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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

A STUDY IN EFFECTIVE TEACHING METHODS
FOR JAZZ VOICE TECHNIQUE
IN HIGHER EDUCATION

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Arts

Jenna McLean

College of Performing and Visual Arts
School of Music
Jazz Studies

May 2021

This Dissertation by: Jenna McLean

Entitled: *A Study in Effective Teaching Methods for Jazz Voice Technique in Higher Education*

has been approved as meeting the requirement for the Degree of Doctor of Arts
in the College of Performing and Visual Arts in the School of Music,
Program of Jazz Studies

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ABSTRACT

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Academic study of jazz vocal styles is quickly becoming more commonplace and widely accepted at universities worldwide. Because this is a relatively new field as compared to Western classical styles, there are fewer educators who have substantial knowledge of vocal pedagogy specifically as it relates to jazz and Contemporary Commercial Music (CCM), resulting in a wide range of teaching approaches. Furthermore, many jazz voice teachers are tasked with the responsibility of educating students in improvisation, theory, arranging, and style in addition to their responsibility to teach technique. This dissertation defines necessary elements of vocal technique in jazz and evaluates the current pedagogical state of these elements through interviews with twenty experienced jazz voice educators. This study determines current trends in private jazz voice instruction as they relate to vocal technique, examines effective curricular practices that succeed in training students in jazz voice mechanics, and identifies existing established pedagogical practices that can be applied to jazz from other styles. Twenty vocal jazz pedagogues were interviewed regarding their background and training in jazz voice pedagogy, their teaching styles as they relate to technical aspects of the voice in private lessons, and vocal technique resources they utilize in their teaching. The qualitative study is intended to continue a

discussion about the most effective ways that jazz instructors can continue to help their students obtain the best tools to further their vocal abilities and level of artistry.

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CHAPTER I

INTRODUCTION

Purpose and Justification of the Study

This study evaluates the current state of vocal pedagogy in jazz voice in higher education; furthermore, it can serve as a guide for jazz voice instructors who seek to further their knowledge of vocal function as it relates to jazz styles. Knowledge and application of vocal pedagogy is varied for many jazz voice instructors worldwide, and while many vocalists have found success in their careers without formal vocal training, research on vocal pedagogy continues to develop in the present day. Current teachers of jazz voice can obtain the tools to educate all vocalists in an increasingly thorough way to promote healthy singing and vocal longevity. Developing knowledge and practice in vocal pedagogy may also help voice instructors find a more comprehensive approach in balancing technical work with other necessary elements of curriculum, including improvisation, theory, style, and repertoire.

As jazz and other contemporary commercial music (CCM) styles share many similarities in terms of technical production, and many voice instructors are tasked with teaching students in multiple styles, those who teach other CCM styles may find this to be a useful resource. Many elements of voice training in contemporary commercial and classical styles also apply to jazz styles, and all of the educators interviewed have some combination of training from broader classical or CCM programs.

Background

The tradition of jazz singing has existed since the origins of jazz as a genre. Use of the vocal instrument has played a significant role in developing jazz styles, originating in African musical traditions that date back to slavery. Some of these early African influences manifested in the form of work songs, religious ring shouts, and field hollers. These styles of singing all emphasized the flexible and expressive quality of the voice and its ability to showcase an individual's story and struggle in life. American musical genres such as ragtime, minstrelsy, and the blues are all precursors to jazz that contain vocal traditions passed down from generations prior and are known for blending elements of African and European musical traditions.

A selection of the earliest recorded singers of the blues and early jazz include Ma Rainey, Bessie Smith, Mamie Smith, and Louis Armstrong. Some of the most important recorded jazz singers of the twentieth century include Billie Holiday, Ella Fitzgerald, Sarah Vaughan, Joe Williams, Nat King Cole, Anita O'Day, Frank Sinatra, Betty Carter, and Carmen McRae. Each of these singers had prolific careers in collaboration with prominent instrumental musicians and innovators of the jazz tradition. Many participated in choirs, were taught to read music in their homes or at school, and were trained on piano, but did not receive formal vocal training in jazz from a private instructor in the same format that exists at universities today. Instead, they honed their craft from working with mentors on the music scene and listening to recordings and live performances of other expert musicians they admired. Sarah Vaughan and Carmen McRae both took piano lessons from a young age but never took formal voice lessons. In his biography, Frank Sinatra mentions taking elocution lessons to improve his speech, but did not take any private

voice lessons.¹ Kurt Elling has an extensive background singing in church choirs and school choirs, but did not take private lessons.² Dianne Reeves studied only classical voice at the University of Colorado,³ but also sang with her high school band and was influenced by jazz musicians at an early age.⁴ Other important jazz vocalists cite the influences of certain singers and instrumentalists. Ella Fitzgerald cites the Boswell sisters and Louis Armstrong as her main vocal influences. In an interview on Brian Linehan's *City Lights*, Fitzgerald mentioned she never took breathing lessons and wished she had. She said, "I could never tell anyone how to sing. I had to go and learn for myself and I guess that's how I got a style."⁵ Billie Holiday said "unless it was the records of Bessie Smith and Louis Armstrong I heard as a kid, I don't know of anybody who actually influenced my singing, then or now."⁶ The fact that these artists had limited access to technical voice training does not change the immense value of their contributions to the musical world.

Jazz as a genre is diverse and contains many sub-genres which are influenced by various historical, social, and cultural factors. These include swing, bebop, hard bop, gospel, blues, funk, free jazz, fusion, and soul jazz. Numerous influential singers throughout the history of jazz adapted style characteristics that align with various sub-genres, making the art form incredibly

¹ Kitty Kelley, *His Way: The Unauthorized Biography of Frank Sinatra* (New York: Bantam Books Trade Paperbacks, 1987), 45.

² Kurt Elling, "Kurt Elling on his Early Musical Training" posted November 30, 2007, accessed February 11, 2021, <https://www.youtube.com/watch?v=BnQ2fJIR94s&t=13s>.

³ "In Conversation: Dianne Reeves," *Rehearsal Magazine*, September 6, 2019.

⁴ John L. Walters, "Interview: John L. Walters meets Jazz Singer Dianne Reeves," *The Guardian*, April 3, 2008.

⁵ Brian Linehan's *City Lights*, "Ella Fitzgerald Interview 1974 Brian Linehan's City Lights" (interview), posted June 6, 2016, accessed February 3, 2021, <https://youtu.be/dunLgfk3XWI>.

⁶ Billie Holiday, *Lady Sings the Blues* (New York: Harlem Moon, 2006), 43.

diverse as a whole. Nina Simone, Etta James, Dinah Washington, Nat King Cole, Chet Baker, Anita O'Day, and Johnny Hartman bring extremely varied stylistic approaches to their singing, but each is still categorized as a jazz vocalist. A singer's ability to manipulate their sound in order to achieve a variety of style elements is what makes jazz singing so unique and valuable. Elements that carry across all of these sub-genres are improvisation, rhythms and grooves centered in African American musical traditions, and the treatment of harmony and melody that is influenced in some way by previous jazz traditions.

Regardless of their method of training, jazz vocalists have embraced the unique responsibility to combine lyric expression with the elements of improvisation and rhythm that are so imperative to the genre. Throughout history they have each mastered the use of the vocal instrument as an expressive musical tool, serving as models for young voice students that strive for the same level of musicianship and artistry.

Private jazz and commercial voice instruction in higher education is relatively new compared with classical voice instruction; degree programs in jazz have only been in existence since 1947,⁷ while the study of classical voice at the collegiate level has been available since the mid-19th century, and private study in classical voice in general has existed since the mid-17th century.⁸ Jazz and other commercial styles have been gradually accepted into schools with caution, but are now seen as viable and worthwhile areas of study for musicians. Even today, a

⁷ Alex W. Rodriguez, "A Brief History Of Jazz Education, Pt. 2," NPR, last modified January 8, 2013, accessed January 20, 2021, <https://www.npr.org/sections/ablogsupreme/2013/01/08/168893316/a-brief-history-of-jazz-education-pt-2>.

⁸ Best College Reviews, "The History of Music Colleges in America," last modified 2019, accessed November 14, 2019, <https://www.bestcollegereviews.org/history-music-colleges-america/>.

small number of universities in the United States that offer formal degrees in jazz voice at varying levels. Several universities do not offer jazz degree options, and many of those that do are heavily instrumental and lack a dedicated jazz voice instructor.

In addition, jazz voice instructors nationwide have varied backgrounds and experiences related to vocal pedagogy. Some are classically trained teachers with excellent knowledge of the voice and its mechanisms who may lack thorough knowledge of jazz styles, and others are jazz practitioners who understand the style but may lack the pedagogical knowledge of the voice. In the latter instance, instructors often focus largely on musicianship, style, and improvisation in lessons rather than vocal technique.⁹

My direct experience with the above plays a significant role in my interest in this study. I received an undergraduate degree in classical voice, and gained training and pedagogical knowledge of the voice from classical and choral educators while primarily studying classical repertoire with these instructors. I also participated in elective courses in jazz improvisation and jazz history, and participated in the vocal jazz ensemble at my institution. This ensemble was taught by an instructor with expertise in jazz styles and repertoire, but who did not have training or experience in teaching jazz voice or vocal technique. Therefore, I did not learn about many necessary functions of vocal technique in jazz until I began my master's degree in Jazz Studies. These vocal transitions proved to be challenging for both me and my colleagues with similar backgrounds as we struggled to learn the differences in vocal production between classical and

⁹ Interviewees discussed their previous training in vocal pedagogy to elaborate on this. One example is Michele Weir, who clarified that she does not have extensive vocal pedagogy training and focuses largely on jazz musicianship which is her area of expertise. Michele Weir, personal phone interview (Greeley, CO & Glendale, CA: 18 July 2020).

jazz styles. As a current instructor of jazz voice, I find myself continuously searching for ways to more effectively discuss technical aspects of the voice with my students who are striving to develop their jazz sound.

Delimitations of the Study

“Contemporary Commercial Music” (CCM) is a term coined by Jeannette LoVetri and refers to all non-classical styles of singing including jazz, musical theatre, pop, and rock.¹⁰ While elements of this research and subsequent methodology can be applied to other CCM styles, this dissertation only covers discussion of technique in jazz voice, and those interviewed are primarily instructors of jazz voice.

Interviews were conducted with twenty different instructors from prominent jazz institutions across the nation (and one international institution), and were limited to those teaching at the university level rather than those who freelance or teach at secondary institutions. While the purpose of this research was to evaluate effective methods for teaching vocal technique in jazz styles, it is understood that a multitude of approaches exist, and teachers have different priorities in private lessons based on a student’s level of technical proficiency and the need to balance other elements including improvisation, style, and repertoire. Rather than asserting one concrete, catch-all method for teaching vocal technique in jazz, this research simply provides a comprehensive resource for jazz voice teachers who wish to better understand the vocal mechanism and its functions in a jazz setting. In addition, this resource can inspire future conversation regarding ways to implement this information effectively in private lessons.

¹⁰ Jeannette L. LoVetri, “Contemporary Commercial Music,” *Journal of Voice* 22 no. 3, (May 2008): 260.

The study of improvisation in lessons remains a high priority for jazz voice instructors and students. The application of vocal technique and articulation as it applies to wordless improvisation, or “scat-singing,” was discussed with some of the interviewees and included in this document, but aural skills pedagogy relating to improvisation is not addressed.

Literature Review

There are numerous published texts within the classical voice idiom that address the vocal mechanism and its physiology. There are fewer published texts regarding how to apply knowledge of the physiology of the voice to CCM styles and jazz specifically. The remainder of this section describes the current published resources that are available for teachers as a foundation for these trends.

Some existing resources that are primarily based in classical voice technique or written by classical voice experts contain useful physiological information that can be applied to singing of all types. One such resource is *What Every Singer Needs to Know About the Body* by Melissa Malde, MaryJean Allen, Kurt Alexander Zeller, Barbara Conable, and Richard T. Nichols. This text discusses the physiology of the voice, breathing structures, and Body Mapping as a concept to assist singers in awareness toward effective, tension-free singing.

Your Voice: An Inside View by Scott McCoy is another resource that discusses the vocal mechanism in a more general sense rather than applying it to a specific genre. It considers functions of resonance, registration, articulation, listening, anatomy, and respiration, and contains scientific information regarding the voice which can be applied to any style.

In *A Spectrum of Voices: Prominent American Voice Teachers Discuss the Teaching of Singing*, author Elizabeth Blades-Zeller interviews multiple established classical voice teachers

at various institutions regarding their teaching styles and how they address certain elements of vocal technique. While these are all classical instructors, vocal instructors in general can gather useful information from this interview content.

Two dissertations whose topics are closely related to this study are *A Comparison of Stylistic, Technical and Pedagogical Perspectives in Vocal Instruction Among Classical and Jazz Voice Teachers* by Julie Silvera-Jensen¹¹ and Gloria Ann Cooper's *A Multidimensional Instructional Approach for the Solo Jazz Singer*.¹² The first compares classical and jazz voice pedagogies, featuring interviews with three teachers of each style and discussing which elements of vocal technique cross over between genres. It does not offer methodology for teaching jazz vocal technique. Cooper's dissertation addresses aspects of jazz singing including style and repertoire but does not focus on technique or functions of certain necessary sounds in the jazz idiom.

Additionally, there are a small number of resources that are specific to jazz voice. *Jazz Singing: Developing Artistry and Authenticity* by Diana Spradling addresses style, repertoire, and improvisation, and also contains a section on vocal technique for jazz that discusses vowel production and text treatment, resonance, vibrato, breath management, and spectrograms of various vocal examples from well-known jazz recordings. This is a valuable and concise resource for singers and educators who wish to learn more about the functions of the voice specifically for singing jazz. *So You Want to Sing Jazz: A Guide for Professionals* by Jan Shapiro

¹¹ Julie Silvera-Jensen, "A Comparison of Stylistic, Technical and Pedagogical Perspectives in Vocal Instruction among Classical and Jazz Voice Teachers," (DMA diss., Miami University, 2005).

¹² Gloria Ann Cooper, *A Multidimensional Instructional Approach for the Solo Jazz Singer* (Ed.D. Diss., Columbia University Teachers College, 1992).

contains a chapter by Scott McCoy called “Singing Jazz and Voice Science” with physiological descriptions and diagrams, as well as a chapter on vocal health for the jazz vocalist. This text is otherwise primarily style-based.

There are also resources for the broader discussion of CCM styles which contain many of the same technical elements found in jazz singing. *Cross-training in the Voice Studio: A Balancing Act* by Norman Spivey and Mary Saunders-Barton advocates for cross-training between musical theatre and classical voice in the private studio in order to become a more complete singer of whatever style one chooses to embrace as a professional. This is a concept that educators with diverse pedagogical backgrounds encounter, and there are varied opinions on the effectiveness of cross-training in vocal lessons.

An article on a similar topic is “Modern Voice Pedagogy: Functional Training for All Styles” by Elizabeth Ann Benson. This article defends a program that trains singers in one comprehensive lesson, covering classical, musical theatre and CCM techniques. The article also discusses common elements between styles such as vibrato, registration, breath management, and onsets. Benson also covers the major differences between production in each style but does not suggest methods for managing pedagogy of multiple styles in a single student’s lessons.

There are several journal articles written by Jeannette LoVetri regarding CCM vocal pedagogy. “Contemporary Commercial Music: More Than One Way to Use the Vocal Tract” asserts that different training is required to produce different styles. It also examines the vocal tract and its different capabilities and encourages open-mindedness in perceptions of students’ vocal behavior and vocal production.

“A Tale of Two Pedagogues: A Cross-Continental Conversation on CCM” by Melissa Forbes features interviews with CCM pioneers Jeannette LoVetri and Irene Bartlett regarding their experiences with various pedagogies and the need for CCM training.

Another useful resource recommended by many of the interviewed teachers is *The Vocal Athlete* by Wendy DeLeo LeBorgne and Marci Daniels Rosenberg. This text connects singing in CCM styles with voice science and technique. It contains sections on structure and function of the voice, vocal health and fitness, and vocal pedagogy for the twenty-first century vocal athlete. This source will be referenced throughout this dissertation.

Methodology

Interviews were conducted with experienced jazz voice teachers to evaluate current strategies used by higher education vocal instructors nationwide. Chapters II through V are centered around what the interviewed participants agreed to be the most important technical aspects of jazz singing. Chapters VI and VII discuss curriculum and teaching styles and how these correlate to teaching technique.

Interviews were conducted with the following instructors:

- Theo Bleckmann (Manhattan School of Music)
- Lara Brooks (Washburn University)
- Alexis Cole (SUNY Purchase)
- Dena DeRose (University of Music and Dramatic Arts)
- Sandra Dudley (Belmont University)
- Rosana Eckert (University of North Texas)

- Sara Gazarek (University of Southern California)
- Christine Guter (California State University Long Beach)
- Greg Jasperse (Western Michigan University)
- Jo Lawry (Manhattan School of Music)
- Kate McGarry (Manhattan School of Music, New England Conservatory, California Jazz Conservatory)
- Darden Purcell (George Mason University)
- Kate Reid (University of Miami Frost School of Music)
- Cindy Scott (Berklee School of Music)
- Kate Skinner (University of Idaho Lionel Hampton School of Music)
- Camille Thurman (Freelance, University of Northern Colorado)
- Sachal Vasandani (Indiana University Jacobs School of Music)
- Allison Wedding (University of Miami Frost School of Music)
- Michele Weir (University of California, Los Angeles)
- Sunny Wilkinson (Western Michigan University, University of Michigan)

The questions below were asked in each interview:

- What do you wish you had learned before you began teaching jazz voice? Do you perceive any limitation in your teaching because of your previous training and its focus?
- What elements of vocal technique and style do you believe a successful and versatile jazz singer should have in their skill set?
- How would you define your teaching style in jazz voice?

- More specifically, do you tend to lean more toward use of imagery, imitation, description of physiological elements, or all three?
- What tasks are essential in a jazz voice lesson? How do you balance and prioritize those tasks?
- What are the most common technical issues you find in your students? How do you address these technical issues?
- Are there resources devoted to vocal technique that you use or encourage your students to use in their studies?

Interviews were conducted by phone and recorded. Each candidate signed and returned an informed consent form for participation in this research. The Institutional Review Board classified this project as exempt. Appendix G contains the IRB approval document.

CHAPTER II

REGISTRATION, FLEXIBILITY, AND RANGE

Jazz voice educators have a desire to help their students become as vocally flexible as possible so that they can achieve a level of versatility that will elevate their artistry. Flexibility in singing involves access to a wide range of pitches without tension and the ability to navigate through registers freely and intentionally. As jazz is such a varied and highly improvisatory art form, a high level of flexibility allows jazz singers to access a broad array of sounds, expanding their palette of colors from which to choose when navigating melodies and improvising. Additionally, many jazz singers find opportunities in commercial voice settings outside of jazz including wedding bands, cover bands, musical theater, voice-over work and choirs.¹³ The ability to access sounds necessary to sing these styles and remain authentic is what will help singers to achieve a diverse career.

Range

Flexibility in range is necessary not only to successfully execute a large body of jazz repertoire, but to navigate improvisatory material freely and without tension. The larger a singer's range, the more success they will have navigating instrumentally-influenced passages and making artistic choices regarding improvisation. Each voice is different, and while jazz voice

¹³ Sunny Wilkinson mentioned singing in a rock band and in choirs. Rosana Eckert mentioned that she does a lot of studio singing during her career. Christine Guter said she participates in choral work.

pedagogy does not typically employ the fach¹⁴ system as classical pedagogy often does, teachers should still be aware of size of a student's voice and range to help them make informed musical and repertoire decisions. Jazz singers have the advantage of adapting a song to any key that best suits them, which is both a convenience and responsibility that teachers should be prepared to help their students navigate.

While a wide range allows a singer to be more flexible, there are many jazz singers that historically had smaller ranges and were still known for their artistry and contributions to the genre. Billie Holiday is one such singer, and other more blues-oriented singers also fall under this umbrella including Ma Rainey and Bessie Smith. While it remains possible to create authentic and effective music with a limited range, it is beneficial for jazz singers to have a large range to employ as an improvisatory tool. It also allows them to sing technically challenging modern works that span a large range, such as certain pieces by Maria Schneider.

Vocalists often take the liberty of expanding typical ranges of a written melody in their improvisations. While melodies in common jazz standards might only utilize a one to two-octave range, many vocalists far exceed this while singing a scat solo or the lyrics of the melody. Example 2.1 demonstrates examples of different approaches by well-known jazz vocalists. Nancy King and Cécile McLorin Salvant choose to maneuver well outside the standard range of the original melody, while Diana Krall and Billie Holiday (at least in these examples) remain close or exactly within the given range of the original melody.

¹⁴ German voice category system regularly used in opera. (J.B. Steane, Oxford Music Online).

Nancy King on "Four"	Original melody in key of Eb	Cecile McLorin Salvant on "Something's Coming"	Original melody in key of Ab
-------------------------	---------------------------------	---	---------------------------------

Billie Holiday on "God Bless the Child"	Original melody in key of Ab	Diana Krall on "East of the Sun"	Original melody in key of Bb
--	---------------------------------	-------------------------------------	---------------------------------

Ex. 2.1. Vocalist ranges vs. song ranges

Registration

The ability to successfully navigate through the registers of the voice is the most common technical barrier that singers face, and it is especially important for flexible, versatile jazz singers to access the individual sound qualities of the isolated registers (pure head voice and pure chest voice) while also being able to smoothly transition through the registers with a strong “mix” at will. The term “register” is defined as

a series of tones that have similar vocal production. A pitch produced with thick vocal folds will sound very different from the same pitch produced with thin vocal folds, even when they are produced by the same singer. The external thyroarytenoid muscles (TA) make the vocal folds shorter, thicker, and looser when they work. This lowers the pitch.

The cricothyroid muscles (CT) make the vocal folds longer, thinner, and tenser when they work. This raises the pitch.¹⁵

The figure below provides a visual representation of each register as it corresponds with range from bottom to top and the basic musculature involved.

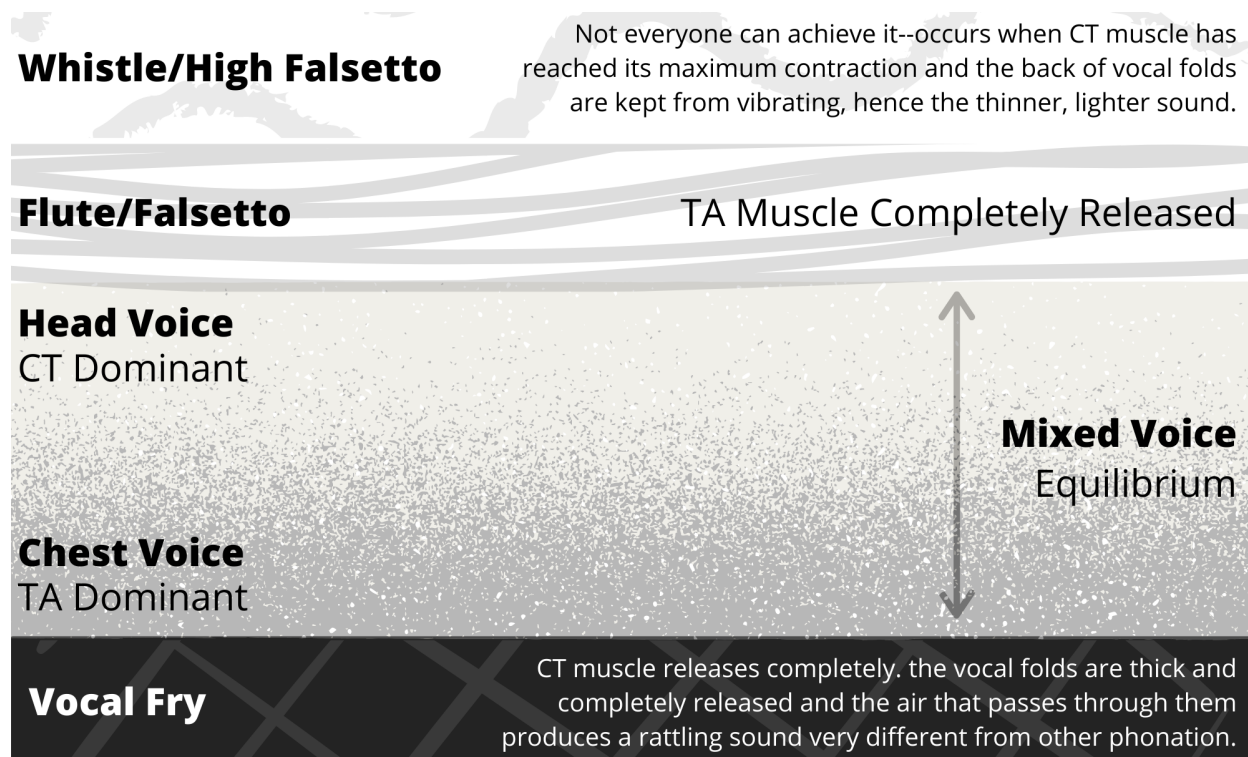


Figure 1. Visual representation of the different vocal registers¹⁶

Because the style of jazz is so conversational and often requires a certain level of power and grit to be authentic and convincing, many assume that the chest voice should be the predominant register for jazz singers so that the resulting sound is not perceived as classical in nature. However, the majority of the educators involved in this study agree that it is important to develop both the head and chest registers to be equally strong, and to develop a strong mix

¹⁵ Melissa Malde et al., *What Every Singer Needs to Know about the Body* (San Diego, CA: Plural Publishing, Inc., 2020), 4th ed., 152.

¹⁶ Graphic created by Jenna McLean. Information summarized from Malde, *What Every Singer Needs to Know About the Body*, 4th ed., 152.

between the two registers. This will give the singer access to the widest range of colors and textures possible. Thorough understanding of registration and the ability to navigate through registers will help each singer to execute passages that span a wide range in a healthy, tension-free manner.

Betty Carter sings in her head voice or a heady-mix more often than most jazz singers and is often described as having a very horn-like approach, while Carmen McRae predominantly utilizes her chest register or a chesty-mix. Nancy Wilson frequently belts,¹⁷ but also has success when isolating her chest and head registers. Each singer has a unique physical instrument, and even though they employ completely different registral approaches, all are respected as some of the greatest jazz singers in history. The educators involved in this study seek to help each student access the broadest range of colors possible within their own voice in a healthy way so that they will have a strong and varied palette from which they can develop their individual craft.

A majority of the educators interviewed indicated that at least a portion of their students have experienced one of the following issues regarding registration:

- Too mixed; inability to isolate the individual sounds of each register
 - This is often experienced by those who have a choral or classical background and have trained to disguise the break for a more unified sound throughout the range.
- Too isolated; inability to mix between registers
 - This is common for those with a choral or classical background who are accustomed to singing predominantly in head register. These students bring head

¹⁷ LoVetri defines belting as “chest dominant singing carried above the traditional break or passaggio at E-G above middle C at a loud volume.” Jeannette L. LoVetri. “Working With Professional Belters,” *Somatic Voicework™ Webinar*, October 12, 2020.

voice further down than is common in contemporary commercial styles. These students might also perceive that singing in chest voice is unhealthy for their voices since they are not accustomed to it.

- This is also common for those with a very “belty” musical theatre background; these students display the strong use of chest voice and mixed voice but lack the ability to access pure head voice at the top of their ranges.

In *The Vocal Athlete*, the authors address expectations of registration and range in musical theater singing as compared to classical singing:

In classical singing, whether you subscribe to the one, two, or three register theory, the perception by the audience should be of a single vocal range, consistent in timbre, vowel quality, vibrato, and vocal weight. Seamless navigation through the passaggio requires coordination of both the laryngeal mechanism and the vocal tract. Musical theater register shifts are often noted to be abrupt, noticeable transitions with distinct vocal quality and timbre changes. There are occasions in musical theater repertoire where a purposeful register transition is required (examples: “The Lonely Goatherd” from *The Sound of Music*; “Popular” from *Wicked*). It is also the recommendation of these authors that musical theater singers should be able to sing in all of their vocal registers in the vocal styles that are demanded of the art form. This requires a pedagogy that trains: optimal physiologic range, agility exercises to meet market demands, exploration of timbre differences and production in all parts of the vocal range, and laryngeal muscle activity levels and development to facilitate various types of closure patterns.¹⁸

This training philosophy is in alignment with the interviewed participants goals for their jazz students’ training. The following responses were provided by the interviewed instructors regarding registration approaches in private lessons:

Rosana Eckert: [Mixed voice] can be a hotbed of confusion. Sometimes I get students that can already mix well, but most of the time singers have some muscular imbalance, significantly favoring one register over the other. For sopranos and altos, they are either heavy in their head voice because they came from a strong choral

¹⁸ Wendy DeLeo LeBorgne and Marci Daniels Rosenberg, *The Vocal Athlete*, 2nd ed., (San Diego: Plural Publishing, Inc. 2021), 124.

background, or they are chest voice-heavy because they have a strong pop background. For baritones and tenors, it's about their falsetto/head voice use or lack thereof. I am often guiding a student to develop the "other side" and balance the two registers in order to get them to master the delicate dance of the mixed voice. It's the most common need I encounter as a voice teacher, regardless of voice type or age. If they are chest voice-heavy to the point of imbalance, then we will need to build up the head register. So for a while, it might be a bit messy - airy or unstable - as they build muscle and coordination in an unfamiliar register. Light glottal onset work can help as we work on cord closure. Also, many of the chest-voice-dominant singers are not as accustomed to raising their soft palate, so it takes regular reminding. As we spend a lot of time in pure head voice, we'll take it as low as it can go, below middle C for all voice types, and I suggest they spend fifteen minutes a day every day in head voice. After a week, I can tell if they've done the work. With the head-voice-dominant singers, I work on the same re-balancing of registers. I spend a lot of time in pure chest voice, which they usually don't enjoy because they're not used to the feeling of it. To them, it feels like yelling. It feels thicker because they're using more of the vocal fold, and at first, it can sound a bit raw. For many, they have to sing a bit loudly and without palate lift in order to stay in chest voice and recognize that they are using it. If chest voice is brand new for them, there is no way around this process. I tell them it's like growing out a perm. You're just going to have to go through that weird fluffy half-curly stage that might not look so great, but you can't cave. Wear a hat for awhile, but don't jump ship. With the voice, I encourage the students to continue to use the techniques they are comfortable with in public while they work on new techniques at home. Then, when the new techniques are ready and stable enough, they can try them out in front of people. That takes time. After over 20 years, I've taken enough people on these re-balancing journeys to know how it goes and what to expect; I promise the students that they won't get hurt (I will monitor), and I promise them that they'll love the result when it's done and that it will be worth it. I didn't have anybody teach mixed voice to me. I had to find it on my own, and it took forever. I still negotiate with it every day, and it's temperamental - it's the first thing to go when I get sick or when I get tired. I work on (obsess about) my own register balance regularly.¹⁹

Kate McGarry: Jazz singers in general often just learn to sing in mixed voice and sometimes just get one sound that goes from low to high because you're taught to not really have that break. So in order to do that, you don't necessarily learn how to use the different textures of each register. If you don't understand those things, it's sort of like you're in the dark.²⁰

Kate Skinner: One of the things I love about jazz is that it doesn't matter if you're singing in head voice or chest voice, or mixed, really. Maybe unless you're in a group, but when you're singing a solo, you can sing in your head voice and have a breathy sound

¹⁹ Rosana Eckert, personal phone interview (New Orleans, LA: 10 January 2020).

²⁰ Kate McGarry, personal phone interview (Jackson, TN & Durham, NC: 13 October 2020).

and that can be beautiful and amazing. I think oftentimes people want to avoid head voice, which is funny to me because that is so limiting. People will say “okay, this is my highest comfortable note in chest voice, so I’ll do it in this key” and I’ll say “let’s actually do it a little higher so you can access your head voice for the bridge” or whatever. Recently I’ve had students who really want to belt. They want to be in mixed voice all the time, so we work on that a lot and the cross over between musical theatre and jazz.²¹

Sara Gazarek: I find that many of my altos have a challenging time feeling comfort and flexibility in their head voice — and conversely, many of my sopranos have a challenging time trusting that their chest voice is a viable and healthy place to vocalize. So integration of registers can be a hurdle. A number of my sopranos, specifically those who come from a strong choral/classical background, find it physically challenging to even identify the sensation of singing in their chest voice, so there’s a tendency to push the head voice low, across all contexts. One of the ways I go about exploring the chest register with my students is by having them speak in a low (F, F#, G) register, utilizing dark colors (a “Santa Clause” sound, or “foghorn” sound, ultimately dropping the larynx and creating a bit more pharyngeal space), and adding a bit more power/volume to the speaking voice. I then have them elongate the vowels in their speech based singing, and slowly move the pitches higher and higher, while maintaining that “speech-based” quality. It can be a bit scary for my higher voices, but the freedom they feel when the light bulb goes off can be so rewarding. For my altos who are scared of singing in head voice, similarly, we focus on normalizing the sensations that might intuitively feel foreign. The development of strength in uncharted registers can feel terrifying — but embracing the feeling of instability to develop stability is key. We begin by identifying a light, tension free, isolated head register (making baby sounds on a “nthah”) and slowly move to a more solid, focused head register over time.²²

Sunny Wilkinson: I would never take a full chest voice up to the C above middle C. For me, that is a travesty, but people do it. I cannot do that. I use my ears and listen and encourage my students to, little by little, mix from the bottom up and from the top down, so that they’re fluidly singing from top to bottom and bottom to top. Sometimes I have them bring their head voice all the way down to stretch that, isolating the register. Then I’ll take the chest up, mixing as we go. I didn’t come up in a belting background, so I’m a little more wary of taking the full chest up too high.

I completely go on intuition with this. I have a series of exercises, but it’s not necessarily a gradation of exercises. If I hear they can do a certain pattern to a minor third then I do that, and if I hear they can stretch it I move to a fifth, and the octave. Or if I’m coming from the top down, that is such specific physical strengthening but it’s also emotional and mental, spiritual release. So that’s why I really don’t have a specific regimen to go from A

²¹ Kate Skinner, personal phone interview (Greeley, CO & Moscow, ID: 28 January 2020).

²² Sara Gazarek, personal phone interview (Greeley, CO & Los Angeles, CA: 23 April 2020).

to B to B to C etc. I do it individually and organically. Mind you, leaning on intuition comes for years of learning and developing my ears to hear what is needed in each voice.²³

Alison Wedding: Most jazz singers sing in a vocal jazz group, so they're always striving for the smooth voice with no break, and usually that's in a very strong head mix. Which is awesome, that's wonderful! But there will usually be a huge hole in their chest register. They have a hard time accessing pure chest, and a hard time accessing pure head. My goal as a singer is to have access to all of those things. And there will be times where there's an imbalance in my voice and I have to deal with that. I feel like it's always a balancing act. If I'm teaching, you know I taught at Berklee, so I don't just teach jazz, I teach commercial voice, so I find that with R&B singers or heavier, beltier singers, they have a very airy head register, and there's no connecting those registers, so I find that's also an issue.²⁴

Lara Brooks: I use a pedagogy where the three voices are three different colors. Blue is classical voice, red is chest or heavy belting or speaking, and violet is mixed voice. And I have a variety of exercises each student uses to help them find those different voice colors. If the student truly doesn't want to go into their head voice, I pick a song they're already comfortable with and I move the key to a higher position so that they're forced to go into head voice no matter what. We do a lot of calling, a lot of hooting to get them in their head voice. For students who only have head voice and not comfortable with chest, we do a lot of speaking, calling out, singing different vowels on different pitches to get them comfortable with using their chest voice.²⁵

Cindy Scott: If the x-axis is registration from chest to head, and the y-axis is pitch from low to high, then I draw a graph and on it a point close to the bottom left corner that represents the theoretical lowest note in their range. Then I draw another point that represents their highest note. I ask them to imagine staying on a straight line between the two points. I talk about the separate muscle groups that control chest register and head register and how, as they go up or down in their range, one set releases and the other set activates, both in tiny increments. It's just a concept and it means nothing, but it helps me set up this idea of them allowing their voices to coordinate and balance with regard to registration.²⁶

²³ Sunny Wilkinson, personal phone interview (Greeley, CO & Okemos, MI: 15 April 2020).

²⁴ Alison Wedding, personal phone interview (Greeley, CO & Miami, FL: 21 April 2020).

²⁵ Lara Brooks, personal phone interview (Greeley, CO & Topeka, KS: 11 March 2020).

²⁶ Cindy Scott, personal phone interview (Greeley, CO & Boston, MA: 11 March 2020)

Belting

Jeannette LoVetri defines belting as “chest dominant singing carried above the traditional break or passaggio at E-G above middle C at a loud volume.”²⁷ Jan Sullivan doesn’t define belting in terms of registration, but provides a more detailed description of belting as

a sound produced by a vocal mechanism in which the larynx is slightly higher than in the classical voice, and the vocal cords come together firmly and cleanly. The shape of the word and how it is spoken is intrinsic to the sound. The sound seems forward in comparison to classical even to the point of sometimes seeming nasal, but it is not nasal. The amount of energy in the support areas is immense. The lips, teeth, tongue, and jaw are shaped and positioned in a specific way for consistent projection of the word so that the word stays between the teeth and the sound formed is not destroyed by an ever-changing projection as it leaves the mouth. The space inside the mouth is not as large as in the classical technique.²⁸

Sullivan states that vowel placement, posture, breath support, and control of vocal onset are essential functions in the production of a successful belt. More can be found on Sullivan’s approach in her text, *How To Teach Belt/Pop Voice*.²⁹ LeBorgne and Rosenberg use this same definition from Jan Sullivan in their text.³⁰

Precursors to jazz music rooted in African American musical traditions are responsible for the use of “belt” in singing, so it is logical that the tradition would continue in jazz singing throughout time. Ethel Merman was one of the first to bring belting to the musical theatre tradition in Gershwin’s “I Got Rhythm” from the show *Girl Crazy* in 1930, although blues singers such as Bessie Smith and Ma Rainey utilized similar belt sounds in their music in the

²⁷ Jeannette L. LoVetri. “Working With Professional Belters,” *Somatic Voicework™ Webinar*, October 12, 2020.

²⁸ Jan Sullivan, *How to Teach the Belt/Pop Voice* (International Association for Research in Singing, 1989).

²⁹ Ibid.

³⁰ LeBorgne and Rosenberg, *The Vocal Athlete*, 290.

years prior.³¹ Bessie Smith belts in her recording of “Downhearted Blues” from 1923. While the invention of the phonograph did not occur until 1877, historical re-creations indicate that belting was used in slave songs leading up to the Civil War.³²

Even though belting is typically a style associated with musical theater singing, many well-known jazz singers have utilized this technique and it proves to be a valuable skill for them to add yet another tool of expression to their toolbox. Sarah Vaughan, Carmen McRae, Esperanza Spalding, Dianne Reeves, Nancy Wilson, and others use belting as another color option in their singing. Vocalists such as Doris Day, Nancy King, or Betty Carter either belt sparingly or not at all.

The following transcriptions demonstrate how three jazz singers approach the use of their registers throughout their ranges and for different musical effects. The transcriptions indicate when each singer can be heard singing in their chest register, head register, or mix of the two. Betty Carter is an example of a performer who commonly stays in predominantly the head/head mix or chest/chest mix for an entire song regardless of range. In “Beware My Heart” on her 1964 album *Inside Betty Carter*, she remains in the head or head mix for the entire duration, with the range spanning from G3 to Bb4.³³ In “My Favorite Things” on the same album, she predominantly employs the chest or chest mix, with the range spanning from A3 to B4. The following examples are much more varied from note to note.

³¹ Kevin Michael Jones, “The Evolution of the Female Broadway Singing Voice (Part 1),” Musical Theatre Resources, last modified August 28, 2016, accessed January 20, 2021, <https://musicaltheatresources.com/2015/11/05/the-evolution-of-broadway-female-singing-voice-part-1/>.

³² LeBorgne and Rosenberg, *The Vocal Athlete*, 289.

³³ Betty Carter, “Beware My Heart,” *Inside Betty Carter*, recorded 1964, United Artists, 1964, CD.

Cecile McLorin Salvant on
Sam Jones' Blues

from *Dreams and Daggers* (2017)

Written by Al Bernard,
 J. Russel Robinson,
 Roy Turk

Straight, ♩=80

chest mix..... chest....chest mix

Sam Jones left his lawful wife just to step a- round

5 chest mix..... chest....chest mix chest (belt).....

came back home a- bout a year took it for his high ground

8 chest, then quick flip into head mix..... chest mix.....

went to his ac- cu - stomed door then he knocked his

12 chest.....head mix chest.... head mix head mix.... mix.... chest

knuc-ckles sore to his sur-prise he re-a-lized she was his wife no more

16 chest mix chest mix..... mix.....head mix

Sam said I'm your hus-band dear well she said dear that's strange to

20 chest..... chest mix

hear cause you ain't ta - lkin to

22 chest mix.....

Mis - ses Jones you spea-kin to Miss Wil - son now!

Ex. 2.2. Approximation of registration by Cecile McLorin Salvant on “Sam Jones’ Blues”³⁴

³⁴ Cecile McLorin Salvant, “Sam Jones’ Blues,” *Dreams and Daggers*, recorded 2016, Mack Avenue, 2017, CD.

Nancy Wilson on
Never Will I Marry
 from *Nancy Wilson/Cannonball Adderley* (1962)

Frank Loesser

Swing, ♩=205

chest mix..... chest.....

Ne - ver ne - ver will I mar - ry

5 chest mix..... chest.....

Ne - ver ne - ver will I wed

9 chest mix.....

born to wan - der sol - i - tar - y

13

wide my world n - arr - ow my bed ne - ver

17 head mix..... chest..... head mix..... chest mix

ne - ver ne - ver will I mar - ry

21 chest mix.....

born to wan - der till I'm dead

Ex. 2.3. Approximation of registration by Nancy Wilson on “Never Will I Marry”³⁵

³⁵ Nancy Wilson, “Never Will I Marry,” *Nancy Wilson/Cannonball Adderley*, recorded 1961, Capitol, 1962, CD.

Carmen McRae on
Yesterdays

from *Carmen Sings Lover Man and Other Billie Holiday Classics* (1962)

Ballad ♩=60

Jerome Kern
 Otto Harbach

A

chest..... chest mix..... chest.....

ye - ster-days ye - ster-days

Detailed description: This block shows the first line of musical notation for 'Yesterdays'. It is in 4/4 time with a key signature of two sharps (F# and C#). The melody starts with a quarter rest, followed by eighth notes. There are three triplet markings over the notes. The lyrics 'ye - ster-days' are written below the notes.

5 chest..... chest... head mix chest..head mix.....

days I knew as hap - py sw-eet se - que - stered__ days_

Detailed description: This block shows the second line of musical notation. It continues the melody from the first line. There are triplet markings. The lyrics 'days I knew as hap - py sw-eet se - que - stered__ days_' are written below the notes.

B

9 chest mix... head mix head mix.....

ol - den days gol - den days

Detailed description: This block shows the third line of musical notation. It continues the melody. There are triplet markings. The lyrics 'ol - den days gol - den days' are written below the notes.

13 chest..... (growl/fry) to chest mix.....

days of m - ad hr - ro - mance and love

Detailed description: This block shows the fourth line of musical notation. It continues the melody. There are triplet markings. The lyrics 'days of m - ad hr - ro - mance and love' are written below the notes.

C

17 chest..... chest mix..... chest mix.....

then gay youth was mine truth

Detailed description: This block shows the fifth line of musical notation. It continues the melody. There are triplet markings. The lyrics 'then gay youth was mine truth' are written below the notes.

20 chest..... chest mix chest... head mix.....

was mine jo-yous free and fla-ming life for - sooth was mine

Detailed description: This block shows the sixth line of musical notation. It continues the melody. There are triplet markings. The lyrics 'was mine jo-yous free and fla-ming life for - sooth was mine' are written below the notes.

Ex. 2.4. Approximation of registration by Carmen McRae on “Yesterdays”³⁶

³⁶ Carmen McRae, “Yesterdays,” *Carmen McRae Sings Lover Man and Other Billie Holiday Classics*, recorded 1961, Columbia CL 1730, 1962, CD.

25 **D** *chest to head flip, head mix.....* *chest mix.....head mix.....*
 sad am I glad am I

29 *head mix.....* *chest.....chest mix.....*
 for to - day I'm drea-ming of

32 *chest mix.....*
 yes - ter - days.

Ex. 2.4 (cont.)

The interviewed participants had a variety of experience and comfortability with teaching belting. Below are some of their thoughts:

Sandra Dudley: I have a five-semester plan. First semester, (sophomore year) in terms of using their heavy mechanism or chest voice, I do not have them practicing heavy belting. I see where the beauty of their voice is, where the chest voice sound is produced naturally, and then bring it up slowly via exercises. Next, as they become familiar with that sound, I introduce repertoire in a medium key range. In the junior year, I give them repertoire that reaches into the belt area a bit more. I slowly stretch them a little more each semester. Training with the heavy mechanism takes time and must be taught over a long period of time. Singing in appropriate keys and finding repertoire for the various skills they need are very important. Baritones, for example are notorious for wanting to push their voices too high. When I show them where the beauty lies lower in their voice, they see that they must build that sound first. They live in that sound a while and then I take that sound up higher in their comfortable range.³⁷

Rosana Eckert: One area that I continue to explore is the teaching of loud belting and how to do that as efficiently and safely as possible. Most of my students aren't interested in aggressive belt technique, but expanding the volume options throughout the range is

³⁷ Sandra Dudley, personal phone interview (Greeley, CO & Nashville, TN: 12 June 2020).

something I focus on. Depending on the singer, belting can really be like an extreme sport, and some of the people who sing that way regularly can't maintain that type of singing, ending up with chronic hoarseness or a more severe injury, so I am always trying to learn different approaches to belting to match the varied physiological tendencies of each student.³⁸

Alison Wedding: I teach commercial voice, so I find that with R&B singers or beltier singers, they have a very airy head register, and there's no connecting those registers, so I find that's also an issue. With jazz singers, there's actually quite a bit of tongue tension and jaw tension, so I spend quite a bit of time working through that.³⁹

Intonation

Intonation is an obvious requirement for any successful vocalist in any style of music.

While thorough ear training is necessary for students who plan to be professional jazz vocalists, struggles with intonation may also stem purely from registration issues, which voice teachers can help students address. Melissa Malde states the following regarding intonation and registration:

If heavy production is brought high into the range, the muscles become increasingly strained. It is likely that the singer will sing flat because of the effort involved in sustaining that rate of contraction. If light registration is brought low into the range, sometimes singers sing sharp. Singers who are used to singing with a certain registration in a part of their range may go sharp or flat when they try to sing in a different register until the mechanism and ear adjust to the new color.⁴⁰

Resonance can also be a factor in intonation issues. Melissa Malde states the following regarding intonation and resonance:

If high harmonics are emphasized with resonance, the pitch may sound sharp. If low overtones are emphasized, the pitch may sound flat. This is especially true if the resonance is not consistent. For instance, if a singer habitually sings a bright, somewhat nasal [e] vowel and a throaty, dark [a] vowel, the intonation will sound inconsistent, even if the vocal folds are producing the same pitch. . . . Awareness of the structures of

³⁸ Eckert interview

³⁹ Wedding interview.

⁴⁰ Malde, *What Every Singer Needs to Know About the Body*, 4th ed., 160.

resonance will help eradicate tension and build consistency in resonance, which will help intonation.⁴¹

If the teacher is confident that the struggle with intonation is an ear training or tone-deafness issue rather than a technical issue, this is a matter of working with the student on thorough ear training. While this is an important facet of vocal study, this dissertation deals mainly with vocal production.

Registration is one of the most challenging elements of vocal technique in any genre. The interviewed participants indicated they tend to spend the most time on this in their lessons when addressing technique. There are already many valuable resources that address this topic—these can be found in Appendix C. Instructors have found the most success by studying these resources, becoming aware of the structures at work in each register, and gaining personal experience through experimentation and repetition.

⁴¹ Ibid., 210.

CHAPTER III

ARTICULATION AND PRONUNCIATION

While most teachers agree that training in registration, breathing, and resonance are all equally important and can be taught using similar tools across genres, articulation and pronunciation are two elements of vocal technique that highly define the style in which a singer is performing. Diction practices for lyric singing and wordless improvisation in jazz differ from practices in other styles. Additionally, pronunciation is one possible cause of tension in the muscles of the vocal tract, and jazz voice teachers must be prepared to address both style and vocal function when such issues arise.

The goal of most jazz singers is to pronounce lyrics and phrases in a conversational, speech-like manner. Diana Spradling says “the appropriate use of diction in jazz music falls under the category of vernacular/informal/conversational pronunciation. When one uses a “formal” palette of pronunciation in this genre, the delivery of text sounds stilted, stiff, or, as some would say, affected.”⁴² Pronouncing words in this conversational way allows a singer to deliver the most authentic and personal message possible while also demonstrating a full, clear tone that assists with the expression of the moment. This necessity, combined with the element of swing, is what sets jazz singers apart from singers of other styles.

⁴² Diana Spradling and Justin Binek, "Pedagogy for the Jazz Singer," *The Choral Journal* 55, no. 11 (2015): 13.

Since its beginning, Jazz has been highly influenced by African American singing traditions rooted in music brought to America by slaves.⁴³ Some of these include field hollers, work songs, and ring shouts, and set the precedent for vocal styles in blues, gospel, and jazz genres.⁴⁴ Each of these styles prioritize deep expression of personal suffering, sorrow, joy, and praise over execution of a pristine, technically informed vocal sound. The necessity for this type of expression sets the precedent for a conversational approach to lyric pronunciation in jazz. The best jazz singers have worked to find a balance between producing a beautiful, resonant sound and using speech-based pronunciation to tell a story.

Some of the interviewed participants offered the following comments regarding diction and singing with a conversational approach:

Alexis Cole: Diction is a priority. Not just vowel shapes, but sometimes there will be over-enunciation. Encouraging relaxation of the jaw...there's so much jaw tension. For good singing, just keeping all that relaxed is so important and yields a lot of results when people can really do it.⁴⁵

Alison Wedding: If I were to just find a track online and sing one of the twenty-four Italian hits, my vowel shapes would be different, I'd be using way more vibrato than I would when I'm singing a jazz standard, my placement would be different—it's not so forward when I'm singing jazz, it's more speech-like.⁴⁶

A desire for young singers to be conversational might result in singing with vowels that do not serve ideal resonance strategies and can cause tension. If a melody were to go beyond the singer's natural speaking range, they may need to work with their teacher to find appropriate vowel modifications that promote resonance and stylistic singing that is free of tension.

⁴³ LeBorgne and Rosenberg, *The Vocal Athlete*, 289.

⁴⁴ Richard Crawford and Larry Hamberlin, *Introduction to America's Music* (New York: W.W. Norton, 2019), 222.

⁴⁵ Alexis Cole, personal phone interview (Greeley, CO & NY: 4 March 2020).

⁴⁶ Wedding interview.

It is typical for vocalists to face pronunciation challenges when combining difficult melodic passages with scat syllables. Improvisers often prioritize melodic and rhythmic content over tension-free vocal production. A teacher might be inclined to address note choices, rhythms, and general musicality before discussing habits that a student might develop as they navigate their improvised syllables. Below are some best practices for scat syllables gathered from suggested vocal improvisation resources and transcriptions of recordings.

Syllable Pairs

A common practice in scat singing is to use syllable pairs, or two consecutive syllables that each start with a different consonant for ease of pronunciation.⁴⁷ This helps the singer to achieve a more legato sound and allows them to alternate necessary articulators to execute faster eighth note passages with ease. For instance, “da-da-da-da-da” is much more difficult to sing at a fast speed than “da-va-da-va-da,” as the singer can alternate between using the tongue and the lips to create the consonant instead of repeatedly using the tongue. Examples of these syllable pairs include “da-ba,” “da-va,” “ba-va,” “boo-daht,” “doo-ba,” “doo-va,” “doo-ya,” “da-ya,” etc.

Consonants

Consonants in scat singing require special attention; if they are over-pronounced, they can interrupt the swing feel and flow of a line, making the overall sound less idiomatic. Singers that come from choral or classical settings are often accustomed to singing crisp, clear consonants, but this approach to diction is not typical in scat singing. Consonant pronunciation trends found in the best scat singing are indicated below.

⁴⁷ Michele Weir, “Michele Weir – Scat Singing 1 (Rhythm, Syllables and Articulation)” (video lecture), posted January 18, 2018, accessed January 30, 2021, https://www.youtube.com/watch?v=tSDbDkQx3RM&list=RDtSDbDkQx3RM&start_radio=1

Rarely will scat singers employ plosive consonants such as “t,” “k,” and “p,” especially at the start of a syllable. A “t” can be used at the end of short notes, but the pronunciation is never pronounced with the teeth; this would detract from the rhythmic approach to lines that sound closest to what a horn player would tongue. “T”s in general should be pronounced with the tip of the tongue and the hard palate situated right behind the front teeth.⁴⁸ The same applies to “d” consonants.

Improvisers regularly try to achieve a legato approach when singing eighth-note lines, which further promotes the need for a softer approach to consonants when they are used. This is why improvisers commonly use “d,” “v,” “b,” “f,” “w,” and sometimes “l,” “s” or “sh.” The consonants “g,” “j,” “k,” “p,” “q,” and “x” are generally avoided in scat singing.

“Y,” as another legato consonant in vocal improvisation, is frequently used in the second syllable of a syllable pair such as “da-ya” and can often be utilized to demonstrate a turn in the voice much like a trumpeter might play. A short vibrato or sixteenth-note turn might be added in this scenario, or a quick flip from the chest to head register in a “yodel”-like fashion.

Finally, “n”s, “m”s, and sometimes “l”s are frequently used as “ghosted notes” in strings of eighth notes or triplet figures in order to de-emphasize certain pitches and highlight others. A few written examples of this are below:

- “Doo-dl-da”
- “Vih-dl-ih”
- “Da-va-da-n-da”

⁴⁸ Spradling and Binek, "Pedagogy for the Jazz Singer," 13.

- “Doo-beh-a-n-da”
- “Doo-m-boo-m-boo”

Vowels

Vowels in scat singing are often more neutral or bright than vowels heard in choral and classical settings. Imagine singing a fast eighth-note line with tall, dark vowels on every note but still placing paired syllables and consonants like “d” or “b” between each eighth note; this is much more work and inevitably sounds less like jazz. Commonly used vowels are “ʌ,” “a,” “i,” “I,” “e,” “ʊ,” and “u.”⁴⁹ While these vowels are also used in classical singing, the approach to them would usually be more closed in jazz singing, unless the singer is modifying to accommodate sustained pitches or extreme highs or lows in range.

Michele Weir, Justin Binek, Aimee Nolte, and Darmon Meader have created many useful materials in the realm of scat singing and appropriate articulation for style and swing feel. Their works are included in the suggested sources list in Appendix D.

If a student experiences significant tension in their singing due to articulation issues related to scat singing, a teacher might encourage them to slow down specific lines of written etudes or solo transcriptions and sing with a straw or pen beneath the tongue to ensure looseness of the tongue. Experienced instructors can work with their students to choose appropriate syllables for scatting, and the teacher and student can work together to determine which syllables create the most tension and adjust accordingly. Coaching a student to compose a solo with pre-determined syllables can also be a helpful exercise.

⁴⁹ These are symbols from the International Phonetic Alphabet (IPA).

I have chosen to transcribe the scat solos of three vocalists in order to evaluate their syllable and articulation choices. While each singer has their own unique style, they often follow trends similar to those discussed above. As there is not one single codified system for notating scat syllables, I have designed the following system for the transcriptions below, which illustrate the syllables that each singer employs. Consonants are pronounced as they would be in American English, but with a less articulated approach than would be used in classical singing. “D” consonants are always pronounced using the tongue and alveolar ridge instead of the teeth. Each singer has an individual approach to the level of brightness or darkness of each of these vowel sounds.

Vowel sounds for the following transcriptions are as indicated below⁵⁰:

- “ee” is pronounced [i] as in “see”
- “ih” is pronounced [ɪ] as in “give”
- “eh” is pronounced [e] as in “eggs”
- “ay” is pronounced as a diphthong [eɪ] and is only indicated when followed by a vowel sound as in “doo bay a”
- “uh” is pronounced [ə] as in “love”
- “a” is pronounced [a] as in “father”
- “oh” is pronounced [o] as in “no”
- “oo” is pronounced [u] as in “new”

⁵⁰ These are symbols from the International Phonetic Alphabet (IPA).

Betty Carter's Improvised Solo on:
You're Driving Me Crazy

Swing ♩=220

from *Out There* (1958)

Composed by Walter Donaldson

(starts at 0:37)

(solo fill)

3 **B^{b6}** **Gm⁷** **Cm⁹** **F⁹**

wee da yeh da da n leh da heh la da n

3 **A** **B^{b6}** **B^{b6}/D** **Db^o** **Cm⁷** **F⁹**

da wee ba a dih-dl-luh dih diht yeh deh n loh boh doh m ba ba doo n

6 **D⁷alt.** **G¹³** **C⁹**

doo dl ih doo ba doo-lu-yih doo ba wih boo bih hoo ih yuh daht

8 **Cm⁹** **F⁹** **B^{b6}** **G⁷alt.**

hih doo buh hoo ih yuh da ba hih-dl-ih ba m bee buh dih lih yih

10 **Cm⁷** **F⁹**

hih - dl - ih dip m wee bih dih dl ih

11 **B** **B^{b6}** **B^{b6}/D** **Db^o** **Cm⁷** **F⁹**

deh sha dee ba uh weep m bop bah dih dl eh-deh deh dl-eh dom bom boom boh boh

14 **D⁷alt.** **G¹³** **C⁹** **Cm⁹** **F⁹**

wee ba uh dih dl ih wih n dih diht uh dih dl ih bih n dih diht uh dih dl ih

Ex. 3.1. Scat Syllable transcription of Betty Carter on “You’re Driving Me Crazy”⁵¹

⁵¹ Betty Carter, “You’re Driving Me Crazy,” *Out There*, recorded 1958, Peacock PLP 90, 1958, CD.

2 17 Bb^6 $Em^7(b5)$ A^7

wih ya duh boh hihl ya da da hoy yoo ba__

C

19 $Dmaj^7$ Em^7 A^7 $Dmaj^7/F\sharp$ F°

ya ya ya__boo wee boo wee boo boo dihl__dl ah dih lih yah dih lih ya deh heh

22 Em^7 A^7 $Dmaj^7$

__ dl a dih lih ya dih lih ya dih lay a a la ba

24 Em^7 A^7 D^6 G^7 Cm^9 F^9

wee ba doo buh wee doobay a heh__lih ya da ba da doo__weeboo wee

D

27 Bb^6 Bb^6/D D^b° Cm^7 F^9 $D^7alt.$ G^{13}

__ bah a doo dl uh beh dl ey ba ba__ beh bah a doo dl uh beh yoo bah dih dl ih

31 C^9 F^7 Bb^6 Gm^7

boom ba__ ba__ ba__ ba do wee__ yee-dl oo ba yee-dl oo ba

34 Cm^7 F^9

weh - dl oo bahp bwee__

Example 3.1 (cont.)

Ella Fitzgerald's Improvised Solo on
Take the A Train

Swing ♩=180 from Ella Fitzgerald Sings the Duke Ellington Songbook (1957)

(starts at 1:26) **A** F⁶ Composed by Billy Strayhorn

buh dih dee n dee lih dih duh buh dih yuht duh duh buh n duh

4 G⁷(#11) Gm⁷
 dwee duht n duh dih duht dih deht deh ya ba ba doh va yih doo ba

7 C⁷ F⁶ Gm⁷ C⁷
 mboh bih dwee yuh doo n dee n da bee bee

10 **B** F⁶ G⁷(#11)
 yih n doo n doo dee yoo n doo dih dih dih yih n doo bih yoo m boo m boo m boo m

13 Gm⁷
 boo bee ee da ee dee doo n doo n

15 C⁷ F⁶ Cm⁷ F⁷
 doo dee yah dee dee doo dih dih dwee n doo ba

18 **C** B^bmaj⁷
 bihp diht ba bih diht doo n dih bih yuhn duh dee da da da da da ya

21 G⁷
 dahp ba ba bahp bahp bahp boh bahp bahp buh doo bih dih n

Ex. 3.2. Scat Syllable transcription of Ella Fitzgerald on “Take the A Train”⁵²

⁵² Ella Fitzgerald, “Take the A Train,” *Ella Fitzgerald Sings the Duke Ellington Songbook*, recorded 1957, Verve MGV 4008-2, 1957, CD.

2

24 Gm^7 C^7 $C^7(b9)$

doot n doot n diht n dee dahp___ bahp___ n boo bee dee n

26 **D** F^6 $G^7(\#11)$

dee bih dih n doo m boo bih yuh n duh dih yee bih dih n doo___ n doo dih ee n

30 Gm^7 C^7 F^6 Gm^7 C^7

dee_ da dee_ da doo doo_ ba_ boo bih bwee yuh doo n dee yoo ba___ m ba(w)

Example 3.2 (cont.)

Sarah Vaughan's Improvised Solo on:

All of Me

from *Swingin' Easy* (1957)Composed by Gerald Marks
and Seymour Simons

Swing ♩=130

(starts at 1:02)

(solo fill)

G⁶ Am⁷ D⁷

shoop bee bee doo bee doo m da ba doo bih hwee hwee hwee hwee

3 **A** G^{maj7} B⁷

doo vm doo vm bee ah_ suh bee duh bee ee bee dee bee doo bee oo bee

6 E⁷

doo bee oo bah doo wah_ dih bih lee oo bah zee bee ba_

8 Am⁷

_ buh doo ba oh buh dey dee oo dn doo dn dee dn doo dn dee ya_ sa

11 **B** B⁷ Em⁷

doo li - ya doo - pa si - li - ya da dn sa - li - ya da - dn da - li - a - da - n da ba ba be be be be

14 A⁷

wee n dee doo_ sih hih hih hih hih ya

Ex. 3.3. Scat Syllable transcription of Sarah Vaughan on “All of Me”⁵³⁵³ Sarah Vaughan, “All of Me” *Swingin' Easy*, recorded 1957, EmArcy 36109, 1957, CD.

2 16 Am⁷ D⁷

ah bih bih buh boo m da buh bee bee bee buh doo bee ah sih dih

19 C Gmaj⁷ B⁷

dih dih dih bah doo bey da bih do bih doo-li ya doo boo doo-li-yadoo be doo wah

22 E⁷

si - li - yih doo wa dee bee dee ba ba dee

24 Am⁷

ba ba bee ba ba da sa ba ba dee bee dee ba sih bih

27 D Cmaj⁷ Cm⁶ Bm⁷

bih bih hih yih hih yih dih bih ih dih yoo m doo bee doo m dee dee be doo be a m

30 E⁷ Am⁷ D⁷

dee bee a m da wee sih yuht dih yuht dih yuht dih yuh n doo we

33 G⁶ Am⁷ D⁷ Gmaj⁷

de be be doo m doo m swee dee dee bee doo bee doo

Ex. 3.3 (cont.)

Those educators interviewed in this study highlighted three common articulation and pronunciation issues experienced by aspiring jazz vocalists: glottal onsets, vocal fry and vowel morphing. These are issues either because they indicate trends from a different style or because they cause unnecessary stress to the voice when overused or used without intention.

Glottal Onsets

A glottal onset is a type of onset to a sung or spoken pitch that is used on words that begin with a vowel in English and other languages. This occurs when the

vocal folds press together, closing the glottis while the singer begins, or continues, to exhale. There is a momentary silence as the sub-glottal air pressure builds until it is great enough to force the vocal folds back open. When this happens, there is a small explosive sound before a vowel begins as the vocal folds start to vibrate.⁵⁴

Glottal onsets are a necessary part of stylistically appropriate singing in jazz and other styles and are used in English and German pronunciation. However, students may be inclined to approach glottal onsets with a frequency or severity that detracts from stylistic expression.

Vocal Fry

Singing in vocal fry (sometimes also referred to as “glottal fry” or “pulse register”) has become commonplace for many singers of modern popular music. Vocal fry is the register where the cricothyroid muscle is completely disengaged. As Malde explains, “The vocal folds are thick and completely released and the air that passes through them produces a rattling sound very different from other phonation.”⁵⁵ Singing with vocal fry is not a style characteristic normally found in jazz singing. It is, however, frequently found in pop singing (particularly on onsets and offsets of pitches) and is often unconsciously used by pop-savvy students while performing jazz

⁵⁴ Malde, *What Every Singer Needs to Know About the Body*, 4th ed., 229.

⁵⁵ *Ibid.*, 154.

repertoire. Examples of pop singers that frequently use vocal fry include Britney Spears, Billie Eilish, Demi Lovato, and Taylor Swift. Darden Purcell offers the following advice regarding vocal fry:

I speak to them about raising their speaking voice right away. Speaking in a higher register so they're always speaking on tone. Sometimes I'll play them examples of people in the 40's and 50's and everyone had this sing-songy speaking voice and the tone was very pure. Not being lazy and letting it fall all the time. I also advise them to approach the note from the top, don't approach the note from the bottom. If you approach the note from the top, it will hopefully get rid of scooping, and vocal fry, because if you're descending on a note, you won't scoop.⁵⁶

Vowel Morphing

Jazz vocalists aim to deliver lyrics in a manner that very closely resembles speech.

However, it is common for modern pop and indie singers to utilize extra vowels to create certain diphthongs that do not actually exist in the common American English pronunciation of the word. This technique would detract from the conversational nature of lyric pronunciation in jazz. Speech-based diction is not limited to traditions of older historical jazz singers such as Ella Fitzgerald and Sarah Vaughan; current jazz singers like Kurt Elling, Cecile McLorin Salvant, Dianne Reeves, and Sara Gazarek can all be heard using vowels that most closely resemble their own speech.

Recorded examples of vowel morphing used in popular music:

- Shawn Mendes in the song “Stitches”⁵⁷
 - “Your bitter heart cold to the **touch**”

⁵⁶ Darden Purcell, personal phone interview (Greeley, CO & Burke, VA: 10 April 2020).

⁵⁷ Shawn Mendes, “Shawn Mendes - Stitches (Official Video),” posted June 24, 2015, accessed February 15, 2021, <https://www.youtube.com/watch?v=VbfpW0pbvaU>.

- Typically used [ʌ] or “uh” becomes [ʌI] or “uh-ih”
- Selena Gomez in the song “Good for You”⁵⁸
 - “So good so **good**”
 - Typically used [ʊ], like “hood” becomes [ʊI] or “uh-ih”
- Halsey in the song “Drive”⁵⁹
 - “Carves into my hollow **chest**, spreads over the **emptiness**”
 - Typically used “Eh” or [ɛ] vowel becomes “eh-ih” or [ɛI]

It is logical that vocalists naturally absorb concepts from the material that they listen to frequently, so this is something worth mentioning to vocal students who are studying jazz. They can adapt whatever style traits they prefer in other styles, but it is highly uncommon to use this particular vowel morphing technique in jazz singing.

Below are some comments from the interviewed participants regarding the above issues:

Darden Purcell: So many singers are coming in with bad habits; I don’t know if it's because of listening to popular singers of today, but I have singers that use glottal attacks for everything. Not saying that that's always bad, but shouldn’t happen all the time. Also singing on the vocal fry, especially at the beginning of phrases. Sometimes they’re speaking a large percentage of the day in that low vocal fry register and wearing the voice out without knowing it. Also pop onsets and scooping, not only does it sound unstylistic, but they’re low in intonation before they’ve even started and aren’t aware of it.⁶⁰

Greg Jasperse: The three big things I’m encountering in students these days are the vocal fry, not speaking “on the breath,” even an entire sentence without balanced breath pressure, and glottal stopping all the time. So we’ll do some reading or speaking of lyrics,

⁵⁸ Selena Gomez, “Selena Gomez - Good For You,” posted June 26, 2015, accessed February 15, 2021, <https://www.youtube.com/watch?v=1TsVjvEkc4s>.

⁵⁹ Halsey, “Halsey - Drive (Audio),” posted August 21, 2015, accessed February 15, 2021, <https://www.youtube.com/watch?v=atQtIBEOavs>.

⁶⁰ Purcell interview.

so they can get more elision of their speech and make sure it's always on the breath. Not breathy, but coordinated with breath pressure.⁶¹

Cindy Scott: I hear a lot of squeezing, glottal closure in the middle of a phrase or on the attacks. That can be a style choice in pop music, but for our exam purposes we challenge them not to do that. So it's an opportunity to motivate them to be aware of the tendencies they have.⁶²

Articulation and pronunciation are two concepts that can quickly indicate if someone sounds like a jazz singer. Teachers place significant focus on these areas with students when discussing style, so it is important for them to develop awareness of articulation and pronunciation issues that cause tension or constriction in the voice.

⁶¹ Greg Jasperse, personal phone interview (Greeley, CO & Kalamazoo, MI: 6 July 2020).

⁶² Scott interview.

CHAPTER IV

RESONANCE AND TONE QUALITY

Wynton Marsalis said, "Everything comes out in blues music. . . joy, pain, struggle."⁶³

These sentiments are reflected in the wide array of sounds that are heard in jazz singing, which is often meant to portray the struggles and joys of life experienced by an individual. Jazz singers have the responsibility of portraying emotional expression through nuance in tone quality, and their understanding of how to manipulate resonance structures is important to achieving this nuance.

Because the voice is such a flexible and individualized instrument, singers and teachers of singing are constantly using various adjectives to describe the quality of the tone being produced. "Bright," "dark," "light," "heavy," "rich," "thin," "full," "nasal," "open," "breathy," and "clear" are common examples. The goal of many jazz singers is to have a diverse palette of sounds to draw from in order to express different emotions, and teachers seek to help their students understand how to manipulate tone quality easily and without strain. This understanding comes with awareness of specific movements within the entire vocal tract, awareness of different vowel shapes, and for many, the ability to imitate. This is not to say that every singer is constantly thinking about the height of their larynx, what type of vowel they are singing, what their tongue is doing, whether their soft palate is lifted, etc. However, the more a singer

⁶³ William Lee Adams, "Jazz Musician Wynton Marsalis," *Time* (Time Inc., November 13, 2009), <http://content.time.com/time/arts/article/0,8599,1938583,00.html>.

understands about the parts of their sound they can control, the more diverse they will be, and the more power they will have to choose how they shape their own artistic voices.

Resonance

The interviewed participants indicated that they strive to help their students find increased awareness of the structures of resonance so that they may freely adapt these structures at will to adjust their own resonance while singing. The structures involved with resonance are

- The skull (head),
- The pharyngeal constrictors (throat muscles),
- The mandible (jaw),
- The tongue,
- The velum (soft palate),
- The buccinators (inner cheek muscles),
- The orbicularis oris muscles (lips),
- The larynx,
- The aryepiglottic sphincter (opening of the larynx into the throat).⁶⁴

The ability to manipulate each of these structures is important for every genre of singing, and an understanding of the movement of these structures can only come from inclusive awareness. While some of the structures can be touched (tactile sense), others are so deep inside the head and neck that we can only understand how they are behaving through kinesthesia (sense of movement).⁶⁵

⁶⁴ Malde, *What Every Singer Needs to Know About the Body*, 4th ed., 167.

⁶⁵ Ibid.

The presence of a microphone in most jazz singing environments allows singers to use a wider range of dynamics and tone colors as the amplification allows them to be heard over the band. This means that singers of jazz are not always concerned with finding vowel shapes for optimal resonance, and instead are often more focused on finding vowel shapes that are optimal for expression, leaning toward a more conversational sound. The degree to which great singers utilize vowel shapes for resonance purposes varies greatly. Sarah Vaughan oscillates between bright and dark vowel shapes, using a wide array of dynamics and colors. Nancy King regularly uses a speech-like approach with more closed, neutral vowel sounds. Frank Sinatra is often referred to as a crooner but has also been known to belt.

Diana Spradling conducted a study wherein she evaluated the spectrograms of classical and jazz singers through a program called VoceVista. She mentions that “the naturally projected acoustical properties of classical singers registers significant acoustic activity in the first (F1) through sixth (F6) formants and occasionally higher, while the microphone singer’s behaviors register in formants 1, 2, and 3. (A formant is a group of overtones that indicates bands of energy on a spectrogram.)”⁶⁶ This indicates that many jazz singers have developed singing habits that do not produce as much resonance as classical singers, which is not necessarily problematic when a singer is equipped with amplification for performance. Alexis Cole said, “I think many students have grown up listening to different styles, more modern pop styles. I don’t want to say it revolves around jaw tension, but there is an engagement of the jaw that sometimes cuts off resonance, which sometimes doesn’t matter for pop music being sung through a microphone.”

⁶⁶ Spradling and Binek. "Pedagogy for the Jazz Singer," *The Choral Journal*, 12.

Even though this is the case, educators find it important to help their students achieve a resonant sound without the use of a microphone so they can call on a variety of dynamics in performance. Each jazz singer is completely unique in their approach to resonance and how they coordinate microphone proximity with their personal dynamic choices. The amount of resonance employed by a singer at any given moment will dictate the necessary proximity of the microphone to their mouth. This technique can be studied in numerous videos of live performances. One example of this is Cécile McLorin Salvant's performance of Kurt Weill's "Somehow I Never Could Believe". For more intimate, speech-like moments, the microphone is closer to her mouth, then at five minutes and forty seconds she breaks into a much louder, almost operatic sound that requires her to move the microphone a foot or more away from her face.⁶⁷

Tone Quality

Early jazz and blues singers and instrumentalists have influenced the varied tone qualities often associated with jazz singing. Vocalists like Robert Johnson are known for employing growls, slides, and an occasional scratchy quality to emphasize the feeling associated with the blues. A similar type of growl is heard in Louis Armstrong's singing and in Bubber Miley's trumpet playing. Various tone qualities were executed by notable saxophone players of the genre; Paul Desmond's alto sound is light and often airy, while Cannonball Adderley's sound is bright and brassy. Lester Young's tenor sound is brighter and sweeter than Coleman Hawkins' rich, sometimes gritty tenor sound. The tradition of jazz has always been collaborative, and these musicians were undoubtedly influenced by the sounds of their peers. All of the teachers involved

⁶⁷ Live From Here, "Somehow I Never Could Believe - Cecile McLorin Salvant - Live From Here," <https://www.youtube.com/watch?v=suYYFLobZCc>, April 21, 2019; accessed February 15, 2021.

in this study mention the importance of being able to sing with a clear tone that is free of tension or constriction of any kind. This clear tone can serve as a base sound for singers, from which they can temporarily venture out to other breathy, growling, scratchy or gritty tone qualities.

Additionally, coordination of breath pressure with phonation has an effect on how balanced the sound is, which will affect tone quality. How “pressed” or “breathy” a singer’s tone sounds is directly related to the amount of sub-glottic pressure and vocal fold closure. Sub-glottic pressure is the pressure built up beneath closed vocal folds as breath flows from the lungs.

Through manipulation of sub-glottic pressure, singers may achieve any of the following:

- Breathly phonation: excess breath-flow coupled with minimal resistance
- Pressed phonation: high sub-glottic pressure coupled with excessive resistance
- Flow phonation: balanced sub-glottic pressure and airflow

Pressed or breathy sounds can both be used in jazz as stylistic tools as long as they are intentionally utilized for expressive purposes. The goal for a jazz singer is the ability to produce a wide array of sounds while possessing complete control and flexibility; therefore, teachers wish to prevent a “default” breathy or pressed sound that their students are unable to modify. It must be a judiciously employed choice in order to sustain a healthy approach. Jo Lawry mentioned, "One problem I often hear is excess air—the lack of ability to make a really clear sound, which can sometimes be a sign of some kind of vocal issue or injury, such as nodes. Or it could just be a lack of the technical ability to do it, but in either case it’s a problem.”⁶⁸ *What Every Singer Needs to Know About the Body* says the following regarding a breathy tone:

⁶⁸ Jo Lawry, personal phone interview (Greeley, CO & New York, NY: 26 February 2020).

The larynx will produce a breathy tone when the vocal folds are either closed too loosely or the space between the arytenoids remains open. Usually when a breathy quality is deliberately cultivated, the first is true. The second condition is often prevalent in adolescence, and most singers grow out of it as they mature. Learning to close the glottis with gentle firmness may take time and practice if it does not happen naturally. It is vital that singers do not recruit neck muscles or excessive tension in the vocal folds themselves to close the glottis. Such practices do not help and can often lead to injury.⁶⁹

Additionally, Jeannette LoVetri states that “you cannot really ‘support’ a breathy sound, no matter what you do with your body. The air runs out because the vocal folds are not closing tightly enough to create resistance.”⁷⁰ Singers may regulate the degree of breathiness with resonance as well as with glottal closure. In the quote below, Melissa Malde describes how inefficient resonance can cause breathiness in the tone:

When you are sure your glottis is closing completely but you still sound breathy, it may be due to inefficient resonance. The buzzy sound produced by the vocal folds is filtered as it travels through the vocal tract. Sometimes the shape of the vocal tract is just right and the tone sounds pure and vibrant. Other times, the shape is a little off and the tone has less presence. When the shape is way off, the tone can sound breathy, even when the signal from the vocal folds is clean. You can fix this by moving the structures of resonance until you find the optimal shape for the vocal tract on that pitch. Remember, the shape will be different on every pitch-vowel combination. When you find the most efficient resonance, you will notice that phonation is easier and that your breath lasts longer. You can then match the vowel you need to sing to the most efficient vowel on any given pitch.⁷¹

While breathy resonance is inefficient in terms of breath management, it may be intentionally cultivated as a tone color in jazz singing. Breathiness may be encouraged by teachers as long as it is deliberately cultivated for specific musical effect. Lara Brooks said the following about singing with a breathy tone:

⁶⁹ Malde, *What Every Singer Needs to Know About the Body*, 4th ed., 158.

⁷⁰ Jeannette L. LoVetri, *Somatic Voicework™ The LoVetri Method: Level I* (New York, NY: The Voice Workshop, 2018), 35.

⁷¹ Malde, *What Every Singer Needs to Know About the Body*, 4th ed., 210.

A lot of students hear people sing on studio recordings, but when you go and listen to them sing live it's actually such a different sound. In the recording studio they can use more breathy technique, more spoken choices, but when it's live it's a completely different ballgame. And a lot of students don't listen to the live stuff, so they think "oh, I can be that breathy all the time!" and it's like "Well...not really, you still need to use your full breath support and sing on the breath."⁷²

Vibrato

Vibrato is another technique that singers incorporate to change the tone quality. All of the best jazz singers have slightly different approaches regarding how much vibrato they use. Two contrasting examples are Sarah Vaughan, who frequently sings with vibrato, and Diana Krall, who uses vibrato sparingly or not at all. The same can be said for virtually every horn player. Ideally, to be a versatile singer, a student should be able to intentionally add or subtract vibrato at any given moment for stylistic purposes.

Important things to note about vibrato:

- The ability to sound conversational and speech-like while singing jazz is important to the style. Since we almost never speak with vibrato, it is logical that in singing we would save vibrato for longer notes. It is common in jazz singing to sustain a straight tone (no vibrato) at first, and then bring in the vibrato toward the end of a long note. Persistent vibrato on every note tends to make the sound more classical.
- Vibrato is a natural tremor of the larynx. Some students struggle to develop vibrato, and there are many successful singers who never use it.
- Straight-tone singing can be achieved in a healthy manner. Vibrato is not a mandatory element that must be present in order to sing with a healthy vocal sound. However, it is

⁷² Brooks interview.

another color choice that will benefit a singer greatly. It is typical for skilled jazz singers to intentionally add or subtract vibrato with freedom and ease.

- Differing opinions exist as to whether singers can manipulate the speed and width of vibrato. Carter, Hopkin, and Dromney's *Journal of Singing* article "Volitional Control of Vibrato in Trained Singers" contains a study which found that many trained singers do have some element of control over the width and speed of their vibrato. The authors state that "attempts to match vibrato were most successful in the middle range."⁷³ Interviewees Rosana Eckert and Kate Skinner mentioned that singers have the ability to gain control over the width and speed of their vibrato.⁷⁴
- Vibrato can be used as a tool at the ends of notes to highlight the swing feel.⁷⁵

Example 4.1 below illustrates the moments where Ella Fitzgerald implements vibrato on her famous recording of "Mack the Knife." The placement of this vibrato toward the ends of sustained pitches adds forward motion to the notes, and the speed of it in this particular example happens to fall within the triplet subdivision. The markings above the staff illustrate the starting place of the vibrato in each spot where she chooses to implement it.

⁷³ Neisha Carter, J. A. Hopkin, and Christopher Dromey, "Volitional Control of Vibrato in Trained Singers," *Journal of Singing - the Official Journal of the National Association of Teachers of Singing* 67, no. 1 (2010): 15.

⁷⁴ Skinner and Eckert interviews.

⁷⁵ Dudley and Cole interviews.

Ella Fitzgerald on, "Mack the Knife" Live in Berlin, 1960

Swing ♩=135

Oh the shark has pear - ly teeth dear

and he shows them pear - ly white just a

Ex. 4.1. Ella Fitzgerald's vibrato assisting with swing feel on "Mack the Knife"⁷⁶

Alexis Cole gave the following remark about teaching students how to develop and control vibrato:

I have students on both ends of the [vibrato] spectrum. One has a hard time making any vibrato, and others have a really wide vibrato. In an effort to improve my pedagogical skills, I took a lesson with a guy who is a technique expert. He said your vibrato is just a result of whatever is on your playlist. I try to help singers aim for a vibrato that's not too wide and not just a shake, and that can be deployed at the right time. The jazz vibrato is straight tone to vibrato, and what that does is assist the swing feel.⁷⁷

If a student has a natural vibrato, it is common for the teacher to ask them to sing freely with their natural vibrato during a warm-up. The instructor may then direct the student to later remove the vibrato while employing specific style choices in repertoire.

Interviewees suggested the following exercises to improve vibrato:

- Listening to recordings and imitating what you hear, keeping track of exactly where the singer places the vibrato in the note duration

⁷⁶ Ella Fitzgerald, "Mack the Knife" *Ella in Berlin*, recorded 1960, Verve MG VS-64041, 1960, CD.

⁷⁷ Cole interview.

- Long-tones with various vibrato/straight tone requirements (ex. “sing four beats without vibrato, then four beats with vibrato” etc.)
- Ask students to draw the circles of the vibrato with their finger or use some other visualization
- Physicalize the vibrato by shaking part of their body as they sing a long tone
- Sing quick half-steps or trills to simulate the slight change in pitch that occurs with vibrato

Additionally, instructors offered the following comments regarding their observations in teaching students about tone quality and resonance:

Kate Reid: I always use the reference that I want them to have four or five different yellows, and four or five different reds, etc. so they can pull from any of those colors when they’re in a performance situation. I often have my students kind of talk like they’ve been hit with a shot of novocaine, really relaxing the tongue and jaw to make sure everything is really really loose. Also certainly taking all of the vowels, [i e a o u] on one pitch, working for the same quality of tone in each. Longer, taller vowels is my approach to technique, and using vibrato within the warm up is really important. We don’t really switch and use lateral vowels and take the vibrato out until we get into the tunes that they’re working on. We use much more of a pure vowel approach to technique in all parts of the range.⁷⁸

Kate Skinner: I usually have them sing long tones, so we pick a vowel and change the vowel from week to week, and in a comfortable part of their range, have them sing it straight tone and then say, ok, for four beats add in some vibrato, and then take the vibrato away. Just so that they’re consciously aware of when they’re using it, how wide it is, how fast it is, and they’re gaining control of that and learning what it feels like physically.

I also have them do a lot of listening. I came into jazz from a heavy musical theatre background, and I had Ethel Merman-like vibrato. Then I started listening to Diana Krall, and her vibrato is super slow, and I just tried to copy her vibrato and that’s how I learned to tone it down. So I’ll have them find a singer that hopefully they like and try to have

⁷⁸ Kate Reid, personal phone interview (Greeley, CO & Miami, FL: 18 March 2020).

them emulate that sound.⁷⁹

Greg Jasperse: I had a student once whose tone color palette was really right down the middle and the same no matter what style he was singing in, and so to get him out of his box, I just modeled different tonal colors and asked him to mirror back to me and see what those sounds felt like. When it comes to technique and style, in this idiom, it really has to be driven from what's happening in your ears. What you've listened to and what you want to sound like. All of that for me comes through your ears, and then your brain will tell your voice what to do.⁸⁰

When studying resonance strategies, students will gain more from watching and listening to singers perform live rather than relying on studio recordings. They will be able to see how professionals coordinate the microphone with their sound and which moments they choose to employ certain tone qualities for effective expression. In addition to having students sing acoustically in lessons, it is helpful for them to have access to a microphone so they can experiment with different resonance strategies. Jazz singers are encouraged to have a multi-dimensional sound and can freely use a broad array of tone qualities to great artistic effect.

⁷⁹ Skinner interview.

⁸⁰ Jasperse interview.

CHAPTER V

BREATH MANAGEMENT

All of the teachers that were interviewed in this study believe that it is best for students of jazz singing to have a comprehensive understanding of the structures responsible for breathing and how to coordinate them with singing. This includes developing an understanding of the breathing structures (pelvic floor, abdominal wall, diaphragm, ribcage, lungs) and their role in breathing, management of breath pressure in coordination with the vocal folds to create a balanced, tension-free sound, and the role of breath in direct manipulation of dynamics and tone quality, which are both partially controlled by breath pressure.

It is a common perception that some young jazz and contemporary singers may not fully understand the feeling of singing with a sound supported by breath due to circumstances of the style including shorter, speech-based phrases and amplification of the sound through a microphone. The following quote from *The Vocal Athlete* applies this concept to country singers:

The present research specifically related to breathing for commercial music singers is sparse. Hoit and colleagues (1996) looked at the breathing patterns of country music singers during speech and song. Interestingly, during country music singing, the performers used similar breathing strategies to speaking. This is in contrast to the findings of classical singers, who use different breath strategies for speech and song. The researchers indicated that the speech/song breathing patterns may be similar because country music singers in this study generally did not have significant vocal training with respect to respiration. Also, much of country music is speech-based in its performance, and therefore the singers may employ similar breath strategies between speech and song.⁸¹

⁸¹ LeBorgne & Rosenberg, *The Vocal Athlete*, 44.

Like country music, jazz is partially rooted in speech-based performance. It is common for jazz singers to alternate between full, long phrases and short, conversational phrases. The improvisational nature of jazz affords them the freedom to choose. The examples below are two contrasting transcriptions of the singers Shirley Horn and Cécile McLorin Salvant on the same section of the song “You’re My Thrill” by Jay Gorney and Sidney Clare. Horn leaves much more space between phrases and sings shorter, unsustained ideas, while Salvant sings longer phrases with shorter rests in between and more sustained notes. These clear differences allow for different levels of breath engagement even though it is the same piece of repertoire.

2:33 Cecile McLorin Salvant, "You're My Thrill" from *Dreams and Daggers*

The image shows two staves of musical notation in G minor (one flat) and 4/4 time. The tempo is marked as quarter note = 70. The first staff contains the lyrics: "you - 're my thrill how my pulse in-crea-ses I". The second staff contains the lyrics: "just go to pie-ces when I look at you cause you're my th-rill". The notation includes various note values, rests, and triplet markings (indicated by a '3' in a box) over the words "my pulse" and "you're my th-rill".

Ex. 5.1. Cécile McLorin Salvant’s phrasing on “You’re My Thrill”⁸²

⁸² Cecile McLorin Salvant, “You’re My Thrill,” *Dreams and Daggers*, recorded 2016, Mack Avenue, 2017, CD.

0:51 Shirley Horn, "You're My Thrill" from *Softly*

You're my thrill how my pulse in-crea-ses

I just go to pie-ces when I look at you cause you're my thrill

Ex. 5.2. Shirley Horn's phrasing on "You're My Thrill"⁸³

Additionally, the best jazz singers will use the full range of dynamics from very soft to very loud, and manipulate the microphone in a way that allows all notes to be heard without placing any unnecessary strain on the voice. The regulation of dynamics using breath flow is one of the main reasons for a deep focus on breath training in lessons. Malde describes the coordination of breath flow with the vocal folds to control dynamics:

When we wish to sing softly, we release breath slowly, creating minimal air pressure beneath the glottis. When we wish to sing loudly, we release breath quickly, creating high pressure beneath the glottis. The intrinsic laryngeal muscles react to the resulting difference in air pressure, subtly adjusting tension and the degree of closure of the vocal folds. Unfortunately, some singers try to control dynamics with the neck and throat muscles, straining to sing louder and constricting to sing softer. It is healthier and more effective to use the rate of breath flow to regulate dynamics.⁸⁴

Many of the teachers interviewed mentioned that if they have students who study classical voice in addition to jazz, or have studied classical voice in the past, they usually have a

⁸³ Shirley Horn, "You're My Thrill," *Softly*, recorded 1994, GHB Jazz Foundation, 1994, CD.

⁸⁴ Malde, *What Every Singer Needs to Know About the Body*, 4th ed., 160.

better understanding of breath support than others. Below are further observations from individual teachers regarding breathing for singing:

Christine Guter: I use Kurt Elling as a prime example of what it means to just use your instrument and sing. It doesn't always have to be loud but you can use your full range of dynamics and be connected to the breath and the sound and have a better core sound. Unsupported sound or breathiness is a big issue.⁸⁵

Sachal Vasandani: An important thing for most singers is really engaging their breath the way they should. Both as a form of fully engaging lung capacity, and breath as a way to connect through phrasing and lyric, and breath as a way to connect through rhythm. Not too many singers have really fully comprehended how crucial breath is to produce sound. I assume a lot of it has to do with the fact that we're able to do so much with a microphone, so we don't think about breath as a form of sound production and then the breath just gets shallower and shallower.⁸⁶

Sandra Dudley: I use examples of breathing skills that a wind instrumentalist might use to resist the breath stream when playing. When they force air into the mouth piece, their abdominal muscles expand and create a steady pressure and resistance. I have the vocalist blow air into a semi-closed fist to create the air resistance and correct abdominal pressure. I also ask the vocalists to resist the air flow using their teeth in a hiss like sound to regulate the air flow for optimal support.⁸⁷

Greg Jasperse: So if I have students that come in with a lot of classical training, we'll talk about how we use the breath, our phrases are shorter, we don't always have to be driving around town with a full tank of gas, we can just put in the gas we need to get around the block, and then can take another sip of air. So we'll talk more in terms of breath pressure as it relates to vocal effort and finding the equilibrium there for the sound that we want to make.⁸⁸

Pedagogical Resources

The following portion contains information from different pedagogical resources regarding the understanding of the breathing mechanism as it relates to singing, regardless of style or genre. These resources are *What Every Singer Needs to Know About the Body* by Melissa

⁸⁵ Christine Guter, personal phone interview (Greeley, CO & Long Beach, CA: 29 January 2020).

⁸⁶ Sachal Vasandani, personal phone interview (Greeley, CO & New York, NY 20 April 2020).

⁸⁷ Dudley interview.

⁸⁸ Jasperse interview.

Malde, *Somatic Voicework*TM by Jeannette LoVetri, and *The Vocal Athlete* by Wendy LeBorgne and Marci Rosenberg.

*Somatic Voicework*TM (Jeannette LoVetri's CCM Vocal Pedagogy Program), like many other pedagogy resources, encourages thorough breathing work early in vocal training. A summary of LoVetri's steps regarding the entire breathing process is provided below:

1. Correct alignment of posture.
2. Inhalation expands lower ribs and belly. Movement is in all dimensions but not straight up. Upper chest should not show any visible movement upon inhalation.
3. Exhalation starts by slowly engaging the abdominal muscles, with activity increasing as the lungs deflate. Ribs are to remain open and steady throughout exhalation. Abs can move out, in, up, down or combinations thereof. Back muscles can be engaged to assist as well.
4. Exhalation coordination needs to develop the ability to make the exhalation last longer (duration) and go out strongly or gently (pressure or volume control) depending on the type of sound being made.⁸⁹

In addition to the steps listed above, LoVetri gives the following summarized view point regarding muscular actions coordinated with breathing:

Singing requires strength and coordination in both the ribs and the abs together to sustain the pressure of air during exhalation . . . The vocal folds control the airflow, therefore you must change the vocal production in order to give the singer the ability to change the breathing pattern and not the other way around.⁹⁰

⁸⁹LoVetri, *Somatic Voicework*TM, 35.

⁹⁰ Ibid., 37.

Without an open, firm rib cage, the pressure on the external abdominal muscles doesn't do as much good as is possible. The relationship between the intercostal muscles in the ribs, the abdominal muscles (all four layers but particularly the rectus abdominus) and the viscera (organs) inside the torso must be coordinated. The diaphragm remains down because the ribs do not collapse. Then, the contraction of the abs, pushing on the viscera, is generating a dynamic resistance and that, in turn, allows us to feel the belly pressure that gives the sound a "boost."⁹¹

What Every Singer Needs to Know About the Body provides a thorough "play-by-play" of the physical events that occur as a singer inhales and begins to sing. While LoVetri's comments above focus on the roles of the abdomen and rib muscles, Malde's detailed description below describes the breathing process from inhalation to the start of phonation, emphasizing the necessary equilibrium of four muscle groups: the abdomen, pelvic floor, diaphragm and rib lifters. The full description is below:

When we need oxygen, the brain sends a signal to the diaphragm, which contracts. The diaphragm is a dome-shaped muscle that attaches to the front of the lumbar spine and to the lower ribs all the way around. When it contracts, it pulls down on the central tendon, located in the dome of the diaphragm just under the heart. This exerts pressure on the viscera, which are displaced out against the muscles of the abdomen and down against the muscles of the pelvic floor. The contraction of the diaphragm also swings the lower ribs up at the sides, changing their orientation to the spine and the sternum, and slightly bending the costal cartilage. This action is assisted by many other muscles that help lift the ribs. The vertebrae of the spine gather together with the contraction of the diaphragm and the movement of the ribs, slightly compressing the spinal discs. The muscles of the abdomen and pelvic floor remain toned, but stretch to allow the contraction of the diaphragm and rib lifters. This dynamic equilibrium among these four muscle groups is vital to good breathing. The spongy, elastic tissue of each lung is connected to the inside of the thoracic cavity by a membrane called the pleural sac. Therefore, as the thorax expands during inhalation, the lungs expand with it. The contraction of the diaphragm pulls down on the lungs, expanding them vertically. As the ribs lift at the sides, they pull out on the lungs, expanding them horizontally and from front to back. Thus, as we inhale, the lungs get taller, wider, and deeper, increasing their volume. As the volume of the lungs increases, the air pressure inside them decreases. In order to equalize the pressure, outside air rushes in through the nose or mouth. The muscles of the pharynx, velum, and tongue release to provide a clear passage for inhalation. The air travels through the

⁹¹ Ibid., 35.

pharynx and the larynx to the trachea and then on to the lungs. The amount of air we inhale depends on the excursion of the diaphragm and the ribs, which in turn depends on the extent of release in the abdominals and pelvic floor. At rest, exhalation begins as soon as the diaphragm and rib lifters begin to release, responding to the elastic recoil of the pelvic floor, abdominal muscles, costal cartilage, and spinal discs. The elastic recoil of the pelvic floor and the abdominals exerts gentle upward pressure on the diaphragm through the viscera. As the diaphragm releases in response to this pressure, the dome of the diaphragm rises, exerting upward pressure on the lungs. The muscles that lift the ribs release in response to four forces: the elastic recoil of the abdominals, the elastic recoil of the costal cartilage, the release of the diaphragm, and, when we are upright, the force of gravity. As the ribs descend, they exert inward pressure on the lungs. With the release of the diaphragm and the rib lifters, the spinal discs recoil to their full height, lengthening the spine. These movements decrease the volume of the thoracic cavity, increasing the air pressure inside the lungs. As soon as the air pressure inside the lungs becomes greater than the pressure of the outside air, breath flows out to equalize the pressure. At rest, this happens quickly. In singing and speaking, we regulate the exhalation by choosing how quickly to release the diaphragm and the rib lifters. The vocal folds close, and the outgoing air sets them into vibration to make sound. Movements in the vocal tract shape that sound into words and resonance.⁹²

Once a student fully understands these movements, it is the responsibility of the teacher to help them discern which of these movements are under their control, and like the experience of phonation and resonance, which elements can be experienced through tactile senses and which must be experienced through kinesthesia. Then, additional challenges begin as a singer manages exhalation:

Where singers get into trouble with breath support is in the regulation of the exhalation. We may not exhale as we would at rest: We have to shape the exhalation to our artistic needs. We do this by regulating the release of the muscles of inhalation. If we allow our rib lifters and our diaphragm to release quickly, the breath flow will be fast. If we slow down that release, we slow down the breath flow so that it may be sustained over a long phrase. Of course, when we speak or sing, the muscles in the larynx bring the vocal folds toward the center, creating the slight resistance to the breath flow at the glottis that sets the vocal folds into vibration.⁹³

⁹² Malde, *What Every Singer Needs to Know About the Body*, 4th ed., 75-76.

⁹³ *Ibid.*, 117.

The Diaphragm

Several of the teachers interviewed in this study mentioned that their students, through whatever mix of vocal training they may have had prior, believe that the diaphragm plays a significant role in breathing but do not necessarily know what that means. They may have even been told by previous teachers to “engage their diaphragm” or “breathe from their diaphragm,” which, without any context, can be misleading and confusing for young singers. Darden Purcell gave the following comment in her interview:

. . . I would ask [students] about breathing and ask, “what have you been taught prior to lessons about breathing” and they say “you have to breathe from the diaphragm” and I ask them what that means, and none of them know what that means. So I say . . . should we maybe figure it out? And then we discuss what it really means.⁹⁴

Numerous pedagogical resources elaborate on the specific function of the diaphragm in breathing and singing, as well as any misconceptions. Melissa Malde states:

It is impossible to palpate the diaphragm because it domes up inside the ribs. In addition, we have no sensory receptors in the diaphragm so we can’t feel its movement directly.⁹⁵

The action of the diaphragm will move the ribs enough for some singing. However, you may choose to lift the ribs actively for more vigorous singing. Cultivating rib movement will allow a fuller inhalation and more flexible regulation of the exhalation than diaphragmatic breathing alone.⁹⁶

LeBorgne and Rosenberg provide further detail:

When you prepare to sing, you purposefully (actively) create a negative pressure in the lungs (either via diaphragm contraction or rib cage expansion), and air comes in through the mouth and/or nose, through the nasal, oral, and pharyngeal spaces, through the open vocal folds (glottis), through the trachea, bronchi, and into the lungs . . . At no point does air ever enter the diaphragm. Therefore, the term “diaphragmatic breathing” can be quite confusing for many inexperienced singers. Depending on how much breath is needed for

⁹⁴ Purcell interview.

⁹⁵ Malde, *What Every Singer Needs to Know About the Body*, 4th ed., 87.

⁹⁶ *Ibid*, 88.

a given phrase or intensity, varying amounts of abdominal and rib cage displacement are created, resulting in varying levels of lung volumes. Inspiration always involves the activity of muscles. However, expiration (breathing out) has a passive component involving elastic recoil forces (think of a rubber band that has been overly stretched out). The more air you take into your lungs, the greater pressure you generate in the lungs, intercostals, and abdominal muscles. Therefore, if you “over-inflate” for the phrase that you need to sing, you have to work exceedingly hard to hold the air in.⁹⁷

Breath Training

Breath training is a necessary part of technical training for singers; however, it is important to note that awareness and control of the breath is only a component within a larger system of structures needed for healthy, balanced singing. *What Every Singer Needs to Know About the Body* confirms this notion:

Even how we shape the resonance in the vocal tract can contribute to breath support. No matter how finely tuned the breathing mechanism is, inefficient phonation and resonance can undermine the regulation of the breath.

. . . When we sing, we engage in a continual dance of dynamic equilibrium among the structures of balance, breathing, phonation, and resonance, allowing more breath to flow for some phrases and less breath to flow for others. Instead of asking yourself if you need more support, you can ask if you need to allow the breath to flow more quickly or if you need to regulate that release so that the breath flows more slowly. You can ask if your phonation and resonance are responsive and efficient. Many singers spend so much energy controlling the flow that they become locked and can't use the breath they have.⁹⁸

LoVetri confirms this further by saying

If sophisticated breathing was all that was necessary to being a good singer, every athlete and every wind and brass player, every yogi, every underwater diver - anyone who has learned some kind of control over their own breathing would automatically sound like Renée Fleming or Celine Dion (or insert your favorite vocalist here). Breathing issues cannot be dismissed lightly but they are often not the source of vocal problems.⁹⁹

⁹⁷ LeBorgne & Rosenberg, *The Vocal Athlete*, 37.

⁹⁸ Malde, *What Every Singer Needs to Know About the Body*, 4th ed., 117.

⁹⁹ LoVetri, *Somatic Voicework™*, 5.

The teachers involved in this study did not elaborate on breathing exercises they typically use, although many of them confirmed that breathing is a technical concept that crosses over all genres without much need for customization based on style. Interestingly, the concept of breathing seems to receive much more focus in classical training. Many of the interviewed instructors teach classical students who wish to train in jazz, and who already have strong breath control from their classical training. Breathing has been a concern from the earliest writings on vocal pedagogy. Voice science has progressed rapidly since, but the words of some of these early pedagogues still have value today. The following breathing exercises come from some of these pedagogues and could easily apply to any genre of singing. Manuel Garcia promoted the following four-step breathing exercise:

1. First, one inhales slowly and during the space of several seconds as much breath as the chest can contain.
2. One exhales that air with the same slowness as with which it was inhaled.
3. One fills the lungs and keeps them filled for the longest time possible.
4. One exhales completely and leaves the chest empty as long as the physical powers will conveniently allow.¹⁰⁰

Mathilde Marchesi suggests running up a staircase, then lying on the couch with a glass of water on the abdomen and forcing respiration without causing the water to ripple. She also recommends blowing a feather while maintaining a distance of five to six steps.¹⁰¹ Giovanni Battista Lamperti emphasizes the opposition of the inspiratory and expiratory muscles as the

¹⁰⁰ Manuel Garcia and Donald V. Paschke, *A Complete Treatise on the Art of Singing* (New York: Da Capo Press, 1975), 35.

¹⁰¹ LeBorgne & Rosenberg, *The Vocal Athlete*, 31-32.

basis for breath training. The singer must experience the struggle of the respiratory muscles at maximum inhalation in order to achieve proper support of the breath during singing.¹⁰² The English tenor, teacher and composer William Shakespeare emphasizes the importance of silent inhalation as the shoulders and chest remain free of tension. Shakespeare also stressed that singers should always have enough breath to get through a phrase so as to avoid additional vocal tension to compensate for lack of support.¹⁰³ William Vennard suggests lying on the floor with a book on the abdomen and watching it rise during inhalation and fall during exhalation, or placing an object such as a book between the singer and a wall. As the singer inhales against the book, he or she should move away from the wall, and as exhalation occurs, the singer should move toward the wall.¹⁰⁴

In order to achieve the maximum benefits from breathing practices, all singers should also work to develop their own personal body awareness and posture. Although the participating teachers in this study did not go into great detail, certain technique resources in Appendix C provide guidance on useful practices for developing this awareness, such as Body Mapping, Alexander Technique, Feldenkrais, and other practices like yoga, Pilates, and meditation. Like other technical concepts, any issues with a student's posture and breath support will likely manifest in their singing. A teacher can make necessary observations to help them gain awareness and make adjustments as needed. While some students may not require the extreme nature of some of the breathing exercises referenced above, it is necessary for every voice

¹⁰² Ibid.

¹⁰³ Ibid.

¹⁰⁴ Ibid.

teacher and student in any style to develop knowledge of breathing structures and the coordination of the breath with singing.

CHAPTER VI

TEACHING STYLES

During interviews with numerous jazz voice teachers, the following question was posed: “How would you define your teaching style in jazz voice? More specifically, do you tend to lean toward use of imagery, imitation, or description of physiological elements, or all three?” Many implement a combination of these strategies depending on the goal at hand. A common opinion among interviewees states that as the voice is inside the body and a singer cannot touch their physical instrument in the same way a pianist would, imagery, metaphor, and imitation are often necessary to achieve specific technical goals. However, most believe that having an understanding of the structures responsible for the production of certain sounds will lead students to greater success and overall vocal health. The interviewed instructors expressed the following opinions regarding this question:

Alexis Cole: I definitely don’t generally talk in very technical terms because I sort of didn’t come up using them since I only had one semester of vocal pedagogy. I watch some anatomy videos, show them to my students, but at the end of the day it’s much more about sensation. How does your body feel? I have them touch my ribcage, put their hand on my stomach or I put my hand on their stomach for breathing. I rely heavily on the lip trill. I want them to feel more than intellectually understand what’s going on, I want them to feel it themselves. So I guess my style of teaching is experiential.¹⁰⁵

Michele Weir: If I were a technique specialist I’d probably know every muscle group and could really identify what’s going on when I hear a sound. But I just know broad-stroke information, so I use a lot of demonstration. Imagery and metaphors, like “imagine you’re a 12-year-old about ready to become a young woman and you’re excited about

¹⁰⁵ Cole interview.

life. Or imagine you're 45, singing in a jazz club with a lot of worldly experience." So we use a lot of avatars or personas to sort of achieve a certain emotional mood in the tone. I'm very interested in the singer always expressing emotion, so tone is a big part of it, conversationalism is a big part of it. A lot of that is kind of jazz specific, you know?¹⁰⁶

Rosana Eckert: I record my student during the lesson a lot; they'll sing, and then I will play it back for them immediately. That's one of the most useful tools that I think I have. There is nothing like singing and hearing an immediate playback to make a singer think "ah... that feeling resulted in that sound." And then they make an adjustment and listen again, and you keep doing that over and over. It's interesting. Sometimes, things that you thought were not going to sound good actually sound really good, and things you thought sounded amazing as you sang them disappoint you during playback. So, I would say it's extremely customized from student to student. And it's a mixture of copying and innovating.¹⁰⁷

Christine Guter: I don't use a lot of imagery because that can land differently with different students and it's not very specific. I do some but I'm a very technically-minded person, so I will get out diagrams of the voice and say "okay, here's your larynx and this is what happens and here are your vocal folds," etc. I do a lot of technical study and I talk to them in technical terms more frequently than imagery. I do model as well.¹⁰⁸

Kate Skinner: For me, I do talk about technique but it isn't the most prevalent part of lessons unless there's a really serious issue. I used to have tons of students who had no singing experience, so obviously we had to spend time singing scales and long tones and all that, but at this point I have students who have a pretty solid base of how to sing, and they're usually taking classical lessons also. My teaching style is helping them understand the stylistic differences between jazz and other genres, and helping them find an honest and true way to deliver lyrics. I find those to be some of the biggest hurdles, especially for college students. How to really be honest without feeling like they're acting, and how to get out of the habits they have from other styles, which can be a technical discussion.¹⁰⁹

Darden Purcell: There's definitely modeling and imagery. I'm a big fan of closing your eyes and trying to visualize what is happening when you're singing. That's something that I think is a little bit of a struggle with teaching voice, it's an internal instrument, so you can't push a button, you can't change your hand shape, you can't change your embouchure. When you're trying to find that resonant placement, once it feels good, I ask, can you explain to me what you're feeling, that way we can replicate it again? If

¹⁰⁶ Michele Weir, personal phone interview (Greeley, CO & Glendale, CA: 18 July 2020).

¹⁰⁷ Eckert interview

¹⁰⁸ Guter interview.

¹⁰⁹ Skinner interview.

you can't visualize internally what you're doing, or what is happening when it sounds good, how are you going to be able to replicate that?

I don't get into the vocal anatomy of what's happening, because that's something I'm still working on learning and adding to my own toolkit, so I don't feel as well-versed in that as I might with the modeling and more descriptive imagery. But that is something that is really fascinating to me, and the older I get, the more I want to know what exactly is happening. We can hear it, but connecting hearing it with the anatomy is something I'm really interested in now.

Sara Gazarek: While I'm a big believer in empowering students to hear/feel/understand what's happening in their instrument at any given moment, I also recognize the value and purpose in demonstrating what it is that I'm looking for when working through particular exercises. If we're working on isolation of the chest voice, just saying "say 'no' loudly, like you're reprimanding a puppy, on these pitches" leaves so much to interpretation. I don't want to tell them, sing at this volume, with this cord connectivity, this kind of sub glottal pressure, this kind of pharyngeal space, this kind of vowel shape, etc. My hope is that, by demonstrating, I can get my students out of their head, and into a space of feeling the sensations in their body and allowing their voices to enter into a subconscious space of freedom. In regards to musical concepts (such as phrasing, diction, improvisation, etc), I do my best not to demonstrate unless it's entirely necessary. I find that with musical concepts it's best to explain the idea, have them play with it, and then have them bring in a few musical examples the following week.¹¹⁰

Alison Wedding: I remember having a really huge breakthrough with a voice teacher I was working with in L.A. and she used a lot of imagery and imitation. I was struggling for a long time to find that sweet spot in my mix that I was looking for, so I definitely use imagery and definitely imitation. I try to do the exercises and set examples for the student as healthily and accurately as possible. And then I do go into the physiology of it. There are basics that I want them all to know, but I might not go into the deep crevices of it depending on what we're working on and how much time we have, and some of them just find that incredibly intimidating. So I'm trying to involve that in a way that's not intimidating, but I do want them to be knowledgeable about what's actually happening in the body.¹¹¹

Sachal Vasandani: We have enough information about the voice that we can use physiological terms but we also have these metaphors because in the end we can't press any buttons, and we don't have a scope down our throats when we're singing. So metaphors are so very crucial. If you're smart about the metaphors and imagery, people can access those kinds of thoughts when they're being created, because you want to be

¹¹⁰ Gazarek interview.

¹¹¹ Wedding interview.

able to build your best voice all the time, and those metaphors and images can give folks access to the right technique without difficulty.¹¹²

Sunny Wilkinson: I must have been a terrible teacher when I first started in my early twenties, with little skill or knowledge, simply parroting what I had been taught by my teachers. Through the years, though, I developed my ears and skills. At a certain point became enamored with the science of vocal production. I had my students learn the names of the body parts, and how they function in the production of sound. I still have ‘Gladys Glottis’ on my piano, a model of the vocal cords and surrounding musculature. I loved the science and equally loved giving that knowledge to my students. But something was missing. All this knowledge did not free my student’s voices. I thought, hmmm...this isn’t it. So, I went back to emphasizing the sensation of sound in the body and the accompanying awareness that brings, focusing on energizing the body to create beautiful sound rather than dwelling so much in the head. I still love the study of physiology and when a student is drawn to that aspect, we delve into it. There are certainly ample resources available now to study that in depth. But now, my quest is to build and open up the voice through body awareness, alignment, sensation of sound, and finding freedom and ease in the body. I am fortunate enough to trade lessons with a pre-eminent Alexander Technique teacher in the area. Alexander Technique has changed my life. Feldenkrais, NIA and Body Mapping as well. I work at trying to find the dynamic balance in the voice, body, mind, and spirit. I want them to lean into their voice and take big chances and hone their ears and style and of course, their technique. Less effort and more awareness is my motto.¹¹³

Kate Reid: I would like to think I use a balanced approach with all of those things. I tend not to necessarily try to imitate if I don’t need to or have to if the student has the ears and the physical knowledge of their instrument. Sometimes imitation is important; if a student is really just trying to get a sound, imitation can be really helpful and mimicking and examples/modeling, etc.

It also obviously depends on the level of the student; have they gone through the vocal pedagogy sequence and do they have the basics if they’re a student within my studio or if I’m meeting with a student outside my studio and we’re talking about different things, it kind of depends on the situation as to how much of those three things I’ll utilize. It can be a little tricky giving people a sonic model as a teacher, but I do see the value of just really trying to grasp how to make a sound and sometimes literally matching a tone is the only way to do it. That was really effective for me when I was studying with a couple of different classical teachers at Western.¹¹⁴

¹¹² Vasandani interview.

¹¹³ Wilkinson interview.

¹¹⁴ Reid interview.

Lara Brooks: I'm a big believer that lessons need to be filled with laughter, for the student's honest voice to come through or else they're never going to be comfortable with making weird noises, or experimenting if they don't experience that laughter. I like to help students understand how the voice and body operate; that's an extremely important thing and I try to implement that through every lesson. Once things are understood through physical and vocal activities in the studio, the both of us can begin getting to know their own instrument. I'm a big believer that technique is only developed through repetition, and my students work hard toward the goals we set for them. So with regard to jazz voice, I do everything the same; I expect the same things from everyone as I do my musical theatre or classical singers. I make them do lesson journals where they listen to three different singers from different time periods and they describe what they're hearing: what type of voice they're using; is it healthy production; are you hearing the story; how much breath support are they using?¹¹⁵

Cindy Scott: I don't like when people say things like "it should come from the back of your head" or "it should come from the front of your head" or anything like that. That just doesn't make any sense to me. I talk about things like where the tongue is in relation to the hard palate or the teeth. I use metaphors like "don't kink the water hose," "keep the gas pedal on," "don't let the volume of air you're using wax or wane." I say the same thing 50 different ways until they understand what I'm talking about. So that's how I teach the breath control concept, but I often don't even call it that.¹¹⁶

Sandra Dudley: I am the type of teacher that teaches by example. I sing in the lesson to show the student everything from how to belt, use vowels for coloring the lyric, exhibit clarity and beauty of tone, etc... I know the students will not try to imitate my particular sound, but after I show them, they have a good understanding of what I am trying to teach them.¹¹⁷

For those teachers who advocate for regular discussion of voice physiology in lessons, the challenge lies in gaining physical and kinesthetic awareness of the structures at play and applying that knowledge to the act of singing. One of the reasons many of the most well-known jazz singers have had such success even without training is that they were able to devise a way to experience the feeling of making certain sounds through listening to others and experimenting.

¹¹⁵ Brooks interview.

¹¹⁶ Scott interview.

¹¹⁷ Dudley interview.

CHAPTER VII

JAZZ VOICE LESSON STRUCTURE

When asked which tasks are essential in a jazz voice lesson, the interviewees expressed that the structure of each lesson varies based on the student's personal needs and the goals of both student and teacher. The majority of these instructors regularly teach hour-long lessons. Most are professors or instructors at typical college programs where students have additional classes for improvisation, music theory, and arranging. Given this fact, many or all of the following elements are addressed at various levels in lessons:

- Body movement/stretching/alignment check-in
- Breath work
- Warm-up/Vocalization
 - This can include simply warming up the voice if the student has not previously sung that day, or more technical exercises to work on blending through the registers, isolating the registers, and singing through the entirety of the range.
- Ear training
 - This varies based on a student's level of experience and the amount of study in other courses, but can include any of the following based on teacher and student goals:
 - Scales
 - Singing "licks" around the circle of fifths

- Singing chord tones or guide tone lines on a chord progression
- Interval training
- Aural recall
- Chord Identification
- Sight-reading
- Repertoire
 - Style and lyric delivery
 - Personalization
 - Additional technical vocalizations needed for technical challenges within the context of repertoire
- Improvisation
 - While this varies based on a student's level of interest and their study of improvisation in other courses, elements include:
 - Wordless improvisation ("scat singing")
 - Lyric improvisation (selecting a piece and asking the student to sing lyrics while improvising notes and rhythms outside of the melody)
 - Solo transcription assignments
- Listening/discussion
 - Listening to professional recordings of songs the student is currently studying
 - Listening to professional recordings of established singers that offer relevant stylistic and technical guidance to the student
 - Discussion of listening assignments given in previous lessons

- Compositions/arrangements and other logistics
 - Recital preparation
 - Work with collaborative partners (guitarists, pianists, etc.)
- Piano skills/rhythm work
 - Playing roots and/or shell voicings on the piano while singing a melody
 - Physicalization of the beat while singing a melody, either in the body alone or on a drum set

There is a spectrum of curricula offered at the institutions included in this study: no vocal pedagogy offerings or requirements, vocal pedagogy courses offered but not required, and vocal pedagogy courses offered and required for all voice majors. Many institutions offer a single vocal pedagogy class for all styles, while some offer courses only for commercial or classical styles. Regardless of offerings, most teachers believe it is beneficial for students to partake in as much vocal pedagogy curriculum as is available to them; the more they do, the less time instructors may need to spend covering discussion of basic anatomy and vocal function and can instead devote time to style and expression.

The above also applies to improvisation curriculum. While requirements and offerings vary from institution to institution, instructors agree that the more time students spend in an improvisation course, the less they need to focus on it during lessons unless it is of specific interest to the student. Darden Purcell said, “I don’t spend much time on improvisation in my lessons because I’m finding so many singers come in that need to work on technique, repertoire and charts. We do work on scat syllables in the lessons, space, time, etc. because that’s

something that doesn't necessarily get worked on in the improv classes."¹¹⁸ Sara Gazarek stated the following in regard to working on scat-singing in lessons:

All of my jazz voice majors are required to demonstrate memorization or root progression, guide tone lines, arpeggios, etc. Incorporation of licks and transcription is absolutely key. For my upperclassmen who have demonstrated a deep love of vocal improvisation, we go much deeper. But for my juniors and seniors who have communicated a deep love of other concepts (songwriting, arranging, lyric interpretation, text-based improvisation, etc), I'm inclined to explore those concepts over scatting. I don't think it's my job as an educator to tell a student what they should love, especially after we've explored it — my job is to help develop their singular artistic voice.¹¹⁹

In addition to a piano, many teachers equip their offices with a microphone and sound system so their students can sing both amplified and acoustically in lessons. This allows them to experiment with a variety of resonance strategies and practice developing effective microphone habits for a typical performance setting. Dena DeRose has a drum set in her office for students to use. She mentioned the following regarding her approach to rhythm in lessons: "Sometimes they'll play the ride cymbal and sing the melody. Sometimes hi-hat. I usually do that with first-year students. Once that time gets better, a lot of other things get better. They know when they don't have such good time, but it's something they don't really know how to work on."¹²⁰

In her interview, Kate McGarry emphasized the importance of the study of rhythm and its presence in the body:

It is so important for people to have an understanding of the history of the music, and to experience the connection to West African music and how those rhythms were the impetus for the elements of swing-feel that are so much more nuanced than a lot of people realize. Having a deeper grounding in rhythm, and in the basic musical aspects of call and response, repetition, and improvisation. I think it gets kind of skewed toward scales and modes and intellectual things that people end up getting cut off from their

¹¹⁸ Purcell interview.

¹¹⁹ Gazarek interview.

¹²⁰ Dena DeRose, personal phone interview (Jackson, TN & Graz, Austria: 26 September 2020)

bodies. Now, even people who are highly trained are sometimes missing a grounded sense of rhythm and a really deep connection to the beat. Even if they are still swinging, there is not necessarily a deep enjoyment of that sometimes that there really should be.¹²¹

Evaluation Systems

Most jazz voice majors in higher education complete juries at the end of semesters, the standards of each varying from institution to institution. Lessons are structured based on the repertoire requirements of those juries. Multiple interviewees mentioned that they begin each semester with a survey, which allows the student to set specific goals and answer questions about career objectives and past training or performance experience. Possible survey questions are:

- How many years have you taken voice lessons?
 - What style(s) were you studying and training for in lessons?
- Do you play any other musical instruments?
- Do you consider yourself to be a certain voice type? (Soprano, Alto, Tenor, Baritone, Bass)
- What do you believe are some of your biggest technical challenges?
- Have you experienced any past vocal injury that you are aware of?
- Do you experience any pain or extreme fatigue while singing?
- Do you plan to pursue singing professionally?
 - Describe your goals for your future in singing.
- Please describe your past performance experience (in any style) and any current performance opportunities.

¹²¹ McGarry interview.

- Who are some of your favorite vocalists? Are there any that you feel particularly influenced by?
- What musical artists do you love to listen to?
- What jazz artists do you love to listen to?

Each instructor expressed the reality that each student is unique and has different goals and challenges, so lesson structure will vary based on this fact. Still, they also expressed that they attempt to keep lessons balanced between the many tasks that are usually at hand. If a student is a freshman or sophomore, there is likely an increased need for focus on technique and style. If a student is a junior or senior preparing a recital, there might be more time devoted to arrangements, compositions, and performance. Each teacher specified the importance of prioritizing technical issues as they arise in balance with other items that require attention. Ultimately, most instructors recognize that in a college setting, technical voice training can be a long journey that requires patience and consistency.

CHAPTER VIII

CONCLUSION

The purpose of this study was to evaluate the current state of vocal pedagogy in jazz voice in higher education and serve as a guide for instructors who seek to further their knowledge of vocal function as it relates to jazz styles. The history of jazz music illustrates that there is a high value placed on the individuality of each unique voice. Carmen McRae's instrument greatly differs from Cécile McLorin Salvant's, and both are valued and loved within the jazz singing community. Quite a few of the most revered singers in jazz did not receive formal technical training. The same pertains to performers of jazz-adjacent styles such as blues, soul, funk, and rock. For many such vocalists, training comes in the form of learning from fellow musicians, imitating recordings, experimenting, and seeking wisdom from mentors pertaining to all aspects of music and artistry. While access to educational resources continues to evolve over time, the lack of formal training in great singers of the past does not diminish the value of their incredible musical contributions.

As many of the world's most appreciated jazz singers learned to express themselves and hone their craft without formal private study, it is easy for young students to ask, "if my heroes didn't take voice lessons, why should I?" While some of the most skilled singers of the past and present have used alternative methods to develop their technique, the teachers interviewed for this project advocate for private study as one pathway for young singers to discover possibilities for unique expression in their own voices. A strong understanding of technique can also set

students on a path toward career longevity and sustainable vocal health. Even though training of the voice is just one step in maintaining healthy vocal function, teachers should be equipped with necessary vocal health resources to help their students take care of their voices and bodies in a comprehensive way that extends beyond singing habits. Many of the resources listed in Appendix C contain sections on vocal health, which will prove useful to voice instructors who are seeking to learn more about this topic.

Teachers today have access to an array of resources devoted to vocal training and technique. Those involved with this study still acknowledge that in the end, a lack of formal voice training is not going to stop someone from being a human and using their voice to express themselves in a way that audiences appreciate. Below are more detailed thoughts from the interviewed participants on combining artistry and technique:

Sunny Wilkinson: Good music is good music, good singers are good singers, whether an opera singer, country singer, or jazz singer.. I can't remember who said this, but I thought it was brilliant. "Singers are the only musicians that are building an instrument at the same time that they're learning it." If you are learning trombone, you have an existing instrument in your hands, put it up to your lips and begin the process of learning how to play it. This is not the case with the human voice. If you're lucky, one in a thousand has a naturally registered voice that is balanced and beautiful. In all of my years of teaching, I have had only one or two students that fell into that category. All the rest of us have to build our instrument, strengthen it, balance registers, find beauty in tone, get to know it, and figure it out. So, learning technique is vital. But it's not mandatory, right? There's this interesting quandary or dichotomy because, certainly, you want to be able to sing what you intend. And if you intend to sing a Pat Metheny line, you better have agility and good technique, right? But it's not mandatory. There are voices, raw voices, like Tom Jobim. Amy Winehouse had training, but she sounds raw and unique. So, here's the quandary: how do you develop individuality in your voice as a jazz singer, without sounding sanitized or homogenized? I think it's important not to train the individuality out of a voice, but to encourage it, and do it in a healthy, balanced, bountiful way.¹²²

¹²² Wilkinson interview.

Theo Bleckmann: I always compare it to computer language; am I learning photoshop really well? Is it executed well, is that what I want? Or do I want to learn how to code and make my own program? So I'm one for saying, well, let's learn coding and then you can write your own program and make one for yourself that really uses your artistry and what you desire to be out in the world, rather than learning how to sing jazz properly. Which is a beginning, of course. Every coder understands how a program functions and learns a program or two or ten, but that's not the end of the path. For me that's just the beginning. Learning the craft, learning the history, learning your instrument, and also searching for your artistry or what you want out of this. Therein lies the trick because every student has different goals in life. Not every student wants to be the next Ella Fitzgerald or the next Gilberto or the next Norma Winstone. And those are all three completely different approaches to singing and artistry. So finding what each student is really passionate about, allowing them to be all over the place, trying out new things, not limiting them to this is right, this is wrong, this is jazz, this is not jazz, is what I'm trying to give them. A sense of exploration and discovery.¹²³

Kate McGarry: We focus on functional voice training, and then application to whatever the students' interests are. Then a real cross examination of the jazz singers who created the style--listen to them. Louis Armstrong, Billie, Carmen, Sarah, Ella, the main people. Anita O'Day. How is it that their singing created this genre? That's the legacy we're all coming from and that's the ground that this tree is growing out of to me. If somebody wants to come in and sing something completely unrelated to that, that's fine, but I don't know why we'd call that jazz singing. Not everyone has to sound like them, but to be able to listen to them and understand their contribution is important. How did we get from the 1920's or 1930's popular song, Irving Berlin and Cole Porter, that were not sung as jazz, they were just popular American songs. How to get from that to the incredibly nuanced interpretations that we got from Betty Carter or Sarah Vaughan. That's what a jazz education in voice should really focus on. Then of course we want to get to how the people of the present and future want to express and where they want to take it. Being anchored in the history is important, otherwise you're just singing whatever and not connecting it to jazz.¹²⁴

Sachal Vasandani: A singer should be able to sing, and practice is just a means to an end, and if a singer does not have technique but they do have a soul, I'd much rather hear that. At the end of the day I don't care about Billie Holiday's technique and I don't compare that to Ella Fitzgerald's technique or Joe Williams technique. They are just all great, artistic singers and that's what they can take to the bank, literally. It's a way for me

¹²³ Theo Bleckmann, personal phone interview (Greeley, CO & New York, NY: 3 February 2020).

¹²⁴ McGarry interview.

to say to them, “put a lot of time and energy into it, but remember that it’s just a foundation.”¹²⁵

Camille Thurman: When you look at the greats that made this music amazing, all of them have unique voices. How they’re using their ranges, parts of their ranges they choose to use, coloring. It varies and you kind of have to be open to seeing that there is no “one size fits all” approach to understanding how this voice works.¹²⁶

Teachers of jazz voice would be remiss if they did not regularly emphasize to students that the origins of this singing style lie in African American musical traditions. Kate McGarry echoed this importance in her interview, recommending a documentary entitled *The Songs Are Free*, which features an interview with Dr. Bernice Johnson Reagon.¹²⁷ She says:

When we sing, we announce our existence. That’s what Black singing is. You cannot sing a song and not change your condition. I open my mouth and do one of these songs, and my whole something is different, and I can just feel it. I am talking about a culture that thinks it is important to exercise this part of your being. The part of your being that is tampered with when you run this sound through your body, is a part of you that our culture thinks should be developed and cultivated, that you should be familiar with, that you should be able to get to as often as possible, and if it’s not developed, you are underdeveloped as a human being. If you go through your life and you don’t meet this part of yourself, somehow the culture has failed you.¹²⁸

Jazz is a genre that thrives on learning and respecting the traditions of its innovators, while simultaneously forging ahead into the modern world with new contributions and ideas to move the music forward. The main objective of excellent jazz voice educators is to equip students with the necessary tools to use their voices freely and authentically so that they may contribute their own unique artistry to the world with ultimate respect to those that laid the path

¹²⁵ Vasandani interview.

¹²⁶ Camille Thurman, personal phone interview (Jackson, TN & New York, NY 17 September 2020).

¹²⁷ Bernice Johnson Reagon is a song leader, composer, scholar, social activist, and founding member of the Freedom Singers in Albany, Georgia.

¹²⁸ *The Songs Are Free: Bernice Johnson Reagon and African American Music*, United States: Films Media Group, 1991.

for them. Research regarding vocal pedagogy in jazz and commercial styles will continue to grow over time, giving teachers the opportunity to continuously improve their skills for the benefit of their students.

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APPENDIX A
SAMPLE LESSON QUESTIONNAIRE

Sample Lesson Questionnaire for New Students:

- How many years have you taken voice lessons?
 - What style(s) were you studying and training for in lessons?
- Do you play any other musical instruments?
- Do you consider yourself to be a certain voice type? (Soprano, Alto, Tenor, Baritone, Bass)
- What do you believe are some of your biggest technical challenges?
- Have you experienced any past vocal injury that you are aware of?
- Do you experience any pain or extreme fatigue while singing?
- Do you plan to pursue singing professionally? Describe your goals for your future in singing.
- Please describe your past performance experience (any style) and any current performance opportunities.
- Who are some of your favorite vocalists? Are there any you feel you are particularly influenced by?
- What musical artists do you love to listen to?
- What jazz artists do you love to listen to?

APPENDIX B
TECHNICAL EVALUATION RUBRIC

Jazz Voice Technical Evaluation Rubric				
POSTURE/BODY AWARENESS				
Good understanding and execution of proper alignment and posture; no apparent tension in jaw, neck, shoulders, hips, knees, etc.	Understanding of proper alignment and posture; execution most of the time; able to recognize slips and make corrections in the lesson; tension sometimes apparent in one or more area of the body	Understanding of proper alignment and posture; execution some of the time; sometimes able to self-correct, sometimes needs reminding; tension often apparent in one or more area of the body	Some understanding of proper alignment but too little body awareness to respond fully; tension frequently apparent in one or more area of the body	Student shows little evidence of body awareness; Poor posture and alignment
5	4	3	2	1
BREATH SUPPORT				
Calm and silent inhalations; air exchange is appropriate for given phrase; exhalation controlled and serves the phrase; exhalation muscles are well coordinated	Calm and silent inhalations most of the time; air exchange is almost always appropriate for given phrase; exhalation controlled and serves the phrase most of the time; exhalation muscles are well coordinated most of the time	Calm and silent inhalations some of the time; air exchange is only sometimes appropriate for given phrase; exhalation sometimes lacks control; exhalation muscles are not usually well coordinated	Sometimes unproductive or noisy inhalations; exhalation coordination is inconsistent; body shows some signs of coordination	Noisy and unproductive inhalations; air exchange is inappropriate for given phrase; exhalation uncontrolled and there is no sense of understanding of exhalation muscle coordination
5	4	3	2	1
TONE QUALITY/RESONANCE				
Clear tone that is intentional and stylistic; able to make variety of resonance adjustments easily throughout range; able to easily vary dynamics; able to easily vary tone quality for style purposes	Mostly clear tone that is intentional and stylistic; often able to make variety of resonance adjustments easily throughout range; often able to easily vary dynamics; often able to easily vary tone quality for style purposes	Tone is occasionally breathy or pressed without singers intention; sometimes able to make resonance adjustments in some parts of range; struggles to vary dynamics; struggles to vary tone for style purposes	Tone is often breathy or pressed without singers intention; unable to make resonance adjustments in some or all parts of range; struggles to vary dynamics without losing quality; struggles to vary tone quality for style purposes	Tone is always unintentionally breathy or pressed; unable to make any resonance adjustments in all parts of range; cannot vary dynamics; cannot vary tone quality
5	4	3	2	1
REGISTRATION				
Ability to isolate chest and head, mix is easily accessible and adjustable with ability to smoothly navigate break. Can successfully belt above the break	Ability to isolate chest and head most of the time, mix accessible but requires occasional adjustment. Sometimes able to smoothly navigate break. Can belt occasionally but unconfident	Ability to isolate chest and head some of the time, mix is shaky but improving. Sometimes able to smoothly navigate break. Not comfortable belting	Mix rarely present or none at all, difficulty navigating across break. Has strength in one or both registers but has trouble isolating them on command	Non-existent mix, severe and consistent break between chest and head. Trouble isolating either chest or head when asked - no sense for how to isolate
5	4	3	2	1
STYLE				
Strong time-feel and sense of swing; able to confidently improvise; able to implement vibrato or straight tone at will; pronunciation is stylistic	Decent time-feel and sense of swing; confidently improvises most of the time but occasionally fearful; can mostly control straight tone/vibrato; pronunciation is usually stylistic	Time-feel occasionally muddy or unswinging; takes some risks improvising but is fearful; can sometimes control straight-tone/vibrato; pronunciation is sometimes stylistic but includes pop or classical sounds	Poor sense of time-feel and swing but improving; little control over straight-tone/vibrato; rarely improvises; pronunciation is almost completely outside of the style	Poor sense of time-feel and swing; no control over when to sing straight-tone vs. vibrato; won't improvise; pronunciation is completely outside of the style
5	4	3	2	1

APPENDIX C

SUGGESTED VOCAL TECHNIQUE RESOURCES

Vocal Technique Resources

- Baxter, Mark. *The Rock 'n Roll Singer's Survival Manual*. Milwaukee: Hal Leonard, 1990.
- Benson, Elizabeth A. "Modern Voice Pedagogy: Functional Training for All Styles." *The American Music Teacher* 67, no. 6 (June-July 2018): 10-13.
- Blades-Zeller, Elizabeth. *A Spectrum of Voices: Prominent American Voice Teachers Discuss the Teaching of Singing*. 2nd ed. Lanham: Rowman & Littlefield, 2018.
- Billingsley, Alan, and Roger Love. *Pop/Rock Warm-Ups*. Miami: Belwin Mills, 1992.
- DeVore, Kate, and Starr Cookman. *The Voice Book: Caring For, Protecting, and Improving Your Voice*. Chicago: Chicago Review Press, 2009.
- Dimon, Theodore and G. David Brown. *Anatomy of the Voice: An Illustrated Guide for Singers, Vocal Coaches, and Speech Therapists*. Berkeley: North Atlantic Books, 2018.
- Dodds, George. *Voice Placing & Training Exercises*. London: Oxford University Press, 1969.
- Eckert, Rosana. *Singing with Expression: A Guide to Authentic & Adventurous Song Interpretation*. New York: Hal Leonard, 2018.
- Edwards, Matthew. *So You Want to Sing Rock 'N' Roll: A Guide for Professionals*. New York: Rowman & Littlefield, 2014.
- Estill, Jo. Belting and Classic Voice Quality: Some Physiological Differences. *Medical Problems of Performing Artists* 3 (1988): 37-43.
- Hall, Karen S. "Music Theater Pedagogy and Styles: An Introductory Teaching Guide for Experienced Classical Singing Teachers." EdD diss., Columbia University, 2006.
- Heirich, Jane Ruby and Jaye Schlesinger. *Voice and the Alexander Technique: Active Explorations for Speaking and Singing*. Berkeley: Mornum Time Press, 2005.
- LeBorgne, Wendy D., and Marci Rosenberg. *The Vocal Athlete: Application and Technique for the Hybrid Singer*. New York: Plural Publishing, 2014.
- Malde, Melissa, MaryJean Allen, Kurt Alexander Zeller, Barbara Conable, and Richard T. Nichols. *What Every Singer Needs to Know About the Body*. 4th ed. San Diego: Plural Publishing, 2020.

- McCoy, Scott. *Your Voice: An Inside View*. 2nd ed. Delaware: Inside View Press, 2012.
- Miller, Richard. *The Structure of Singing: System and Art in Vocal Technique*. New York, G. Schirmer, 1986.
- O'Connor, Karyn. SingWise. Accessed March 8, 2021. <https://www.singwise.com/>.
- Peckham, Anne. *The Contemporary Singer: Elements of Vocal Technique*. Boston: Berklee Press, 2000.
- Peckham, Anne. "Vocalise Patterns for the Contemporary Singer." *Journal of Singing* 59, no. 3 (2003): 215-20.
- Peckham, Anne. *Vocal Workouts for the Contemporary Singer*. Boston: Berklee Press, 2006.
- Spivey, Norman and Mary Saunders-Barton. *Cross-training in the Voice Studio: A Balancing Act*. San Diego: Plural Publishing, 2018.
- Sullivan, Jan. *How to Teach the Belt/Pop Voice*. International Association for Research in Singing, 1989.
- Sundberg, Johan. *The Science of the Singing Voice*. DeKalb, IL: Northern Illinois University Press, 1987.
- Van Doorn, Ineke. *Singing from the Inside Out: A Practical Guide for the Expressive Singer*. Zwolle: Artez Press, 2016.

Jazz Specific Vocal Technique Resources

- Christenson, C. L. "A Study of Vocal Technique Through the Development of Four Advanced Etudes for Jazz and Contemporary Vocalists." DMA diss., University of Miami, 2020.
- Cooper, Gloria Ann. "A Multidimensional Instructional Approach for the Solo Jazz Singer." EdD diss., Columbia University, 1992.
- Shapiro, Jan. *So You Want to Sing Jazz: A Guide for Professionals*. Lanham: Rowman & Littlefield, 2016.
- Silvera-Jensen, Julie. "A Comparison of Stylistic, Technical and Pedagogical Perspectives in Vocal Instruction Among Classical and Jazz Voice Teachers." DMA diss., University of Miami, 2005.
- Spradling, Diana R. *Jazz Singing: Developing Artistry and Authenticity*. Edmonds: Sound Music Publications, 2007.

Spradling, Diana R., and Justin Binek. "Pedagogy for the Jazz Singer." *The Choral Journal* 55, no. 11 (2015): 6–17. Accessed March 1, 2021. <http://search.ebscohost.com.unco.idm.iclc.org/login.aspx?direct=true&db=rih&AN=A926055&site=ehost-live>.

APPENDIX D
SUGGESTED IMPROVISATION RESOURCES

General Jazz Improvisation Resources

- Aebersold, Jamey. *Jamey Aebersold Jazz*: jazzbooks.com, Last modified 1997. Accessed February 15, 2021. <https://www.jazzbooks.com/>.
- Baker, David. *Jazz Improvisation: A Comprehensive Method for all Musicians*. California: Alfred Publishing Company, 1983.
- Baker, David. *David Baker's How to Play Bebop: for All Instruments*. Van Nuys, CA: Alfred Publishing, 1987.
- Bergonzi, Jerry. *Inside Improvisation Series*. Rotenburg: Advance Music, 1996.
- Parker, Charlie (Bird). *Charlie Parker - Omnibook*. Milwaukee: Hal Leonard, 2009.
- Coker, Jerry. *Patterns for Jazz*. Lebanon, IN: Studio P/R, 1970.
- Snidero, Jim. *Jazz Conception: 21 Solo Etudes for Jazz Phrasing, Interpretation and Improvisation*. Rotenburg: Advance Music, 1996.

Voice Specific Jazz Improvisation Resources

- Coker, Patty, and David Baker. *Vocal Improvisation - an Instrumental Approach*. Lebanon, IN: Studio P/R, 1981.
- Binek, Justin G. "The Evolution of Ella Fitzgerald's Syllabic Choices in Scat Singing: A Critical Analysis of Her Decca Recordings, 1943-52." DMA diss., University of North Texas, 2017.
- Hollingsworth, Kathleen L. "Strategies to Facilitate Voice/Hand Coordination for Jazz Improvisation by the Jazz Singer/Pianist." Ph.D. diss., University of Miami, 2013.
- Johnson, Michael John. "An Instructional Approach for a University Jazz Vocal Improvisation Course Sequence Incorporating Jazz Theory, Ear-Training, and Keyboard." PhD diss., University of Miami, 1999.
- Meador, Darmon. *Vocal Jazz Improvisation: An Instrumental Approach*. Independent Publisher, 2016.
- Nolte, Aimee. "Aimee Nolte Music - Jazz Pianist, Singer, Teacher." Aimee Nolte Music. Accessed March 8, 2021. <https://www.aimeenolte.com/>.
- Stoloff, Bob. *Scat! Vocal Improvisation Techniques*. London: Music Sales Ltd, 1998.

Walker, Cherilee. "Pedagogical Practices in Vocal Jazz Improvisation." PhD diss., University of Oklahoma, 2005.

Weir, Michele. *Vocal Improvisation*. Rotenberg: Advance Music, 2001.

———. "Music Habit." MusicHabit. Accessed March 8, 2021. <https://www.musichabit.com/>.

———. The Scat Singing Dialect: An Introduction to Vocal Improvisation. *The Choral Journal* 55, no. 11 (2015), 28-42. Retrieved February 14, 2021, from <http://www.jstor.org/stable/24580544>.

Software Applications

IRealPro

Drum Genius

Anytune

Amazing Slowdowner

Scatability

APPENDIX E
SUGGESTED CCM VOCAL PEDAGOGY
TRAINING PROGRAMS

Estill Voice Training®, created by Jo Estill

<https://www.estillvoice.com/>

(Jo Lawry and Dena DeRose are trained in the Estill method)

Jo Estill, world-renowned educator, researcher, and singer, founded Estill Voice Training (originally called Estill Voice Craft™) and the Figures for Voice™ (originally known as Compulsory Figures for Voice™) in 1988. Jo began her career as a “classical” singer of Lieder and Opera. Today she is best known for her work with “belting,” a voice quality heard in pop and musical theatre singing. Her unique approach separates the mechanics of singing from artistic and aesthetic preconceptions. With nearly 25 years of experience in research in the physiology, acoustics, and perception of voice quality, Ms. Estill was published in the *Annals of Otology, Rhinology and Laryngology*, *Journal of Voice*, *Medical Problems of Performing Arts*, and, most recently, in *Vocal Fold Physiology: Voice Quality Control*, and *Vocal Fold Physiology: Controlling Complexity and Chaos*.¹²⁹

Somatic Voicework™, created by Jeannette LoVetri

(Theo Bleckmann, Kate McGarry, Rosana Eckert, Cindy Scott, Darden Purcell, Alison Wedding have all taken training courses or are certified teachers of Somatic Voicework™)

Somatic Voicework™ seeks to bring the voice, the person, the emotions and the mind together. It seeks to illuminate the path of vocal artistry by conveying objective information about vocal production based on what is currently known and understood in medicine and science. It supports inter-disciplinary exchange. It is an open system. All premises are subject to improvement and personal adaptation. It honors and respects the styles of music called Contemporary Commercial (CCM) and believes that all styles of music have value and worth.¹³⁰

The CCM Vocal Pedagogy Institute at Shenandoah University

<https://www.ccmstitute.com/>

The teachers interviewed did not mention this resource, but it is another available CCM Vocal Pedagogy training program with renowned teachers including authors of *The Vocal Athlete*, Marci Rosenberg and Dr. Wendy LeBorgne.

¹²⁹ Nina Sainato, “Welcome to Estill Voice Training®,” Estill Voice Training, November 19, 2020, <https://www.estillvoice.com/>.

¹³⁰ “What Is Somatic Voicework™ The LoVetri Method?,” Somatic Voicework™ Teachers Association, January 26, 2021, <https://somaticvoicework.com/>.

APPENDIX F
SUGGESTED LISTENING LIST
OF JAZZ SINGERS

Suggested Jazz Singers Listening List (Alphabetical by Last Name):

Cyrille Aimée	Blossom Dearie	Kristin Korb	Jimmy Rushing
Mose Allison	Julia Dollison	Diana Krall	Catherine Russell
Karrin Allyson	Bob Dorough	Jo Lawry	Cécile McLorin Salvant
Ernestine Anderson	Sandra Dudley	Peggy Lee	Diane Schuur
Ivie Anderson	Sinne Eeg	Jay Leonhart	Cindy Scott
Louis Armstrong	Kurt Elling	Abbey Lincoln	Jimmy Scott
Alice Babs	Rosana Eckert	Julie London	Marlena Shaw
Mildred Bailey	Billy Eckstine	Kevin Mahogany	Nina Simone
Chet Baker	Jim Ferguson	Dean Martin	Frank Sinatra
Patricia Barber	Ella Fitzgerald	Susannah McCorkle	Kate Skinner
Tony Bennett	Dave Frishberg	Bobby McFerrin	Bessie Smith
George Benson	Sara Gazarek	Kate McGarry	Keely Smith
Erin Bentlage	Astrud Gilberto	Carmen McRae	Luciana Souza
Andy Bey	Christine Guter	Camila Meza	Esperanza Spalding
Theo Bleckmann	Dodo Greene	Jane Monheit	Dakota Staton
Carmen Bradford	Everett Greene	Helen Merrill	Tierney Sutton
Dee Dee Bridgewater	Adelaide Hall	Mark Murphy	Veronica Swift
Lara Brooks	Johnny Hartman	Michelle Nicolle	Amanda Taylor
Deborah Brown	Bill Henderson	Anita O'Day	Katie Thiroux
Cab Calloway	Jon Hendricks	Madeleine Peyroux	Brianna Thomas
Betty Carter	Al Hibbler	King Pleasure	Camille Thurman
June Christy	Billie Holiday	Gregory Porter	Mel Tormé
Jay Clayton	Shirley Horn	Rachael Price	Sachal Vasandani
Dawn Clement	Helen Humes	Louis Prima	Sarah Vaughan
Rosemary Clooney	Alberta Hunter	Arthur Prysock	Roseanna Vitro
Alexis Cole	Etta James	Darden Purcell	Charanée Wade
Freddy Cole	Al Jarreau	Flora Purim	Ethel Waters
Nat King Cole	Greg Jasperse	Lou Rawls	Dinah Washington
Natalie Cole	Herb Jeffries	Della Reese	Alison Wedding
Harry Connick Jr.	Antonio Carlos Jobim	Dianne Reeves	Sunny Wilkinson
Bing Crosby	Etta Jones	Elis Regina	Joe Williams
Jamie Cullum	Norah Jones	Kate Reid	Cassandra Wilson
Doris Day	Johnaye Kendrick	Ann Richards	Nancy Wilson
Kay Davis	Nancy King	Annie Ross	Norma Winstone
			Jimmy Witherspoon

APPENDIX G
INSTITUTIONAL REVIEW BOARD
DOCUMENTATION



Institutional Review Board

DATE: December 13, 2019

TO: Jenna McLean, MM

FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [1527352-2] A STUDY IN EFFECTIVE TEACHING METHODS FOR JAZZ VOICE TECHNIQUE IN HIGHER EDUCATION

SUBMISSION TYPE: Amendment/Modification

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS

DECISION DATE: December 13, 2019

EXPIRATION DATE: December 13, 2023

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Nicole Morse at 970-351-1910 or nicole.morse@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.