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SINGING VOICES: A DIGITAL ARTS-BASED EXPLORATION OF RECORDING AND
VISUALIZING COMBINED VOCAL PARTS

A DISSERTATION

submitted by

CHRISTINA LEE

In partial fulfillment of the requirements
for the degree of
Doctor of Philosophy

LESLEY UNIVERSITY
May 2022



Graduate School of Arts & Social Sciences
Ph.D. in Expressive Therapies Program

DISSERTATION APPROVAL FORM

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Approvals

In the judgment of the following signatories, this Dissertation meets the academic standards that have been established for the Doctor of Philosophy degree.

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SIGNED: *Christina Lee*

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Abstract

The purpose of this research study was to gain insight through the process of recording and visualizing voices singing together using digital technology. Three female adults and one male adult between the ages of 23-90, used various modes of artistic expression such as singing, free-writing, artmaking, songwriting, and music composition. Emphasis was placed on each participant recording and examining the aesthetic qualities of their combined voice parts. The questions that helped to guide this arts-based inquiry were: 1) How can digital technology be utilized to bring various vocal aspects of oneself together? 2) What are the impacts of visualizing a digital collage of one's own recorded voices? and, 3) How can the combination of digital technology and one's own recorded voices coming together inform, affirm, and support the various aspects of oneself? The central findings from this research included: using a focal point to build trust, awareness through visualizing self, and the importance of honest expression.

Keywords: arts-based research, digital technology, music therapy, songwriting, singing, expressive therapies

CHAPTER 1

Introduction

This study was conceptualized from a personal journey of finding peace within myself through the process of recording, visualizing, and reflecting on my own voices using digital technology. As a first-generation Korean American woman raised by immigrant parents, the importance of maintaining values dedicated to collectivist beliefs has always prevented me from challenging my upbringing. Religion, family dynamics, and the Confucian traditions passed down from generation to generation were all adhered to out of respect for elders.

When I began my doctoral journey in 2015, I started to question some of the values I was brought up with. Traditions and beliefs I never thought to challenge as a child began to clash with the way I started to view the world as an inquisitive adult, and this started to cause inner conflict. Except for the most fundamental core values in my family, such as having compassion for others or having determination and grit, I had trouble accepting many of the traditions passed down from my parents. Thus, I began a difficult journey of self-discovery.

What I imagined would have been a liberating time of exploration became the most turbulent few years of my life. I was overcome with shame, confusion, and guilt for questioning the values I was taught to follow. These feelings eventually overshadowed other areas of my life, especially my career as a musician. Anytime I sat down in front of the piano to practice or to sing, I felt as though I was mourning the loss of someone I loved. I felt an indescribable sadness and an overwhelming sense of loss. Instead of using

these feelings as cues to delve into what was happening internally, I decided to take an indefinite hiatus from music.

Eventually I accepted the responsibility to complete my own inner work. I understood that contributing something meaningful to my community through my work as a clinician would require a painful vulnerability to myself, first, and self-inquiry was a necessary component in developing a system of awareness and discovery for others.

A pilot study explored the shift in beliefs and values tied to my identity. During the self-inquiry, various forms of artistic expression were used to gather information. For example, free writing was used in tandem with unedited photos taken throughout my neighborhood. A journal was kept logging vivid dreams while visual art pieces were created to help process some of the ongoing themes from my dreams. The various art forms paved the way for discovery and this multi-layered process of inquiry continued for many months before I finally wrote lyrics for a song in C-Major recorded in four-part harmony (https://youtu.be/f5GOP_8W_dw). The recording was a tangible way to respond to the aesthetic journey I have taken (See Figure 1).

Figure 1

Digitally edited collage of singing voices



The song was initially composed and recorded using piano and voice, however, the composition felt incomplete after hearing it played back. Rather than adding instruments, I decided to remove the piano instrumental and record the song again acapella. I arranged additional vocal harmonies to replace the piano instrumental, and chose to have each of the harmonic voices represent various professional and personal roles I play in my day-to-day life. When each voice was recorded, they were placed in a digital collage and synchronized through an Apple iOS application Acapella.

Support System of Musical Voices

The visual recording was viewed repeatedly over many months. I was interested in knowing what the impacts would be from the continuous playback of the visual recording. Furthermore, I was curious to know what empirical knowledge could be

gained from the recording's aesthetics, the musical lyrics, and chord structure.

Continuous playback of voices provided the realization that I had brought together within one recording, all of the various roles I play in life. As suggested by McClary (2007), the physical act of making music has the potential for unadulterated expression which can be used to express the inexpressible. As I engaged with the recording, I witnessed the characters aesthetically working together, vocally and harmonically, in the creation of an internalized support system. I was able to embrace the various representations of myself coming together, and ultimately found wholeness through encountering symbolic representations of myself through voices and images. This contributed to the notion that moving past creative blocks may at times, require an individual to engage with their own work to receive necessary support (Kenny, 2006; McClary, 2007; Weiser, 2001).

Multi-Sensory System of Inquiry

Using arts-based inquiry for this study provided a roadmap, making clear, the relationship between the creator and creation. When visualizing the voices in their various roles, it helped me understand that one is made whole by acknowledging the synchronicity that exists between the characters. Through digital technology, I was able to create a recording showing the voices that reside within me come together simultaneously. The music and all of its components including harmonies, lyrics, and tempo; were all from within me, to me, and for me. The decision to remove instrumentals and use my voice to create the chords of the song in the final recording, gave more focus on the voices as a support system.

While emphasis was placed on recording and visualizing voices for exploration, the study suggested that a multi-layered system of expression was necessary for reaching

the essence of this study. The resistance I had towards music made it difficult to confront my feelings through music. The parts of myself that identified as a perfectionist needed to utilize other art forms for expression. This arts-based approach (McNiff, 1998a) which included various artistic disciplines, allowed for there to be a relaxed yet deeper exploration of self before creating the recording.

Purpose of Study

After spending time creating a system of inquiry that helped me explore my difficulties, I wanted to know how others may experience visualizing their voices singing together. It was my desire to create a method of understanding for others through artistic expression using digital technology (McNiff, 2011). How can digital technology be used to bring voices together which can then be used as a means of reflection and exploration? What kind of response would I receive from both professional and non-professional musicians? These were some of the questions that helped in the process of expanding and refining the research. It was designed for participants to complete within 4-6 weeks. Volunteers from different walks of life who may or may not have had prior musical training were welcome to participate in the process of recording and reflecting on their own visual recordings. The study was adapted virtually in November 2020 due to health and safety concerns regarding Covid-19.

The following questions were the central focus of this study: 1) How can digital technology be utilized to bring various vocal aspects of oneself together? 2) What are the impacts of visualizing multiple voices singing together through digital technology? 3) How can the combination of digital technology and voices singing together inform, affirm, and support the various aspects of oneself?

CHAPTER 2

Literature Review

This literature review offers a cross-examination of existing works as they relate to the experience of digitally recording and visualizing one's own voices singing together. Before delving into the literature, a summary of the author's pilot study provides context and rationale for the current research. Segments of this chapter also review specific areas related to the current study including: (1) arts-based research, (2) digital technology within clinical practice, (3) role of music within clinical practice, (4) the voice as a primary instrument and, (5) songwriting.

Pilot Research

Emphasizing the process of artistic inquiry, a pilot study utilized various art forms such as photography, free-writing, visual art, and music to confront the researcher's resistance to performing music (Allen, 1995). The self-inquiry involved several phases, which took place throughout the span of one year. Scenes and/or objects in New York City were captured on camera, and minimal enhancements were made during the development process. Horovitz (2001) highlighted the use of images within her phototherapy work, suggesting that the use of photographs can assist with exploring one's own issues, and trigger one's feeling state. In working with her clients, roleplay through video production, Polaroid transfer, scripting, and digital self-images, have been used with individuals for the purpose of introspection and revealing information to work through issues.

The photos from my own pilot study provided stimulus for free-writing and fictional stories. After the stories were written, there was another period of reflection and

response through visual art, which was in response to the feelings that emerged from both the stories and the photographs. As a culminating response to the aesthetic process, a collage of individually recorded voice parts singing together was created using digital technology. Recording and visualization became the emphasis of my pilot study, and there was a focus on gaining empirical knowledge through aesthetic components of the recording including song lyrics, character representation, musical structure, vocal tone, and harmonic arrangement. It was through this specific inquiry that dormant expressions were illuminated and brought to the forefront to be used as empirical knowledge.

Arts-Based Research

A systematic inquiry which involves the researcher and participants in direct art-making, is the basic foundation of arts-based research (McNiff, 1998a; McNiff, 1998b; McNiff, 2013). With the belief that the arts can be engaged as a way of knowing, in arts-based research, questions are addressed holistically by utilizing tenets of the creative arts (Leavy, 2018; McNiff, 2018). A parallel can be found between the arts and sciences, as they both seek to comprehend the human condition and advance understanding through exploration (Leavy, 2009). As creative expression is used to bring forth what already exists within (McNiff, 2011), all forms of artistic expression, can be used as a gateway to access conscious ideas and emotions (Greenwood, 2012). Through this mode of inquiry, one's aesthetic process "opens up a space in which both the world and our being in the world is brought to light as single, but inexhaustibly rich totality" (Kossak, 2012, p. 22).

From the several hundreds of studies available on the use of arts as a primary role within the research method, a few select studies will be reviewed as a way to illustrate the use of arts-based research. In Hedlund's (2020) study, art-based research was used by the

participants and the researcher to explore slow, gentle, and repetitive movements using acrylic paints on canvas. Participants utilized a GoPro camera during their exploration, and edited footage from their process enabled participants to witness their own expressions. Through this process, participants felt increased connection to the present moment and increased connection to self, and the inclusion of edited footage welcomed thoughts, reflections, and made room for further personal discovery. Additionally, witnessing and being witnessed were also significant roles, which deepened the inquiry.

In three separate case studies by Greenwood (2012), art-based processes facilitated self-analysis and self-definition for different groups of participants. A group of indigenous, second-generation Maori teachers in a language immersion program in New Zealand, a group of Roma adolescents living in a rural Czech Village, and Bangladeshi educators in a post-graduate program in New Zealand, used drama, improvised play, and physical images to examine perceptions of their experience and of their learning. Participants were able to address cultural issues through drama, use applied theatre to engage with various perspectives, and created physical images to investigate experiences as international students.

In Ito's (2021) art-based study, the connection between aesthetic expression and *tanden* contemplative breathing was explored with participants. With her research addressing the influence of contemplative breathing on artistic expression, Ito found that this method of breathing assisted with participants' attunement of mind and body. Participants also demonstrated the relationship between their contemplative breathing practice and their artwork, which showed qualities of spontaneous, rhythmic, and bold bodily movements.

When words fail to convey one's experiences, aesthetic expression is used as a means of communication and to bring forth thoughts to be investigated (Malchiodi, 2018). As creativity is directly engaged, not only does it help us understand ourselves, but the expressions may also have an impact on others by depicting something universal (Kossak, 2021). Aesthetic expression also provides individuals the freedom to create in a natural, and organic way. Rather than focusing on perfecting technique, one becomes mindful of bodily sensations and visceral responses from using different forms of aesthetic expression, all of which can be used for gaining understanding (McNiff, 2018).

Digital Technology Within Clinical Practice

Clements-Cortes (2013) postulated that there are increasing possibilities for technology applications within clinical practice as digital media continues to play a larger role in everyday life. Recent works have shown the integration of digital media within various fields. Gustavvson and MacEachron (2015) posited that youth within foster care may use the internet for various social networking sites to enhance social engagement and interaction. Social interaction through the internet was viewed to provide opportunities for youth to express their thoughts and even share their own creative work with others. The authors also suggested that technology may be used to enhance positive behaviors. By utilizing the internet, youth may benefit from having digital access to resources for education, health, and employment.

When applied to the field of creative arts therapies, digital technology provides innovative tools for various populations to enhance the artistic process, and accessibility for those who may not be able to benefit from conventional methods due to complex needs (Magee, 2006). Video documentation, digital artmaking, recording music, and the

use of electronic music instruments, are just a few examples of how digital mediums can be used for creative expression (Malchiodi, 2000; McNiff, 1999; Thong, 2007; Viega, 2013; Weiser, 2015).

Filmmaking in Art-Based Research

In a study by Miller (2020), an art-based research design was implemented to guide her study of using the *one-canvas method*. In this unique approach, one surface is used for art-making over time, and both the covered images and final work by the creator are equally substantial in the process of discovery. The participants of Miller's study explored artistic expressions utilizing a GoPro camera with head strap mount. A digital camcorder as well as an iPhone were also used to capture footage and still images of participants. The participants in her study were able to use encounters of their work and the process of artmaking for deep self-reflection. The use of digital media in conjunction with their artistic experience, enhanced participants' memory and assisted with gaining new insight.

In another study highlighting the use of filmmaking within arts-based research, Ruzany (2022) incorporated *embodied digital storytelling* within her study of ancestral legacy with a diverse group of dancers. This collaborative and non-hierarchical approach grounded in indigenous and post phenomenological research methods, focused on embodied inquiry to honor one's ancestors, ancestral land, and community by using dance and technology. In Ruzany's research, participants first developed a dance choreography through a movement-based gestalt dialogue with the ancestor of their choice. The participants then recorded their choreography in an environment which supported connection to their ancestor. After, the recording was edited by the researcher,

each participant created a narrative to match what they saw in the footage. The film fostered open dialogue regarding their experience, and provided an opportunity for participants to share thoughts around the method. The participants reported that embodied digital storytelling helped them to engage in emotions and unlock their creativity within the process of connecting to ancestors. Furthermore, the use of digital storytelling and dance produced themes including ancestral support, transgenerational trauma and resilience, identity through one's ancestral artifacts and name, place attachment, home, and culture.

Digital Technology in Music Therapy

There are opportunities for enhanced musical expression through the incorporation of digital applications in music therapy (Knight, 2013). Technology also provides greater diversity of available tools, which can improve the therapist's work with clients (Magee & Burland, 2008). The basis for using recording during music therapy is found in earlier works by Priestley (1975), who valued the playback of recorded improvisations to experience new perspectives. In recent times, digital music recording software, adapted musical instruments, electronic music instruments, assistive technology, and computer applications, have all been used within music therapy for various client groups (Crowe & Rio, 2004).

In one case vignette (Jonassen, 2019), an adolescent with a long history of mental health issues, was able to use musical applications on an iPad to make musical expressions using sampled beats and distorted sounds. Through the digital applications, the client was able to create a personal piece of music which increased the musical relationship, and assisted with meeting therapeutic goals.

Correa et al. (2009) conducted a study to examine the potential use of an augmented reality musical system for music therapy. Augmented reality techniques were developed within this system to include music composition and creation activities, as well as games incorporating sound and color. After evaluating the use of the system with a music therapist, the music therapist used a methodical approach in using the same music system with a child with cerebral palsy. The results from working with the patient showed that this system could stimulate musicality and assist with therapeutic interventions relating to cognition and motor skills.

Game technology is yet another way therapists have incorporated digital technology into music therapy sessions. Benveniste et al. (2009) used the “Wii” game system in a group setting for children with behavioral disorders. Selecting virtual instruments to play together as a group was shown to be highly motivating for the children. Additionally, the use of digital instruments enabled children to play more skillfully than they would if they were to use acoustic instruments, thus producing more refined-sounding music. Furthermore, using this technology also promoted focus, socialization, and patience.

Role of Music Within Clinical Practice

Music has been used to alleviate illness and contribute to the healing of people for thousands of years (Bunt & Stige, 2014). Whether verbal or nonverbal, music allows the listener to experience a range of feelings, and helps with communicating difficult or charged emotions (Beer & Birnbaum, 2019). Within music therapy, the use of music and musical interventions have been shown to treat people with a variety of needs. Music therapy can assist clients in their self-discovery (Montello, 2002) and wellbeing (Hanser,

2016), building rapport, and establishing connections with others (Eyre, 2011; Solli, Rolvsjord, & Borg, 2013).

Music to Nurture Introspection and Self-Awareness

In considering the role of music within music therapy, Lawendowski and Bieleninik (2017) stated that music therapy offers clients a unique opportunity to reflect on their understanding of themselves, and to cultivate new expressions of self-identity. Furthermore, music-based interventions may guide the development of self-esteem and personal identity (MacDonald, Hargreaves, & Miell, 2017). Amir (2011), suggested that clients' knowledge of themselves and others may be achieved through the use of *Musical Presentation*. In this approach, clients/students create a personal musical collage by choosing songs according to their importance and meaning. The music pieces are then placed in strategic order, compiled onto one CD, and presented in a music therapy group.

In a case vignette by Amir (2011), musical presentation was utilized in a music therapy group comprised of music therapy students of Bar Ilan University in Israel. One of the group member's musical collage included songs that were sung to her by her mother during childhood as well as Beethoven's "Für Elise," which was the first song she played on the piano in front of her friends and family. Verdi's "Requiem" was also added to represent the sudden death of her brother, and in desiring to portray her optimistic side, the member ended the list with Elvis Presley's "If I Can Dream."

After presenting the music collection to the group, one group member shared that she was moved by the lullaby and Für Elise, which was a song that she also played on the piano as a child. The member continued to share that the music and the order the songs were played in, communicated to her that Daniella had a happy upbringing but something

tragic happened along the way. Another member reported feeling joy at the beginning of the presentation, feeling deep sadness later into the musical presentation, and optimism towards the end.

For both the presenter and group members, the selection and presentation of songs provided opportunities for introspection and gaining self-awareness. In this case, the presenter gained a better understanding of herself through open discussion of the music, including personal feelings about the playlist, and others' interpretations of the songs. The music also presented an opportunity to openly share and work out personal issues.

Music as a Transformational Tool

In her work with adults, Montello (2003) discovered that people have the inherent ability to tap into a source of healing through their engagement with music. Montello named this source, *Essential Musical Intelligence (EMI)*, describing it as the natural capacity to use music and sound as tools for self-reflecting and transformation. Based on Montello's framework of EMI, it is proposed that music can be used to reveal our inner lives, and we can better understand ourselves and others as a result of experiencing the deeper meaning of the music in our lives.

Validating the use of music for transformation, Vaudreuil et al. (2019), discussed the use of music in music therapy with military service members. In one case vignette, a male Staff Sergeant in the United States Marine Corps who was diagnosed with post-traumatic stress disorder and mild traumatic brain injury; attended weekly music therapy sessions at a military medical center in Maryland. Active music-making, lyric analysis, songwriting, and music performance were used in guiding the process of positively reframing the client's self-perception, as well as reflecting on his military service. When

reflecting on his music therapy experience, the client shared that performing music for others reduced his feelings of isolation. The client was also able to use songwriting to positively reframe his thoughts and use lyrics to reflect his transformation in recovery.

A study by Jacobsen et al. (2014), also corroborated the use of music as a transformational tool. Their randomized control trial study investigated the effects of a dyadic music therapy intervention between parent and child at a residential family care center in Denmark. Eighteen dyads comprised of parent and child were assigned at random to receive either ten weekly music therapy sessions with a music therapist (n=9) or treatment as usual (n=9). The eligibility criteria were: (a) children who were five to twelve years old with no significant developmental challenges or diagnoses; (b) parents who exhibited signs of emotional neglect based on reports by social services; (c) no history of previous music therapy treatment for parent or child; (d) parents with minor concerns such as stress or mild depression; (e) parents who were receiving other forms of therapy at the time of recruitment were excluded from the study; (f) parents with reported substance misuse were excluded from participating in the study.

A combination of a client-centered and therapist-directed music therapy approach was used for the experiential group. During client-centered activities, the family dyad's desires, expressions, and preferences were considered, while the therapist-directed activities centered on interaction-based foci from the therapist. In addition to facilitating the dyad relation, the music therapist also served as a role model who showed the parent how to interact with their children through various music improvisation activities. By doing so, the parent was able to model appropriate interaction with their child within the music experience. When the therapist felt as though guidance was no longer needed

within the music intervention, the parent and child were encouraged to continue interacting on their own, thus supporting a stronger emotional connection and bond between parent and child. Through this study, Jacobsen et al. (2014) found that mutual attunement and nonverbal communication were significantly improved between parent and child. Moreover, parents who participated in dyadic music therapy reported feeling less stressed by their child's mood, and were able to better communicate to, and understand their children.

The use of music for transformation is also found in a qualitative study examining the lived experiences of music therapists working with actively dying patients (Economos, 2018). Through semi-structured interviews with four music therapists (2 females, 2 males), Economos sought to understand the personal experiences of music therapists who worked with actively dying patients in hospice care. In analyzing the data from all four participants, one of the themes that emerged was the possibility for music therapy to transform the experience of dying, for both clients and their families. For example, one music therapist shared that in his experience, providing music therapy to patients who were actively dying had a positive effect on their remaining hours. Another music therapist shared that a client died almost as soon as she was taken off medication, but the family was not completely aware of this as they were all embraced within the music.

Music to Promote Connection

In clinical settings, music has been the vehicle for enhanced social connection (Bronson & Bradt, 2018) and interaction with others (Irle & Lovell, 2014). Additionally, there is a sense of togetherness and warmth experienced from being a part of a group

music-making experience (Bunt & Stige, 2014). In a study gauging the music therapy experiences of 14 adolescents in an inpatient setting (Rosado, 2019), connection was found to be a common theme. One participant shared that the music helped to connect her to the group without talking to them; others in the study reported music to be helpful in fostering positive connections.

Pothoulaki et al. (2012) conducted a six-week exploratory investigation of nine cancer patients, who participated in an improvisational music therapy program at a hospice in Glasgow, Scotland. The patients were recruited based on the criteria that they were not at the terminal stage of cancer, and could participate in the full length of the study. The group met twice a week with the therapist for one hour, and the sessions focused on musical improvisation and activities that helped with communication, free expression, and group interaction.

From the data based on participant interviews, a recurrent theme Pothoulaki et al. (2018) discovered was that playing the instruments was associated with a feeling of connectivity. For example, one participant viewed the playing of instruments to be directly associated with how she connected to the rest of the group. She shared that it felt good to know that she can be in tune with another group member through playing the instruments, and experienced music as a way to communicate with group members. In a separate interview, a different group member reported that the music therapy program helped her with getting to know the group gradually. She felt that the group was able to grow closer together through the music.

In a case vignette by Bunt and Stige, (2014), a music therapy group within the admissions ward of a general hospital's psychiatric unit session was discussed at length.

Comprised of five women and three men, the overall aim of the group was to meet the needs of individuals through musical means. In one music therapy session, the group was invited to explore the instruments and pick a preferred instrument as a way to introduce themselves. The therapist then used a grounding rhythm using a percussion instrument, and members were encouraged to participate in a musical improvisation. Various sound patterns were spontaneously played by members during the improvisation to express their feelings. To culminate the experience, one member suggested a theme of climbing up a hill for the group's improvisation. The image of climbing up a hill elicited different musical responses from the group members, and at the end of the experience, a discussion took place based on the group's shared musical journey.

Within the group experience, the therapist acted as a listener, witness, and facilitator guiding the creative process. Bunt and Stige (2014) also suggested that the variety of instruments provided opportunities for choice-making within individuals, and the playing of instruments in a group setting fostered connection and interaction through music.

Use of Familiar Music

Positive outcomes from using familiar music with clients have been discussed throughout the literature. In a research involving young adults with posttraumatic amnesia, 22 participants' conditions were measured after being exposed to preferred live music, preferred pre-recorded music, and no music (Baker, 2001). The individuals were presented with the three forms in random order, twice every day for six consecutive days. In comparing the pre and post conditions of participants, the two music conditions significantly reduced agitation and enhanced orientation. In working with people

experiencing this condition, Baker postulated that the sources contributing to this outcome may be the reduction in cortical arousal by playing familiar and stylistically predictable music. Furthermore, enhanced orientation through familiar music may produce feelings of safety for individuals.

In another study, the effect of familiar background music on positive and negative behavior was measured. Twenty-eight participants with medium-advanced stage Alzheimer's, were randomly chosen to be observed on three occasions spaced one week apart. When measuring the difference in behavior, it was found that familiar background music significantly influenced positive behavior, including social behavior. Familiar background music also had a great effect on the reduction of agitated behavior in participants.

Music and Dreams

The connection between music and dreams can be found throughout the literature. McNiff (1998) embraced the use of dreams and believed that they can help us gain a better understanding of our work. He stated that dreams provide a perspective on experience that surpasses what we can comprehend rationally. Austin (2008) posited that dreams and music share the same language (symbolic), and both have the ability to tap into the unconscious. She stated that various parts of the self can be projected through the symbols that emerge through our dreams, songs, and creative expressions.

The interplay of dreams and music was found in Austin's (2008) work with a professional cellist. The musician first sought out vocal psychotherapy believing she had psychosomatic illness. After a successful performance, the client woke up one morning unable to move her right hand. She periodically suffered from pain in her right hand and

right arm, which affected her ability to practice and perform music. Physical therapists and doctors believed there was nothing wrong with her, and the cellist felt the problem was in her mind and not her body.

As the client was interested in her dreams, she discussed her dreams during her vocal psychotherapy sessions (Austin, 2008). The dreams involved images of wounded animals, car crashes, and dismembered bodies. Austin felt the dreams provided a picture of what was happening to the client intrapsychically, revealing the split between her mind and her inherent self. During one session, the client shared a dream about being at the airport. In her dream, she witnessed one of the planes crash into a building and go up in flames. There were also people badly burnt and bodies of people on the ground, including a baby that was shriveled up.

Rather than offering interpretations or asking the client about her associations, Austin (2008) asked if the client would like to explore the dream through music. The client decided to focus on the image of the baby in the dream. A minor 9 and F Major 9 were the two chords the client chose, and different techniques such as singing in unison and harmony, mirroring, and grounding were used for the experience.

Singing brought different feelings to the forefront for the client. In connecting her music to the dream, the client expressed concern for her mother and her brother. She also acknowledged her father as someone who was verbally abusive at times, and was loving at other times. He was also overly critical of her profession and suggested that she pursue another career. In Austin's reflection, she believed the use of music in the form of vocal holding, provided the client a safe and nurturing environment to dialogue with her

unconscious. The music enabled her to connect to the images in the dream, and helped with deeply exploring the emotions that surfaced.

Analytical music therapy. In analytical music therapy, the approach involves “the analytically-informed symbolic use of improvised music by the music therapist and client...to explore the client’s inner life so as to provide the way forward for growth and greater self-knowledge” (Priestley, 1994, p. 19). Out of the numerous techniques Priestley developed to work with one’s unconscious thoughts, there are two techniques developed to specifically work with the client’s dream: *dream intracommunication* and *dream resolution*. In dream intracommunication, the therapist records the client’s dreams or fragments of dreams, with each noun having its own line and number. Clients first ascribe associations to each item and communicates as if they were the items being paid attention to. Parts of the dream can then be improvised with the therapist. The process also calls for the client to interpret the dream as it pertains to their life in the here and now. Priestley considered this to be a valuable exercise that brings up material for therapeutic work. In dream resolution, music improvisation is used to address one’s unresolved dream, or to find an alternate ending to a dream that the client found to be unfavorable or frightening. Priestley believed this to be a reassuring experience for clients, and likened the experience to the process of tidying a room internally.

Role of the Music Therapist

Stige et al. (2014) stated, “music therapy is more than music-making. The professional music therapist has a research-based training and has developed a range of personal and therapeutic skills” (p. 16). Based on this postulation, it would then, also be important to examine the role of the music therapist while investigating the role of music

within clinical practice. According to Bruscia (2014), music therapy is a reflexive practice that uses various aspects of music to optimize clients' health. Therapists carry the responsibility of creating an environment that responds to the need of clients (Freeman, 2018), and the bonds formed through the musical alliance between client and therapist serves as a catalyst for change (Bruscia, 2015).

Personal attributes of the music therapist. In research examining the personal attributes and relational abilities of music therapists, Nemeth (2014) conducted a study using a mixed-methods design to gauge which personal traits are fostered during the educational and clinical training process of music therapy students. The study included two phases: a qualitative inquiry followed by a quantitative survey. During phase one, in-depth, individual interviews with five experienced music therapists took place to discern the qualities that enable a music therapist to establish effective relationship with children. From the interviews, it was found that participants strongly agreed on personal attributes and relationship-building aptitudes such as cognitive abilities, personal qualities, relational abilities, and the music.

During phase two, 127 music therapy educators and internship clinical trainers completed a survey to corroborate the results from phase one, and to investigate if and how these findings were being addressed within music therapy training and education. The results indicated that more than 90% were in overall agreement with the attributes and abilities outlined in the survey. Respondents reported that the five personal qualities a music therapist should possess were: 1. nonjudgmental/accepting/empathetic, 2. honest/authentic/genuine/sincere, 3. flexible, 4. strong self-awareness/personal insight, and 5. possess good personal boundaries. Moreover, participants of Nemeth's study felt

strongly about the importance of including personal attributes in any training program, and reported that these characteristics were being addressed within their respective education and clinical curriculums.

In another study, Scrine and McFerran (2018) sought to understand the role of the music therapist through interviews conducted with students. The study involved 16 students between the ages of 12-18, who attended a government high school in one of the most impoverished suburbs in Melbourne, Australia. Music therapy was provided as a way for students to explore gender and power, and was grounded as an anti-oppressive approach. During the interviews, students shared that the music therapist was welcoming of them, and they felt they were able to talk about different issues in their lives. Thus, the study highlighted the importance of providing a safe and therapeutic environment where students could explore "real world issues" (Scrine & McFerran, 2018).

The Voice as a Primary Instrument

Our voice and the different sounds that we use for expression, can reveal information about our identity and personality (Austin, 2008). Before the development of language, people utilized vocal sounds, bodily movement, and acoustic gestures to communicate with others (Newham, 1993). Within existing literature, Alfred Wolfsohn, a Jewish-German singing teacher, is credited as one of the earliest innovators of voicework (Baker & Uhlig, 2011; Newham, 1997). According to Newham, Baker, and Uhlig, Wolfsohn was exposed to music from a young age, and was very ambitious about studying and playing music. When he turned 18, he joined the German army and became a stretcher bearer during World War I. While in the army, he witnessed and experienced

the screaming voices of dying soldiers, which caused him to suffer from persistent auditory hallucinations. His condition, which would be defined today as post traumatic shock syndrome, could not be alleviated by psychiatrists. Instead, Wolfsohn discovered through his love of singing, vocalizing extreme sounds to portray similar emotions he heard from the trenches, helped to cure him of his hallucinations.

From his experience, Wolfsohn found a connection between his voice and personal well-being, and he subsequently developed and started to teach vocal techniques to other students and war veterans. (Baker & Uhlig, 2011; Newham, 1997). After Wolfsohn's death, Roy Hart, who was Wolfsohn's student for 13 years, went on to continue the work of conveying emotion through the voice (Hart, n.d.). With several of his own students and Wolfsohn's past students who were willing to study with him, Hart slowly grew the work, and eventually expanded it into the framework of performing arts; thus, Roy Hart Theatre was formed in 1962. In his theatre company, the rehearsal and training process involved adaptations of Wolfsohn's extended vocal techniques combined Hart's own exercises involving bodily movement (Newham, 1990).

Therapeutic Voicework

Voicework is broadly defined as any work with or on the voice. The work can be done with voice students to develop their vocal skills, or utilized in bereavement counseling to help clients voice their grief. In a therapeutic setting, a trained practitioner works with a client to help them express and uncover emotions through the sounds of their voice (Newham, 1998, pp. 96).

In voice movement therapy, developed by Newham (1992), therapy sessions take place in the shape of singing lessons. In the lesson, clients use natural and effortless vocal

sounds with the incorporation of coaching, image suggestions, physical manipulation, and massage offered by the practitioner. The practitioner also assists with interpreting mental and emotional experiences that result from the process. Similar to expressive arts therapies, personal trauma is explored through an artistic lens, and this form of therapeutic voicework has been found to be beneficial for clients of different backgrounds. In one case, Newham worked with a survivor of an airplane crash who vocalized the trauma of his accident in the form of lyrics. The client's lyrics, which recalled information about the crash, were expressed musically by different members within the group. The experience of using his voice ultimately enabled him to transform his trauma, which was not possible for him through verbal therapy (Newham, 1998).

Voicework in Music Therapy

Health and therapeutic benefits of singing have been documented in numerous clinical studies (Busch & Gick, 2012; Cho, 2018; Gick, 2011; Iliya, 2014). Similar to traditional instruments used in music therapy sessions to create rapport, the voice can also be used to foster safety and trust with clients (Meashey, 2020). Austin posited that the sound and characteristics of the voice reveal who we are, and finding one's voice is a metaphor for finding one's self (Austin, 2008).

Sokolov (2020) stated that insight can be found through our voice as we sing. *Embodied voicework* is a method that was created by Sokolov to be applied in arts education, music therapy, and other health practices. Through the opening of the voice, this approach cultivates dialogue with one's body, one another, and with music. There are several goals in this approach to embodying the voice, which includes learning how to

dialogue through improvisational music, uncovering the information inside oneself, and coming into dialogue with one's body through music.

In culturally informed music therapy (CIMT), engaging in voicework is an effective way to address personal issues and discover one's true voice. Similar to entrainment and toning, creating vowel sounds and listening to the voice's expressive qualities are all important elements within this approach (Kim, 2021). Within the improvisational music therapy model, clients use their voice to express feelings through vocal toning, improvising lyrics, and vocalizing with movement (Kim, 2013).

Vocal Psychotherapy

Vocal psychotherapy is an in-depth, voice-based model of music psychotherapy that is grounded in Jungian psychology, object relations theory, Freud's psychodynamic theory, and trauma theory (Austin, 2008). According to Austin, vocal psychotherapy incorporates natural sounds, breath work, vocal improvisation, songs, and dialogue within a therapeutic context, with music and words being equally essential to facilitate the therapeutic process. Furthermore, different techniques within vocal psychotherapy are utilized in order to provide clients with opportunities to address grief and psychological wounds (Meashey, 2020), for expression, emotional release, and interpersonal change (Austin, 2008).

Breath Work. Austin (2008) suggested that breathing can assist with reconnection to the body and stilling of the mind. Traditional breathing techniques in Yoga such as alternate nostril breathing is used in vocal psychotherapy to prepare clients to work with their natural vocal sounds.

Natural Sounds. Austin (2008) defined natural sounds as spontaneous sounds that the body produces as an expression of what one is experiencing at any given time, such as yawning, a gasp of surprise, or a sigh of pleasure. In vocal psychotherapy, clients are encouraged to use primitive sounds to explore feelings. Rather than focusing on technique, Austin placed emphasis on creativity and staying with the spontaneous sounds that emerge during vocalizing.

Toning. Toning is the conscious and sustained vowel sounds that a client uses to restore balance in the body (Austin, 2008). According to Austin, toning enables a spiritual, physical, and emotional encounter with music, and is used to release emotions, and restore balance in the body. When done with one other person, toning can be an intimate experience, as the exchange of vibrations and every during vocalizing can offer similar feelings to physically being touched. Austin highlighted the effectiveness of toning with clients with eating disorders as well as dissociated clients, suggesting that sounds can be used to bring awareness and acceptance of their bodies.

Vocal Improvisation. Vocal improvisation is used in vocal psychotherapy to trigger feelings through spontaneous musical and vocal play (Austin, 2008). Depending on the client's needs, vocal improvisation can be done with an instrument or acapella. Clients may choose to accompany themselves using a primary instrument while being supported by the therapist, or the therapist may play the piano while the client and therapist vocally improvise.

There are several improvisation techniques to highlight in vocal psychotherapy. *Vocal holding* involves the use of two chords methodically chosen by the therapist to portray the client's feeling state. The chords are used in conjunction with the voice of the

therapist to support a stable musical environment for vocal improvisation to occur between the client and therapist (Austin, 2008). Austin suggested that vocal holding may be used with clients who are anxious about vocally improvising but would like to try. Stages of vocal holding include singing in unison with the client, *mirroring*, which involves mirroring or repeating what the client sings, and *grounding*, by which the therapist sings the root of each chord to support the client's free improvisation.

Free associative singing is another technique in vocal improvisation. Austin (2008) described free associative singing as a technique where words are incorporated into the vocal holding process. Within this technique, clients are encouraged to sing words that come to them with the expectation that the sung words will allow clients to access memories and make contact with feelings. The therapist mirrors or repeats the words that are being sung by the client, and through this process, support is provided through empathic reflection of what the client is expressing through the music.

Vocal Psychotherapy to Work Through Trauma. Select studies were examined to highlight the clinical application of vocal psychotherapy. In one case example, Austin (2011) used techniques in vocal psychotherapy to work with a narcissistically-injured dance therapy student. Early on in the therapy process, it was discovered that the client had faced rejection from her parents at a young age, and personal issues stemmed from her parent's mistreatment of her. For two and a half years, various parts of the client, including her childhood, were explored through improvisational music. Austin utilized techniques with the client such as natural sounds, mirroring, holding, and vocal improvisation to evoke feelings, personal revelations, and thoughts, which eventually led to the integration of the various parts of the client.

In another clinical vignette, Flynn (2021) illuminated the use of vocal psychotherapy with a bereaved client with attachment trauma. The client sought counseling four months after her father passed away, and hoped that the support she received would help her to process and cope with the reality of her father's death. The client shared that she had an exceptionally close relationship with her father, and she also served as an emotional caretaker for her mother when she was alive.

In grieving over the death of her father, the client described feeling smothered by others who were also mourning his death. The feeling of not having enough space to mourn was a recurring theme for the client, as she felt similarly during prior significant deaths in her life. After several sessions, the client and therapist began to explore feelings through breathing. The client was invited to locate where this smothering feelings existed in her body. The client was assisted by the therapist in pacing the experience, as it became energetically demanding to sustain the awareness of where this feeling was located while breathing. To reduce the risk of re-traumatization, the client was guided in connecting to self-regulatory and somatic resources, such as the support of the chair the client was sitting on.

When asked if a sound came with the smothering sensation, the client shared that it was most likely a scream, and related the sound to a memory of her mother screaming while under the influence of alcohol. With the therapist feeling as though a sound improvisation would be too overwhelming for the client during this stage, the client and therapist continued their work through verbal exploration.

As certain anniversary dates approached related to the client's father, the therapist and client sang a structured chant together at the end of a session. The client began with

the words, “I remember you,” and ended with “you’re held here” (Flynn, 2021). The subjects to who she chose to sing to varied between her father and herself. As time progressed, the client was opened to exploring feelings of anger and being smothered through vocal holding. After explaining the technique, the therapist guided the client through a breathing exercise. The therapist began playing a two-chord pattern comprised of major chords, and the client started singing a quiet “ohh” sound. The therapist sang a lower note of the same sound to ground the client, and at times the therapist sang in unison with the client in hopes that the client would feel empathic identification. Since it was the client’s first time experiencing vocal holding, they continued with processing emotions verbally after a couple of minutes of singing.

The client shared that she was angry with herself for not using her voice, and angry for what she was not able to do before the death of her father. The therapist and client also discussed the pattern of directing anger and disappointment toward herself. The client cried and nodded as the therapist reflected the early life of the client, who was forced to keep her feelings inside in order to survive her mother’s unpredictability.

The structured chant which took place in earlier sessions, created the foundation for the client to use vocal holding to explore her feelings. Additionally, Flynn suggested that the use of sound to express sensations helped the client to outwardly portray what she was experiencing internally (2021). The insight gained through vocal holding was ultimately used for future sessions between the client and therapist.

Songwriting

According to Baker and Wigram (2005), songs during ancient times were mainly used for storytelling, and were defined as logogenic or pathogenic. In logogenic singing,

the monotonous delivery of song focused primarily on the words. Baker and Wigram stated that in contrast to logogenic singing, pathogenic style focused more on the delivery of song. In the Middle Ages, songs were utilized for expression mainly related to religious rites. Baker and Wigram gave an example of liturgical chanting, stating that it was primarily connected to religious worship, and done in a pure, less emotional way. Towards the end of the medieval era, new developments in the role of song were established. Baker and Wigram stated that Troubadours in France began to incorporate different themes such as love and the worship of love into their song.

Baker and Wigram (2005) highlighted the way songs are used in current times. Today, songs are used to express feelings. We use songs to illuminate love and hurt. We use songs through times of trouble, during war, as a cry for peace, to protest and to celebrate. Baker and Wigram also suggested that songs serve as a mirror to our thoughts, offering us with the opportunity to preserve our history, and to celebrate who we are.

Songwriting in Music Therapy

In comparison to other techniques in music therapy, the importance of songwriting within a clinical context has been acknowledged only in recent times (Baker et al, 2008; Heath & Lings, 2012). In a clinical setting, the process of creating, notating and/or recording lyrics and music is used to address cognitive, psychosocial, emotional, and communicational needs of the clients. (Bruscia, 1998; Wigram & Baker, 2005). Furthermore, depending on the needs of the client(s), there are several songwriting techniques available to help explore emotions, relive experiences, and express their current emotional state.

In review of existing literature, several authors have contributed findings related to the therapeutic values of songwriting in clinical practice. Curtis (2013) found songwriting to offer powerful therapeutic benefits for women who have experienced abuse and trauma. The experience allowed for them to be heard, and they were also able to reclaim their lives through their musical expressions. In another study by Baker et al. (2008), data regarding the employment of songwriting was collected from a 21-question online survey response from 447 music therapists throughout 29 countries. Of the 447 participants, 419 indicated that they used songwriting within their music therapy sessions. Populations represented from the data showed that songwriting was being implemented with clients of various clinical populations including ASD, developmentally disabled, oncology/palliative care, psychiatry, neurorehabilitation, and dementia/aged care. Additionally, results from the online survey response showed that songwriting was being used for the following: (1) to enhance self-esteem, (2) choice and decision making, (3) develop sense of self, (4) externalize thoughts, (5) tell the client's story, and (6) gain insight.

In a subacute rehabilitation center in Melbourne, Australia, a study investigated the therapeutic values of songwriting for people with acquired brain injury (ABI) undergoing rehabilitation (Roddy et al., 2020). Five male individuals with a mean age of 40.8 years, (range = 29 to 51 years) who were an average of 126 days post-surgery (range = 31-322 days) worked collaboratively with a therapist for 12 sessions to compose songs exploring self-concept narratives. Through individual prompts to explore emotional states, participants were invited to identify and organize their thoughts to be translated into song lyrics. Data from the study suggested that participants utilized songwriting to

express feelings related to post-traumatic growth, challenges faced during rehabilitation, and personal difficulties.

For caregivers, the emotional and physical burden experienced within their role can increase the risk of caregiver burnout (Baker, 2017). In an effort to help family caregivers explore their role and to help them cope, therapeutic songwriting was implemented over 12 music therapy sessions with a focus on the challenges and positives of caregiving. Baker found that songwriting enabled participants to express their opinions and create songs with like-minded people without judgement. The intervention, which also provided opportunities for healthy coping strategies, enabled caregivers to express negative feelings and reconsider their views to be less self-defeating.

Songwriting and Digital Technology

A growing number of clinicians have been incorporating digital mediums within their practice (Hahna et al., 2014). In the early 1990's, Krout (1992) proposed the idea of using electronic equipment to enhance the musical experience between client and therapist. As clients may be motivated by sounds outside of the accessible instruments in the music therapy session, Krout suggested that using music technology may be helpful in providing a specific sound for clients to use within a therapeutic intervention.

Kubicek (2014) described some of the ways that technology can meet the needs of clients. For example, tablets can be used to introduce music-based applications to clients, and the clients may then be able to use these applications for music improvisation, music production, and producing sounds with digital instruments. Kubicek also suggested that laptops can become a portable recording studio when expanded with a condenser microphone, audio interface, microphone stand, and headphones. A laptop with recording

and composing software may then assist clients who want to create their own music projects .

In terms of music composition, studies have shown music technology to assist with the creative process (Kirkland & Nesbitt, 2019; Street, 2014; Viega, 2013; Weissberger, 2014). In a music therapy context, Viega (2013) posited that creating a studio environment for clients shifts the music's role from a time-oriented perspective to a spatial perspective. Thus, in therapeutic songwriting, there is more value in the sonic metaphors and intuitive responses to sound material, rather than placing focus on tempo, keys, or overall song structure.

Viega's (2013) study examined the artistic components of songs composed by adolescents who identified with Hip-Hop culture, and were receiving treatment in a residential center in Philadelphia, Pennsylvania. The participants had all previously experienced childhood trauma which resulted in learning disabilities, as well as psychiatric, behavioral, and emotional disorders. In working with the adolescents, Viega's main goal was to maximize the songwriting experience so that each individual can create a song which held personal value and meaning. Digital mediums such as a laptop with software to record audio, audio interface to record instruments and vocals, an electronic sound sampling device, and digital music player were all used in collecting data for aesthetic evaluation.

In another study, *Rap and Recovery* was developed to provide clients within a treatment facility, a way to explore and engage in discussion through their digitally recorded songs (Kirkland & Nesbitt, 2019). Individuals within this popular music therapy group utilized digitally produced beats to record their written or freestyled lyrics.

Kirkland and Nesbitt found that process of recording and listening to recordings presented clients with opportunities to analyze and process thoughts related to recovery, life experiences, coping mechanisms, goals, self-awareness, and identity.

In another case, Weissberger utilized the music software, GarageBand, to work with adults and older people with chronic health condition (2014). *La Familia Alegre*, a music therapy support group for Hispanic clients in a community-based residential setting in New York, met weekly to write and record songs of different topics. During the early stages, the group utilized different acoustic instruments to sing folkloric songs. However, Weissberger soon realized that the clients' attention would become more focused when listening to computer recordings of preferred music artists. In an effort to increase engagement from the participants despite their physical or cognitive difficulties, Weissberger decided to maximize the clients' skill of identifying preferred sounds through the creation of an album comprised of original songs.

Lyrics were generated based on the clients' journey and how they identified themselves. Once the lyrics were created, the therapist helped the group produce a sound that would accompany the lyrics. They listened to different beats, rhythms and sound loops on GarageBand, and found an uplifting beat to record their song to. The group also collectively chose the piano as the main melodic instrument, and the composed melody was played on the keyboard and recorded directly onto a computer. When the recording of the instrumental was finished, clients chose to sing and record their song together. The group was divided into sections so that all the voices could be captured on the microphone. Weissberger edited the song outside of the session utilizing different takes of the recording. The edited song was based on the group's preference of sounds and

mixing elements, and included most of what the microphone captured including laughter, start-offs, “mistakes,” and count-ins.

Therapist as Producer. When digital technology is involved in the music-making process, therapists are often called to take on the role of producer and sound engineer (Street, 2014; Viega, 2013; Weissberger, 2014). In his own research, Viega (2013) found several parallels between his own clinical focus, and the role of a music producer. Similar to the role of a therapist, Viega suggested that a music producer enhances the individual’s involvement in the music by assisting with the creation of a musical backdrop that will bring forth all of the qualities needed in the song. Furthermore, as relationships and alliances are built through mutual exchange of musical ideas, a producer may help artists discover their strengths and achieve their full potential. Lastly, in creating a sound that embodies the artist’s narrative and lived experience, the producer helps the artist to create a lyrical portrait of themselves (2013).

Therapist as Sound Engineer. As stated above, the producer assists with the process of creating a composition. In contrast, the role of a sound engineer involves more technical aspects to in capturing sound (Viega, 2013), and calls for the therapist’s knowledge and proficiency of music software. Furthermore, the therapist’s understanding of balancing the music mix microphone positioning, sound acoustics, timbre, and even microphone types; are all useful for the client’s experience (Street, 2014).

When operating as a sound engineer in the therapeutic process, therapists may be tasked with discerning whether or not certain notes need to be “fixed” or deciding whether the overall sound needs additional sound effects. Weissberger stated that as long

as the client's musical vision and personal development is emphasized, there is no clear-cut approach as to how the song should be engineered.

Summary

In review of the existing literature, I was excited to find work which supported topics related to the current study including digital technology in clinical practice, using the voice as a primary instrument, and the role of music. As a music therapist who acknowledges the increasing use of digital mediums in clinical practice, it was important to investigate how electronic equipment can be utilized for different clinical settings, and equally important to present works that have highlighted the use of digital technology within arts-based research and music therapy. Although I was unable to find bodies of work regarding the creation and observation of individual voices singing together, I was able to find a variety of resources on the use of personal expression to nurture self-reflection and awareness. It is my hope that the current study opens the opportunity and desire for further investigation regarding this specific method.

CHAPTER 3

Method

Arts-based research was implemented to explore the impacts of recording and visualizing one's own voices combined utilizing digital technology. The process of how the recording was created by each participant, visualized, and used for empirical knowledge will be discussed in this chapter. Refinement and expansion of the method will also be discussed.

Research Question

This study was intended to answer the following research questions:

- How can digital technology be utilized to bring various vocal aspects of oneself together?
- What are the impacts of visualizing multiple voices singing together through digital technology?
- How can the combination of digital technology and voices coming together inform, affirm, and support the various aspects of oneself?

Participants

Individuals over the age of 21 were invited to participate in this study. An advertisement regarding the research was made known through word of mouth outside of the music therapy community. Due to the voice-concentrated nature of this study, it was desirable for participants to be comfortable with their singing voice.

The study was conducted with a neurotypical population which included one European American female adult, two Latin American female adults, and one Korean American male adult. All of the participants were living in the United States at the time

of the study, and were between the ages of 25 to 90. One out of the four participants had professional training in music while two out of four participants were professional performing artists. All participants had prior experience vocalizing. Each participant completed an informed consent form and were given copies of their signed forms before the study began. They were aware that pseudonyms would be used for the study while their faces would be shown as this was a key component of the study. With the onset of the global pandemic, the study was adapted virtually for people who wanted to meet online for the entire duration of the study. Three out of four participants completed the study using Zoom and one individual completed the study via in-person while adhering to safety measures.

Study Design

This study was originally intended solely to be an in-person study. However, due to the onset of Covid-19, an adaptation of the method was created in addition for individuals who wanted to participate virtually from a remote location. With a virtual study design in place, I was able to work with participants living outside of New York City, and more individuals showed interest in the research as there had only been one person interested in meeting for the in-person study.

In-Person Study

This study involved one person who met with me for in-person sessions. The individual was scheduled to meet for approximately two hours during the first session, and for one hour the following three consecutive weeks for a total of 4 sessions. The sessions took place at the participant's home in New York City, United States. A digital camera documented the art-making progress, an audio recorder was used to log each

session for review, an iPad was used for musical referencing using the Piano app during song composition, and the iPad's camera function was used to record the participant's singing parts.

Virtual Adaptation. The virtual study involved participants meeting through Zoom for the duration of the study. To provide art materials associated with the study at no cost to those participating virtually, each participant was sent a gift card through Amazon which covered the cost for an art set complete with colored pencils, drawing pad, and soft pastels. The justification for sending a gift card through Amazon was to respect individuals' privacy by not asking for their direct address. The structure and format of scheduled meetings were the same as the in-person design. However, prior to each session, a secure Zoom link was sent so that participants could log in remotely.

Materials

Art Materials

Participants were provided with art-making materials which consisted of pastels, colored pencils, watercolor paints, paintbrushes, white canvases, notepads, and journals. Participants were given the freedom to create using any or all artistic mediums they felt comfortable with.

Touchscreen Tablet

An iPad served as a multi-purpose tool during this study. The Piano app was previously downloaded onto the tablet and used in the process of composing music for Enyd, who was the only participant involved in the in-person study. The participant chose to improvise a melody after writing lyrics, and with the use of the piano app, I played different chords which complemented the sound of Enyd's improvised melody. The

playing and discovery of chords on the app assisted in the creation of the final recording for Enyd.

The tablet's camera function was used to capture Enyd's individual voice parts. An advantage of recording through the tablet was the capability of using mirror-mode to record the participant singing. When the tablet was placed in an upright position, the participant's face was clearly visible to both the individual and researcher. If there were any timing or technical issues, they were found immediately. Using a standard digital camera may have delayed the recording process as digital camera screens tend to be smaller in size.

Editing Software

Several editing tools were used to combine the voices for visualization and playback. In addition to the Acapella app, iMovie, GarageBand, MyMP3 Converter, and Adobe Premier were also used to create visual recordings for participants. With the study being adapted virtually, exclusively utilizing the Acapella app with individuals was a portion of the study that needed to be adjusted. Using software to collage voice parts into a final recording took me between ten hours and five days to complete, however, it still provided participants a visual recording of their voices to playback and reflect on.

Audio Recording

For all virtual sessions, Zoom was used to record each session. After the session, the meeting was downloaded both as an mp3 and mp4 file. Since Zoom was not utilized for the in-person study with Enyd, a voice recorder protected with a password was used on my phone to record our sessions. Having an audio file of all of the participants' sessions was important for transcription, production of videos, and data analysis.

Process of Inquiry

Groundwork

All four participants were given a description of the study with time to sign and return their consent forms. I completed the entire study virtually with one individual before conducting the study with others. I felt this would be necessary to make further adjustments if necessary, and to keep a detailed record of the method of inquiry that I would be utilizing with the two other individuals participating virtually.

First Session: Art Making and Recording

There were four scheduled meetings for the virtual design. During the first session, any questions related to the study were addressed. When individuals felt comfortable, a multi-sensory process took place to prepare participants for lyrical and vocal composition. This involved different artistic expressions such as visual art, freewriting, poetry, and/or movement to music.

After art making, participants developed preliminary lyrics and/or melodic arrangements. There was a significant amount of time spent on this portion of the session as each participant took time to create and complete their song. Destiny, Kenzo, and Enyd, all created original songs for their study. Gloria chose to work with an existing song, "O Holy Night," and she created vocal arrangements of the song to fit her preference.

Facilitator as Collaborator and Producer. In addition to being the researcher, I also helped to facilitate the songwriting process where necessary. As a collaborator, I was mindful of keeping the balance between honoring individuals' creative process and facilitating the creation of a song structured for collaging multiple voices. Furthermore,

since I could not be physically present to assist with the use of the Acapella application for the virtual studies, unless the participant already had working knowledge of the application, I needed to also be proficient in the role of sound and visual producer. For instance, Kenzo was not confident in his ability to use the Acapella application without in-person facilitation. He decided it would be best for him to record his vocals, and have me combine his vocals through editing.

Various Aesthetic Looks for Recording. To stay consistent with the pilot, each participant was invited to record their song using varied aesthetic looks, vocal tone, and harmonies for each voice. Participants had the freedom to choose various outfits, hairstyles, and vocal parts to differentiate each visual recording. When fully prepared, recordings for each participant commenced via iOS version of the Acapella application created by the company, Mixcord, through Zoom, or on a tablet.

Memorable Dreams and Events. As my own pilot involved the use of dreams throughout the ongoing process of exploration, participants of this study were also invited to share memorable dreams or events that occurred during the week. In this way, continuum and flow were maintained throughout the study, despite the sessions being spaced one week apart.

Zoom Recording and Post-Session Edit. All visual voice recordings for the first participant, Gloria, were completed directly within our Zoom session. As Zoom provides recording capability, the participant was asked to sing her voice parts four separate times. Gloria used a metronome app on her phone with earphones which helped to keep the rhythm consistent across all four recordings. There were ample pauses and outfit changes

in between each take. This would prove to be helpful for extracting and editing purposes post-session.

In between the first and second session, an mp4 recording of the participant's first session was played back. For Gloria's vocals, each voice part was cropped and extracted as a separate video for vocal editing and visual collaging. The videos were converted as mp3 files on My-MP3 Converter to be transferred to GarageBand. Through GarageBand, the voices were equalized without pitch correction.

When the voice recordings were initially obtained, some of them sounded compressed and muffled due to the recordings being extracted from a virtual conferencing platform, which was not properly equipped with vocal presets for music recording. Therefore, in order to create a sound that can be perceived as being in a three-dimensional space rather than a virtual environment (Viega, 2018), reverb was also added to the voices. Finally, the voices were synced together as one mp3 soundtrack.

iMovie and its picture-in-picture function was used to edit the videos for collaging. Each video in the collage was further cropped so that visuals could be consistent with the soundtrack. When video editing was complete, the edited mp3 soundtrack of all four voices was used for the video to create a visual recording of four voices singing together.

iOS Acapella Application. The second participant, Destiny, used the application that was originally intended for this study. When asked about her comfort level about using Acapella without in-person facilitation, she expressed her comfort with recording-related tools as she had an educational background in music technology. She also stated

that she had an in-home studio set up for recording vocals and felt this app would be easy to navigate.

After the art-making process with Destiny, she was encouraged to write words and thoughts that came to mind from her visual art piece. From there she was given time to compose a song using inspiration from the art-making process. She chose to use a keyboard to help with the structuring of the melody of her song. It took the participant 24 minutes to compose her song. When finished with composition, the participant rehearsed and recorded the song on the application. The participant was encouraged to personalize the visual recording as much as possible, and given instructions to spend time with the video before sending a final recording. When edited and finalized by the participant, the recording was sent to me via google drive.

Emailing Voice Parts. Even with Zoom's ability to capture sounds and visuals from sessions, faster vocals from a rap song created by Kenzo were unable to be captured in its full essence. Due to the speed of his composition, there were delays and inconsistencies between the sound and visuals when Kenzo first recorded his song. There were moments where the individual needed to be stopped and asked to start again due to the audio skipping over certain parts of the song. There were also several takes where the webcam froze while the participant was rapping, which produced ineffective recordings for collaging.

Because the speed of Kenzo's first song produced recording issues, he felt it would be easier to write another song that was slower in tempo for our second session. We scheduled a short session for the following week dedicated to recording vocals once again. Kenzo was able to successfully record his vocals on Zoom during the next session

using a slower rap song. He shared the creative process behind the song he would be recording, the story and inspiration behind the lyrics, and his feelings about recording himself on camera. At his request for my camera to be turned off during recording, I came back on screen only when it was time to cue him for the next vocal part to be recorded. After all his voice parts were recorded, the vocals were extracted, cropped, and edited using the same process as Gloria.

The successful recording of Kenzo's vocals over Zoom did not provide favorable results in the editing process. Upon playback of the session, there were issues once again with the sound recording. During the editing process, I found that Zoom still produced a slight delay and Kenzo's audio and visual recordings were not syncing together. I tried my best to combine the voices in one recording for the following session with Kenzo.

At our next session, Kenzo looked at the completed video and suggested recording his voices using his own camera and sending the vocal parts via email. There were no discrepancies with this method since recording on his camera did not rely on internet connection or internet speed. Upon receiving the recordings from Kenzo, I went on to create a final collage of ten voices rapping and singing together utilizing the editing procedures for the first participant.

Tablet and Laptop. The fourth and last participant, Enyd, chose to complete the study in-person. The camera feature on an iPad tablet was utilized to record her voice parts. A laptop with the song's instrumental and guide played through GarageBand, and she used headphones to listen to the guide while recording each of her voices. She was encouraged to experiment with various harmonies, pitches, and aesthetic looks for each voice part. After her vocal parts were recorded, they were edited into one collage using

the same editing method I used for Gloria. This process of recording presented minimal issues as there was very little dependency on wi-fi to obtain recordings for editing.

Visualization and Response to Recording

With the final videos prepared for viewing using the various methods listed above, the sessions dedicated to visualization of voice recording and response were structured in this manner:

- Greeting and check-in with participant (five minutes).
- Using visual art and/or writing in response to any memorable dreams from the previous week (approximately 10 minutes).
- Viewing of video (approximately five minutes).
- Remarks and observations made while video continues to play with and without volume (approximately 10-15 minutes).
- Thoughts and additional comments (five minutes).
- Closing of session (five minutes).

Questions During Observation

Within my pilot study, I was mindful of acknowledging all of the aesthetic qualities of my musical and visual expression. Rather than scrutinizing my vocal abilities or evaluating my technique, I focused on what I saw and heard objectively to guide my inquiry. To stay consistent with the method from my pilot, I asked participants of this study to make note of what they saw and what they heard. In this way, the work became less about what they thought of their personal expression, which can open the door to self-criticism, and more about using the aesthetic values of their work for creative discovery (McNiff, 2013).

Final Session

In addition to checking in, discussing any meaningful dreams from the previous week, and providing responses to videos, the final session also included individual thoughts on the study from beginning to end. They were asked if the process has assisted their individual journey in any way, and I also made sure to answer any questions they had regarding the next steps in my research.

Supplemental Sessions

Additional sessions were necessary for two of the four participants due to the amount of time required for recording. As previously mentioned, one participant required three additional sessions to re-record his voices due to technical issues. The individual who participated in the study in-person, met with me for five sessions as it took two sessions to complete the song and record her vocals.

Arts-Based Analysis Using Empirical Evidence

Participants used an aesthetic process to draw inspiration for their visual recording. The sessions involved:

- Artmaking, writing, and/or movement to draw inspiration for recording
- Artmaking and/or writing to process important events or memorable dreams between meetings
- Detailing empirical knowledge from their visual recording
- Discussing different feelings or emotions that came up during the study
- Processing of participants' responses and reflections
- After the completion of each study, data from each participants' sessions was transcribed by taking the mp3 file from each virtual session on Zoom

and transferring the file onto Otter.ai. The transcriptions were used for careful analysis.

Data Collection

Twenty-three sessions were recorded digitally and transferred to a password-protected program, Otter Voice Notes, for transcription and gathering common themes. After each session was transcribed through the program, I listened to the audio again with the available transcript to ensure that written data matched the session recording accurately. The program also helped with highlighting words that were frequently mentioned during conversations. The common words were displayed as a list under the session title, and this assisted with discovering common themes and sub-themes across all of the studies.

Video Synopsis

With the conclusion of each participant's study, I created a video summarizing our sessions using footage and recordings from our sessions. The deconstructing of sessions to edit a video after each study was a way to create closure for myself as I transitioned to the next participant study. While the creation of videos offered a way to transition from one study to the next, the process of viewing the videos even after the completion of all participant studies, assisted in the process of review and extracting information. The video provided a way for me view the inquiry as a witness rather than one conducting the study.

Refinement of Methodology

With four participants involved in this study, the need to refine the protocol for the study was based on continuous trial and error. The study design, which was adapted

virtually in anticipation for remote participation, needed to be adjusted once again when digital sound recordings were not being produced with the third participant through our virtual sessions. Several mediums and methods were trialed with the third participant before receiving recordings which were clear enough to be edited and collaged. The in-person study method was also refined to guide in the recording process. I recorded a vocal and instrumental guide for the fourth participant to listen and sing along to when she recorded her own vocals. With the guide playing in the background, the aim was for the participant to experiment freely with tonality and harmony rather than focus her attention on the technical aspects of recording a song. Lastly, the refinement of methods included meeting with individuals for additional sessions to complete their recording. For two of the four participants, it took one to three additional sessions for videos to be completed and ready for viewing.

Summary

With the aim to experience the impacts of recording and visualizing voices singing together using digital technology, four individuals were able to complete the research using either a virtual or in-person study. The study included an artistic process to gain inspiration for lyrics and music, a warm-up and rehearsing of composition, and an edited visual recording of voices for viewing and reflection. For the remainder of sessions, aesthetic elements in the video were used for empirical evidence to address questions established within the research. Chapter four will convey the outcomes from the empirical process and include evidence of the artistic inquiry such as visual art, recordings, and poetry.

CHAPTER 4

Results

Introduction

The purpose of this study was to explore the impact of recording and visualizing multiple voices and characters within a single digital recording of the self. Professional and non-professional musicians from different walks of life were invited to participate in an arts-based study to gain empirical knowledge from experiencing their own individually recorded voices and characters through a single recording. The questions that helped to guide this arts-based inquiry were: 1) How can digital technology be utilized to bring various vocal aspects of oneself together? 2) What are the impacts of visualizing a digital collage of one's own recorded voices? 3) How can the combination of digital technology and one's own recorded voices coming together inform, affirm, and support the various aspects of oneself?

Summary of Central Themes and Outcomes

Main themes of this study included: using a focal point to build trust, awareness through visualizing self, and the importance of honest expression. To better assist with following the process and findings from this study, it would be advisable for the reader to refer to the links of participants' edited videos as well as the culminating video for each participant (See Appendix C). Original song lyrics and other material relevant to the findings of this research are also included in Appendix D and Appendix E.

Theme One: Use of Focal Point to Build Trust

One of the central themes in this study was using a focal point to build trust. Participants found that building trust and rapport was made possible through focal points

found in digital music collaboration, and the use of familiar music. Gloria shared that she felt encouraged to share her story further based on the non-threatening nature of the music she chose for the study. She reported that collaborating and returning weekly to experience the familiar song, helped her to open up more about herself. Participants also reported building trust through the process of recording and giving feedback on their recording. For example, Kenzo found that working together on his recording also helped him to share his life experiences as they unfolded. The trust built over several weeks of collaborating, enabled him to share his feelings about current events, and to use his feelings as inspiration for lyrics that were used for his study.

Focal Point Found in Digital Music Collaboration

Since adapting the study virtually, digital technology served the dual purpose of being used for recording voices and for meeting with participants from a remote location. For Kenzo, our focal point of building trust came through digital collaboration. Due to the audio lag within our virtual sessions, we required four additional weeks for his study. Recording Kenzo's vocal parts remotely was trialed multiple ways, using various tempos and techniques as previous takes from his original composition were unable to be synced properly. Eventually, we brainstormed another way to record and edit his voices. Kenzo recorded 10 separate voice parts on a digital camera and sent me the .mp4 files, which I edited into one recording. A final recording was ready for playback by our fifth session.

During the four weeks of recording his voices on the virtual platform, the participant also spent time checking in and sharing what was happening in his life week to week. Kenzo reported that he looked forward to coming to the sessions every week and

felt they were helpful for him. He shared “I always feel better after talking to you. These sessions are very therapeutic. You mix life and therapy; I always feel better.”

Focal Point Found in Familiar Music

The process of building trust for Gloria came through the process of recording and visualizing her voices singing the Christmas carol, “O Holy Night.” Towards our final session, Gloria started to reveal more about her personal life which included a deeper look into her family’s background. What started as a quick check-in at the beginning of each session, evolved into a large portion of our session being utilized for sharing and reflection. At the end of our study, I asked if her comfort level would have been the same with a different song choice, or with the recording coming at a later phase of the study. Gloria shared, “I don't think that it would have been to this depth so quickly without having gone through that.” She also shared that she was not a closed off person by any means, but with the song, “O Holy Night” being a familiar song, returning weekly to reflect on her song of choice, helped to welcome thoughts from the periphery of her experience.

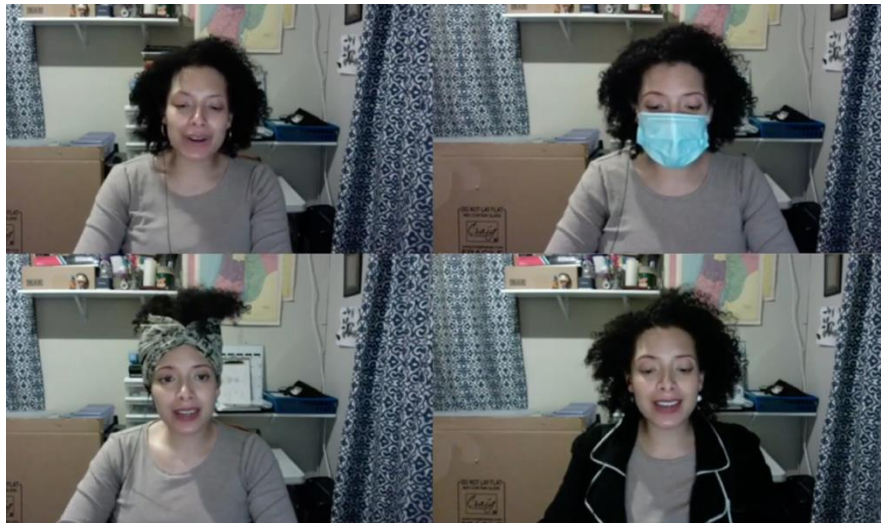
Theme Two: Awareness Through Visualizing Voices

Another key theme was gaining awareness through visualizing voices singing together. After creating the final video, each participant spent several weeks viewing their video repetitively, pausing in between views to report what they saw and heard on an aesthetic level. As participants gave feedback on different elements of the recording, further discussion prompted individuals to provide insight regarding what they were learning through visualization.

An observation Gloria made during one of the playbacks was the contrast in her faces. She observed her bottom right voice part looking fully engaged in something that she was passionate about but in comparison, there was sadness in the eyes of the voice part wearing the mask (See Figure 2). Gloria expressed that through the recording, she was getting a prolonged look at what others have seen for the better part of this year. She expressed sadness about not being able to see the rest of her face, but she acknowledged, “that’s what people get, that’s what we have to do in these times.”

Figure 2

Freeze Frame of Gloria’s Combined Vocal Parts



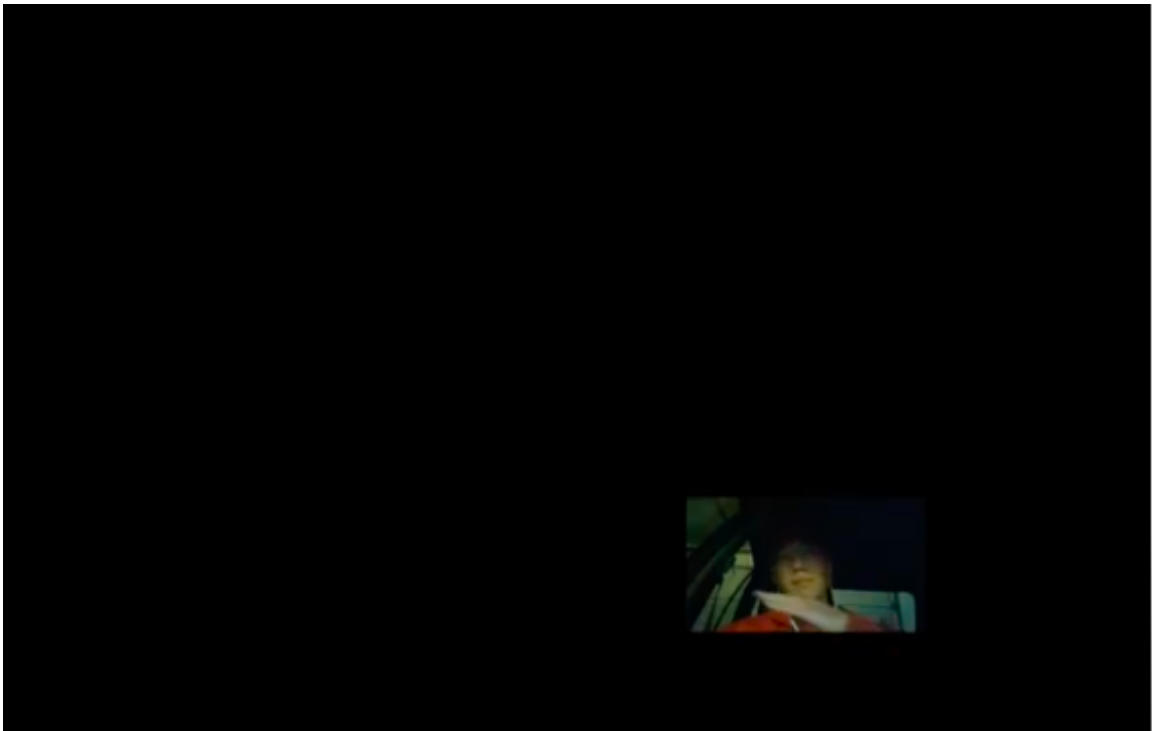
Symbolic Awareness

For Kenzo, he felt that the voices sounded monotone and robotic, but the visual component incited a strong reaction. He shared that seeing the faces felt “powerfully sad.” He felt that the video and the faces within them represented an individual’s lifetime.

He shared that he saw different stages of a guy's life: a very young arrogant "douchebag," a "humble adult," a person that was financially well off, and a person who was also in financial ruins. He shared, "the person is at the end of his life also, so he's kind of like, it was a good life, you know, like, goodbye or something like that." He went on to say, "It's kind of like, the end of that person's life. He's going back to just being childlike, so he's giving that salute."

Figure 3

Freeze Frame of Kenzo's Song Outro



When we spoke further regarding his thoughts on the video, and he shared that the light turning off was what made the video sad for him (see Figure 4). He shared, "Yeah, the light going off, that's it. That's what makes me sad, the light. It's like you hear the

music ending and the light going off, and it's almost like you know that's Death, like symbolically.”

Figure 4

Freeze Frame of Kenzo's Recording at 1:23



I asked Kenzo how he felt afterwards, and he expressed that he felt okay, but he also felt slightly sad. I acknowledged that we touched on a sensitive topic and that I wanted to hold space for us to talk about it further if he wanted to. He shared that when he saw the lights going off one by one in the video, he felt as though he was losing loved ones little by little. He corrected himself, and said, “It’s not loved ones, it’s me, but it’s kind of like pieces of me are dying.” He continued, “Maybe their memories, maybe their stages in life, one or the other. It just feels like a death. Not an ugly death, kind of like a natural death.” I reminded him of the one voice that is left at the end of the video and

Kenzo said, “Yea, that’s the most childlike one. And the get-up, too. Yea, I’m glad you asked me to do this... That’s the most I’ve said about the video, ever.”

Music Can Sometimes Obscure Sentiments Reflected in the Voice

During playback, several participants used emotions to describe what they were hearing and seeing. In Enyd’s initial response to the video, she stated that the song felt very sad. Words such as “despair” and “pain” were used to describe what she heard and saw in her recording. Enyd further reported the song lacked energy and sounded lamenting. She thought her song should be freeing based on the second half of the song she wrote,

There is healing that has to begin
Healing that comes from within
To believe in myself
I am loved
I am loved

She felt that there was sadness present within the music. She reported there was no joy in the song, and it sounded “depressing.” During the second playback, she asked, “now, all these voices here, those were all *my* voices?” When I told her that the voices were hers, she said she heard darkness (see Figure 5).

Figure 5*Enyd's Voice Parts*

In one of our sessions, Enyd compared her vocal parts to a vocal track I created to assist her in the recording process as she had no prior digital recording experience. She felt that the track I made sounded more liberating and joyful, however the final recording she had in front of her, did not deliver the same feeling. She shared, “When I listen to you singing it, there is a freeing, there is a joy in the second part, especially the last lines.” Enyd felt she ended the song delivering the sentiment, “yea, I’m loved, I’m loved, so feel sorry for me.”

With further discussion, it was concluded that the version she used to assist with her recording included an upbeat instrumental, and the use of music may sometimes obscure the sentiments reflected in the voice. Without an instrumental, Enyd responded to what she heard based on the nuance of voices and the range in dynamics. She shared, “I

guess I need to deal with that reality. If I felt that sadness there, maybe that sadness is going to remain there. But I don't want it to remain there.”

Gaining Awareness as a Musician

During our first session, Kenzo requested for me not to look at him while he recorded his vocal parts. Kenzo shared that rapping was difficult for him when he knew people were looking at him, and he felt his level of performance significantly decreased in the presence of others. Through the course of visualizing and reflecting, he expressed that looking at himself continuously was helping him to overcome some of his insecurities and camera shyness. Additionally, Kenzo shared that by visualizing and hearing his vocal parts coming together, he felt compelled to incorporate more harmonies and different sounds into his music.

Theme Three: Importance of Honest Expression

An edited collage of individual voices singing A cappella was used for observation and reflection. With each playback, participants provided feedback on what they heard and saw. Terms such as “robotic,” “small,” “reserved,” and “content” were used to describe what participants heard.

Destiny shared that before engaging in the study, she had expectations of looking at the video and finding profound meaning in it. Because of the expectation, she felt she was having a hard time seeing the video for more than what it was at face value. She was unsure of what she was supposed to be gaining from the repetitive watching (See Figure 6). Destiny shared:

I'm looking at something and I'm like, okay, I want to find something that's profound, deep, and connected to something I'm going through in my life or whatever. But I wasn't necessarily finding that when I was looking at it.

In response, I shared that there were no expectations as this work came from a place of curiosity, and wanting to know what the experience would be for others who engaged in the inquiry. She said this was an interesting approach and compared the process to an art project at school. She shared, "it's like, when you do something at school or you produce an art piece, like a macaroni thing, somebody puts it on the fridge and now you have to look at it." She stated, "it was a little weird," and she was feeling a disconnect in having an experience and returning to it afterwards to look at herself outside of herself repetitively. She shared she had never done something that was very self-isolated like this and looked back at it so many times.

Figure 6

Freeze Frame of Destiny's Combined Voice Parts



Honest Expression to Release Pain

As Enyd spent time engaged in playback of her video, she likened the aesthetic elements such as closing her eyes and shrugging her shoulders with feelings of longing and vulnerability. She also reported seeing tension in the faces and hearing despair in her voice. During one playback, I asked Enyd to explain what the word “it” represented in the phrase, “if you don’t touch *it*, it remains there.” She shared that “it” symbolized the denial, abuse, and pain she previously held onto. She further explained the lyrics and emphasized the importance of “touching” her pain.

Enyd expressed that she kept her pain hidden for many years, afraid of what people would think of her if she spoke about her past experiences. Through time, she realized that what happened to her was not her fault and she needed to empty herself of her pain. Speaking honestly about her pain was her way of confronting and “touching” the pain to be able to release it. When asked if the pain would go away completely, Enyd expressed that while pain may still be present, she would no longer be victim to it.

Honest Expression as a Songwriter

During our first playback session, Destiny reported that her voices felt small. She stated, “it sounds kind of reserved to me, and very like in a confined space.” She also shared that the voices seemed tentative, unsure, and the whole thing felt like a sloppy journal entry. She also noticed the faces did not smile much, and it looked as though they were reciting something.

At the following session, Destiny witnessed how the lyrics were being portrayed by the voices. With her observation, she also started to recall her writing process. She felt that during the writing process, the song was becoming too much about her and at some

point, she decided to change the direction and pointed the song “upward” to make it more productive. When asked to share more about pointing the song upward, she expressed that writing a song and not making it all about her felt more valuable. She added that anytime she wrote a sad song, or material containing sad sentiments, she always paired it with lyrics that contained a shred of hope somewhere. She felt listeners would be able to relate more to her writing in this style and commented, “I feel like they would be able to relate to that a lot more than me just talking about, hey, this is where I am. And this is where I am right now.”

I asked her if there were any songs that she had previously written for herself without thinking about how others may relate. She shared that she was only able to recall one or two occasions and was much more reluctant to share those songs. With further discussion, Destiny stated that the reason why she was more reluctant to share the songs solely about her was because she did not know how people will interpret the music, and it felt more vulnerable. She shared, “I think a lot of us are afraid to be vulnerable because it's scary. And like, now we live in this social media thing where everybody can critique stuff, and art and stuff are personal.”

At a certain point, Destiny was experiencing some trouble in her personal life. We utilized our final session to process what she was going through and find closure around our time together. During this session, I encouraged Destiny to spend some time expressing her feelings through lyrics that she can possibly use for a future recording.

When she was finished, she recited the following words:

I'm a puzzle piece that doesn't fit
Rolling in the chasing wind
My heart is torn

Foundation lost within a storm
Am I not worth being known,
Maybe I won't ever be known

I can hide
Slide beside the shadow
I wish I saw this coming
When could I have known

If you'll dispose of me, you should have told me
I would have done it myself

Destiny reported being able to discover things about herself through the arts-based inquiry. She felt that honest expression was important for a songwriter, and her tendency was to write based on what others might want to hear, as opposed to writing about what she is currently experiencing. She shared that while this tendency was not necessarily a bad thing, a balance of both was necessary because one may be draining his or her process for the sake of wanting others to resonate with the songwriter's words. In conclusion, she expressed, "I've been thinking about the words that I use more critically and thinking about how to express my feelings, how I see the world, and how I'm actually feeling more honestly, as opposed to masking it over with this feigned optimism." Lastly, she learned that writing can be a good tool to explore oneself when used the right way.

Summary

Arts-Based inquiry was utilized to help individuals make personal discoveries through their creative expressions (McNiff, 1998a). The inquiry involved a multi-sensory process which prepared participants for musical composition, recording vocal parts, and spending time observing a digitally edited footage of voices within one recording. From objectively examining different aesthetic elements of each voice, and the voices

collectively, three main themes were generated by four participants: the use of a focal point to build trust, gaining awareness through visualizing recorded voice parts, and the importance of honest expression.

Chapter 5

Discussion

This chapter relates central findings of the research to existing literature, and provides implications for clinical practice. Opportunities for future study and limitations from the study will also be discussed.

Theme One: The Use of a Focal Point to Build Trust

As a researcher, creating a safe environment for participants to feel comfortable with self-expression was a main priority. To provide a reliable, grounded structure for exploration (McNiff, 2013), each session involved a check-in with the participant, artistic expression, repetitive playback of recording, and participant observations. Using certain focal points assisted with the process of building trust and rapport, which allowed participants to share more information about themselves.

Familiar Music as a Focal Point

Using familiar music as a focal point enabled participants to explore themselves further and offer more insight regarding their background and current trajectory. Gloria and I initially built rapport through collaborating on a song she had a personal connection to. We worked on the song's arrangement, timing, and discussed ways to record the song within our virtual meeting. Gloria's decision to weave aesthetic elements into her recording, added a dimension of play and creativity within our experience. This relates to the views of Kenny (2006), who valued creativity, considering it a "symbolic representation that captures meaning and significance" (p. 15).

At the end of the study, Gloria shared that trust was built through the non-threatening nature of the song she chose to record. She also felt that the conversations we

had based on her recording, helped to facilitate deeper conversation about her personal experiences. The way familiar music was used to develop trust and fuel deeper conversations within this study, is supported by Baker (2009), who suggested that familiar music results in a familiar environment, which encourages people to interact with it more. Furthermore, Rosado (2019) found connection to be a common theme in her study with adolescents within an inpatient crisis stabilization unit. One participant shared that the music helped her to connect to the group without having to use words. Other participants in Rosado's study also felt music helped to build positive connections within the group.

A song which spoke to Gloria's history, was utilized first, to nurture and build rapport. As connection was deepened through the collaborative experience, Gloria was moved to share personal thoughts and feelings about herself. Gloria's experience about trust also resonates with Viega (2013), who used Hip-Hop within his arts-based research to establish a therapeutic relationship with adolescent participants. Viega built a collaborative relationship with participants, giving them a creative outlet through their preferred mode of expression.

Digital Music Collaboration

Viega (2013) considered the parallel between the role of music therapist and the clinical focus in music therapy. He asserted that the music producer, like the music therapist, facilitates the artist's process of creating music which supports expression and self-exploration. In my research, digital collaboration was the medium which cultivated rapport for Kenzo. Through my supplemental role as music producer, trust was developed through the collaborative experience of sharing musical ideas, recording vocal parts, and

engaging in conversation about the music. Kenzo shared that the weekly meeting, which merged art with conversations about life, was therapeutic. He felt that the experience of recording himself was also beneficial to him as a rapper. The therapeutic benefits that Kenzo received from recording and engaging in meaningful conversation also resonate with the views of Kirkland and Nesbitt (2019), who integrated digital technology into clinical practice with adult clients in a recovery setting. They found recording to be instrumental in clients' self-development, and offered opportunities for insight, reflection, teamwork, and self-expression.

Theme Two: Gaining Awareness Through Visualizing Recorded Voice Parts

Through open-ended questions such as “what do you see?” and “what do you hear?”, participants were able to gain new perspective about themselves as they recalled memories and made personal revelations from visualizing their recorded voice parts. For example, Enyd's thoughts regarding the aesthetic qualities of the video led to her delving into her past and the pain that she had experienced. Using personal images as a catalyst for self-awareness and discovery can be found in *phototherapy* techniques, where individuals rely on personal snapshots to help them access feelings, thoughts, and memories during therapy sessions (Weiser, 2015). Weiser's asserted that images may serve as visual metaphors for raw feelings and explorations of complex parts of the individual. To further corroborate this notion, Horovitz (2001) suggested one's own images, photographs, or videos can be used to trigger memories and feelings.

Furthermore, the author posited that images possess an emotive quality that motivates and influences the human mind in a way that other forms of media simply cannot.

In her work teaching the application of phototherapy techniques, Horovitz found that a wide variety of methods can be used to shape students' understanding of phototherapy, including Polaroid transfer, scripting and role-playing through video production, and the use of a photocopying machine to experiment with altering images.

This study's focus of combining self-recorded voices for exploration, furthers Horovitz (2001) and Weiser's (2015) framework of using personal snapshots for self-reflection. Participants were able to gain insight through exploring the range of their voice, engaging with their lyrics, and reflecting on the aesthetic qualities of their combined voices. This suggests that individuals may discover new information through observing various voices and characters belonging to oneself. Furthermore, the combination of images and vocal expression can be a powerful tool to deepen self-awareness.

Symbols and Metaphors

Several participants used metaphors, imagery, and symbolism to generate thoughts and process their feelings. The interplay of visual and musical metaphor justifies what existing literature states about a client's musical experience being a valuable tool to assist in the understanding of their life. Resonating with the concept of *Essential Musical Intelligence* (Montello, 2002), which refers to one's ability to use music and sound as transformational tools for well-being and health, participants in this study used different components of their musical expression to make observations, process feelings, and gain awareness of themselves. Even for the participant who initially expressed uncertainties regarding the research, using metaphors assisted in processing why she was having a difficult time with repetitively viewing her recording. The symbolic connections

promoted dialogue with participants and fostered opportunities to expand personal awareness. In this study, awareness of self through music also aligns with McClary's (2007) examination of music therapy from a Jungian perspective, which suggests that music serves the function of symbol-making for an individual. McClary stated that through the act of music-making, one can conceptualize their symptoms, and the integration of one's musical experience can contribute to gaining conscious awareness.

Voice as a Primary Tool

The final recording for visualization and reflection was a digitally edited recording of voices singing a cappella. As the pitch and resonance of one's voice carry meaning and tell a story (Sokolov, 2020), it was desirable for each participant to use their voice as a primary tool (Austin, 2008), and explore the different sounds made by their combined voices rather than voices supported by an instrumental. During playback, Enyd reported that the culmination of her voices sounded very different from the pre-recorded song she used to help her practice and record her voice parts. Observing that the pre-recorded song also included an instrumental, she concluded that music can sometimes mask feelings which are reflected in the voice. This observation echoed the views of Sokolov, who proposed that the tone of a voice and the words that are being spoken are not always the same. Enyd's ability to gain insight from her voice also resonates with Austin's (2008) practice of vocal psychotherapy. Austin stated that when we sing, "our voices resonate inward to help us connect to our bodies and express our emotions" (p. 20). Furthermore, Austin emphasized singing as a way to express emotions and connect to one's deepest feelings and thoughts.

Gaining Awareness as a Musician

Two of the four participants in the study were professional musicians at the time of the study. Both reported that in addition to receiving insight through their recording, they also gained awareness as musicians, thus informing the work they did within their careers. One participant felt compelled to embrace harmony and unique representations of his voice as a rapper after hearing his voice parts coming together in one recording. The same participant also used the experience of recording and visualizing himself as a stepping-stone to overcome his self-esteem issues. This supports Viega, who found that the process of digitally recording music helped adolescents discover their personal strengths (Viega, 2013).

Theme Three: Importance of Honest Expression

With the song being a creative piece of self-expression, individuals revisited the recording week after week to further explore themselves. This is similar to Baker and Wigram (2005) who found that songs used in therapy may assist people in making contact with unconscious thoughts, and also help them reflect on their past, present, and future. In this study, participants were encouraged to use the work they created during the multi-sensory process as inspiration for their songwriting process, thus the final song was an aesthetic response to the poems, visual artwork, and free-writing exercises completed during the initial phase of the research. The integration of modalities during personal inquiry resonates with the views of McNiff (2011), who emphasizes the use of artistic expression to promote understanding as well as to “resolve difficulties in ways not accessible to spoken word” (p. 389).

Honest Expression as a Songwriter

Wigram and Baker (2005) defined songwriting in music therapy as the process of creating lyrics and music by the client within a therapeutic relationship, to address needs of the client. In this research, I have found that rather than engaging in the process of songwriting for the purpose of addressing one's needs (Baker & Wigram, 2005), an important part of discovery relied on utilizing songwriting to simply further the exploratory process. It was through reflection and observation of one's song, that unconscious thoughts were brought to the surface to be addressed. For example, Destiny's concluding thoughts of honesty being important for a songwriter was based on her findings, which came after the songwriting experience. Destiny's observation of her choice in lyrics, revealed a reluctance to share more personal songs and lyrics due to her feeling uncertain of how her songs would be interpreted by listeners. She shared that during songwriting, she changed the lyrics once she felt that the song was becoming too much about her. She reported that changing the song's lyrics to point it "upward" added more value to the song. She also expressed her tendency to pair sad lyrics with hope to make the song more relatable to others. With further exploration, including a final writing exercise to portray her current emotional state, Destiny shared that honest expression was important for a songwriter. She also learned that songwriting can be a valuable tool to explore oneself when used the right way. While the vulnerability of being critiqued by others was a concern she had as an artist, she reported that a balance of writing about personal experiences and writing to cater to an audience was necessary to keep from draining one's creative process.

Existing literature supports the use of songwriting with clients as a powerful tool to help clients reflect feelings, make contact with unconscious thoughts, and project feelings into music. Research by Baker et al. (2008) identifies the therapeutic values of songwriting in music therapy, including the development of self-confidence, externalizing thoughts, fantasies and emotions, and enhancement of self-esteem. Resonating with the authors' results, participants in this study were able to use lyrics to work through feelings of despair, pain, vulnerability, and make newfound discoveries to help them in their future endeavors.

Implications

Through this study, I have witnessed how the combination of digital media and arts-based inquiry has supported the process of informing and supporting these participants. I have also seen how one's own artistic expression can be revisited time and time again to produce deep feelings and spark personal revelations. The multi-layered system of expression which began with artistic exploration followed by recording and visualizing one's own voices, provided continuity and connection to the participant through their creative process, and the relationship between creator and creation fostered deeper exploration and self-discovery.

This inquiry also provided a sense of awareness for participants who were professional musicians. At the beginning of the study, Kenzo shared that his musical abilities were negatively impacted whenever he rapped in front of people or recorded himself on a camera. This was evident in the early stages of recording his voice parts; he stopped rapping abruptly during one of his takes and requested for me not to look at him. As the study progressed however, he shared that recording himself multiple times as well

as constantly looking at himself, was useful for him in overcoming self-esteem issues. Kenzo also shared that before this study, he only used vocal layering to emphasize certain phrases within a song. Through his continuous engagement with the visual recording, he learned that including different tones and harmonies was something he wanted to continue in future musical endeavors.

Destiny's exploration gave her the awareness that rather than always creating music that people can relate to, honest expression of feelings through songwriting can help with personal exploration. Destiny shared that her songwriting is mostly about her, but she always paired it with lyrics of hope and positive sentiments to help others relate to it more. When I asked her if she had ever written lyrics solely for herself, she reported having done it on one or two occasions; however, she felt much more reluctant to share them because she did not know how people would interpret the songs. This discovery led to her feeling that it was okay to try something different and convey more genuine thoughts in the songwriting process.

With these findings, I strongly believe this inquiry may have positive implications for other musicians who are interested in a process of self-exploration using their own artistic work. For individuals who are singers, this inquiry may encourage singers to utilize their voice as a method of discovery rather than performance, which often involves catering to an audience.

Three of the four participants in the study were involved in research using a virtual platform. These participants shared that the study provided a meaningful experience, and felt that the sessions were therapeutic. From the results of the study, the combination of digital technology and arts-based inquiry may be beneficial for others

who are interested in artistic exploration from a remote location. I believe that this approach may continue to offer therapeutic intervention through the arts while alleviating some of the health concerns related to COVID-19.

Contributions to the Field of Music Therapy

This multi-modal approach with clients may be beneficial within the practice of music therapy. As artistic exploration occurs, unconscious thoughts or feelings may be brought to the forefront, which can all be used as inspiration for writing lyrics, creating music, or improvisation. By using this approach, there is less focus on the final composition, and instead, the aesthetic process of discovery is illuminated. Using various forms of expression also gives the client options to choose their preferred modality based on their mood or physical state. This resonates with Hyams (2014), who found that adolescent clients responded positively to an integrated arts approach utilizing various modalities. For clients who may be faced with music-related difficulties, using an integrated approach may alleviate the pressure to create music immediately, and clients may engage in other forms of expressions to reveal helpful information as a part of the therapeutic process.

Contributions to the Field of Expressive Therapies

In this study, several techniques were integrated from the field of expressive therapies to guide participants in exploration. For example, artmaking led to freewriting and/or poetry, and the words from the writing experience were used as inspiration for lyrics and song arrangement. With a series of activities connected to one another, the final recording of voice parts was less of an isolated activity, but rather a response to the individual's personal expressions. As expressive therapists utilize various techniques in

their work to offer a broad range of activities for clients to choose from (Pearson & Willson, 2009), I believe the study's method may be utilized in future clinical work.

Limitations

The study presented with certain limitations, one being the lack of data and literature within this specific area of research. While the study produced several unique findings from each participant, the study was a qualitative study and therefore, not generalizable. In addition, using a variation of the study for a virtual platform may be considered a limitation in terms of consistency. With the virtual study dependent on internet bandwidth and a steady wi-fi connection, there were discrepancies with the timing of the audio sounds and visuals from the Zoom sessions with Kenzo. Although the inconsistencies were resolved by the participant recording on a separate camera and sending the vocals through email, it is nonetheless important to note the technical challenges.

This study utilized digital programs such as Zoom and Acapella, which can be considered a limitation for those who are not familiar with how to use the programs. While individuals were still able to work with a completed recording of combined vocal parts, the recording was only made available through video and sound editing by the research facilitator. Therefore, in addition to being proficient in the Acapella application, facilitators of this method of exploration would also have to be capable of using audio and visual software.

Opportunities for Future Research

Future studies may benefit from lengthier research involving more participants such as those of different cultural groups, ethnic groups, or age groups. It would also be

interesting to gauge participants' reaction after they participate in both virtual and in-person sessions. Furthermore, the option to record one's speaking voice, or capture footage of individual characters engaged in movement may provide more flexibility for individuals with limited musical experience. Lastly, a follow-up session with individuals providing feedback on the impact of their findings, may be helpful in knowing the study's influence long-term.

Conclusion

It was at the peak of the pandemic when four participants agreed to meet with me for an artistic exploration. Some came with expectations, and some were just happy to be connecting with another individual during a global health crisis, which removed access to friends and family. I was grateful that they trusted me to guide them through this inquiry, and felt humbled by everything that unfolded along the way. The personal discoveries made by each participant were deeply moving, and while they each had their own unique experience, I was able to relate to some of the sentiments shared through their process. To me, the ability to relate to one's personal discovery indicates that although artistic inquiry is often an intimate and individual process, the personal truths that are revealed can be applied to a greater body of knowledge.

Through the experience of four participants as well as my own, this study has guided in solidifying a new clinical model which can be utilized by music therapists and other expressive arts therapists. Additionally, with changes being implemented to provide clinical treatment on virtual platforms due to the current health crisis, clients may benefit from the incorporation of digital technology within their therapy sessions. I look forward

to seeing how this method can be applied to include people of various age groups, musical experiences, and cultural backgrounds.

This inquiry has taught me that the most valuable tool we have as artists, is the ability to touch others through our vulnerability. This means that the lyrics we dare to sing; the music notes we dare to play, can all impact someone in ways we never expected, especially ourselves! It is a great undertaking; a responsibility that I as a singer and musician, do not take for granted. Nevertheless, I have also learned to be at peace with creating music for myself and choosing not to share my work with others. Sometimes, it is what we need as artists; to produce something for ourselves, and simply honor all of the artistic voices that emerge from the creation.

Towards the end of writing this dissertation, I revisited the musical recording I completed during my pilot study. I was curious to know what message I would receive by looking at it through the lens of a researcher who had completed four different studies. These specific lyrics in the song stood out to me: “arise, arise, arise and be the light.” The words were poignant then and still holds weight to this day. After meditating on the lyrics, a set of questions surfaced: (1) How can I help others access their voice(s), (2) In what ways can I be a more compassionate human, especially in a time of dis-ease and war? and, (3) How can I provide a safe space for others to express themselves? It is my hope that these questions will guide me through the next part of my journey.

Appendix A

INSTITUTIONAL REVIEW BOARD APPROVAL



**Institutional Review
Board**

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DATE: 08/07/2020

To: Christina Lee

From: Robyn Cruz and Ulas Kaplan, Co-Chairs, Lesley
IRB

RE: **IRB Number: 19/20-041**

The application for the research project, "Exploring the Impacts of Recording and Visualizing Inner Voices Singing Together Using Digital Technology" provides a detailed description of the recruitment of participants, the method of the proposed research, the protection of participants' identities and the confidentiality of the data collected. The consent form is sufficient to ensure voluntary participation in the study and contains the appropriate contact information for the researcher and the IRB.

This application is approved for one calendar year from the date of approval.

You may conduct this project.

Date of approval of application: 08/07/2020

Investigators shall immediately suspend an inquiry if they observe an adverse change in the health or behavior of a subject that may be attributable to the research. They shall promptly report the circumstances to the IRB. They shall not resume the use of human subjects without the approval of the IRB.

Appendix B

INFORMED CONSENT FORM

Research Informed Consent

You are invited to participate in a research project titled “Exploring the Impacts of Recording and Visualizing Multiple Voices Singing Together Using Digital Technology.” The purpose of this research study is to gain insight through the exploration of voices singing together using a digital application called Acapella. The utilization of this method will be examining these central research questions:

1. How can digital technology be utilized to bring various vocal aspects of oneself together?
2. What are the impacts of visualizing multiple voices singing together through the digital Mixcord (Acapella) application?
3. How can the combination of digital technology and voices singing in together inform, affirm, and support the various aspects of oneself?

Your voluntary participation will require attending five individual sessions (in person using all safety measures related to COVID-19 or remotely through Zoom meetings, depending on participant’s comfort level, and/or where the participant is located). During these sessions, a multi-sensory process involving repetitive movement, expression, visual art, and/or freewriting will be utilized in order to prepare participants for the lyrical and vocal composition. Participant will be prepared on how to use the digital application for visual recording, and after the recording is completed, there will be at least two sessions spent on reflecting on the recording. There will be a final, culminating session to give feedback on the entire process. The first session will require approximately two hours of participation. Each session thereafter will require approximately an hour of participation.

In addition:

- Formal knowledge about digital recording or a background in music is not necessary to participate in this research.
- Each session will be recorded via audio and video recording. After the final session, the video recordings will be used to create a time-lapse visual showing each individual’s process from beginning to end. The audio recordings will be used to recall data.
- Participant understands this research is voluntary and may, at any point, terminate their involvement in the study.
- If participant chooses to terminate their involvement in the study, any and all data will be deleted. Any and all information pertaining to participant’s identity will also be kept confidential.
- Participant agrees to have their face shown in the visual recording of this study as a major component of this research is to show how voices of an individual come together through digital technology. All raw data and

recorded material will be kept private, and pseudonyms will be used for written documents.

- All questions regarding the study will be answered in a timely manner. You are also free to consult with others regarding the study.
- This research poses minimal risk for participant. The probability of harm or discomfort is no greater than what you may encounter on a day to day basis.
- If you experience any problems related to the research, please contact Christina Lee at 631-343-8019 or by email at ylee9@lesley.edu or Lesley University sponsoring faculty, Shaun McNiff at smcniff@lesley.edu.
- The researcher may present the outcomes of this study for academic and educational purposes (i.e., articles, teaching, Expressive Therapies/Creative Arts Therapies conferences, presentations, supervision, etc.)
- Participant is aware that their face may be displayed as part of professional and/or educational presentations. Pseudonyms will be used for all presentations.

My agreement to participate has been given of my own free will and that I understand all of the stated above. In addition, I will receive a copy of this consent form.

Participant's signature
Date

Date

Researcher's signature

There is a Standing Committee for Human Subjects in Research at Lesley University to which complaints or problems concerning any research project may, and should, be reported if they arise. Contact the Committee Chairpersons at irb@lesley.edu

Appendix C

LINKS TO EDITED VISUAL RECORDINGS AND SUMMARY VIDEOS

Visual Recordings (Only)

Destiny: <https://youtu.be/cM41XxGm8wM>

Enyd: <https://youtu.be/CCmj73TnArY>

Gloria: <https://youtu.be/Hq8ObX3mmZ8>

Kenzo: <https://youtu.be/cR06PTkjBsc>

Summary Videos

Destiny: <https://youtu.be/dw6mYdPRCqY>

Enyd: <https://youtu.be/RyfTtk7z6os>

Gloria: <https://youtu.be/4U1PSv3aCoU>

Kenzo: <https://youtu.be/gGS4THyktjM>

Appendix D

ORIGINAL ARTWORK BY PARTICIPANTS

Figure 7

Destiny's Artwork Prior to Recording



Figure 8

Enyd's Artwork Prior to Recording



Figure 9

Gloria's Artwork Prior to Recording



Figure 10

Baby: An Image from Gloria's Dream



APPENDIX E
ORIGINAL SONG LYRICS

Destiny's Song

Been a year since the storm came
The flowers in my garden they all washed away
I need to find an island, a warm place
The kind that will remain when the storm rolls away
In an endless sea, I hope you'll carry me
Keeping my head above water knowing that you'll pull me up
I'll leave my boat out here for you
Seen the dove that you sent for me
I'll tread the waters I'm afraid of
In your arms is my destiny

Enyd's Song

Life can be complicated

If you don't touch it, it remains there

Life is calling me to a new readiness

To embrace with trust and courage

The darkness I feel deep in my soul

There is healing that has to begin

Healing that comes from within

To believe in myself

I am loved

I am loved

Kenzo's Lyrics

I miss you too, today the biggest missile blew
The bars that I create will make a critic sip a brew

Would take a miracle to break a cynical and rigid view
There's no warning of eminence the citizens will listen to

Covid makes it hard for me to try and visit you
I feel hopeless so would you pardon me if I been critical

Push a sword in their side when I'm recording a rhyme
Then witness warriors die like it was lord of the flies

You see the footage of what happened on capitol hill
The police just took it while they're smashin' and thrashin' at will

Would Somebody please tell these idiots it ain't a beer commercial
They look like they've been huntin' reindeer and birds too

But steering in circles will make you lose a hubcap
How the hell did they get away without a bruise or love tap

No charges they had to face they got to hop on bikes
If they were black and brown people they'd be shot on sight

Back to you I see you're doing well
You're in love, you don't wanna be free of cupid's spell

Hope that you and your wife are remaining healthy this year
Unless we video chat, there's no way to help me in here.

I'm saying prayers right behind the nun
So would you please pray too, that I would find the one

I wanna fall in love too and commit to another heart.
Hope we talk and grub soon, I miss you my brother, Mark.

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