impossible for Keri to have *control over consciousness*; the central phenomenon in a singer's ability to narrow her field of awareness to music making for optimum flow conditions. The "specification of concepts and their relationships" led to a propositional statement, or hypothesized theory (Strauss & Corbin, 1990, p. 62). The cohesive structure of higher order categories supported by the central phenomenon are offered in the following propositional statement:

First, a *support system* includes family, mentors, friends, fellow musicians, and members of an audience who give feedback before, during, and after a performance or rehearsal. Processing their words, guidance, and actions result in self-talk that motivates or impedes control over consciousness during a performance. Flow may be obtained or regained should self-talk be productive before a performance or while performing, respectively.

Second, the singer's current *health* has an impact on whether she is physically and mentally able to control her consciousness and focus on music making. This includes stress, fatigue, vocal health, mental health, emotional state,

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and life balance. In addition, flow experiences may afford a respite from health ailments.

Third, *portraying repertoire* is essential to preparing conditions for flow. Preparations include physical attributes as well as inner exploration of the composer or character's intent or emotional state juxtaposed with the performer's intent and emotional state. Becoming an identity representing an intent or idea helps narrow the field of awareness, thus, allowing for flow experiences. However, emotional connections can also lead to empathetic distress, causing a loss of control over consciousness, thus, eliminating the possibility of a flow experience.

Forth, the *enjoyment* resulting from a flow experience intrinsically motivates a performer toward skill building and planning necessary for future flow experiences. Some factors that contribute to this enjoyment include connections to others, temporary relief from health challenges, and personal growth. Enjoyment is an outcome of having experienced flow as a result of control over consciousness.

Fifth, *feedback* is a relevant contributor or inhibitor before, during, and after a flow experience opportunity. Types of feedback may include verbal, visual, written, and sensory. Fundamental to whether a flow experience occurs is how feedback is perceived by the performer and their decisions resulting from their interpretation. Both positive and negative feedback can motivate or distract a

performer. The processing quality of the feedback determines flow occurrence. A singer's ability to have control of consciousness in the moment of a flow experience opportunity may override lingering ruminations of feedback during a performance.

Sixth, overcoming performance challenges in front of an audience can be empowering and reap evidence of an individual's control over consciousness. A rewarding phase on the path to *self-actualization* can be achieved, resulting from the seamless balance of challenge and skill characteristic of a flow experience. Advancing closer to self-actualization can give clearer direction and perseverance to a singer who is motivated to grow as an individual and performer.

Discussion

The central phenomenon in this study, *control over consciousness*, is evident throughout the data and is a prevailing factor for the proposed higher order categories: *support system, health, portraying repertoire, feedback, enjoyment*, and *self-actualization*. The data from this case indicates that regardless of external conditions present that may promote or inhibit a flow experience, the inner experience may ultimately determine whether flow occurs. Csikszentmihalyi makes it clear that self-consciousness and worry cannot exist during a flow experience (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997; M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988). However, he describes the loss of self-consciousness as a result of achieving flow rather than something the

person is doing *to* achieve flow: "concerns about the self drift out of the focus of attention" (Csikszentmihalyi, 1993, p. 185). Csikszentmihalyi (2014c) addressed a group of educators outlining conditions for flow to occur: a clear set of goals; a balance between challenge and skill are present; clear and immediate feedback (Csikszentmihalyi, 2014c). This study suggests that the condition clear set of goals might include inner negotiations of thoughts necessary to accomplish the loss of self, which is characteristic of flow. This negotiation appears critical to attaining flow based on the results of this study. Control over conscious space related to flow is demonstrated by the ability to (a) notice a distraction in the environment while involved in an activity (i.e. singing), (b) consider the distraction in the form of a thought, (c) observe the thought to make a determination if it serves performance goals, and (c) subsequently release the thought or reframe it to assist the performance. When flow moments occurred during this study, Keri would be able to make these determinations before and after a performance but, more impressively, during a performance. Evidence suggests Keri chose to either make use of the feedback from mentors, audience, and her own body by framing it in a positive way for flow or chose to dwell on the feedback in a way that prevented her from a flow experience. The account previously mentioned of Keri shifting her perspective of "Must the Winter Come So Soon" from *Vanessa* describes both approaches: first encounter with the song, dwelling and attaching the affect to self; and later a different approach, having

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distance from the emotional experience. Either outcome seemed to reap personal growth and deliver her closer to realizing her performance potential. However, only the distance from personal emotions related to the song allowed for a flow experience. The following discussion items from psychology research consider possible associations with the control over consciousness.

Self-Actualization

Realizing one's potential describes the level of development assigned the top tier of Maslow's hierarchy of needs, self-actualization (Maslow, 1962). Self-actualization was mentioned in chapter two relevant to Maslow's peak experience (PE) which shares characteristics with Csikszentmihalyi's flow experience. During a peak experience, "the powers of the person come together" and become "…more ego-transcending,…He becomes in these episodes more truly himself, more perfectly actualizing his potentialities…Closer to the core of his Being" (Maslow, 1962, p.91). Maslow posits those who have actualized their potential and exercised higher order thinking are more prone to have PE. This study's data supports a higher order of thinking in reaction to challenges surrounding the flow experience. Challenges representing personal growth included a renewed body image, separating personal and character emotions, and self-promotion as a professional singer/songwriter. The data does not support that Keri regularly exhibited unusual, self-actualized characteristics representing consistent higher order thinking. Keri was observed as a typical young adult

reacting typically to everyday challenges. However, her performance abilities and perseverance were unique to her peers.

It is possible self-actualization was developing in certain areas of Keri's life and not in others. Maslow indicates that those who have not reached the level of higher order thinking may gain some self-actualized capital as a result of having a peak experience. He believes peak experiences and self-actualization to be interwoven: "…any person in any of the peak experiences takes on temporarily many of the characteristics which I found in self-actualized individuals. That is, for the time, they become self-actualizers…a passing characterological change…" (Maslow, 1962, p.91). Similarly, Csikszentmihalyi considers flow experiences necessary for the evolution of human consciousness (Csikszentmihalyi, 1993; M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988). "The evolution of consciousness" is when "…we open up consciousness to experience new opportunities for being that lead to emergent structures of the self" (M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988, p. 29). Both of these theories involve some kind of path to a higher self and cognition.

Self-Regulation

Self-regulation may be defined as the "influence of the recruitment of executive processes (EP) on prepotent responses (PR)" where an example of a PR might be a "spontaneous withdraw from threat" and the EP is the ability to assess the perceived threat regulating how a "response is enacted" (Cole et al., 2019,

p.91). The motivation for acquiring self-regulation in such research as child development (Cole et al., 2019) and social cognitive theory (Bandura, 1991) is the alleviation of anxiety and emotional outburst through mental processing. A self-regulated assessment, interpretation, and reaction to environmental happenings may assist flow. Csikszentmihalyi discusses internalizing personality traits that promote flow and creativity: "…learn new patterns of attention…learn to think new thoughts, have new feelings about what we experience" (Csikszentmihalyi, 1996, p. 359).

Khoury (2017) suggests a "self-regulatory mechanism" may be evident "in all approaches of mindfulness" as the integration of PR and EP is facilitated by "flexible attention regulation (i.e., being able to direct one's attention flexibly to the body, to the mind, and to the surrounding environment)" (Khoury, 2017, p.1168). Langer (1989) also discusses flexibility related to self-regulation. Langer suggests that "forming a mindset when we first encounter something" plays a role in self-regulation by "clinging" to that mindset when we reencounter that same thing. The "mindless individual is committed to one predetermined use of the information, and other possible uses or applications are not explored" (Langer, 1989, p. 22).

In this study, Keri describes her multiple approaches to expressing lyrics for "Must the Winter Come So Soon" from *Vanessa*, which resulted in three different outcomes. Her initial processing of the lyrics to portray the character's

emotions led to an apathetic performance, "she's just whining." A second approach, "she's suicidal," led to a bout of uncontrollable emotions resulting from a personal connection to depression. The third attempt described in the data, Keri exhibits a flexible mindset with the reinterpretation of the lyrics and expressive intent. Only after establishing conscious control by creating emotional distance from the lyrics was Keri able to perform the song with expression but without a personal, emotional reaction. self-regulation abilities may have unfolded in the third attempt when she could perform the music expressively and at a safe distance avoiding fusing personal emotions with the character's emotions.

Another example of self-regulating occurred in Keri's senior recital when she was challenged with a dry throat while singing. This inhibited her from experiencing flow and created fear that accompanies such a condition while singing. Following her assessment of the situation, and while continuing to sing, she reframed the fear of failure with self-talk: "…I was doing it for a group of people who all were there for me and wanted me to succeed...So I was just kind of like, 'well if I mess up my friends won't care…well my throat is dry and I can't do anything about it till I get offstage and I'm not getting off, so I'm just going to do it.'" As a result, she could put the fear of failure behind her, narrow her focus to singing, and experience flow. Csikszentmihalyi describes this as the "ability to restructure the environment so that it will allow flow to occur." He continues specifically referring to the creative process: "Artists, poets, religious visionaries,

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and scientists are among those who have learned to use cognitive techniques to order symbols so that they can 'play' with them anytime and anywhere, to a certain extent regardless of environmental conditions" (Csikszentmihalyi, 1975, p. 53). This may refer to self-regulation, but there is also a quality of experience in the data for this study not characteristic to self-regulation alone. Such quality of experience is evident in music performance anxiety (MPA) research data from Farnsworth-Grodd's (2012) study. Results indicated a coping response that used "positive focus, self-kindness and self-acceptance" allowed the MPA to be "partially mediated" (Farnsworth-Grodd, 2012, p. 165). The self-talk and coping mechanisms described seem to indicate something more personal involved.

Coping

Keri may have gained inner skills in the area of coping from years of performing. Coping has been defined by the "actions" that "reflect the (im)balance between stress reactivity and action regulation" (Skinner & Beers, 2016, p. 103). In order to cope in a way that produces positive outcomes, there is a negotiation between assessing the situation and memories of past encounters.

> Good coping... requires clear and accurate information about current internal and external conditions with continued access to strategies used during past episodes, selected based on their anticipated effects on future outcomes. It requires individuals to maintain their internal organization or composure, so they can carry out difficult actions in the face of threat and

flexibly adjust as conditions change, recovering from setbacks and

keeping options open. (Skinner & Beers, 2016, p. 106)

The above description of good coping seems to indicate a skill acquired before the

challenge arises to cope efficiently.

Taylor (2016) investigated potential ways a Mindfulness Based

Intervention (MBI) reduces teacher stress, including coping. Reports from

teachers in the control group who did not receive the MBI reported "…being

focused on their personal distress and having feelings of helplessness" (Taylor et

al., 2016, p. 126). Those in the MBI treatment group were able to avoid

"internalizing" the stress in the form of "submission" and "helplessness," for

example, in order to apply a "more effective, problem solving approach" (Taylor

et al., 2016, p. 123). When presented with a possibly stressful situation, there is a

process of stripping away unnecessary, subjective interpretations. This process

allows one to "access" information about the situation for an "accurate and

unbiased" perspective (Taylor et al., 2016, p.116). The lack of an abrasive or a

judgmental inner view of a situation allows a response devoid of affected thoughts

such as the following reported from teachers in the control group: "there is just no

point" or "I'm giving up" (Taylor, 2016, p. 126).

Mindfulness

In mindfulness research, evidence indicates the mind makes neurological

connections based on how we process the information received (Goleman &

Davidson, 2017; Lutz et al., 2008). The skill of taking a previously interpreted thought event and reframing to ignite a different neurological path has been referred to as dereification (Lutz et al., 2015). Research on trauma patients has shown evidence the mind has plasticity as to how we alter an initially processed thought event. Trauma resulting in one set of neuro connections may later be altered by reframing the thought event to make new connections. A process that has been termed neuroplasticity (Goleman & Lutz, 2008). Learning music involves multiple connections in the brain we are only beginning to understand (Hodges & Sebald, 2011). By-passing personal emotions to express a song's poignant anguish involves a purposeful skill nearly unexplored in research (Lamont, 2012). It was only when Keri was able to do so that she could experience flow with "Must the Winter Come So Soon." The challenge-skill balance for flow was not musical but, rather, emotional.

It is worth noting the mental processes previously mentioned (self-regulation, coping, and dereification) occurred from moment to moment, with quality of awareness in this study. When Keri's inner perception was working well enough for her to negotiate the external happenings and have a flow experience, her thoughts had a non-aversive tone and the ability to let go or reframe thoughts that were not useful. Data also indicated a negative inner perception. For example, Keri reported little to no flow when experiencing fatigue or anti-Semitic harassment. The quality of perception or awareness in the moment

may distinguish Keri's flow encounters from skills such as coping and self-regulating. Skinner & Beers (2016) discussed the results of MBI on coping skills:

> mindful processes might make it more likely for stressful events to be appraised as challenges, rather than threats, and thus reduce the sense of panic, pressure, fear, and coercion that accompany the experience of threat, and promote a sense of ease, equanimity, and curiosity about current events as they unfold. (Skinner & Beers, 2016, p. 110)

In the aforementioned study, mindfulness is the treatment to achieve stress reducing outcomes such as coping. In other words, mindfulness is the means leading to an ability described as good coping skills.

Similar to coping, self-regulation has a role in mindfulness research. A proposed operational definition of mindfulness in clinical psychology offered by Bishop includes self-regulation: "…mindfulness can be defined, in part, as the self-regulation of attention…" (Bishop, 2004 p. 233). Differences included in this mindfulness definition note "…mindfulness is not a practice in thought suppression; all thoughts or events are considered an object of observation, not a distraction" (p. 232) and, thus, can be "…conceptualized as a process of relating openly with experience" (Bishop, 2004 p. 233). This indicates self-regulation has a role in the process of mindfulness but self-regulation alone lacks an additional quality applied to the experience.

Perhaps there is also a relationship between mindfulness and flow. Coping and self-regulation skills do not explain the depth of experience occurring in this study. Music performance is not devoid of emotion, pain, or pleasure. On the contrary, manipulating obstacles seemed to be part of the larger picture of enjoyment for Keri. There are elements of play, mental agility, personal growth, and balance between emotions and embodied experience that contributed to flow moments. These qualities are indicative of both flow and mindfulness research (Csikszentmihalyi, 1996; Khoury et al., 2017; Yaden et al., 2017). Although Csikszentmihalyi has numerous collaborative accounts characterizing the flow experience, his suggestions as to achieving flow at the inner, fundamental level seem to point in the direction of theory and axiological frameworks complementary to flow theory. Mindfulness may be the complementary piece to elicit flow. In this study, critical characteristics from mindfulness research seem to exist in the data of Keri's inner experience: non-aversive tone, dereification, and present moment awareness (Lutz et al., 2015). This investigation of the situational and personal factors surrounding flow provokes more questions: Does mindfulness increase the chances of flow? Does flow increase mindfulness? Are they the same?

Limitations

A limitation of this study was the small sample size inappropriate for generalizing results. Reliability and validity measures were taken through

triangulating the data, testing the analysis of the data as outlined in grounded

theory procedures and member checking at multiple stages.

Implications

The grounded theory analysis of this single case revealed distinct characteristics connecting the flow experience and the practice of mindfulness worth investigating. An example of such a characteristic is the resulting central phenomenon, control over consciousness evident before, during, and after performances. Having control over consciousness while receiving environmental incentives and provocations before, during, and after a performance involves mental processing that may either contribute or inhibit a flow experience. This evidence involved concepts similar to those discussed in mindfulness research such as non-aversive tone, dereification, and present moment awareness. An additional experience which may be related to mindfulness practice included the loop of processing thought events in a way that may assist in stabilizing flow while performing. It may be possible that the central phenomenon resulting from flow data in this study, control over consciousness, *is* the practice of mindfulness.

Unfortunately, there does not appear to be enough empirical evidence to support a positive relationship between flow and mindfulness in the literature. Investigating a connection between flow and mindfulness may improve our understanding of both phenomena. A deeper understanding may assist in setting the conditions for flow. Research may also find flow is related to acquiring mindful dispositions. The relationship appears worthy of investigation in fields that research both flow and mindfulness.

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CHAPTER 5

Synthesis of Studies One and Two

The aim of this overall investigation was to reveal that which contributes or inhibits fostering flow for singers in vocal/choral education settings. The relationship between the two studies was similar to a camera lens zooming out and zooming in to observe the flow phenomenon. Study one investigated flow in the choral rehearsal setting using a wide scope to encompass fundamental components: conductor, singers, and repertoire. Study two intended to focus acutely on an individual singer's encounters with flow, including situational and personal factors. Both studies provided a deeper understanding of the flow phenomenon and may also lead music education closer to the practice of fostering flow during music learning.

The purpose of this chapter was to synthesize studies one and two by comparing the resulting themes and construct theory of fostering flow. Themes from both studies are combined with results to compare situational and personal factors applicable to fostering flow in the vocal/choral settings. The synthesis is meant to move the investigation toward a conclusion of the overarching research question: How might the flow experience be fostered in vocal/choral music education settings?

First, themes resulting from both studies one and two will be reviewed. Second, a summary of differing circumstances between the studies is offered.

These distinctions also include incongruent thematic material between studies. Then, the thematic discussion continues with a comparison of data from both studies across the remaining themes.

Review of Themes

Results from study one reaped seven themes representing data collection and analysis from rehearsals as well as perceptions shared from the participants: *repertoire, relationships, purposeful music making, focused awareness, musicality, body connection*, and *ensemble experience* (see figure 3.3). Study two used grounded theory to tease out six higher order categories from a single case study: *support system, health, portraying repertoire, feedback, enjoyment*, and *self-actualization*. The central phenomenon from study two, *control over consciousness*, is a prevailing factor for the proposed higher order categories (see Propositional Statement, Chapter four).

Distinctions Between Studies

Investigating the choral rehearsal setting in study one allowed for observance of different pedagogical techniques that may contribute or inhibit flow. Multiple settings of rehearsals and performances were included in the data from study two for a larger scope of flow experiences from the individual case. These contexts also included temporal conditions (before, during, and after rehearsals/performances) to incorporate factors in the data that may have affected Keri's ability to experience flow. As a result, more flow experiences were

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recorded and observed in study two which generated more data pertaining to the theme of *enjoyment* than in study one. Accounts of enjoyment were also more prevalent due to data collected on Keri's inner, subjective experience in study two. Reflections from Keri's journal about enjoyment were the most frequently reported moments following a performance. Keri attributed the enjoyment to a combination of relief, feelings of accomplishment, receiving feedback from others as well as temporary absence of health ailments afflicting Keri prior to the performance.

Coupled with the enjoyment category was its antonym, displeasure. Self-reported data of reflections characterized by displeasure were rare. Moments pertaining to stress about practice resulting from performance mistakes; bitterness from perceived instructor pressure to perform when fatigued; and empathetic distress from character interpretation of lyric intent.

Data in study one included enjoyment and displeasure, but less accounts were occurring during data collection given the nature of the study. Study one concepts of enjoyment and displeasure were characterized as feelings of contributing to the choral ensemble as a whole. These concepts of enjoyment or displeasure were organized into more prevalent themes during analysis. Those themes from study one will be juxtaposed with study two themes in the following sections.

Thematic Discussion

Repertoire

The repertoire is an integral part of preparations for any planned music performance. The relationship to repertoire relative to flow is essential to consider in both studies. Singers from both studies pursued a relationship with the music. The endeavor resulted in deeper connections to the purpose or intention of the lyrics. This was encouraged by the conductor and veteran choir members in study one. The nuances of the lyrics were independently constructed, however.

In study two, Keri was self-motivated to form these attachments to the music. The characters Keri portrayed both physically and with lyric intention had reoccurring importance to adjacent flow experiences. This ultimately led to the higher order category in study two, *portraying repertoire*.

The theme, *purposeful music making* from study one, could be contributed to the participants' desire to "stand and deliver" a message of purpose found in song lyrics. The message was crafted through the encouragement of the conductor and mentors in preparation for anticipated concerts or events with social justice themes. However, the conductor in study one never dictated how the message from the lyrics should be interpreted. Marina explained her interpretation of the best part of flow experiences with the ensemble: "I like being able to influence other people with our music…somebody is always crying…someone is always standing up, got their hands in the air…they're not just understanding it but they

are feeling it." It was not clarified what was being understood or felt. It is possible

Marina, a professed Christian, was referencing the largely Christian based lyrics

in the choir's repertoire.

However, noted in the demographic data in chapter three was a choir

membership comprised of 66% self-reported Christians and 34% non-Christians.

Sierra, the interviewee selected for higher occurrences of flow, addressed this

contradiction. Her indicated religious preference had shifted since her first years

in the ensemble. Her reported religious preference at the time of the study was

"spiritual" but did not "claim a religious denomination." She elaborated on the

difference as it pertains to performing:

> It's more of like a spiritual thing rather than a religious thing for me
>
> now…When I was more on the religious side of things, I thought the flow
>
> experience was me connecting with God. I don't necessarily think that
>
> now…more attracted to the rhythm and the upbeat and liveliness of the
>
> gospel music we sing…I think for now it's just [about] getting lost in the
>
> music.

Sierra also indicated during her interview that she had more flow experiences her

first years in the ensemble. Perhaps Sierra was more moved by the lyrics in earlier

years with the ensemble indicating a possible spiritual role in flow. What may

also be possible is achieving flow in relation to portraying a character, one who

delivers purposeful messages through lyrics. This was more clearly revealed

during study two from Keri's experiences with various characters, primarily secular in nature.

Even though there were many descriptions of the flow experience that could be conceived as a transcending and purposeful spiritual experience from the data, there were also flow descriptions that simply involved bliss from being engulfed in music. This sentiment was recorded from field notes, conversations with ensemble members, and Sierra described during her interview. The music alone engrossed singers.

The challenges presented during rehearsal matched with skills were fundamentally tied to the *repertoire*. Purposefully performing repertoire with *musicality* was an objective of the conductor and those in the ensemble. Data from these studies indicate other factors influencing a flow experience in addition to technical music challenges.

Relationships

Even though relationships played an important role in accomplishing a flow experience, the relationship importance manifested differently for studies one and two. The differing settings were an environmental factor that may have resulted in different results. Study one took place in a rehearsal space and did not include an audience, whereas audiences in varied settings of study two resulted in an essential component of the flow experience. An imagined audience became a flow factor for some singers in study one where singing through the carry over

pieces would elicit the memory of engaged audiences from previous flow experiences. Singers, in this case, would also imagine former singers from the ensemble and their connection with them during those past performances. These relationships with mentor singers would cast a timbre over the moments in rehearsals as both reliving fond memories but an obligation to strive to contribute to the ensemble as best as possible. This connection was reiterated by the conductor who frequently said, "we are standing on the shoulders of giants" when referring to former members who were considered the foundation of the ensemble. The motivating factors of reliving past performance moments and imagining future audiences ignited flow for some singers during rehearsals. The suggested responsibility to former members was met with dedication ensuing a flow balance between challenge and skill for some and anxiety for others. Data indicates experience with the ensemble was a factor in determining which occurred, anxiety or flow.

In study two, Keri also had mentors who impacted her flow experiences indicated in the data as feedback and Keri's self-talk. The impact of these relationships on the flow experience was both internal and external. The acute focus on inner perceptions provided an orientation between Keri's flow moments and her relationships to the audience, mentors, and fellow performers. Keri selectively used these cues mostly to her advantage allowing flow to occur. This was particularly evident when song content was tied into her body image. She was

experiencing a transformation during this study: shifting from weight insecurities to representing confidence. Keri relayed performance barriers she experienced before this investigation resulting from her weight. These barriers led to decreased self-confidence and enjoyment, not conducive of flow. This investigation occurred at a time she was finding confidence from a new set of relationships and settings. She chose to process feedback from mentors, fellow performers, and the audience in a way that supported her newly found confidence. These moments were responsible for flow moments throughout the investigation.

Marina also experienced feedback from mentors, conductor, and veteran choir members, but interpreted this feedback in a way that prevented flow: self-consciousness due to her perception of not meeting others' expectations. The difference illuminates a possible connection to mindfulness: how situational factors from relationships are perceived (Langer, 1989). The resulting self-talk had either an aversive or non-aversive tone, ultimately inhibiting or promoting flow.

Body Connection

Flow experiences recorded and discussed in interviews for study one were frequently associated with moving to music. In this study, the choir often performed songs with clapping, swaying, and "choral-ography." A similar association was made between flow and choral singing in a study by McCrary (2001). An "emotional and physical response" to the music was attributed to

movement, memorization, and repertoire (McCrary, 2001, p. 86). The present

study has a comparable conclusion: connecting the mind and body while

synchronously musicking with others resulted in the most powerful flow

experiences.

The physical connection to flow experiences in the case of Keri differed.

In multiple scenarios, Keri had to overcome physical ailments or body image

insecurities. The physical ailments she experienced prior to performance would

frequently disappear until several moments after a performance flow moment. It is

unclear if they were forgotten, ignored, or accepted. Keri just did not think about

them while having a successful flow moment. She reported their return moments

after the performance. This included general illness, headaches, and soreness from

surgery. This is an additional area that warrants an investigation between flow and

mindfulness. Initial mindfulness research stemming from Kabat-Zinn's (2011)

Mindfulness Based Stress Reduction (MBSR) programs aimed for relief of

suffering outcomes such as these. It may be possible that, similar to a body scan

used to alleviate pain during an MBSR activity, having a flow experience reduces

the perceived pain. This phenomenon appeared to be unexamined research

territory at the time of this study.

Present Moment Awareness

Full awareness moment to moment ensured attention to conductor's

directions and musical nuances in study one's choral rehearsal setting. This

resulted in the theme *focused awareness* in study one. Awareness took a different shape in Keri's experience as the attention was self-driven and involved managing awareness: alternating between observing environmental happenings and inner experience. This resulted in the central phenomenon for study two, *control over consciousness*. Both focused awareness and control over consciousness represent present moment awareness, a component of mindfulness (Kabat-Zinn, 2003).

Personal Growth

Self-actualization, a higher order category in study two, followed performances where flow was accomplished. Evidence included feelings of empowerment, a confident sense of identity and higher levels of performance skills. Keri experienced this quality of being both during and just following performances. She did not exhibit what appeared her highest actualized self at other times not associated with flow. Similar to Maslow's description of peak experiences for those not yet self-actualized, the heightened state of being was temporary (Maslow, 1962, p.91). Her overall growth during the study was more indicative of Csikszentmihalyi's theory that flow is a part of the evolution of humans (Csikszentmihalyi, 1993). Keri was observed progressing more in a spiral fashion. Evidence includes Keri's growth as a performer, accomplishing goals with an open perspective to experience, and developing acceptance of her inner and physical self.

Study one involved multiple participants with varying music experience. Personal growth was individual to those singers. Marina was in the earlier stages of growth as a developing musician. She described feeling "inferior" to the other singers and like "she didn't belong there." These feelings of self-consciousness made flow moment impossible to achieve.

Marina also describes how the conductor would "push" her to feel "connected to the music" and this positively influenced flow. Marina explained further, "If I can connect my voice with the rest of my body then all of it seems to come together…he almost makes you have a flow experience…he wants you to be so connected to the music and whenever you're so connected, you have a flow experience." Marina's ability to flow was dependent on others.

On the contrary, Sierra's flow factors were focused on experiencing the elements of the music and the rapport with the singers. Sierra, who reported frequent flow moments during data collection, was more experienced with the ensemble and had obtained confidence as a contributing member. Sierra appeared to select from the environment that which moved her toward flow and dismiss what did not.

One of the settings for study two was the same ensemble observed in study one; however, different time periods. It is possible then to make comparisons between Marina in her second semester with the choir, Sierra in her third year, and Keri in her fifth year with the ensemble. Even though these three

ladies are not the same people, interview data from all three show growth patterns. Like Marina, Keri reflected on her self-critical, inner voice that prevented her from having flow experiences when she was a new singer in the ensemble. Sierra also reflected that, during her first year with the choir, she was insecure as a result of trying to keep up with everything new and the conductor's expectations. Sierra's descriptions of rehearsal flow during the study did not use language lacking confidence. Sierra indicated the conductor knew the "capabilities as a choir, as a whole, and as individuals." She was focused on her contribution to the ensemble as a whole. She conveyed her perspective on flow moments concurrent with the study, "It really centers me as a person." Sierra seemed to have grown into a person who could alter her focus from individual insecurities during the early years with the ensemble to one who contributes her part to the whole ensemble.

Keri's perceptions from study two differed, possibly resulting from being the most experienced of the three. She discussed how flow moments were becoming rarer than earlier years as it was easy to "tune out" and let others in the ensemble make up for her lack of engagement. Another difference, Keri's flow experiences with the ensemble during study two were not directly attributed to the director, as was the case with Sierra and Marina. She reported flow when feeling a connection through song to those alumni from years past. However, Keri was grounded in the present moment with the current ensemble members during her

most vivid flow reported. This was achieved when performing solo with the choir singing behind during her senior recital.

The combination of experiences from these three singers may indicate growth from an insecure singer relying on others' feedback to one who independently generates constructive assessments leading to flow. Newer ensemble members may start as performers with self-critical tendencies relying on others to validate and manage their experience. More experienced members with the ensemble may be able to manage their own experience drawing on resources gathered from past experiences.

Maslow discusses this path of growth toward self-actualization specific to youth: "These youngsters are making choices from moment to moment of going forward or retrogressing, moving away from self-actualization" or moving forward by "becoming more fully themselves" (Maslow, 1971, p. 44). Maslow describes people who are self-actualized as "more apt to perceive what is there rather than their own wishes, hopes, fears, anxieties, their own theories and beliefs, or those of their cultural group" (Maslow, 1970, p. 154). As a result, a self-actualized person moves "closer to the core of his Being" (Maslow, 1962, p.91). Just as Maslow (1962) indicated, a non-self-actualized person can grow from temporarily inhabiting the qualities of the self-actualized person during peak experiences, Csikszentmihalyi also posits a positive shift in self. He describes it as a "paradox" during flow when the "sense of the self disappears during the

experience but afterwards comes back stronger than it was" (Csikszentmihalyi, 2014c, p. 137). Here is an additional example where the language describing optimum experiences bears an uncanny resemblance to mindfulness.

Summary

This chapter aimed to answer the overall question of fostering flow in vocal/choral settings by synthesizing data from studies one and two. Although present studies one and two did not include mindfulness as a part of the research design, mindfulness characteristics were found implicit in the data. The overall investigation is not conclusive without a more in-depth investigation into what might be a critical association for accomplishing flow, mindfulness. The music education field may benefit from understanding the role mindfulness may have in fostering students' flow. Perhaps mindfulness might be used as a pedagogical tool resulting in engaging flow moments. It may also be possible flow experiences in music foster mindfulness. These questions are not discussed in current flow literature but worthy of exploration.

Self-Transcendent Experiences

Flow experiences and mindfulness have been associated in previous literature (Baltzell & McCarthy, 2016; Brown & Ryan, 2003; Csikszentmihalyi, 2014b; de la Cruz & Rodríguez-Carvajal, 2014; Diaz, 2011; Langer, 2009; Lavery-Thompson, 2018; Parente, 2011; Peifer et al., 2014; Vago & Silbersweig, 2012; Yaden et al., 2017). These phenomena are considered "varieties" of self-

transcendent experiences (STE), likely on a "spectrum of intensity" where

"…states like awe or mindfulness may be on the lower part of the spectrum—

while peak or mystical experiences may be higher on the spectrum" (Yaden et al.,

2017, p. 144). One label for such an intensity spectrum for STEs is "unitary

continuum" where noted shared characteristics among the varieties include

"temporary experiences of self-diminishment and increased connectedness"

(Yaden et al., 2017, p. 145). Vago and Silbersweig (2012) discuss a loss of self

related to mindfulness as a "decentering mechanism" where "flexibility of

information processing between autobiographical and experiential awareness"

occurs (p.23). Authors posit a connection to neurobiological mechanisms in

available data, including the dorsal-medial prefrontal cortex, which allows

integration of "narrative and experiential information" (Vago & Silbersweig,

2012, p.24). This process of decentering coupled with inclusion of surroundings

was revealed in a previously mentioned study where individual youth from South

Africa extended "…awareness beyond oneself to also encompass the physical and

emotional state of another" during mindful music making (Auerbach & Delport,

2018, p. 5). Kabat-Zinn elucidates how mindfulness "…has everything to do with

waking up and living in harmony with oneself and with the world. It has to do

with examining who we are, with questioning our view of the world and our place

in it, and with cultivating some appreciation for the fullness of each moment we

are alive" (Kabat-Zinn, 1994, p.3).

Specific transformation of self related to others is characteristic of flow research. Csikszentmihalyi (1990) shares the phenomenon: "One item that disappears from awareness deserves special mention, because in normal life we spend so much time thinking about it: our own self" (p. 62). Descriptions have resulted from Csikszentmihalyi's (1988) flow research of "emergent structures of the self" where the participant has stepped "beyond motivations based on pleasure, power, and participation" and has opened up their consciousness to "experience new opportunities for being" (p. 29). The "sense of transcendence" resulting from a flow experience includes a simultaneous awareness of being a "part of something bigger" as elaborated below by Csikszentmihalyi:

> If you sing in a choir or play with a group, a symphony or something, one of the most obvious things that people report is that they experience their own voice, the music they are making, as now being part of a much larger unit and it's a feeling of expanding the boundaries of the self. (Csikszentmihalyi, 2014c, p. 137)

Implications

The previous studies in this document have warranted a deeper investigation to understand the relationship between mindfulness and flow. As a result of an apparent connection, a comparative analysis of flow theory and mindfulness research is necessary to answer the overarching research question: In what ways might the flow experience be fostered in a choral/vocal education

setting? The following chapter will investigate these two phenomena for shared

experience and how they might be associated with fostering flow.

CHAPTER 6

Abstract

The purpose of this chapter is to provide a comparative analysis that will further solidify the theory of fostering flow for singers in vocal/choral education settings. Studies one and two of this document revealed descriptive factors from the data indicative of mindfulness research. A deeper investigation of mindfulness research followed by a qualitative comparative analysis was deemed a prudent next step in this overall investigation into how flow might be fostered in vocal/choral education settings. Research questions include: How does the flow experience and mindfulness compare? How might mindfulness be utilized to foster flow? Flow theory elements from Csikszentmihalyi's (Csikszentmihalyi, 1975, 1990, 1993, 1996, 1997; Csikszentmihalyi, M. & Csikszentmihalyi, I.S., 1988) research are compared and analyzed alongside mindfulness experiential elements as discussed by Lutz et al. (2015) in a phenomenological model of mindfulness practice experience. A flow experience temporal model represents results indicating the role of mindfulness as an associate to a successful flow experience.

Keywords: music, singing, music education, flow, Csikszentmihalyi, mindfulness, meditation, consciousness, awareness

Flow Theory and Mindfulness: A Comparative Analysis of Experience

The purpose of studies one and two of this investigation were to explore how the flow experience might be fostered in vocal/choral music education. The first study resulted in a deeper understanding of the conductor's role in flow experiences during rehearsals and the singers' flow responses to the rehearsal environment. This environment included repertoire chosen, rehearsal structure, relationships cultivated, and an overall approach to music making. Additional questions arose from study one results, including how the inner experience seemed to play a larger role in individuals achieving flow. This inner experience was affected by the instructional approach and environmental happenings adjacent to music related activities. Although useful data were gathered to inform fostering flow in a choral setting, an additional study to explore the inner verses external factors of the flow experience would further inform the overall investigation of fostering flow.

These complexities led to the second study where data highlighted the critical role of control over consciousness in achieving flow. While having conscious control is discussed by Csikszentmihalyi, it is not referred to in ways that align entirely with the participant's expressions and experiences in study two. Language and experiences described by Keri in study two shared common themes with literature from mindfulness research. Mindfulness surfaced as an associate to the process of achieving and maintaining flow experiences. As a result of the

underlining importance of mindfulness in study two, a comparative analysis was considered a productive next step.

Research Questions

Research questions for this third study include:

- How do the flow experience and mindfulness compare?

- How might mindfulness be utilized to foster flow?

The purpose of this third investigation is to explore the similarities and differences between flow and mindfulness; analyze the comparison results with the two previous studies; and arrive at a theoretical construct representing the role of mindfulness as it relates to flow experiences.

Method

Data from studies one and two contained qualities of the flow experience in addition to those found in flow theory (Csikszentmihalyi, 1996). Flow constructs that included complex environmental contexts, as well as participant perceptions of these contexts, were represented in the data. Comparative research may assist in guiding acute attention to the "explanatory relevance of the contextual environment[s]" investigated in studies one and two (Esser & Vliegenthart, 2017, p. 2).

A specific form of analysis involving comparisons is qualitative comparative analysis (QCA) with the main goal of identifying the "different combinations of causally relevant conditions linked to an outcome" (Ragin &

Strand, 2008, p.431). QCAs have been widely utilized for comparing "multiple cases in complex situations" (Simister & Scholtz, 2017, para. 1). The method has been useful in the area of social sciences since its original conception by Ragin over three decades ago (Ragin, 2014). A growing number of studies have found comparative analysis can be applied in fields outside the social sciences such as education, psychology, and communications. The expanded use of QCAs has resulted in modifications of the original method (Ragin & Strand, 2008; Rihoux, 2006; Fram, 2013; Esser & Vliegenthart, 2017). The comparative analysis used for this study is also a modification of a QCA as a result of comparing two constructs, flow theory and mindfulness, as opposed to populations in social constructs.

The method of comparison used for this study is a modification of the six-step QCA process, as outlined by Simister and Sholtz (2017). This process includes: developing a theory of change reflecting the interest of the study; identify cases of interest; develop a set of factors; evaluate the factors; analyze the data; and interpret the findings to revise the theory (pp. 1-3). The following is an attempt to outline the method used for this inquiry.

Step One: Theory of Mindfulness in Fostering Flow

According to Rihoux (2006), the QCA approach is "designed for more theory-driven work" (p. 691) by using the method as a "way to envisage the confrontation between theory and data" (p. 681). The theory to which I am

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working toward, or "theory of change" (Simister & Sholtz, 2017, Step One section, para. 1), encompasses a unique perspective of flow experiences. This investigation aims to consider the flow experience framed as a mindfulness practice. Evident in the data from studies one and two was the implicit mindfulness language used to describe flow. Evidence included the inner experience of flow related to perceptions of self and environment as well as data that led to the central phenomenon in study two, control over consciousness. Obtaining this control over consciousness was a critical factor in study two when flow was achieved, as well as when it was interrupted and then recaptured. A practice similar to mindfulness seemed to assist in acquiring control over consciousness. This comparative analysis begins with the theory that mindful approaches may have a role in accomplishing flow. Investigating this initial theory may allow a new theoretical construct of fostering flow that represents mindfulness as a supportive role for flow experiences. If a connection is found, the following research question may be answered: How might mindfulness be utilized to fostering flow?

Step Two: Identify Cases of Interest

Comparative analyses focus on comparing two phenomena to arrive at a theory contextualizing the relationship (Fram, 2013). The cases identified for this comparative analysis are the flow and mindfulness experiences as represented in iterative research. Each phenomenon participates in this study as a single case: the

case of the flow experience and the case of the mindfulness practice experience. This is a divergence from typical usage of QCA, which generally examines populations in a comparison at a "macro- or meso-level phenomena," for example, organizations or country characteristics (Rihoux, 2006, p. 698). "Micro-level" phenomena, however, is an emerging approach to studying cases in such fields as education and psychology due to the nature of comparing learning and therapy interventions (Rihoux, 2006, p. 698).

The needs of this study include examining the inner experience of flow as affected by both situational and personal factors. In doing so, a path toward specific ways in which to foster flow in a choral/vocal setting may be discovered. Initial similarities to mindfulness that prompted this third study uncovered in studies one and two include: acute attention to the present moment (Brown & Ryan, 2003, p. 822; Bishop et al., 2004, pp. 232-233); loss of self (Engler, 1988); expansion of self (Kabat-Zinn, 1994, p. 3); and control over consciousness (Bishop et al., 2004, p. 231; Shapiro, 2006, p. 375). In addition, mindfulness has proven resilient to consistent and iterative research providing an abundance of literature to parallel with flow research.

Selected cases in a QCA require that "cases are consistent with each other," as well as differing in conditions and context for a robust comparison (Simister & Sholtz, 2017, Step Two, para. 2). Case selection occurred "in such a way that specific hypotheses about the relationship" might be explained by flow

outcomes resulting from a mindfulness/mindlessness variable (Esser &

Vliegenthart, 2017, p. 6). The ultimate intention of this study was to examine the

role mindfulness has, if any, in promoting the flow experience. For this reason,

the flow *experience* and mindfulness practice *experience* are the focus for

comparison. A comparison of the flow experience with mindfulness dispositions,

for example, would involve contradicting characteristics and lack consistency

necessary for reliable results. Finding where the mindfulness and flow experience

elements intersect permitted a more in-depth investigation indicative of the

iterative process of QCA: "going back and forth" between what was learned from

the comparison of the phenomena cases; factors and conditions to consider from

available research; factors and conditions to consider from studies one and two of

this document; and considering and reconsidering the initial "theory of change"

proposed in step one (Simister & Sholtz, 2017, p. 3).

Step Three: Develop a Set of Factors

The goal of qualitative comparative analysis (QCA) approach is to

"identify the different combinations of causally relevant conditions linked to an

outcome" (Ragin & Strand, 2008, p. 431). In this study, the conditions

investigated are from the experiences of mindfulness and additional conditions

inhibiting or promoting flow. The outcome is the flow experience. It is essential

to identify "key factors whose presence or absence may contribute" to a flow

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outcome by learning "as much as possible" about each case: the case of flow and the case of mindfulness (Simister & Sholtz, 2017, Step Three).

Extensive information from available literature on both flow and mindfulness was necessary for an overall comparative analysis between the two phenomena. Chapter two reviewed flow literature from Csikszentmihalyi, the researcher who conceptualized flow theory, as well as research exploring flow in education settings. In this chapter, a mindfulness literature review was conducted to compare characteristics from both flow experiences and mindfulness research. Reviewed literature of flow in chapter two was used with mindfulness literature in this chapter to construct a comparison tool, the Inventory of Mindfulness Orientation to Flow Experience (IMOFE).

Fundamental features of mindfulness were assessed from the literature review for the most appropriate model in which to compare mindfulness with elements from Csikszentmihalyi's flow theory (Csikszentmihalyi, 1996). The phenomenological matrix (PM) conceived by Lutz, Jha, Dunne, and Saron (2015) emerged as a model containing the most appropriate elements for comparisons. The PM model appeared the only mindfulness model that included a description of mindfulness practice experience. This allowed for comparing mindfulness and flow on common ground. The PM model and elements derived from Csikszentmihalyi's flow research both describe the experience of mindfulness and flow, respectively. The set of factors to compare included these experiential

elements of mindfulness practice in the PM model (Lutz et al., 2015) and the elements of experience garnered from Csikszentmihalyi's flow theory research (Csikszentmihalyi, 1996).

Step Four: Evaluate the Factors

The QCA design encourages cross-examining multiple aspects of the cases to compare (Rihoux, 2006, p. 682). Obtaining rich, descriptive lists from both research of the mindfulness experience and flow experience provided the ability to cross-examine the phenomena. The phenomenological matrix model containing eleven features of the mindfulness practice experience was juxtaposed with the nine elements from the flow theory model to locate where experiences from the two phenomena intersect. This included where elements matched during a flow and mindfulness experience as well as additional qualifiers.

Qualifiers found important in mindfulness literature included mindfulness as a practice, a mindful state, and a mindful trait. Qualifiers important to the flow experience were revealed in studies one and two of this investigation and included time frames before, during, and after flow. These qualifiers added an additional condition deemed necessary for comparing the experiences of both phenomena to determine under what conditions a relationship between flow and mindfulness exists. These intersections are represented in both table and narrative form in this analysis.

Step Five: Analyze the Data

The elements from the PM model were evaluated with the elements of flow theory using the IMOFE table. Nominal data expressed as yes ("y") or no ("n") was assigned to each element as to whether the element was apparent in flow theory research and mindfulness research. Although dichotomous data is a practice in QCA, a numeric representation is typically assigned in a comparative analysis to "score the data" (Simister & Sholtz, 2017, Step Five). The aim of this investigation was where and how the elements intersected rather than comparing a sum of the elements. This study does not compare for quantity of experience between the phenomena. Therefore, numeric values would be inappropriate for this investigation. A modification of the QCA method was used in favor of nominal data instead of scoring with numeric figures.

Qualifiers

Qualifiers were assigned to the elements where a definitive "yes" or "no" could not explain what was described in research. For example, a "y" in the mindfulness column indicates the experience occurs "during" mindfulness practice and a "n" indicates the element was not found in mindfulness practice research. However, for an occasion where the element was represented in mindfulness literature as a mindful state, a "s" in parenthesis qualified the experience as a state rather than a practice of mindfulness. Temporal qualifiers were found relevant to the flow experience during analysis in studies one and two

of this investigation. Qualifiers are represented parenthetically as the following time frames: before flow as "b" or after flow as "a." Should a "y" be assigned in the flow column without either qualifier, the assumption is to be made the experience element occurs during flow.

Following the exercise of assigning whether the experience elements occurred for flow or mindfulness, additional research ensued to explain and support the assignments. These similarities and differences of experience between flow and mindfulness are discussed in conjunction with supporting literature.

Using the acquired research from the comparison IMOFE table and available research supporting those results, the iterative process followed of going back and forth between data. This included data revealed from comparing the phenomena cases; factors and conditions to consider from the literature on flow and mindfulness; and data from studies one and two of this investigation. In order to determine possible conditions of the experience, the experiential qualifiers (mindful practice or state; before, during, and after flow) were examined for indications of how and when the elements intersected to enable or inhibit flow. A temporal model was constructed to represent the results, both in narrative and figure form.

Step Six: Interpret the Findings for Theory

Results of the comparative analysis were used as a backdrop to contextualize conditions for studies one and two. A new perspective of study one

and two resulted from an informed lens that allowed "explanatory relevance of the contextual environment" for each study (Esser & Vliegenthart, 2017, p. 2). Phenomena were framed in times before, during, and after flow (see figure 6.1) to use the analyzed comparative results in conjunction with data from the two previous studies.

Results from the IMOFE were used for a contextualized understanding of flow in relation to mindfulness. The original theory proposed in step one was reconceptualized to offer an explanation of how flow and mindfulness intersect to foster flow. This iterative examination resulted in a theoretical construct of the flow experience as associated with mindfulness.

Literature Review, Mindfulness

Mindfulness has been rapidly growing as a topic of interest in research and the general public for decades. Scientific journal articles on the topic of mindfulness have increased more than ten times this millennium (Van Dam et al., 2018, p. 37). Research has revealed promising physical and mental health outcomes resulting from practicing mindfulness (Brown & Ryan, 2003; Cillessen, 2019; Creswell et al., 2016). Mindfulness outcomes have been researched in general and music education for improvements in student performance as well as student well-being (Auerbach & Delport, 2018; Carsley et al., 2018; Czajkowski & Greasley, 2015; de la Cruz & Rodríguez-Carvajal, 2014; Diaz, 2018; Diaz et

al., 2020; Farnsworth-Grodd, 2012; Felver et al., 2016; McKeering & Hwang, 2019; Sheinman et al., 2018).

The details of what it is, how it works, what it does, and how to research it continue to muddle the overall concept of mindfulness. Young (2016) posits we are "decades, if not centuries" away from a definition stemming from computations and neuro research indicative of other areas in science (p. 29). As a result, a definition for mindfulness has been refined over time.

Scholars comparing Buddhism and "western" or "contemporary" mindfulness practices posit contemporary approaches use common threads among multiple denominations of Buddhism (Young, 2016; Dunne, 2015; Anālayo, 2019). The general intention of Buddhist mindfulness is to relieve suffering (Bishop, 2004; Dunne, 2015; Lutz et al., 2015). Important to note, there are many additional intentions of mindfulness from Buddhist teachings considered beyond the scope of this document (Anālayo, 2019; Goleman, 1972).

Mindfulness became a known western practice of relieving suffering as a result of Jon Kabat-Zinn, founding director of the Stress Reduction Clinic. His approach to utilizing mindfulness to reduce suffering in patients has been a model for over 200 Mindfulness-Based Stress Reduction programs in the United States and abroad since 1979 (Kabat-Zinn, 2011). The program was initially implemented in a hospital and designed for patients suffering from chronic pain and illness. However, the mindfulness approach to alleviating suffering involves

the mind and attracted other fields to the research possibilities. Kabat-Zinn

describes mindfulness as "…a sane way to live that may not be so strange once

one begins to inhabit that landscape in a more regular way…only strange in a

society that persists in devaluating the present moment in favor of perpetual

distraction, self-absorption, and addiction to a feeling of 'progress'" (Kabat-Zinn,

2003, p. 148). The mind wandering described by Kabat-Zinn is the opposite of a

mindful state and the practice of mindfulness "defies" the "mental inertia" of

mind wandering (Goleman & Davidson, 2017, p. 132). As a result of similar

interests, psychology research assumed mindfulness as a topic of investigation.

Siegel considers mindfulness a "…core perceptual process underlying all

effective psychotherapy—a *transtheoretical* construct (Siegel et al., 2009, p. 24).

Siegel summarizes the difficulty of defining mindfulness for understanding

among those who have not had the "elusive" experience: "We can talk about

mindfulness or write at length about it, but to truly understand mindfulness, we

have to experience it directly" (Siegel et al., 2009, p.17-20).

Defining Mindfulness

Developing a definition of mindfulness to be utilized in empirical

investigations and theoretical constructs have resulted in multiple versions with

common threads. Kabat-Zinn's definition is frequently cited in mindfulness

publications and is typically used as the foundation for building finer distinctions.

Kabat-Zinn's operational definition of mindfulness: "…the awareness that

emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003, p. 145). Authors offering other renditions of Kabat-Zinn's definition reflect the same characteristics (Baer, 2003, p. 125; Bishop et al., 2004, p. 234; Brown et al., 2007, p. 212). Definitions offered for mindfulness are consistent in that they describe a practice of focusing awareness or attention, in the present, and moment to moment. The language used to describe this practice includes "intentionally bringing one's attention" (Baer, 2003); "process of regulating attention" (Bishop et al., 2004); "receptive attention" (Brown et al., 2007); and "paying attention on purpose" (Kabat-Zinn, 2003). In its most basic sense, the practice of mindfulness involves the act of directing attention.

Ellen Langer offers a mindfulness definition notably distinct: the creation of new categories; openness to new information; and awareness of more than one perspective (Langer, 1989, p. 62). Langerian mindfulness is generally associated with external material, including goal-oriented tasks as well as social and environmental surroundings. This differs from the previous definitions, which describe the inner experience of addressing thoughts and emotions (Baer, 2003; Khoury et al., 2017; Langer, 1989). Both mindfulness practices, contemporary and Langerian, address flexible cognition and present moment experiences. However, Langer's approach practices awareness of both internal and external cues using a novel awareness found or created in present experience. An example

of inducing mindful action is found in Langer's study with a professional orchestra (Langer et al., 2009). The study involved two performances of the same repertoire, the "novel distinctions" performance and a control condition. Directions given to the orchestra for control conditions were to attempt an imitation of an "ideal" past performance. The orchestra was then asked to create distinctions in style that were novel during a performance of the same standard repertoire. This approach enhanced the players' experience and perceived quality (Langer et al., 2009). Results strongly suggest that inducing a mindful state through novelty during a performance has a "…desirable and discernable effect on the performance of orchestral music" (Langer et al., 2009, p. 132). The distinction here between Langerian and other contemporary mindfulness research is participants accomplished a mindful state by "modifying their musical behavior" whereas in contemporary mindfulness, the action is typically inward and a practice of directing and redirecting awareness. Applying novel nuances throughout the performance of a song could be considered a practice but differs from the inward practice of mindfulness said to alter cognitive traits (Goleman & Davidson, 2017).

Fueling the confusion which impedes an understanding of mindfulness are the different kinds of mindfulness discussed in the literature (Young, 2016). Thus far, I have mentioned the *practice*, the *state*, and altered *traits*. I will attempt to derive some distinctions between these three kinds of mindfulness.

Mindfulness Practice

Mindfulness *practice* involves the activity of directing attention. Bishop (2004) compares mindfulness to "…self-regulation of attention, which involves sustained attention, attention switching, and the inhibition of elaborative processing" (p. 233). Bishop continues, positing that self-regulation is only part of the practice and it can be "…further conceptualized as a process of investigative awareness that involves observing the ever-changing flow of private experience" (Bishop et al., 2004, p. 233). A subtle nuance, but key phrases are "investigative awareness" and "observing the ever-changing experience." This might be compared to watching your mind as a movie featuring your thoughts. Thoughts come in the form of images, words, and sounds in this example. These thoughts may elicit reactions in the form of emotions, bodily sensations, or a string of new thoughts. A characteristic of mindfulness practice is the act of watching the thoughts and reactions to them from a distance, without being consumed by them. This allows for a different perspective resulting from a psychological distance. You are not *in* the movie; you are a watcher (you) who is watching the movie (thoughts). The practice of returning to an object of focus, like breath, allows you to keep the separation between the two; the movie and the watcher. The breath acts as an anchor to the present moment. Other objects of focus could be assigned, such as sound or bodily sensations. Kabat-Zinn discusses the "incessant stream of thoughts" we tend to "be particularly unaware that we are thinking virtually all

the time" (Kabat-Zinn, 1994, p. 9). Mindfulness practice is an exercise of taking a

different perspective on those thoughts while continuously anchoring in the

present moment.

Mindful State

The breath is just one experience used as a tool in mindfulness practice,

like a "home base," to focus on the present moment. Should your attention remain

anchored in the present using any sensation or environmental object of focus in

the present moment, you may experience a conscious *state* of awareness. Included

is the ability to avoid "chasing" past or future thoughts of the mind while

experiencing the present moment. This is a state of "…being attentive to and

aware of what is taking place in the present" through an enhancement of "current

experience or present reality" (Brown & Ryan, 2003, p. 822). This engagement

with the present reality has also been called by Bishop (2004) a "mode of

awareness" induced by regulated attention. Such a mode or state allows one to

view thoughts and emotions "subjectivity (versus their necessary validity) and

transient nature (versus their permanence)" (Bishop et al., 2004, p.234). The same

author indicates this process can be brought into everyday experiences allowing

for a state of mindfulness to permeate moment to moment experiences. In such a

case, "thoughts and feelings are observed as events in the mind, without over-

identifying with them and without reacting to them in an automatic, habitual

pattern of reactivity" (Bishop et al., 2004, p.232). Enjoying such a *state* of non-

reactivity is accomplished through mindfulness *practice*. Kabat-Zinn describes

the transition to a mindful state as "waking up" an "appreciation for the fullness

of each moment we are alive" (Kabat-Zinn, 1994, p.3).

In a study by Brown and Ryan (2003), higher scorers of a mindfulness

disposition measure had "lower neuroticism, anxiety, depression, unpleasant

affect, and negative affectivity" and were "...associated with higher pleasant

affect, positive affectivity, vitality, life satisfaction, self-esteem, optimism, and

self-actualization" (Brown & Ryan, 2003, p. 843). The psychological benefits

from being in a mindful state caused some researchers to investigate how that

state might be elongated to an experience carried throughout everyday life

(Goleman & Davidson, 2017). The Brown and Ryan (2003) study also suggests

mindfulness may be "cultivated by practice" based on results comparing a control

group with experienced Zen practitioners. The possibility brings to the discussion

a need for clarification: at what point is mindfulness a *state* or considered a *trait*?

Trait Mindfulness

The body of research in the area of *trait* mindfulness is a more recent

contribution to mindfulness research as well as neurological research. Most

notable efforts in this area can be contributed to Richard Davidson and the

research on what he has termed neuroplasticity:

Neuroplasticity is a term used to describe the brain changes that occur in

response to experience. There are many different mechanisms of

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neuroplasticity ranging from the growth of new connections to the creation

of new neurons. When the framework of neuroplasticity is applied to

meditation, we suggest that the mental training of meditation is

fundamentally no different than other forms of skill acquisition that can

induce plastic changes in the brain. (Lutz et al., 2008)

Altered traits are a "transformation of consciousness" including a "neural

shift" based on neuroplasticity (Goleman & Davidson, 2017). This concept was

inspired by neurological research with musicians. Participating musicians were

found to have an enlargement of specific parts of the brain which manage the

finger work necessary to play their particular instrument (Herholtz & Zatorre,

2012). Goleman and Davidson (2017), in a search to transition from experiencing

the temporary mindfulness *state* to what he observed of experienced meditators as

a more permanent *trait*, supposed neurological changes may also be the result of

mindfulness practice on the brain such as with practiced musicians. An example

of this inquiry was a study of meditation practitioners with differing hours of

meditation including participants averaging between 19,000 and 44, 000 hours of

meditation in their lives as well as novice meditators (Lutz et al., 2008). Findings

may support that advanced level meditators in "concentration" during a focused

awareness exercise have a "…significant decrease in emotionally reactive

behaviors that are incompatible with stability of concentration." There was also an

increase in the ability to focus on moment to moment stimuli with an increase in

meditation practice hours (Lutz et al., 2008, p. 165). This study is an example of how meditation may become a trait, "…meditation at its core retrains our habits of focus" (Goleman & Davidson, 2017, p. 78). The practice of "zooming in" for a "deeply textured here and now" transforms the "familiar and habitual into the fresh and intriguing" (Goleman & Davidson, 2017, p. 126). More lasting benefits are the result of increased, consistent practice time where regular practice leads to temporary states and eventually to altered traits.

Mindfulness in Education

Schools are a logical venue for implementing programs that improve the mental health of our youth. The Mind and Life Education Research Network and the World Health Organization cite health challenges and social problems that may begin from early adolescence into early adulthood as incentive to implement Mindfulness-Based Interventions in schools (World Health Organization, n.d.). Schonert-Reichl and Roeser (2016) have called for a "revisioning" of the education system to reflect 21st century "social and ecological challenges that confront the entire globe" (p. 3). They ascertain that mindfulness may be a promising contribution to answering these challenges (Schonert-Reichl & Roeser, 2016). The search for a solution has resulted in a global increase in mindfulness research, interventions, and curriculum specific to education. The United Kingdom government, for example, has recently dedicated significant funds for one of the most extensive trials of mindfulness curricula in the world, including

up to 370 schools. These trials intend to "…explore the impact of different approaches at school, in recognition of the significant time children spend at school and the important role teachers can play in recognising changes in pupils' behaviour or mood" (GOV.UK, 2019, para. 10). Schools in the United States have been using mindfulness interventions and curricula in schools for nearly two decades such as MindUP, Mindful Schools, and Social Emotional Learning programs.

Research in the area of mindfulness-based interventions in schools has illuminated areas of strengths as well as areas that need clarification. One area in need of more detail is what Roeser (2016) refers to as a "black box" of frequently unspecified interventions including how "skills and dispositions of mindfulness are taught and learned" (p. 167). Although there remains more to discover regarding the details of mindfulness interventions in education, research has uncovered some notable evidence of its effectiveness. Mindfulness outcomes include a reduction in anxiety, stress, anger, suicidal thoughts, depression, affective disturbances, behavior challenges, psychosocial problems and increases of positive attributes to support emotional well-being (Carsley et al., 2018; Felver et al., 2016; McKeering & Hwang, 2019; Sheinman et al., 2018).

Investigating the cultivation of compassion, which is indicative of programs based in mindfulness research, might lead to descriptors of the emotionally supportive classroom climate. A transfer of benefits may occur when

a mindfulness practicing teacher creates a "fair" climate where the teacher is "attuned to students' needs and perspectives" allowing them to feel a "greater sense of belonging" (Roeser, 2016, p. 155). An example of how this transfers from student-teacher interaction to a community is provided by Varona (2018). Interview data from a band director revealed that the ability to give students full, nonjudgmental attention cultivated by mindfulness allowed students to "open up" and share personal and school issues relevant to their participation in the band (Varona, 2018). This had a direct effect on the larger ensemble and community contiguous to the band program. Creating such an environment is appealing where students are taught through a compassionate, respectful lens. Such an environment may offer a safe space for "artistic processes" necessary in music learning: creativity, performing, and responding (National Association for Music Education: Standards, 2020).

Music Education and Mindfulness

Despite the overwhelming interest of investigating mindfulness for over decades in psychology and education, music education empirical research on mindfulness has slowly emerged in recent years. Published investigations include mindfulness evaluated with music listening, singing, music performance anxiety, and overall wellness for students (Auerbach & Delport, 2018; Czajkowski & Greasley, 2015; Diaz, 2011, 2018; Diaz et al., 2020; Farnsworth-Grodd, 2012).

Auerbach & Delport's (2018) investigation sought to address concerns of the "holistic well-being" of South African school children through a mindful music making program (p. 1). The program included ten months of mindful music instruction where participants ages 11-14 years met with facilitators weekly. A weekly routine started with a "sense connecting" exercise which included a focused awareness on the breath or other senses. This exercise would be followed by the use of a "talking stick" for sharing and encouraging listening. Mindful music ensued including such exercises as singing sustained vowel sounds both in unison and harmony; finger exercises with rhythm and rhyme; and recorder playing. Students were encouraged to "listen attentively to the sounds, the silences between the sounds, as well as different sounds vibrating in different parts of their bodies" (Auerbach & Delport, 2018, p. 4). The qualitative data included accounts of "clapping spontaneously" when achieving "pure" harmony as well as an experience of "group consciousness" evidenced from patience and awareness of others during recorder playing. Themes associated with mindfulness as a result of data analysis were increased awareness of self and others as well as the "core role of listening" during mindfulness practice and music making (Auerbach & Delport, 2018, p. 5).

The idea of well-being resulting from mindful music making is reflected in a study conducted by Czajkowski and Greasley (2015). A mindful music making course, Mindfulness for Singers (MfS), was implemented to eight vocal

music majors from a University in the United Kingdom. Results for this study included an increased awareness of self, specific to bodily awareness and inner thoughts while practicing and performing. The course activities were designed using the MBSR course as a framework: group discussions, lecture format, handouts, audio meditation, examples, practical exercises, daily practice, mindful eating, and walking awareness. However, mindful practice was expanded to focus on the vocal instrument and that which would concern a vocalist. For example, "…breathing awareness was included with the suggestion to develop this into each singing breath" (Czajkowski & Greasley, 2015, p. 10). Mindful movement was also included through emphasizing the singers' breath and posture through yoga. Students had opportunities to perform as a part of the course in order to bridge mindful practice to mindful performing. Body scans focused on sensations of areas involved in singing such as the abdomen, back, face, tongue, and jaw. Participants' narratives indicated that awareness of those physical areas of focus was transferred to performance. One participant described being consciously "aware of them working," the collection of necessary muscles and abdomen, while simultaneously singing and being more "aware of unnecessary tension" in the body (Czajkowski & Greasley, 2015, p. 16-17). Data also included accounts of the inner experience. Singing "…is a highly complex task and requires a large amount of simultaneous action and awareness" and the thoughts that arise while performing can inhibit the musical experience (Czajkowski & Greasley, 2015, p.

19). Judgment and criticism experienced from both self and others were addressed through an introduction of "primary and secondary suffering" concepts, judgment from self, and perceived judgment from others. Participants found they were less negative and genuinely "more rational" when performing after mindfulness practice. Participants described being "…less defensive, less offended, less upset and more accepting of criticism" (Czajkowski & Greasley, 2015, p.14).

Music Performance Anxiety (MAP) and mindfulness have also been investigated in music education research at the collegiate level (Diaz, 2018; Farnsworth-Grodd, 2012). Farnsworth-Grodd's (2012) longitudinal study was conducted on 159 (N=159) university music students in New Zealand investigating their relationships between participants' dispositional (trait) mindfulness and situational (surrounding awareness) mindfulness with MAP and other variables. A questionnaire was given at the start of the term, prior to a performance exam, and just following the performance. Mindfulness disposition and anxiety were assessed at these three time periods. The author hypothesized that dispositional mindfulness would be negatively associated with music performance anxiety over the time of performance. Results reflected this negative relationship for the mindfulness facet *act with awareness* across all three time points. These results indicated that the more mindful the disposition of the student performer, the less likely they were to experience performance anxiety. However, it is important to note that this relationship did not hold across time when

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controlling for anxiety sensitivity or a student who battles with anxiety throughout life experiences (Farnsworth-Grodd, 2012, p.168).

Similar results highlighting the importance of trait mindfulness to MAP were obtained in a study by Diaz (2018). Collegiate-level musicians from various university institutions in the United States (N=255) participated in a questionnaire comprised of 86 items associated with Mindfulness Attention Awareness Scale, Performance Anxiety Index, Multidimensional Perfectionism Scale as well as questions regarding students' meditation practices and academic status. Results from regression analyses revealed that 9% of the variation in MPA scores could be attributed to trait mindfulness. The analysis revealed a negative association between trait mindfulness and performance anxiety, higher levels of trait mindfulness could predict lower levels of performance anxiety. Although the type of meditation in which students engaged did not seem to "affect performance anxiety significantly," the frequency of meditation did seem to affect MAP (Diaz, 2018, p. 160).

Diaz has been most consistently active in music education research related to mindfulness as well as developing a program implementing mindful teaching practices in the music classroom, Mindfulness Based Wellness & Pedagogy (Mindfulness Based Wellness & Pedagogy, 2018). In addition to the study mentioned above on MAP, Diaz has investigated meditation with music listening and accounts from first-year college music students on a five-day mindfulness

module (Diaz 2011; Diaz et al., 2020). Diaz reported (2011) that a pre-recorded, 15-minute mindfulness body scan meditation did not follow with a significant difference in attention. However, participants in the mindfulness groups perceived they were able to better focus on the assigned listening with fewer distractions. In this example, the qualitative data regarding the students' perception of mindfulness is not reflected in the statistical data.

Perceptions of mindfulness investigated through qualitative data collection have gained more attention as being "valuable information that could be used to better inform implementation of MBIs" in education (McKeering & Hwang, 2019, p.593). Lutz, Jha, Dunne and Saron (2015) have developed a neurophenomenological model of meditation aimed to address individual perceptions labeled as "qualitative dimensions" (including aperture or scope of attention; clarity or salience of object or thought; stability, persistence of awareness over time; and effort to maintain stability in a particular state) in conjunction with other "functional dimensions" (object orientation, dereification and meta-awareness). Diaz et al. (2020) tested the effectiveness of a MBI using these seven dimensions from this neurophenomenological model of meditation in an empirical investigation of first-year college music students. Participant's expectations prior to and experience encountered during a five-day mindfulness module were recorded and analyzed in juxtaposition with dimensions from the phenomenological matrix model (Lutz et al., 2015). Diaz found the matrix may be

effective in coding qualitative data resulting from meditative experience as 86%

of coded participant responses were reflected in the seven dimensions of the

matrix: object orientation, dereification, meta-awareness, aperture, clarity,

stability, and effort (Diaz et al., 2020; Lutz et al. 2015). Axiological goals,

wellness, and meaning expressed by participants prior to the meditation

experience represented a "clear" connection to the participants' perceived results.

This finding possibly indicates that the initial framework conceived by

participants is an overarching factor in the mindfulness experience that follows.

Diaz suggests more research regarding the practitioner's axiological framework

and perceptions.

An axiological framework is evident in Sarath's unique contributions to

music education. Sarath is the founder of the Jazz and Contemplative Studies

program at the University of Michigan. To receive a Bachelor of Fine Arts (BFA)

in Jazz and Contemplative studies, students participate in a program of studies

that is "arguably among the most radical curriculums in the history…" of the

University of Michigan (Sarath, 2015, p. 313). Coursework for this BFA includes

typical music classes at a higher education institution and 20-25 credits of

contemplative-based studies. These additional studies would include meditation

or theoretical studies from the jazz department as well as courses from

psychology, philosophy, and cultural studies departments. Sarath (2015) posits

that such a program links "…theoretical, historical, cultural inquiry directly to

their inner experience" (p.318). The experience of this mindful music approach

may allow students to transcend beyond "…localized boundaries to foster broader

connections, evolution of the individual voice, self-organizing or self-driven

development, and expanded critical thinking capacities" (Sarath, 2017, p. 91).

This approach to learning is representative of a contemplative education.

"Contemplative education" is a transformative approach that includes, but is not

limited to, mindfulness practices. Self-exploration of meaning, values, and

purpose is a core mission for contemplative education with an axiological

framework that students "...develop greater empathy and communication skills,

improve focus and attention, reduce stress and enhance creativity, supporting a

loving and compassionate approach to life" (The Center for Contemplative Mind

and Society, n.d.). Sarath has found the program "radically different than the dry

and disconnected approaches" (Sarath, 2015, p. 318) typically found in music

education, subsequently encouraging "creative development as a path for not only

personal artistic expression but overall self-realization" (Sarath, 2017, p. 92).

Mindfulness, Flow, and Music

Previously mentioned music education research in chapter two included

both flow and mindfulness phenomena as factors for investigation (Diaz, 2011;

Lavery-Thompson, 2018). Although these studies are integral to our

understanding of both concepts, these studies aimed to examine the effects of

mindfulness interventions on listening (Diaz, 2011) and individual practice

(Lavery-Thompson, 2018). The present study is investigating how mindfulness and flow may be associated during music making—ultimately resulting in a deeper understanding of how to foster flow in music education settings.

Flow Elements and Mindfulness Elements

Chapter two was dedicated to literature on Csikszentmihalyi's flow research, including the resulting elements iteratively published. Elements included for the flow experience are the nine main elements of flow as encompassed in Csikszentmihalyi's flow theory: Clear goals, immediate feedback, the balance of challenge and skill, action and awareness merge, distractions are excluded from consciousness, no worry of failure, self-consciousness disappears, time is distorted, and the activity becomes autotelic (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997; Csikszentmihalyi & I.S. Csikszentmihalyi, 1988).

Acquiring a list of elements representing mindfulness to compare with flow required a model encompassing the experience of mindfulness to associate with the experience of flow. This allowed comparing the two phenomena on common ground characteristic of QCA methods (Simister & Scholz, 2017). Data collection from studies one and two included first person accounts of the flow experience. Considering this data juxtaposed with mindfulness and a possible relationship, the phenomenological matrix (PM) conceived by Lutz and collaborators (2015) emerged as a model containing elements most appropriate for comparisons. The impetus behind the PM is the inclusion of first person

accounts in the analysis of mindful meditation experiences (Lutz et al., 2015). The following provides details of the phenomenological matrix (PM) to validate pairing features from the PM model with Csikszentmihalyi's flow theory elements.

The Phenomenological Matrix

The phenomenological matrix is a neurocognitive framework that approaches mindfulness practice "…from the perspectives of psychology and cognitive neuroscience tempered by concerns from within the humanities...," specifically contemplative science. Lutz describes the matrix as defining the "phenomenological space" reported in first person as it is "lived and verbally articulated" by the practitioner (Lutz et al., 2015, p.633). The experience of mindfulness meditation has layers "involving states and processes" rendering flat lists of characteristics insufficient. The disadvantage of using the Mindfulness Attention Awareness Scale (MAAS) when investigating mindfulness is the limited perspective, which excludes mindfulness as a state or practice. The aim of the MAAS, rather, is measuring a mindfulness disposition (Positive Psychology Center, n.d.; Goldberg et al., 2016). Brandmeyer posits a need to avoid "umbrella" terms too broad for the scope that is mindfulness ascertaining the PM is "…one step toward greater differentiation of meditation practices" (Brandmeyer et al., 2019, p.5).

The novel use of the PM model has shown promising validity in research thus far. The PM has been used as an investigative tool by Abdoun et al. (2019) to compare the experiences of a control group including novice meditators to an expert group. The PM proved reliable in a previously mentioned study with music major participants in a mindfulness induction course (Diaz et al., 2020). Participants described their experiences throughout a 5-day mindfulness module resulting in first person data where "86% percent of coded phrases reflected dimensions of experience" as mapped using the PM (Diaz et al., 2020). Diaz posits framing the mindfulness experience using the PM allowed for more contextualized data illuminating the participants' lived experience in relation to their expectations.

There are eleven total components of the PM identified as related to mindfulness including four general features "shared across the family of [mindfulness] practices," (a) physical posture, (b) non-aversive affect, (c) axiological framework, and (d) task-set maintenance; three primary orthogonal dimensions which may change from one to another in a given mindfulness experience including object orientation, dereification, and meta-awareness; and four secondary qualities labeled aperture, clarity, stability, and effort (Lutz et al., 2015, p. 637-638). This interpretation of mindfulness is a "continuum of practices" involving both states and processes, capturing the "transformative effects" of mindfulness practices (Lutz et al., 2015).

A Comparative Analysis of Experience

The investigator created Inventory of Mindfulness Orientation to Flow Experience (IMOFE) table allows for associations between elements from the phenomenological matrix (PM) and flow theory that may elucidate details of their relationship (see table 6.1).

Table 6.1

Inventory of Mindfulness Orientation to Flow Experience

Model	Elements of experience	M(q)	FE(q)
	Orthogonal dimensions		
PM	Object orientation	y	y
PM	Dereification	y	y(b,a)
PM	Meta-awareness	y	y
	Features of experience		
PM	Aperture	y	y
PM	Clarity	y	y
PM	Stability	y	y
PM	Effort	y	y(b,a)
FE	Immediate feedback	y	y
FE	Action & awareness merge	y(s)	y
FE	No worry of failure	y(s)	y
FE	Distractions excluded	y(s)	y
FE	Self-consciousness disappears	y(s)	y
FE	Time distorted	n	y
FE	Activity becomes autotelic	n	y
	Contextual features		
PM	Posture	y	n
PM	Non-aversive affect	y	n(b,a)
PM	Axiological framework	y	y
PM & FE	Task-set maintenance & retention/clear goals	y	y
FE	Challenge-skill balance	y(s)	y

Note. PM- Phenomenological Matrix (Lutz et al., 2015); M- Mindfulness; FE-

Flow Experience (Csikszentmihalyi, 1996); q- qualifier (s- mindful *state*; b-before

FE, a-after FE).

The IMOFE design was intended as a tool to find associations between

mindfulness and flow experiences. The table was constructed using elements

found in Csikszentmihalyi's flow theory and the phenomenological matrix model

designed by Lutz and collaborators (2015). The elements are organized in the same three structural categories used by Lutz et al. (2015) and located in the "Elements of experience" column: *orthogonal dimensions, features of experience* and *contextual features.* These categories are explained in detail later in this chapter. The first column indicates from which phenomenon model the element is derived: phenomenological matrix (PM) or the flow experience (FE). The final two columns serve to compare the overall experience by paralleling the experience that can be explained in mindfulness (M) literature or explained as a part of flow experience (FE) theory. A "y" in either column denotes that the element does occur during mindfulness (M) or flow experiences (FE) as supported by research. A "n" would denote the element is not present for mindfulness (M) or flow experiences (FE) as supported by research. Additional qualifiers add more specific information regarding the trajectory of the experience. Qualifiers in the penultimate mindfulness (M) column include the qualifier *state* as noted by a "(s)." The "(s)" indicates that a person would be experiencing a sustained characteristic of mindfulness for that particular element rather than the repeated inner experiences found in mindfulness *practice*. The difference between mindfulness state and practice is explained earlier in this chapter. An absence of the state (s) qualifier in this column, rather than just the "y," would assume that the element is a part of the mindfulness *practice* experience. The final, FE column includes qualifiers associated with time, "(b)"

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indicates the element occurring before the flow experience; "(a)" indicates the

element occurring after the flow experience. The absence of the before (b) and

after (a) following a "y" would assume the element occurs during the flow

experience. Of the elements describing the flow and mindfulness experience, 79%

are positively matched across experience as supported by reviewed research from

both mindfulness and flow theory.

The following section discusses considerations for the notated "y,"

indicated in the IMOFE table that the particular element occurs with both the flow

or mindfulness experience, and the "n," which indicates there is not enough

evidence to support the element occurs. A narrative elaboration is offered in the

following section to support a (y) claim in areas where the element is not a part of

the original elements of that phenomenon. For example, the final element listed,

"challenge-skill balance," comes directly from Csikszentmihalyi's flow theory

elements and is not a part of the phenomenological matrix model of the

mindfulness experience. Therefore, I will attempt to connect "challenge-skill

balance" to mindfulness using available research to support the claim. The

following is organized in the order of elements of the IMOFE table.

The IMOFE Elements

Orthogonal Dimensions

Orthogonal dimensions in the IMOFE table are derived from the

phenomenological matrix model conceived by Lutz and collaborators (2015). The

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three primary dimensions from the PM are considered *orthogonal*, meaning they may change independently from one to another in a given mindfulness experience. Therefore, a mindful experience does not have to include all three features in one session, although it could. These functional dimensions include object orientation, dereification, and meta-awareness. The critical distinctions between these activities are the concentration of attention and quality of engagement.

Object Orientation from the PM Model. During mindfulness practice, a "phenomenological sense" may occur where "… an experience or mental state is oriented toward some object or class of objects. By object, we mean here that one is aware of some particular thing" (Lutz et al., 2015, p. 639). Consider a field of awareness where the practitioner is either acutely focused on something specific (breath, sound, a sensation) reaping a high magnitude of concentrated attention in this dimension or, on the other end of the spectrum, the field of awareness is not explicitly focused on any object but, instead, focus moves randomly yielding a low magnitude of concentration. The low magnitude may be considered mind-wondering or a deliberate form of open meditation. During a flow experience, the object might be tactile for a sculpting artist, for example, experienced through the sensation of working with clay. Such object orientation would need to shift to the clay and away from other distractors in order to experience flow. The flow experience begins when action and awareness have merged and the object of

focus is directly related to the action; the sensation of how the clay feels, not thinking, "Why do I enjoy the feel of the clay?" The flow experience appears to include object orientation as it is a part of descriptions related to Csikszentmihalyi's flow elements: the exclusion of distractions and the merging of action and awareness (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997). Csikszentmihalyi (2014c) suggests anyone can "make" the acute focus necessary for the flow experience happen by "cut off" from the "normal stimuli of everyday life" and concentrating on achieving the task (p. 135). Other processes may be responsible that allow a person to make the flow experience happen, such as dereification and tuning into meta-awareness allowing a different approach to attention than object orientation.

Dereification from the PM Model. The inner experience of stepping aside from your inner thoughts to observe them as "mental processes rather than accurate depictions of reality" is the mindfulness practice referred to as dereification (Lutz et al., 2015, p. 639). This includes feelings, perceptions, and thoughts. Consider thoughts that may creep in the mind of a performer about to take the stage, *I feel ill*, *I am not good enough to be here*, or *the audience doesn't really want me to perform well*. These thoughts, feelings, and perceptions would inhibit a flow experience for the performer who is unable to let go of them, such as university music primaries taking part in mindfulness studies previously mentioned (Czajkowski & Greasley, 2015; Diaz, 2018; Diaz et al., 2020;

Farnsworth-Grodd, 2012). Participants in Czajkowski and Greasley's investigation of a Mindfulness for Singers intervention claimed they were less self-critical, negative and self-judgmental during performances and lessons following prescribed mindfulness exercises implemented just prior to performing (Czajkowski & Greasley, 2015, p. 14). Reducing rumination of negative thoughts in the mind as if they are a reality allowed student participants to experience what they described as getting "in the zone" (Czajkowski & Greasley, 2015, p. 15). Therefore, the application of dereification before an activity may assist in accomplishing flow. Dereification, however, cannot occur during flow without disturbing the flow experience given that characteristics of flow exclude self-consciousness and worry of failure (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997). Dereification may occur pre-performance and post-performance. Using the dereification technique after a performance to process happenings that occurred during a performance may impact the next performance; avoiding reoccurring thoughts about that performance that may otherwise result in rumination. Evidence suggests that dereification may occur before (b) the flow experience or follow after (a) as indicated in the IMOFE.

Dereification is a challenging concept for novice practitioners to grasp as attaching to the inner experiences as "reality" can be so strong that a person does not realize they are doing so. On the other hand, a practitioner may be letting go of these inner superficial experiences in such a way they diminish uneventfully.

This is apparent in Diaz's study, where dereification was the "most frequently omitted dimension" from the PM to which authors attributed was "likely due to saliency" (Diaz et al., 2020, p. 29). The practitioner may also notice those thoughts in the background to the object of an engaging present experience. Such awareness of background leads to the dimension of meta-awareness.

Meta-Awareness from the PM Model. Meta-awareness, as described by Lutz et al. (2015), involves a task set (i.e., focus on sound) while maintaining a "low-level" of background awareness (p. 640-641). The authors posit a "contradistinction" to introspection, a feature of metacognition when something occurs in the background, causing a turn inward. Background awareness during meta-awareness allows, "…within the experience of an object focus, access to other aspects of experience beyond the object *without* making the inward turn that occurs in metacognition when one thinks about one's mental processes" (Lutz et al., 2015, p. 640). Compared to the other two orthogonal dimensions, object orientation and dereification, meta-awareness appears more appropriately paralleled with a flow experience where music making is the objective. Object orientation may be the initial focus at the onset of a flow experience while singing or playing and instrument; focus on sound or a particular body part that is integral to the production of sound. Once focus is established during the music experience, a musician may allow for other experiences to come into their peripheral attention. The collaboration necessary for making music with others and

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responding to feedback from the environment requires some kind of awareness in addition to the technicalities of producing sound. For example, a trumpet player may experience flow while immersed in the sounds they are producing (sound as the object of focus) but also be aware of accompanying instruments in the background, the lights, affective responses arising, or the ambient noises from the crowd. None of these "objects" in the background are the focus as the trumpeter does not engage in thinking about them; they are peripheral to the sound coming from their instrument. The player is observing them at a distance as their main focus may be the object of sound. However, should the trumpeter engage in those thoughts, a distraction deterring the performer away from the flow experience may occur. Distractions are excluded from conscious space while in flow (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997).

Features of Experience

The IMOFE table includes features of experience from both the mindfulness PM (Lutz et al., 2015) and Csikszentmihalyi's flow experience elements (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997; Csikszentmihalyi, M. & I.S. Csikszentmihalyi, 1988). Aperture, clarity, stability, and effort are "qualitative dimensions" from the PM model as they describe the quality of experience taking place during mindfulness practice. Included from Csikszentmihalyi's flow theory are the elements immediate feedback, action and

awareness merge, no worry of failure, distractions are excluded, self-consciousness disappears, time is distorted, and the activity becomes autotelic.

Aperture from the PM Model. Aperture, like a "spotlight," can vary from an acute, narrow scope of attention as experienced in a focused attention meditation (on an object such as breath) to a broad scope experienced in open monitoring meditation. During open monitoring (OM), also considered "choiceless awareness," a practitioner is in a "…monitoring state attentive moment-by-moment to anything that occurs in experience without focusing on any explicit object" (Lutz et al., 2015, p. 643). The flow experience is described as having a narrow aperture opposed to a broad aperture. Descriptions from Csikszentmihalyi's research include a "highly focused state of consciousness" (Csikszentmihalyi, 1996, p. 110); "Such deep concentration" is a result of "focusing on the present" (Csikszentmihalyi, 1993, p. 184); the flow experience requires "a complete focusing of attention on the task at hand" (Csikszentmihalyi 1990, p. 58). Aperture is necessary for the flow experience to accomplish a narrow scope on that which is necessary to perform the task. Goals are particular and become the motivation to focus giving direction both prior to the start of the activity and during the activity.

Clarity from the PM Model. Clarity refers to the "vividness" of the mindful experience. The object of focus appears "especially clear or salient" (Lutz et al., 2015). Clarity is described by dancers interviewed in Csikszentmihalyi's

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flow experience studies as having a clear sense of what to do moment to moment as well as feeling "…in harmony with the environment" (Csikszentmihalyi, 1975, p. 112). The flow experience is defined by "clear goals every step of the way" as the "purpose" in moments of flow is unquestionable, "in flow we always know what needs to be done" (Csikszentmihalyi 1996, p. 111).

An alternative account of clarity was offered in sports research juxtaposing flow and mindfulness. Baltzell and McCarthy (2016) share a case example of a "self-prompted" mindfulness practice that resulted in a flow experience (p. 164). A runner took a moment to intentionally focus on a random object before taking their position in a high stakes race. Her vision landed on an electrical box. She recounts her experience as the following: "I began to notice colors in ways I had not noticed before. I noticed the shape, thickness and vibrant colors of the many wires in the box" (Baltzell & McCarthy, 2016, p. 164). This runner went on to have flow experiences and an exemplary performance that day. The mindfulness strategy involved taking a moment to focus and experience an object with a unique clarity of awareness. It appears clarity is a part of the flow experience and may also assist in flow just before an activity. The latter requires more research to support this claim.

Stability from the PM Model. Stability measures the ease or difficulty experienced while practicing mindfulness (Lutz eta l., 2015). This concept of stability appears to be linked to feedback as it pertains to the flow experience.

Interviews investigating the flow experience of Japanese motorcycle gangs reveal how participants thrive on feedback. At high speeds resulting in extreme physical danger, feedback is continuous and immediate. Additional forms of feedback from fellow gang members (facial expressions, gestures, and moves) become "amplifiers" for one another's flow experiences (M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988, p. 102). In addition, stability is also gaged by the presence or absence of distractions for the flow experience. Logan (1988) discusses flow research in "solitary ordeals" such as prisons and concentration camps. Accounts of these flow experiences include the "artificially limited stimulus field" which allowed for easier attentiveness to tasks such as calculations of a confinement space. Such confinement would result in filling copious amounts of time with rituals and activities, resulting in paradoxical accounts of blissful flow (Logan, 1988, p. 176-177). These examples indicate the stability of a flow experience may be vulnerable to environmental circumstances to aid in the entry, continuation, or cessation of flow. The literature also suggests stability is a factor in the flow experience.

Effort from the PM Model. Effort can be an inhibitor of the meditation process and, thus, "cultivating" the expertise to expend less effort may lead to more successful mindful practices (Lutz et al., 2015). Juxtaposed to a flow experience, a sense of "effortless action" is felt during these "moments that stand out as the best in their lives" (Csikszentmihalyi, 1997, p. 29). The concept of

effort is also reflected in the balance of challenge and skill element as too much

challenge without the skill to match may lead to anxiety; whereas too little

challenge may lead to boredom depending on the effort necessary

(Csikszentmihalyi, 1997). Effort is not only a shared feature of mindfulness and

flow experiences, but it also appears to be an inhibitor or instigator depending on

the skill-challenge balance. For example, Csikszentmihalyi (1997) discusses the

difference between "arousal" and flow concerning skill-challenge balance where

an aroused person may feel "mentally focused" and "involved" but not "in

control" (p. 32).

      Immediate Feedback from Flow Theory. Csikszentmihalyi describes

immediate feedback during the flow experience different from "the usual state of

affairs" as it is clear when things are going well. For example, "The musician

hears right away whether the note played is the one" (Csikszentmihalyi, 1996, p.

111). Feedback is "unambiguous" and available with "each step of the process"

required for that activity (Csikszentmihalyi, 1993, p. 179). Previously this element

of feedback was mentioned in support of the stability element from the PM

model. The description of stability offered by Lutz et al. (2015) is characterized

by "maintenance" to uphold a stable status on a cultivated state of mindfulness (p.

642). To perceive what maintenance is necessary to return to a given mindfulness

task, one would need to receive feedback that they have strayed off-task.

Feedback, for example, during mindfulness practice might be noticing bodily

sensations reacting from the attachment to a specific worry or becoming aware of images developing in the mind following a cell phone chime. Therefore, feedback in the case of mindfulness practice is the recognition of task retention status. Goleman and Davidson's (2017) make this claim more evident by highlighting the critical moment, "noticing," in their description of a mindfulness practice sequence: "…starts with a focus on one thing, then the mind wandering off to something else, and then the mindful moment: noticing the mind has wondered. The sequence ends with returning attention to the point of focus" (Goleman & Davidson, 2017, p. 74). Feedback appears to be a critical feature of both mindfulness and flow.

      Action and Awareness Merge from Flow Theory. The merging of action and awareness during the flow experience is described by Csikszentmihalyi as a loss of "ego" (M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988, p. 103). While not experiencing flow, ego may "intervene between self and environment" (M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988, p. 103). Langer (2009) has a similar description of mindfulness while in a job setting. Langer was previously mentioned in this chapter as bringing a mindful state through novelty to commonly habitual, everyday experiences (Langer, 1989, 2009; Langer et al., 2009). She suggests that differences between mindlessly working and mindfully working involve "creating new distinctions" and changing context for "renewed energy" (Langer, 1989, p. 136-137). When "performing mindfully" on the job,

there is no "sense of ourselves as separate from the task" (Langer, 1989, p. 137).

This position echoes Csikszentmihalyi's (1996) importance placed on "discovery" and descriptions of bringing flow to the everyday experience (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997; M. Csikszentmihalyi & I.S. Csikszentmihalyi, 1988).

As mentioned previously in this chapter, Langer's conception of mindfulness differs from mindfulness characteristics that have iteratively tested mindfulness practice through meditation. This everyday approach to mindfulness practice is supported, however, in research involving state and trait mindfulness. Goleman and Davidson discuss their initial experiences of bringing meditation states into everyday happenings: "our mindfulness transformed the familiar and habitual into the fresh and intriguing" and may "...reverse habituation by focusing on a deeply textured here and now, making the old new again" (Goleman & Davidson, 2017, p. 126). It appears evident that the element action and awareness is not currently supported as a mindfulness *practice*, however, it is evident as a mindful *state*.

No Worry of Failure from Flow Theory. While experiencing flow, it is "clear what has to be done" and the idea of failure "does not even come up" (Csikszentmihalyi, 1996, p. 112). A person in flow is confident their skills are adequate and the challenge is high enough to sustain attention away from worrying. Turning attention toward worry of failure and away from the activity

would interrupt the flow experience. A culmination of mindfulness defining qualities discussed earlier in this chapter indicated the practice of mindfulness is the act of "bringing awareness back to the here-and-now…whenever he or she notices a general lack of awareness or that attention has become focused on streams of thoughts, worries, or ruminations" (Bishop, 2004, p.232). Dereification described earlier adds a step between the worry and redirecting focus to an object by inwardly acting toward the worriment with reframing or dismissing as not useful information. The "letting go" described is considered a "key insight" when the meditator realizes "…thoughts, feelings and impulses are passing, insubstantial mental events" as well as a "neural strategy to quiet the brain's default mode" (Goleman & Davidson, 2017, p.154-155). Here, similar to the action and awareness element, actually experiencing no worry of failure would be a mindfulness *state* rather than a practice considering experiencing this lack of worry is not the act of redirecting as found in mindfulness practice.

Distractions Excluded from Flow Theory. During a flow experience, "only a very small range of information can be allowed into awareness" due to the attention required for the presented challenge (Csikszentmihalyi, 1990, p. 58). As a result, distractions are excluded during a flow experience. The previously discussed mindfulness dimension *aperture* aligns with the distractions excluded element originating from flow theory. Aperture, in this case, would be a narrow scope of attention where the object of focus is "well-defined" (p. 642) and likely

an effort from the central-executive network promoting the "…capacity to select, orient, and maintain an object in the mind,…" (Lutz et al., 2015, p. 644). This is an additional example where the element is characteristic of *state* mindfulness rather than the *practice* of mindfulness as the absence of distractions is a suspended circumstance.

      Self-Consciousness Disappears from Flow Theory. Similar to the previous elements mentioned, the absence of self-consciousness is a *state* that does not involve the deliberate management of self-conscious thoughts found during mindfulness practice. Csikszentmihalyi describes the loss of self-conscious thought as being "less aware of oneself" leaving more "psychic energy to concentrate on what one is doing" (Csikszentmihalyi, 1993, p. 185-186). Yaden (2017) discusses this "decrease in self-salience" with an increase in "…feelings of connectedness to other people and one's surroundings" (Yaden et al., 2017, p. 144). Langer (2009) connects the loss of self-consciousness from mindfulness directly with flow theory. She asked readers to "consider states of flow" and the ability to mindfully loosen "the grip" of these commitments to "increase, rather than decrease, one's performance" (Langer, 2009, p. 282). The opposite state described in mindfulness literature is being "mindless" where one is "…trapped in rigid mind-sets, oblivious to context or perspective" (p. 279), unaware of the "cognitive commitments" (p. 282) in our minds (Langer, 2009). This is an element apparent in both mindfulness and flow experiences.

Time is Distorted from Flow Theory. Csikszentmihalyi (1988) has discussed this loss of time in conjunction with the merging of action and awareness element. As a result of "being completely involved in the immediate demands of action" participants are unable to "grasp" the experience "by means of the time sense" (Csikszentmihalyi, M. & Csikszentmihalyi, I.S., 1988, p. 103-104). Participants describe a lack of time, "[c]lock time no longer marks equal lengths of time…" (Csikszentmihalyi, 1996, p. 113). This alteration in the sense of time is not supported in mindfulness research; however, possibly an area for further investigation.

The Activity Becomes Autotelic from Flow Theory. As previously mentioned in this chapter, Csikszentmihalyi's initial investigation of the flow experience revealed intrinsic motivation, referred to as autotelic, a consequence of flow. Although external motivation may attract a person to pursue an activity initially, subsequent engagement with an activity becomes autotelic if flow was experienced. The intrinsic motivation may be described as the "…value of the goal is simply that it offers an opportunity to use and refine one's abilities…" without any "monetary or social value" (Csikszentmihalyi, 1993, p. 180). Research linking intrinsic motivation with mindfulness is limited. Studies exist most notably in the field of athletic research (Ruffault et al., 2016; Amemiya & Sakairi, 2019), however, the body of literature is not substantial enough to support a relationship. Using the Mindfulness Attention Awareness Scale (MAAS) to find

associations linked to psychological well-being, Brown and Ryan's (2003) study of 327 university students uncovered data indicating higher scorers on the MAAS "…appear to value intellectual pursuits slightly more than lower scorers" (Brown & Ryan, 2003, p. 832). The possibility of an association merit deeper investigation but render this study unable to make the connection between mindfulness and autotelic experiences.

Contextual Features

Remaining features of the IMOFE include contextual features from both PM and flow experience models: Posture, non-aversive affect, axiological framework, task-set maintenance and retention/clear goals, as well as challenge-skill balance. These are shared features found in mindfulness practices of multiple traditions (Lutz et al., 2015) except challenge-skill balance, which comes from Csikszentmihalyi's flow research (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997).

Posture from the PM Model. The posture feature from the PM model is a key element of mindfulness practices. However, there is not a specific posture; rather, those considered "… more useful than others when cultivating mindfulness in formal meditation" (Lutz et al., 2015, p. 638). Posture is not an outcome or theme of practice; it is a feature common among various traditions of mindfulness.

The flow experience may occur while involved in an activity where prescribed posture enables or enhances the flow experience such as singing, playing an instrument, dance, and postures necessary for athletic sports. Differing from contemporary mindfulness practice where meditation is the primary investigated activity, posture may vary drastically within a single flow experience as the activity unfolds. An additional difference is the grey area of activities that do not initially require specific postures yet have resulted in flow experiences. Flow, for example, may occur doing any activity such as housework, writing, conversations, researching, or job-related activities that do not require a specific posture (Csikszentmihalyi, 1997). Reports of flow in Csikszentmihalyi's research have included a multitude of activities, however, he found the flow experience is rare during "passive leisure activities, such as watching television or relaxing" (Csikszentmihalyi, 1997, p. 34). Therefore, accounts of flow experience during leisure activities are included in the data but are rare. This might include listening to music, for example (Diaz, 2011). Albeit posture appears less particular during flow versus mindfulness practices, being completely dedicated to the given activity is a feature of the flow experience. In order to experience flow, one needs to "transform" everyday activities with "excellence and style" (Csikszentmihalyi, 1996, p.349). Whether that transformation involves a shift in posture, physical stance, or embodied dedication is currently not represented in the research.

Non-Aversive Affect from the PM Model. Non-aversive affect is assuming a non-judgmental tone during mindfulness practices (Lutz et al., 2015). Aversive tones, such as negative self-talk, are not indicative of the flow experience. Engaging in self-conscious thoughts or resistance to an activity is not conducive to achieving flow (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997). Should negative thoughts arise and engagement with them occur, the result would be a termination of the flow experience. Devoting conscious space to the activity with intensity "precludes ruminating on the past or the future…where one hones one's potential by confronting new challenges" (Csikszentmihalyi, 1993, p.184). The result, for example, leaves the "unselfconscious composer" able to devote all her "concentration" to "following the notes flowing in her mind" (Csikszentmihalyi, 1993, p. 186).

Csikszentmihalyi's research interests include flow experience with the most challenging activities that many would find impossible to enjoy. Performing activities, such as unpleasant work, might typically be accompanied by an inner judgmental tone and negative affect. However, rather than resenting the activity, Csikszentmihalyi has found some are able to conjure an "enthusiasm" for activities typically challenging to enjoy, thus, making room for the conscious focus necessary for flow (Csikszentmihalyi, 1997, p.100). Non-aversive affect from mindfulness research is characteristic of the flow experience.

Axiological Framework from the PM Model. An axiological

framework is comprised of "contextual factors concerning the values, goals, and

especially the ethics that inform mindfulness practice" (Lutz et al., 2015). For

example, regular practice is believed to lead to "altered" neurological traits

allowing for a "life best described as flourishing" (Goleman & Davidson, 2017 p.

53-56). One person's idea of flourishing may differ drastically from another's,

which elucidates mindfulness practice has a set of axioms informed by those

practicing and/or facilitating. The flow experience has its own axiological

framework. The framework is evident in Csikszentmihalyi's research motivations

and descriptions of flow experience accounts.

Csikszentmihalyi believes flow to be an integral part of human evolution,

a "mechanism" that has made evolution "possible" (Csikszentmihalyi &

Nakamura, 2018). He considers the state of being in flow as "interfacing" for the

"psyche to the environment" and through the "… experience of interest, nature

wires us for worldly involvement. "… (Hunter & Csikszentmihalyi, 2003, p. 29).

Data from participants' accounts echo transformation on an individual scale as

well. They describe the experiences following flow as a sense of being "stronger,"

more "vital" than before the flow experience. Feelings of connectedness to others

and the ambiance of "expanding the boundaries of the self" may immediately

follow a flow experience (Csikszentmihalyi, 2014c, p. 137). Csikszentmihalyi

reflects in his collected works that flow may be a "promising blueprint for

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improving the quality of life" (Csikszentmihalyi, 2014c, p. xx). Flow "generates

its own internal force to keep concentration focused" enabling one to "avoid

depression" and increase "capacities to relate to the world" (Csikszentmihalyi,

1996, p. 348). Csikszentmihalyi summarizes life goals as they relate to flow:

> To really live means to be able to express one's unique individuality, to
>
> hone one's strengths to their limits, while becoming fully part of the
>
> human network, and contributing to it. That is what living truly means,
>
> and that is what schools should teach, and that is also the ultimate goal of
>
> one's work. (Csikszentmihalyi, 2014c, p. xxii)

The flow experience is said to be available to anyone, anywhere and at any

time "...provided one is using psychic energy in a harmonious pattern"

(Csikszentmihalyi, 1993, p. 176). Motivation is necessary as well as the rarity

when "heart, will, and mind are on the same page..." as they are when one is

experiencing flow (Csikszentmihalyi, 1997, p.28). At the very least, an

axiological framework for Csikszentmihalyi's flow theory may include a

harmonious relationship involving conscious intention.

Task-set Maintenance and Retention and Clear Goals. Task-set

maintenance and retention (Lutz et al., 2015) and clear goals (Csikszentmihalyi

1975, 1990, 1993, 1996, 1997) have been grouped together, even though they

come from two different phenomena, they are one in the same. Lutz et al. (2015)

conceive task-set maintenance and retention as a "global feature" over all

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mindfulness practices that "…emerges from the interaction of all dimensions of mindfulness" (Lutz et al., 2015, p.639). Authors describe this feature as a "…capacity to sustain the context created by physical posture, affective tone, and axiological concerns" (Lutz et al., 2015, p.639). The description of sustaining all features is echoed in flow theory. Csikszentmihalyi (1996) used the descriptor "retention" to specify that goals are clear "every step of the way" during flow (p. 111). Csikszentmihalyi indicates a comparable process for any activity as the person experiencing flow is simultaneously maintaining the experience, including accompanying features of flow while responding to the feedback moment to moment congruous with the activity's goal (Csikszentmihalyi, 1975, p. 54). Goals are integral in the conditions outlined by Csikszentmihalyi (1996) for "cultivating flow in everyday life" (p. 348) by transforming even "unpleasant" activities into "enjoyable" experiences (p. 349). He suggests steps toward sustaining flow throughout the day: Wake up in the morning with a specific goal to which to look forward; strive to do things well; and have clear goals and expectations for all that we do; it is always possible to find a "better way to do anything" (Csikszentmihalyi, 1996, p. 348-351).

      Challenge and Skill from Flow Theory. The balance of challenge and skill is a main feature of Csikszentmihalyi's flow theory (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997). Evidence of both challenge and skill appears in mindfulness literature as well, although not directly discussed as an act of

balancing. For example, the qualitative data from one participant in Diaz's study indicates a lack of mindfulness skill during a body scan: "I would try to focus on my left toes for example, but I don't even really know what it means to or what it would feel like to heighten my perception of my toes" (Diaz et al., 2020, p. 14) raises the question: Why is it some can turn their focus directly to their toes and others cannot? This challenge of directing attention to a part of your body while leaving other thoughts behind takes skill.

Challenges endured during mindfulness practices are evident throughout the literature (Bishop, 2004; Brown & Ryan, 2003; Lutz et al., 2008; Diaz, 2011, 2013, 2018; Diaz et al., 2020; Goleman & Davidson, 2017; Kabat-Zinn, 1994; Langer, 2009; Langer et al., 2009; Roeser, 2016; Siegel et al., 2009; Shapiro, 2006). The process of mindfulness as derived from its Buddhist origin, *sati*, translates as the act of remembering to come back to the object of focus (Siegel et al., 2009, p.18). This act of remembering alone is a main challenge of mindfulness practice. An additional challenge is coming back to focus on the intended object, such as the breath, after experiencing distracting thoughts. An example of a challenge where stronger mindfulness skills are necessary is meta-awareness: focusing attention on an intended object while noticing thoughts in the background without succumbing to engagement with those thoughts.

Kabat-Zinn (1994) describes the skill of mindfulness as an artistic endeavor "more akin to an art form that one develops over time." He also

describes how the skill and challenge is transferred into everyday life: "It is not used in the common sense of 'rehearsal' for some future performance. The 'performance' is always this moment unfolding" (Kabat-Zinn, 1994, p. 148). Bishop (2004), as a part of defining mindfulness, describes the process as a "form of mental training to reduce cognitive vulnerability to reactive modes of mind" (p.231). Similar to Kabat-Zinn, Bishop posits one would "use the same general approach outside of his or her formal meditation practice as much as possible by bringing awareness back to the here-and-now during the course of the day" (Bishop, 2004, p.231). Applying a conscious, "moment-to-moment" mindfulness process has been considered "cyclic" as intention, attention, and attitude are "…not separate processes or stages—they are interwoven aspects" occurring simultaneously (Shapiro, 2006, p. 375). This process is highly challenging to a person new to mindfulness who lacks these skills as "…successful adaptive behavior depends on 'loosening' the grip that our cognitive commitments have on our minds" (Langer, 2009, p. 282). Mindfulness research has found the skill can not only be "cultivated by practice" (Brown & Ryan, 2003, p. 843), it "retrains our habits of focus" (Goleman & Davidson, 2017). Furthermore, the mindfulness practice of exercising the mind "… is fundamentally no different than other forms of skill acquisition…" (Davidson & Lutz, 2008).

However, different from the rare moments of flow when a person strikes the right balance of challenge and skill, a person with a disposition of mindfulness

has the skills to bring the process to moments in everyday life. An eloquent

example of mindfulness in action was the teacher mentioned previously in

Roeser's (2016) study. He observed the experienced mindfulness instructor as

having a "strategic use of speech and silence" and "embodied modeling of

mindfulness-based skills and dispositions" including compassion and loving

kindness (Roeser, 2016, p. 158). This teacher was modeling mindfulness to

educators seeking to bring the same quality to their classroom. This is an explicit

example of using mindfulness skills through sensitivity to context (Langer et al.,

2009), in this case, the challenge of modeling a mindful teaching approach while

maintaining mindful awareness "beyond formal meditation practices" (Khoury,

2017). Is it possible, that while doing so, the mindfulness instructor was

experiencing flow? This is not in the literature but an area worthy of investigation.

It is clear from the literature that a balance of skill and challenge occurs in both

mindfulness practices as well as flow.

Results

The purpose of reviewing mindfulness literature and comparing

experiential elements of both phenomena, flow and mindfulness, was to provide

an unambiguous representation of their relationship. The Inventory of

Mindfulness Orientation to Flow Experience (IMOFE) instrument was used to

assess where the elements of flow theory (Csikszentmihalyi 1975, 1990, 1993,

1996, 1997; Csikszentmihalyi & I.S. Csikszentmihalyi, 1988) intersect with

mindfulness features represented in the PM model conceived by Lutz et al. (2015). The elements in the IMOFE provided descriptive characteristics of these phenomena allowing for a comparative analysis of the experience of flow and mindfulness. The process of assessing where these phenomenal experiences converge as well as where literature does not support a congruence, provided a clearer understanding of the mindfulness characteristics that emerged during data analysis of flow from studies one and two.

The final step of this comparative analysis will attempt to use results from the direct comparison of elements with results from studies one and two.

Beyond Challenge and Skill

Studies one and two revealed that fostering flow in a music education setting is more complex than presenting students with high challenges to balance with skill. The balance between challenge and skill is a key condition of the flow experience; however, many other contributing factors tug at a person's perception of the challenge and their skill. The results from the two studies in conjunction with this more in-depth investigation of mindfulness suggest we may afford flow in classrooms by expanding our understanding of flow to include the interplay between environmental context and individual perceptions. For example, considering emotional challenges, body connection, personal growth, purposeful music making, relevant repertoire, and social connections as challenges that influence flow in addition to technical music production. A successful approach to

these challenges may be mindfulness. To approach music teaching to accomplish quality in awareness indicative of mindfulness research may allow teachers to "set the stage" for moments of flow for all students. Making flow a target of instruction may result in students who sustain acute focus while proceeding moment to moment with awareness.

For example, music preparation may include finding music meaning relevant to singers through non-aversive means. This was exemplified in study one, in which the conductor chose purposeful repertoire and included group discussions as well as reflections on the lyric meaning at both personal and panhuman levels. The challenge in this example is more than notes, rhythm, and technique. It is facilitating student construction of an axiological framework for making music. The challenge includes empathy and expressing compassion while keeping enough distance to avoid emotional distress. In mindfulness research, the development of compassion is considered a skill, as is avoiding empathic stress (Roeser & Eccles, 2015; Roeser, 2016; Roeser et al., 2018). Meaningfully performing music may be a skill on which to focus for fostering flow. Perhaps during the performance or rehearsal of one song, a portion of students may find challenge and skill balance by expressing the music with compassion; a different portion of students find balance with moving and singing; a portion is focused on achieving vocal nuances; and the more experienced singers may find a balance between all of these elements simultaneously. This investigation reveals that

facilitating varied challenges included in meaningful music making may elicit flow to more students. This approach would result in choral program pedagogical structures that differentiate instruction through means of varied challenges. This varied challenge approach would enable singers of varying skill levels to experience the conscious state of flow.

The present investigation suggests that an approach to addressing these varied challenges and accomplish flow involves characteristics of mindfulness practice. The presence or absence of mindfulness features appears to affect whether a flow experience occurs or is maintained. Features found during successful flow experiences included object orientation to focus on the task of music making; sustained meta-awareness while feedback from environmental factors occurred during music making; and processing thoughts with a non-aversive, non-judgmental approach resulting in a loss of self-consciousness. Additional features of a mindfulness experience may assist the flow experience before or after a possible flow moment such as dereification, adjusting focus aperture, and constructing an axiological framework for making music. The discovery of this interplay that occurred between time, mindfulness, and flow led to a temporal construct representing the relationship between the flow experience and mindfulness as they correspond with time (see figure 6.1).

Time Frame Sequence

    The single case study from chapter four revealed flow concepts associated with time before, during, and after performing. Similar concepts linked to time were discovered occurring over the course of a choral rehearsal from study one (see figure 3.4). Data from studies one and two have been streamlined with elements from the PM model to describe the association between mindfulness and flow. The following section elaborates on the association between phenomena as delineated by time.

Before Flow

    Prior to the flow experience, the following mindfulness elements were evident in data combined from studies one and two: axiom, dereification, non-aversive affect, object orientation, task-set and effort. These elements were identified in the form of beliefs or intentions connected to the music or overall purpose of the performance (axiom); performers' negotiation of worries or fears creating perspectives useful or unhelpful for accomplishing flow (dereification); positive or motivating advice given by the conductor or mentors as well as positive, non-judgmental self-talk in study two data (non-aversive affect); necessary focus points for singing such as breath, becoming a character, embodying the purpose of the music, and the conductor insisting that singers "be present" during rehearsal to focus on conducting gesture or music making overall (object orientation); varied tasks associated with music making (task-set); and

gaining control over consciousness to achieve the mindset and focus conducive to performing (effort).

During Flow

While experiencing flow, the following mindfulness elements were evident in the data combined from studies one and two: object orientation, meta-awareness, effort(less), aperture, clarity, stability, axiom, and task-set. These elements were identified in the form of: necessary focus points for singing such as embouchure/articulation, immersion related to lyric intention, movement with the music's rhythm (object orientation); a singer's focus on their own voice as the main object while aware of, but not distracted by, other elements in the background including other musicians, audience and general environment (meta-awareness); singers' reflections indicated all necessary components of a performance come together in an effortless manner where distractions and concerns are absent (effort); focused awareness acutely aimed moment to moment on attributes necessary for singing, for example, a challenging foreign language phrase requiring intense focus on articulators (aperture); participants' reflections on performances that included minute details where their attention was consumed and music making came together in a way that was clearly or vividly perceived (clarity); stability determined by three possibilities, (a) remaining in flow as with Keri in study two for the entire song *Rejoice* (b) phased in and out of flow such as Keri's assessment of her dry mouth, dereification of the situation, then back to the

object orientation of singing expressively, or (c) briefly experienced flow resulting from ruminations as with Marina (stability); beliefs or intentions connected to the music or overall purpose of the performance as evidenced in interview data from both studies (axiom); the varied tasks associated with music making (task-set).

The "during" phase includes being "distracted from flow experience" which represents when participants achieve flow and then get distracted (from situational or personal factors). This scenario resulted in three possibilities: the distraction would result in a termination of flow; inner thoughts would mediate characteristic of mindfulness practice resulting in a return to flow; or following the distraction, participants would get stuck unsuccessfully trying to gain conscious control.
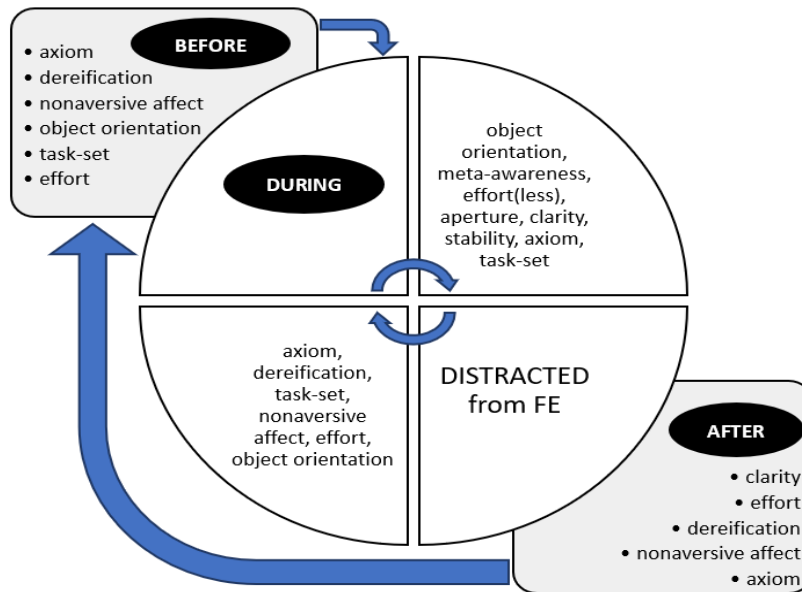
After Flow

Following a flow experience, mindfulness elements evident in data combined from studies one and two include clarity, effort, dereification, non-aversive affect, and axiom. These elements were identified in the form of: moments during which feedback was received from audience members and music collaborators that extended performance highlights by "reliving" vivid details (clarity); gaining control over consciousness to implement productive processing of performance happenings (effort); developing perspectives on the performance that may require re-processing initial judgments or thoughts not conducive to a

future successful performance, such as embarrassment or disappointment (dereification); post-concert reflections from choir members and self-assessment of performance (non-aversive affect); intense experience of being in flow added to the inner narrative of personal growth, which resulted in an evolved axiom (axiom).

Figure 6.1

Flow and Mindfulness Loop: A Time Frame Sequence Cycle of Inner Experience

Note. The figure represents an association between mindfulness and the flow experience (FE) as delineated by time. **C**oncepts from studies one and two have been streamlined into elements from the Phenomenological Matrix (PM) mindfulness model examined in study three. BEFORE = before a flow experience; DURING = during a flow experience; AFTER = after a flow experience. Descriptions within the sections are mindfulness experience elements from the PM model. The "DURING" portion of the figure is divided into sections: During the FE, elements from the PM described in the upper right quadrant are being experienced; when a FE was interrupted by a distraction, elements from the PM described in the lower left quadrant were utilized to return to a FE. After a

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FE, the listed PM elements occurred and informed future flow as indicated by the larger arrow looping back to "BEFORE" a FE.

The Inner Experience of Flow. The diagram represents a flow-mindfulness temporal construct of the flow experience. In this model, the end of one flow experience influences the next opportunity for flow. This is represented with the larger arrow indicating that, moments after the performance, a loop to connect to the beginning of the next performance ensues. This posits the flow outcome was determined by how the singer perceived happenings related to the music making experience by connecting past and present performances. The results from this investigation indicated that the conductor or mentors may play a role in processing and interpreting information following a flow experience. Assisting singers in the navigation of these processes may lead to future flow experiences.

In addition, data revealed another loop during the performance should the stability of the flow be weak or a distraction occurs. The singer must negotiate inner or external distractions to return to the flow state for optimum focus and enjoyment. This was approached as in the "before" phase of the performance and evidenced in study two with Keri's ability to attain control over consciousness. The loop differs when flow is not stable in a performance as distractions would result in experiencing the phase "after" flow. Inner thoughts would move to a phase of inner mindfulness activity described. This may result in a return to flow

or participants would get stuck in the "before" flow phase, possibly trying to gain conscious control, experiencing anxiety, or resulting in apathy.

Thought processing not conducive to flow was in the data as well; for example, not all self-talk reported was non-aversive or resulted in dereification from all participants. Relevant to fostering flow in a music education setting is encouraging singers positive self-talk, non-aversive tone, and dereification to move toward flow.

Summary

The purpose of this third investigation was to arrive at a theoretical construct representing the role of mindfulness as it relates to flow experiences. A comparative analysis was implemented paralleling experiences indicative of flow theory and mindfulness. A review of mindfulness literature was the first step toward comparing flow and mindfulness including definitions of mindfulness, reviewing mindfulness-based interventions in education as well as mindfulness literature in music education. This literature was compared to flow theory literature from chapter two using the Inventory of Mindfulness Orientation to Flow Experience (IMOFE) tool. Nine elements from describing the flow experience from Csikszentmihalyi's flow theory (Csikszentmihalyi, 1996) and eleven features of the mindfulness experience from the mindfulness phenomenological matrix (Lutz et al., 2015) were compared. Theory resulted from paralleling the experiences between flow and mindfulness phenomena and

then comparing the results with the previous two studies. The resulting theoretical construct is represented in the Flow and Mindfulness Loop: A Time Frame Sequence Cycle of Inner Experience (see figure 6.1). This construct considers the flow experience in time frames before, during, and after as associated with the PM model's mindfulness features.

The overarching impetus of all three investigations in this document was to reveal how music educators might foster students' flow experiences. These investigations targeted singers from vocal/choral formal and informal settings. Mindfulness emerged in association with singers' ability to achieve flow in studies one and two. This third comparative analysis provided a model of how mindfulness is associated with achieving flow, sustaining flow, and processing the flow experience to increase the opportunity of flow with future music encounters.

Having knowledge of how mindfulness may assist in achieving flow moments for students might be desirable for educators aiming to optimize student engagement and learning enjoyment. Most aptly put, if a "singular quality of learning environments" results in engaged students, researchers could develop a "bottled and sold" environment for which teachers and students would "line up to pay" (Cavanagh & Sharnoff, 2015, p. 134).

Ways in which a choral conductor may foster flow were revealed in study one as well as influences from mentors revealed from the single case in study two. These factors played a role in the external experience of the singers indicating

ways to influence flow. However, factors from the environment would only partly answer the research question of how to foster flow. The inner dialogue occurring before, during and after a performance may be largely responsible for attaining and retaining flow.

The inner experience is driven by multifarious connections to memory, emotion, and overall individual interpretation. A student performing music at any level and in any context may have a plethora of thoughts, including the anxiety-inducing thought, "what will happen if I mess up?" In such a case, educators only utilizing Csikszentmihalyi's balance between high challenge and skill element will fall short of fostering flow for students. An individual's thoughts and interpretation of the unfolding events are too complex. Mind wandering and ruminating eliminate the possibility of a flow experience. Csikszentmihalyi (1990) suggests, even in the case of a "flow condition" where objective circumstances "strongly influence" whether or not flow will happen, ultimately, "consciousness is still free to follow its own assessment of the case" (pp. 71-76).

Some individuals have what Csikszentmihalyi calls "control of consciousness" or the "ability to restructure consciousness" resulting in more flow experiences (Csikszentmihalyi, 1990, pp. 71-83). This is what was observed in study two when Keri processed personal and situational factors efficiently. The opposite was observed in study one where personal and situational factors forming thought in Marina's mind resulted in self-consciousness and eliminated

flow opportunities. Control over consciousness is an individual, inner skill. How might an educator guide student's thought processes in a way that would afford them autonomy of such control over consciousness? Although pedagogy tackling the individual thoughts of students seems a daunting task, this is precisely the aim of mindfulness-based interventions in education. This investigation points to incorporating mindfulness during music learning as a tool for fostering flow. The results from this third study allow for an answer to the research question of the overall investigation: How might the flow experience be fostered in vocal/choral music education settings? There are two answers to this question: a) Approaching singing as one might approach mindfulness practice may afford control over consciousness necessary to accomplish and retain flow experiences and, b) Mentors may act as agents to the flow experience by guiding students in ways described in mindfulness research. Implications for music education practices based on these results is included in the following discussion.

Discussion

Limitations

Data used for this comparative analysis was obtained from the available body of research for flow theory and mindfulness as well as from studies one and two included in this document. The participant sample size for studies one and two is not adequate to generalize results. Study three used a modified version of a qualitative comparative analysis (QCA). Although attention was given to follow

QCA methods as closely as possible, comparing two phenomena resulted in an unusual design atypical of QCA procedures. Additional research is necessary to understand and generalize across populations how these phenomena may collaborate.

Implications for Music Education Practice

Data from all three studies provided answers to the overall research question of how the flow experience might be fostered in vocal/choral music education settings: a) Approaching singing as one might approach mindfulness practice may afford control over consciousness necessary to accomplish and retain flow experiences and, b) Mentors may act as agents to the flow experience by guiding students in ways described in mindfulness research.

Data from studies one and two revealed that the participating singers' ability to have control over consciousness necessary for flow varied. Marina and Sierra from study one seemed to rely on the conductor and mentors to guide them. Sierra, the higher reported flow participant who had been in the ensemble longer than Marina, showed evidence she was developing control over consciousness. From study two, Keri, who was in her fifth year with the ensemble, was able to establish this control over consciousness on her own. The difference in the ability to control consciousness for flow related to singing experience may inform educators to scaffold for student mindset. Pedagogy focusing on student mindset for fostering flow may include boosting self-confidence and encouraging positive

self-talk. The mindfulness practice elements for these approaches are dereification and non-aversive tone. This mindful approach may guide students to assess their skills non-judgmentally and with accuracy autonomously. Csikszentmihalyi's (1997) "perceived" balance of challenge and skill required to attain flow suits such an approach (p. 30). A mindful approach, which considers singer's perceptions of challenge and skill, would be different than presenting students with a blanketed high challenge based on the conductor's assessment of the group's skills. Such an approach would have less focus on high challenge, rather presenting appropriate challenges to be positively received.

Other elements were present in the data related to focused awareness in addition to dereification and non-aversive tone elements from mindfulness research. This investigation revealed how a conductor might promote flow by insisting that singers are focused and aware during rehearsals. A flow moment was characterized by the mindfulness elements: object orientation, meta-awareness, effort(less), aperture, clarity, stability, axiom, and task-set. Focused awareness on the task-set, which was rehearsing music, appeared fostered by the conductor acting as an agent for object orientation, meta-awareness, effort, aperture, and axiom. A tool for this pedagogical approach was offered in chapter three, *Focused Awareness Ensemble Pedagogy* (FAEP). The FAEP outlines three approaches to rehearsing with the objective to promote focused awareness from singers: a) focused awareness on tasks, b) random elements within a structure, and

c) including movement with music making. See the chapter three discussion section for the full *Focused Awareness Ensemble Pedagogy* model.

Mindfulness is an educable skill, whereas research does not support flow as a skill or educable. The lack of skill-building guidance in flow literature prompted this investigation of how flow might be fostered. Using available mindfulness-based interventions developed for education may be a bridge to foster flow experiences for students. Including mindfulness as a part of a music education experience is an emerging field (Auerbach & Delport, 2018; Czajkowski & Greasley, 2015; Diaz, 2011, 2018; Diaz et al., 2020; Farnsworth-Grodd, 2012; Lavery-Thompson, 2018). Thus, bridging the gap between mindfulness and flow may be approached through existing mindfulness intervention programs. The results of this investigation indicate flow experiences may be fostered through researched mindfulness techniques.

Implications for Flow Research

This investigation of a relationship between mindfulness and flow and how this relationship might foster flow experiences offers evidence worthy of continued research. These phenomena may have a relationship relevant to education settings aiming to afford flow experiences for their students. Future research on flow may consider the inner experience at three different time intervals: before, during, and after music making. This would include formal performances as well as informal music making, such as in a rehearsal setting.

Research may want to include focusing on student mindset to achieve flow based on this investigation as well as available flow research. Csikszentmihalyi has additional lines of research that investigate other personality traits such as interested versus bored students (Hunter & Csikszentmihalyi, 2003), creativity characteristics (Csikszentmihalyi, 1996), and aspects of culture and child-rearing (Csikszentmihalyi 1975, 1990, 1993, 1996, 1997; Csikszentmihalyi & I.S. Csikszentmihalyi, 1988). His research has aimed to explore flow and ways to cultivate flow experiences in support of outcomes associated with positive psychology goals (Csikszentmihalyi, 2014b). For example, Csikszentmihalyi surmises the "opposite state from the condition of psychic entropy is optimal experience" (Csikszentmihalyi, 1990, p. 39). Optimal experience is a term he uses interchangeably with the flow experience. The present study adds to his research by suggesting that, regardless of culture or biology, flow experiences may be achieved through researched mindfulness techniques. How might we cultivate flow with mindfulness in an education setting? For this reason. Roeser's "black box" of mindfulness interventions is important for future investigations to consider (Roeser, 2016).

Implications for Mindfulness Research

This relationship may also be viewed from a different angle: How does flow enhance mindfulness? Evidence from this investigation seems to indicate a spiral-shaped path to personal growth. This is particularly evidenced when

comparing the experience of the three interviewees from both studies. These

participants were each involved with the same choir but, possibly resulting from

their experience with the ensemble, had different ways of approaching music

making. These differing approaches resulting from internal perceptions reaped

different flow results. Such conclusions are echoed in Csikszentmihalyi's research

on flow, his positions on flow and altruism, and the necessity of flow for human

evolution (Csikszentmihalyi, 1993; Csikszentmihalyi & I.S. Csikszentmihalyi,

1988). Is this a possible connection to mindful traits? The descriptions of flow

from Csikszentmihalyi's research in conjunction with the results of these studies

cause this investigator to wonder about the resembled experience of both

phenomena. If recent decades of mindfulness research had been accomplished

before Csikszentmihalyi researched flow, would flow have been positioned under

the mindfulness umbrella? Recent mindfulness research, particularly involving

mindful states and traits, may strengthen Csikszentmihalyi's research. The same

may be true for mindfulness. Thousands of accounts from flow and peak

experience research may be used to incite a deeper understanding of mindfulness.

Is flow a mindful state? If so, consider how previous flow research may

impact the ability to bring mindfulness into everyday experiences. To date,

research on mindfulness has predominantly used meditation as the testing model

of intervention (Carsley et al., 2017; Felver et al., 2016; McKeering & Hwang,

2019; Sheinman et al., 2018). Mindfulness research regarding active, everyday

experiences is limited to primarily Langer's research on novelty and stretching

context to proceed mindfully (Langer, 1989, 2009; Langer et al., 2009). The

possibility of bringing mindfulness research to everyday experience has been

raised in conjunction with flow:

> Although mindfulness-based interventions rely on meditation techniques
>
> to teach the necessary skills for evoking mindfulness, we hypothesize that
>
> this mode of awareness is not limited to meditation. Once the skills are
>
> learned, attention can be regulated to evoke mindfulness in many
>
> situations, thus allowing the student to respond skillfully to situations that
>
> provoke emotional reactions…similar constructs that might fall within the
>
> same general domain of mindfulness include flow. (Bishop et al., 2004, p.
>
> 235)

 Perhaps mindful skills can be accomplished in ways other than

meditation. Bringing mindfulness to additional "situations" may result in

obtaining mindfulness skills through active means. This would make mindfulness

more accessible to those who may not find meditating beneficial. Results from

this investigation indicate flow may allow mindful, active engagement with the

environment and without formal meditation. There may be multiple access points

to mindfulness that have yet been explored, and flow may be a key factor.

Bridging mindfulness meditation to participating in everyday experiences

mindfully through flow could have an exponential impact on individuals and

communities. Music education could have a highly influential role in such a transition, considering the relationship of flow to music making. Csikszentmihalyi posits in his speech to the American Choral Director's Association convention: "The common elements of this Flow Experience are especially clear in activities such as singing in choir…music may be one of the purest ways to get to this experience" (Gilbert, 1995, p.14). The present study has revealed an implicit role of mindfulness in these music related flow experiences. For example, while data collection from both studies aimed at investigating only the flow phenomenon in music settings, mindfulness naturally appeared in a multitude of aspects. This demonstrates a congruence between music making and mindful ways of being worth exploring.

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Appendix

Vignette from Introduction

The following vignette was based on my first memorable flow experience in a choral setting. I was performing at the Kentucky Music Educators Association conference in 1992 under the direction of Elizabeth Mears with a select high school choral ensemble, Easter Singers.

Vignette

I feel the lyrics pass through me as individual sensations, each part of the words and whole phrases riding on my breath. Tones emanating from deep inside unfold seamlessly, effortlessly outward into a dreamy space. It hardly feels like I am the one singing, it is just happening through me. Air moves in time with the music- breathe in, sing out; breath in, sing out- while the body rises and falls fluidly with a rhythmic pulse. The pulse of the music is felt throughout my body and also in concert with other singers surrounding me. We rock in unison forming a spontaneous dance of breath, body and sound. We are encompassed in a surreal bubble as the ebb and flow of our bodies is synchronized with the music. Nothing else exists but this moment of musicking. Time has been left behind. Worries and distractions hold no place in my mind. Only music making is clear as all else is forgotten in the background. Lyrics carry with them intention as I deliver the meaning of each phrase with effortless eloquence. This is it, exactly how I hoped it would be. I should be ecstatic. Instead, I feel calm and completely sure how to

deliver the song every step of the way. The song ends, my body is still, I hold my

breath and savor the moment in wonderment. My fellow choir members and I

look at one another with wide eyes and growing smiles for affirmation that

something special really happened. Did I imagine it? I felt something magical. A

feeling I want to feel again and again.

Figure 2.1

The Quality of Experience Resulting from the Perception of Challenge and Skill
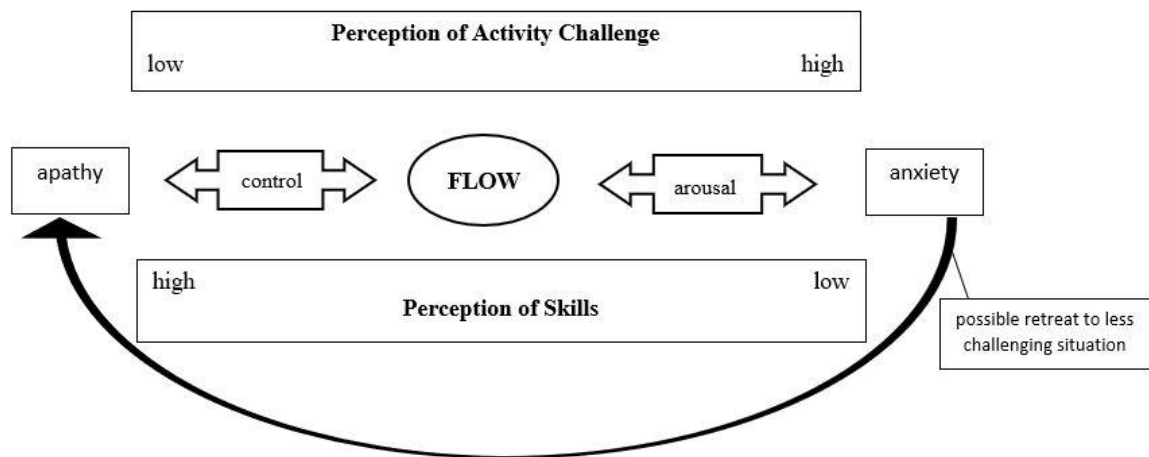
Note. The model represents the perceived challenge and skill balance as described

by Csikszentmihalyi (1997, pp. 30-33). Flow is possible when the condition of

balance exists between the perceived challenge and one's perceived skill. The

perception of high challenge and low skill may result in "anxiety" while the

perception of low challenge and high skill may result in "apathy." A state of

"arousal" or "control" may be pulled toward flow or away from flow into "anxiety" or "apathy" respectively.   If anxiety is too difficult with which to cope, a retreat to apathy may occur.

Study One, Self-Reporting Flow Instrument

Note: The following is an abbreviated version of the instrument used in study one including edits to eliminate possible identifiers. Features pertinent to study one remain intact.

There were five versions of the song packets with which data was collected. This first cover page was attached to a packet of songs possible for each rehearsal where data was collected. Each new version of song selections possible for each rehearsal over the course of five rehearsals was attached to this original cover. Songs were added and removed over the course of the study resulting from conductor repertoire decisions. Examples of the song pages for flow indication follow this cover page.

Self-Reporting Flow Instrument

Characteristics of FLOW: The state of being so involved in an activity that nothing else seems to matter; the task is the reward in itself; sense of mastery of the task; exhilaration; deep enjoyment; acute awareness. (Csikszentmihalyi, 1990)

Please take a moment to record when you have a flow experience during this ensemble's rehearsal. After the rehearsal of the song during which you HAD the flow experience, do the following:

1. Find the song on the sheet.
2. Check "YES, I experienced a moment of flow"
3. Optional: write a brief description of your experience (1 word is enough or you may write more)
4. If the answer is NO, you did not have a flow experience for that song, do not write anything. Leave the song blank.

- **Find the song on the sheet.**
- **Check "YES, I experienced a moment of flow"**
- **Optional: write a brief description of your experience (1 word is enough or you may write more)**
- **If the answer is NO, you did not have a flow experience for that song, do not write anything. Leave the song blank**

1) *I Dream a World*: Did you have a flow experience today?
   If the answer is YES: Please check "YES" below and you may also

   write a descriptive word to describe the experience you had.

To be filled by Val Flamini

ID # _____

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If the answer is NO: Do not write anything.

○ YES, I experienced a moment of flow

*Descriptive word(s) for your experience (optional)

_____

2) *Take Me to the Water*: Did you have a flow experience today?
   If the answer is YES: Please check "YES" below and you may also

write a descriptive word to describe the experience you had.

If the answer is NO: Do not write anything.

○ YES, I experienced a moment of flow

*Descriptive word(s) for your experience (optional)

_____

3) *Tchaka*: Did you have a flow experience today?
   If the answer is YES: Please check "YES" below and you may also

write a descriptive word to describe the experience you had.

If the answer is NO: Do not write anything.

○ YES, I experienced a moment of flow

*Descriptive word(s) for your experience (optional)

_____

To be filled by Val Flamini
ID # _____
M/D/Y _____

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4) *Te Deum*: Did you have a flow experience today?

        If the answer is YES: Please check "YES" below and you may also

write a descriptive word to describe the experience you had.

        If the answer is NO: Do not write anything.

○ YES, I experienced a moment of flow

*Descriptive word(s) for your experience (optional)

_____

5) OTHER, print name of song- _____: Did you have a flow experience today?

        If the answer is YES: Please check "YES" below and you may also

write a descriptive word to describe the experience you had.

        If the answer is NO: Do not write anything.

○ YES, I experienced a moment of flow

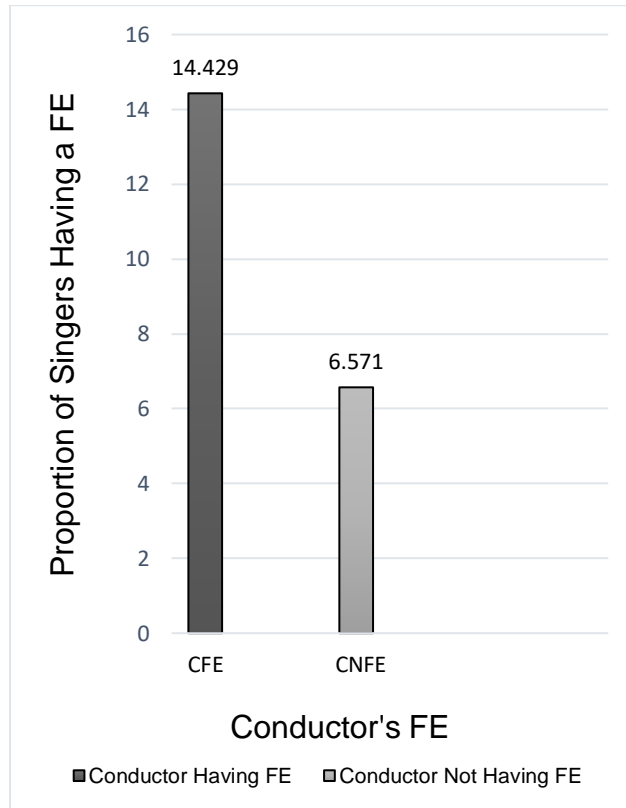*Descriptive word(s) for your experience (optional)

_____

To be filled by Val Flamini
ID # _____
M/D/Y _____

Figure 3.1

*Difference of Proportions Analysis Between Conductor FE and Singers' FE*

Note. Flow Experience (FE); conductor having a flow experience (CFE);

conductor not having a flow experience (CNFE). The figure represents a

relationship between when the conductor experiences flow and when the singers

experience flow. The increase of reported flow from the singers coincided with

when the conductor experienced flow as well as decrease from the singers when

the conductor did not experience flow. When the conductor experienced flow,

14% of the singers also experienced flow and when the conductor did not

experience flow, 6.6% of the singers experienced flow. A 7.858% increase was

reported from singers when the conductor also experienced flow.

Figure 3.2

Proportion of Flow Experience Across 23 Songs Rehearsed
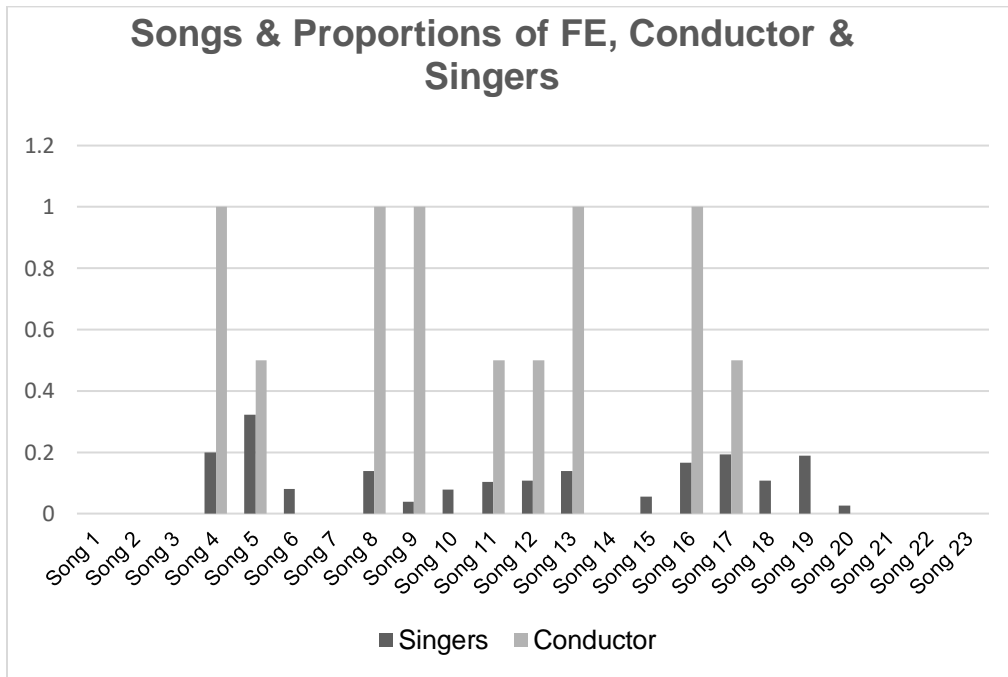
Note. The discrepancy between conductor's and singers' FE is a result of songs

rehearsed varied amounts (1-4 times) and FE data from one conductor compared
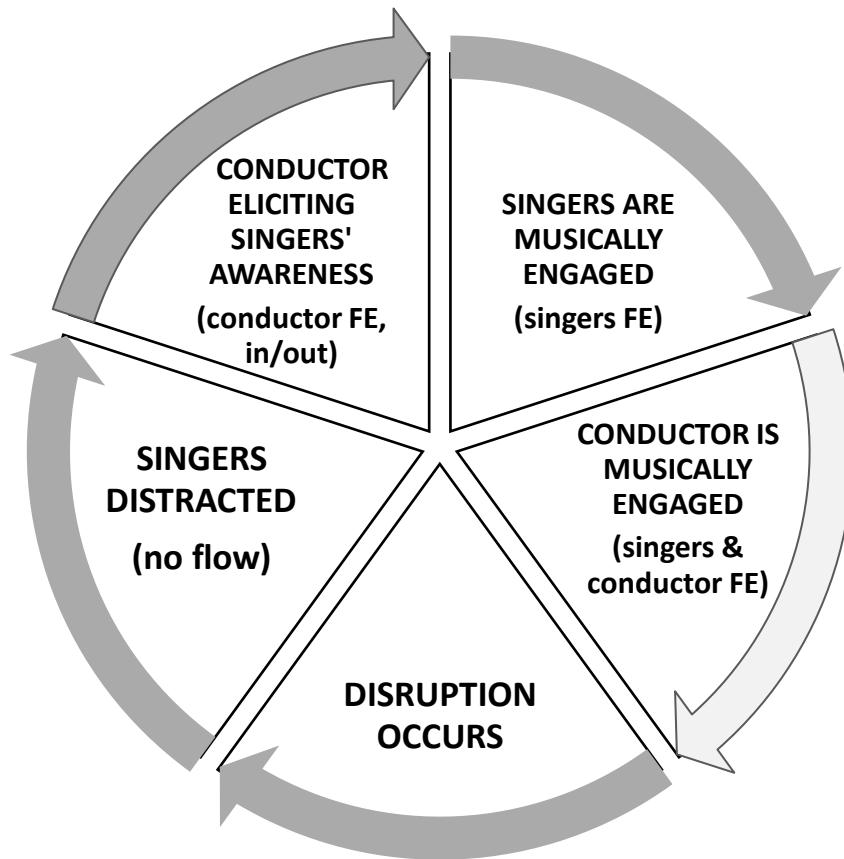
to multiple singers.

Figure 3.3

Sieve Construct of Choral Flow Themes Framed in Repertoire
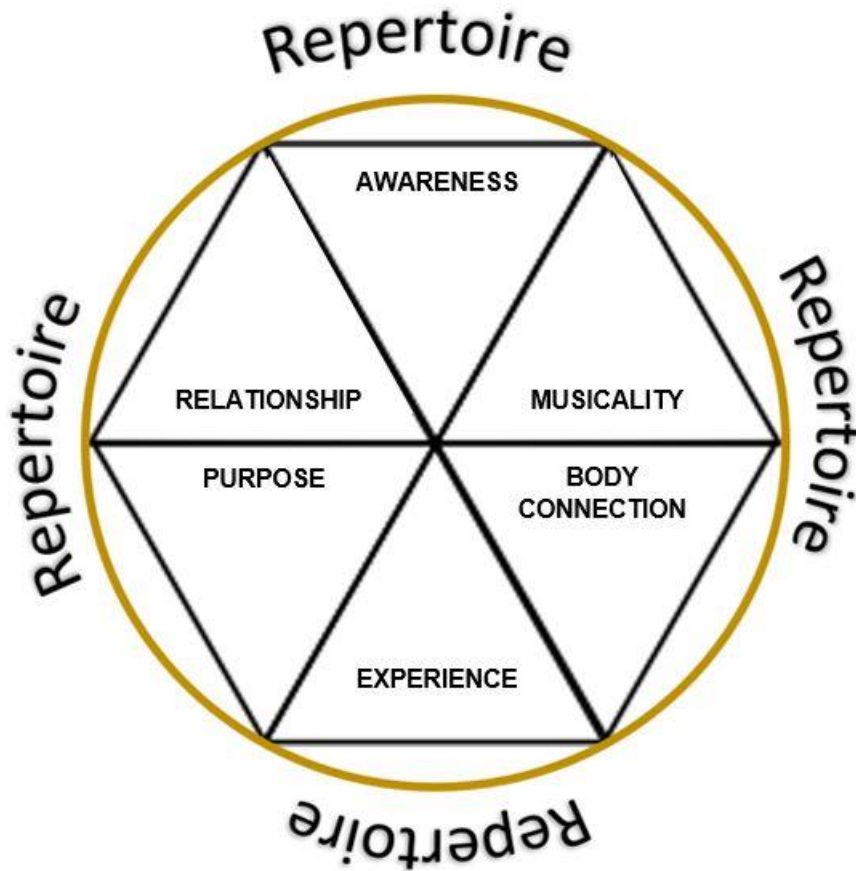
Note. The figure represents the themes and their unanimous relation to repertoire that emerged from qualitative data collection.

Figure 3.4

Loop of Conductor and Singers' Flow Experience During Rehearsal

CONDUCTOR ELICITING SINGERS' AWARENESS
(conductor FE, in/out)

SINGERS ARE MUSICALLY ENGAGED
(singers FE)

CONDUCTOR IS MUSICALLY ENGAGED
(singers & conductor FE)

DISRUPTION OCCURS

SINGERS DISTRACTED
(no flow)

Note. The figure represents a loop of shifting flow experiences (FE) for both the conductor and singers during a choral rehearsal. A rehearsal started with the "CONDUCTOR ELICITING SINGERS' AWARENESS." The arrows represent causality and time: darker arrows represent time passing and causality; the lighter arrow represents only time passing until the FE is disturbed by some kind of disruption.

Focused Awareness Ensemble Pedagogy

I offer the following summary of pedagogy techniques from study one data analysis to bridge research to practice.

- Focused awareness on the task: The conductor insists on singers' attention by regularly reminding them to "be present mentally and physically" during rehearsal. This concept corresponds with the fifth dimension in Csikszentmihalyi's flow theory, *distractions are excluded from consciousness*: "Flow is a result of intense concentration on the present, which relieves us of the usual fears that cause depression and anxiety in life" (Csikszentmihalyi, 1996, p. 112).

- Random elements within a structure: There is a rehearsal structure that is reoccurring to which singers may feel grounded. However, within the structure, there was a lack of predictability. This made it necessary for singers to stay aware to know what to do, where to go or how to sing. As a result, students did not habituate to the rehearsal structure. Examples from this study include the changing of breath markings, musical expression or tempo. One of the "most mentioned features" of flow from Csikszentmihalyi's data is a sense of "discovery," finding "something new" about the "possibilities of interacting with the many opportunities of action that the environment offers" (Csikszentmihalyi, 1993, p. 177). The

conductor's method of unpredictability provided these moments of

discovery and the challenge of interacting with the changes in the moment.

- Movement: Choral singing in this participating ensemble involves intense

   attention on text articulation and movement as a singing ensemble. The

   challenge of articulation and movement, in addition to the typical

   challenges in choral singing, made it very difficult to focus on anything

   other than these music goals. This affords Csikszentmihalyi's dimensions

   of flow, a*ction, and awareness are merged* and *clear goals every step of*

   the way, as music engulfs the present moment experience expressed

   mentally and physically in coordination with others (Csikszentmihalyi,

   1996, p. 111).

Table 4.1

Data Source Timetable for Study Two

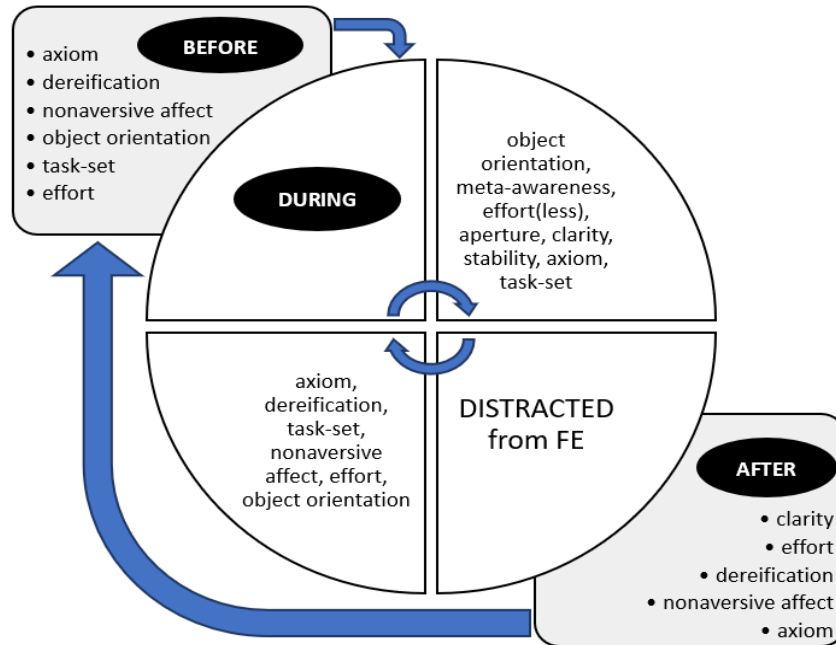| Month	Data collected from Keri	Data collected by investigator
1	Social media Websites & video	Field notes

2	Interview one
	    Journals
	    Social media
	    Websites & video
		Field notes
		    Social media
		    Websites & video

3	Journals
	    Social media
	    Websites & video
		Field notes
		    Social media
		    Websites & video

4	Journals
	    Social media
	    Websites & video
		Field notes
		    Social media
		    Websites & video

5	Social Media
	    Websites & video
		Field notes
		    Social media
		    Websites & video

6	Interview two
	    Social media
	    Websites & video
		Social media
		    Websites & video

Study Two, Mind Map

Higher Order Categories in Relation to Central Phenomenon

Figure 6.1

Flow and Mindfulness Loop: A Time Frame Sequence Cycle of Inner Experience

Note. The figure represents an association between mindfulness and the flow experience (FE) as delineated by time. **C**oncepts from studies one and two have been streamlined into elements from the Phenomenological Matrix (PM) mindfulness model examined in study three. BEFORE = before a flow experience; DURING = during a flow experience; AFTER = after a flow experience. Descriptions within the sections are mindfulness experience elements from the PM model. The "DURING" portion of the figure is divided into sections: During the FE, elements from the PM described in the upper right quadrant are being experienced; when a FE was interrupted by a distraction, elements from the

PM described in the lower left quadrant were utilized to return to a FE. After a

FE, the listed PM elements occurred and informed future flow as indicated by the

larger arrow looping back to "BEFORE" a FE.

Table 6.1

Inventory of Mindfulness Orientation to Flow Experience

Model	Elements of experience	M(q)	FE(q)
	Orthogonal dimensions		
PM	Object orientation	y	y
PM	Dereification	y	y(b,a)
PM	Meta-awareness	y	y
	Features of experience		
PM	Aperture	y	y
PM	Clarity	y	y
PM	Stability	y	y
PM	Effort	y	y(b,a)
FE	Immediate feedback	y	y
FE	Action & awareness merge	y(s)	y
FE	No worry of failure	y(s)	y
FE	Distractions excluded	y(s)	y
FE	Self-consciousness disappears	y(s)	y
FE	Time distorted	n	y
FE	Activity becomes autotelic	n	y
	Contextual features		
PM	Posture	y	n
PM	Non-aversive affect	y	n(b,a)
PM	Axiological framework	y	y
PM & FE	Task-set maintenance & retention/clear goals	y	y
FE	Challenge-skill balance	y(s)	y

Note. PM- Phenomenological Matrix (Lutz et al., 2015); M- Mindfulness; FE-

Flow Experience (Csikszentmihalyi, 1996); q- qualifier (s- mindful *state*; b-before

FE, a-after FE).

Curriculum Vitae
Valerie Ann Flamini

Profession Preparation

    The Pennsylvania State University, Ph.D. in Music Education, August 2020

    The Pennsylvania State University, Master of Music Education, May 2016

    Georgia Southern University, Bachelor of Music, Music Education, June 1998

University Teaching Experience

    Pennsylvania State University, University Park, 2018-present

        College of Arts and Architecture e-Learning Institute

            Interdisciplinary Course Co-Author & Instructor

    Pennsylvania State University, University Park, 2015-2020

        The School of Music

            Music Education Courses, Instructor, 2017-2020

            Student Teacher Supervisor, 2017-2020

            Essence of Joy, Choral Ensemble Internship, 2016

            Music Education Courses, Teaching Assistant, 2015-2018

Public School/Community Experience

    Susquehanna Valley Youth Chorale: Lewisburg, PA, 2008-2018

        Camp eXpresso! Expressive Singing Camp Director, 2013-2018

        Community Youth Chorale Director & Conductor, 2008-2016

    Studio Voice Instructor: Selinsgrove, PA, 2010-2013

    Sardis-Girard-Alexander Elementary: Sardis, GA, 2004-2008

        General Music Teacher

    Thomson High School**:** Thomson, GA, 2000-2004

        Secondary Choral, Musical Theatre and General Music Teacher

    Southeast Bulloch & Statesboro High School: Statesboro, GA, 1998-2000

        Secondary Choral Music Teacher

Peer-reviewed Presentations

Optimal experience in the choral setting: Examining flow experience events between choral ensemble members and choral conductor

        Symposium on Research in Choral Singing. Evanston, IL, 2018 (poster)

        The Pennsylvania Music Educators annual conference. Lancaster, PA, 2018 (poster)

        NAfME Music Research and Teacher Education national conference. Atlanta, GA, 2018 (poster)

        Thompson Symposium. University Park, PA, May 2017 (poster)

        Big Ten Academic Alliance for Music Educators. Bloomington, IN, 2017 (poster)

Fostering the creative process in a choral setting

        Big Ten Academic Alliance for Music Educators. College Park, MD, 2016 (poster)

        The Pennsylvania Music Educators, annual conference. Hershey, PA, 2016 (poster)

Strategies for engaging children in the music classroom

        Big Ten Academic Alliance for Music Educators. Evanston, IL, 2015 (poster)

Presentations

Mindfulness in the choral classroom: What, when and how?

        National Association for Music Educators Conference. Dallas, TX, 2018

        District 11 PMEA, annual conference, Special Invitation. Montgomery County, PA, 2018

        The Pennsylvania Music Educators, annual conference. Lancaster, PA, 2018

Mindfulness for leadership

        Dream It, Be It: Career Support for Girls, conference. Special invitation, Selinsgrove, PA, 2018

Awards

    American Red Cross Community Impact in Arts and Music Hero of Snyder, Union and Northumberland Counties, 2014

    Teacher of the Year, Sardis-Girard-Alexander Elementary, 2008