Liberty University

School of Music

Classical and Musical Theater Vocal Pedagogy for Female Collegiate Singers: An Observation and Study

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by

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Abstract

The study of vocal pedagogy in the 21st century has brought much debate among vocal pedagogues, vocal instructors, and singers. The increase in musical genres and commercial music/musical theater programs at the collegiate level has created a new need: voice instructors who can teach outside the classical aesthetic. This study aims to research how collegiate voice professors instruct female collegiate voice students singing both classical and musical theater styles. Focusing specifically on breath management and registration, the study intends to open the discussion on the need for consistent pedagogical techniques for cross-genre teaching. Due to different pedagogical beliefs taught among professors, the verbiage and style of teaching vary in instructing students. By researching how professors teach these two genres, one can better understand the areas where consistency is needed in vocal instruction today. Through interviewing collegiate voice professors on their vocal background and pedagogical beliefs, observation of female voice students singing both classical and musical theater, and personal observation, the professors' pedagogical techniques and approaches can be understood and provide valuable information in the world of vocal pedagogy.

Dedication/Acknowledgements

For Opa,
whose love of music resonates within me every day.

I owe all my gratitude to the Lord, who has sustained me in all circumstances. I praise Him for the ability to pursue the passions He has installed in me, and graciously allowed me to do so with the most amazing support system I could ever imagine. To my mom and dad, thank you for always believing in me, supporting me, and encouraging me throughout my whole life and in all my musical endeavors. I am beyond blessed. To Grandma and Oma, I love you both deeply. To my dear friends, I can't begin to describe what your support has been like through this process. I have received every encouragement with such thankfulness that I have people in my life who support my endeavors and rejoice with me in them.

To all the music educators that have been in my life since childhood, you may never get a change to read this thesis, but because of your influence and dedication to teaching music, I am where I am today. Truly, thank you. To Liberty University, I owe much thanks to you. For each opportunity, friendship, and hardship, I have been changed and transformed during my time here. To everyone involved in this thesis, Dr. Miller, and Dr. Byrd, as well as the professors and student participants, thank you for allowing this dream to become a reality. I could not have done this without you. And to each person who discovers this thesis, thank you for taking the time to read and hopefully gain useful information for your vocal pedagogy endeavors.

All the glory to God, always

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Definition of Terms

Belt- The chest voice is carried into the passaggio.

Breath Support – The ability to control air pressure while singing between the active inhalation and exhalation process.

Chest Voice – Also defined as chest register or lower register, a register of the singing voice primarily controlled by the thyroarytenoid muscle, primarily pitches sung around the human speaking voice.

Cricothyroid – The muscle found in the vocal cords responsible for head voice dominant or higher singing.

Head Voice – Also defined as head register or high register, a register of the singing voice primarily controlled by the cricothyroid muscle, higher pitches sung with a thinner and less-full bodied sound.

Mixing – Also defined as middle voice, a blend or mixing between the chest and head voice. This can sound loud and chest-like, having the overall essence of a higher chest voice.

Registration – A range of tones produced in the vocal cords of similar vibratory qualities of the voice.

Sub-glottal Pressure – The pressure of air below the glottis that builds up and eventually pushes air through the vocal folds.

Thyroarytenoid – The muscle found in the vocal cords responsible for chest voice dominant or lower singing.

Vibrato – The rapid oscillation of pitch.

Vocal Pedagogy – The art and study of vocal instruction.

Vocal Prosody – Expression of the voice/musical quality, including rhythm, stress, and intonation.

Chapter 1: Introduction

The human voice is an intricate and inimitable mechanism allowing people to ability to talk, laugh, and sing. However, the study of the voice and how it works has continued to puzzle researchers as this field of study is still relatively new and there is still much unknown. Through experiments and analysis, vocal pedagogues have learned about vocal anatomy and its function with modern technology and practices. Due to these new technological advances in science that have allowed vocal pedagogues and scientists the ability to learn more about the human voice and how it works, it has also created a wide variety of opinions and techniques developed for vocal instruction.

Vocal instruction does not come without challenges, as "training the singing voice presents challenges to both the singers and the teacher.[1] When entering the collegiate level, singers have four years of vocal instruction that will significantly impact their understanding of their voice and personal vocal pedagogy. Concepts such as breathing and registration will be studied, explored, and learned, and the collegiate voice professor plays a prominent role in influencing their students' views and understandings on such topics. The instruction that voice students receive in their college years will continue to impact the singers personal understanding of how the voice works and their opinions of vocal pedagogy past their college years. If these voice students become voice teachers themselves, then this cycle repeats- and the pedagogical techniques are passed down, influencing the next generation of singers.

[1]David Meyer and Brenda Smith, "Singing Voice Pedagogy," Journal of Voice: Source Readings, accessed February 13, 2023, https://www.jvoice.org/content/ymvj-singing-voice-pedagogy.

Historical Background

The term "vocal pedagogy" was coined by Manuel Patricio Rodríguez García, the son of renowned singer and vocal teacher Manuel del Pópulo Vincente García. Garcia II spent his life as a doctor and vocal pedagogue, studying and teaching vocal pedagogy. In 1854, Garcia invented the laryngoscope and became the first person to study human vocal folds while in action. He published *Memoire sur la voix humane* (*Memoire on the Human Voice*) in 1841, which became the first book dedicated to vocal pedagogy, discussing the "reciprocal actions among the vibrations of the cords, the breath, and certain parts of the vocal tube through which sound travels."[2] Garcia's impact on the field of vocal pedagogy would remain some of the most significant until the mid-20th century.

Before the 20th century, classical styles of singing were prominently used. These classical styles could be sung in both public and private facets: one could sing at home for personal enjoyment and small gatherings/house parties or gain experience in public settings at orchestras and operas.[3] In the 20th century, public singing began to differ from private singing, creating a sharper distinction between classical and popular singing by the mid-century. This is attributed to the development of "jazz-influenced, microphone-assisted idioms," and 20th-century composers started to branch into new sub-genres and leave the classical music tradition thus far.[4] Over the next century, musical genres grew from impressionism and modernism to modern-day pop, rock, punk, worship music, indie, musical theater, etc. Though the rise in different stylistic music provided opportunities for musicians to express themselves in a never-ending number of ways,

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[2] Berton Coffin, *Historical Vocal Pedagogy Classics*, (Lanham, MD: Scarecrow Press, 1989), 25.

[3] John Potter and Neil Sorrell, "The Emancipation of the Popular Voice." In *A History of Singing*, (Cambridge: Cambridge University Press, 2012), 240.

[4] Ibid., 241.

the vocal pedagogue became tasked with a new challenge- teaching healthy vocal techniques for multiple genres. However, those with vocal training continued to be classical vocalists. The need for more trained teachers who use a multifaceted approach to developing a comprehensive vocal technique became evident with the increase in different genres.

Musical theater originally stemmed from the classical style of singing yet has morphed into an almost different entity entirely. In 1927, *Showboat* became pivotal in changing the course of musical theater from operettas and comedies to elaborate productions with dimensional characters, plot development, and resolute endings, leading the newfound show to "became the first musical to combine seriousness with spectacle."[5] Though *Showboat* birthed the beginning of what is now known as Broadway, a very classical sound was still used throughout most of the 1920s and into the Golden Ages of musical theater in the 1950s. In the later 20th – early 21st century, due to the technological developments of theater and changes in popular music to a more commercial sound, the musical theater genre became enamored by the mix and belt singing style that is now a predominant classifier of the musical theater genre. With an increase in the belt/commercial musical theater singing and the "rising number of collegiate musical theater and contemporary commercial music (CCM) programs, there is an increasing demand for singing teachers to provide diverse and versatile training beyond the classical aesthetic."[6] However, most voice teachers use technical pedagogy and remain in the classical music world. Therefore, having voice teachers equipped to teach musical theater and classical vocal pedagogy in their respective fields must evolve in collegiate studies.

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[5] "The Original "Gamechanger" of Musical Theatre," Penn State University, accessed January 10, 2022, https://sites.psu.edu/slwpassion/2016/09/08/the-original-game-changer-of-musical-theatre/.

[6] Elizabeth Ann Benson, "Modern Voice Pedagogy: Functional Training for All Styles," *American Music Teacher* 67, no. 6. (June 2018): 10.

Statement of the Problem

When students study voice under multiple voice teachers, especially at the collegiate level, they soon realize there are "noted differences between the techniques and terminology employed by their respective teachers."[7] Often, voice students adopt many of the techniques and methods their voice teachers use during instruction into their own personal pedagogy. In turn, these students will grow into vocal instructors that will use these same techniques to teach students of their own. This cycle of voice training among collegiate voices is vast across America.[8] Even if there was a more shared understanding of vocal pedagogy among collegiate professors, there will never be a standard way to teach voice for one genre, much less in an entirely generalized way. There are hundreds of ways to teach voice, and there are also many different genres of voice that vocal instructors are tasked to teach. As well, vocal instruction varies between female and male voices. Understanding how to teach both male and female students is another factor for vocal instruction in different genres of music.

Although classical music is foundational in Western music history, the field of vocal music and vocal pedagogy needs to begin actively working on better equipping voice teachers with skills to teach not only classical styles, but a variety of genres, such as jazz, commercial, and musical theater. As vocal pedagogues, the goal of instruction should not be only to teach students a classical way of singing but rather to teach correct vocal pedagogy to help singers use the proper technique. As genres outside classical music continue to grow in the 21st century,

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[7] Andrew Naseth, "On the Voice: Constructing the Voice: Present and Future Considerations of Vocal Pedagogy," *The Choral Journal* 53, no. 2 (2012): 39. http://www.jstor.org/stable/23560897.

[8] Ibid.

teachers must learn how to instruct these new students. If not, the next generation of singers will lack correct vocal technique and be at a higher risk for misuse of the voice and vocal damage.

Statement of the Purpose

The purpose of this study is to observe how collegiate voice professors from different pedagogical backgrounds approach teaching both classical and musical theater voice. As an artist approaches painting using watercolor paints and oil paints with different techniques, the voice teacher must approach the teaching of classical and musical theater. No matter what the artist paints, the foundations learned in basic sketching, shadowing, and perspective implement themselves in different painting styles. Likewise, the vocal instructor should use this same ideology – starting with a firm foundation for breathing, throat and vocal cord health, and note-reading abilities- to then teach the student more specifically what is expected in a specific genre. While musical theater and classical singing share some of the same basic foundations of singing, musical theater utilizes more "commercialized" techniques and distinctive styles apart from classical music. In this study, the use of breath support and registration will be focused on to understand these differences.

Significance of the Study

This research is crucial as voice instructors will continue to see and influx of students looking to study genres outside of classical music. Knowing how to approach teaching different techniques needed in classical and musical theater genres will help develop the singer with the correct skills needed to succeed singing in both genres. Understanding how different voice professors with different pedagogical backgrounds teach will also provide insight into how collegiate female voice students sing different genres. By focusing on the female voice, the research can better target the key differences between female classical and musical theater

singing styles. Overall, understanding how different professors teach different genres and styles should aid in better understanding the main points in teaching both classical and musical theater voice.

Research Question and Sub Questions

This qualitative study will focus on answering the main research question: How does the difference in pedagogical backgrounds of collegiate voice professors impact teaching musical theater and classical singing to collegiate female vocalists? To elaborate on the topic, sub-questions are as follows:

Sub Question 1: How do the professors focus specifically on breath support and registration between the two genres?

Sub Question 2: In what ways does the professors personal educational background and teaching philosophy affect their approach to vocal instruction?)

Summary

Vocal Pedagogy- the art and study of vocal instruction – is an ever-present topic in the study of the voice. Research on vocal pedagogy will continue to advance as technology and studies try to unpack what the voice truly does and how it works. Classical singing has been the basis for much of the technical research and instruction of the voice. However, the 21st-century rise of other singing genres has created a need for vocal pedagogues and teachers to help this new generation of pop, jazz, R&B, and musical theater singers learn correct technique in their respective genres. Particularly in the collegiate vocal field, there is a strong need for voice professors that can instruct both classical and musical theater, knowing the differences and techniques needed in teaching both genres.

This study and observation aim to see how doctoral-level voice professors' backgrounds and teaching techniques impact their vocal instruction to female collegiate vocal students. Professors' understandings and beliefs of vocal pedagogy affect their teaching; therefore, each professor naturally has a different approach to classical and musical theater instruction. This difference in instruction, however, should provide insight into the language gap that comes from differences in teaching. Students and teachers can better understand one another in teaching classical and musical theater singing by identifying and defining these differences.

Chapter Two: Literature Review

For most musical instruments to produce a sound, the instrument needs something that activates the sound (pressing a piano key or pressing a trumpet valve), a vibrator to produce the desired frequencies (the reed of a woodwind instrument or the string of a guitar), and a resonator (the body of an instrument that gives it the sound).[9] Similarly, the human voice has a similar process for creating sound. The voice is a power supply or activator from the breath to the lungs. Next, the sound source comes from the vocal cords. Lastly, the sound resonator comes from the resonating cavities found in the mouth, nose, and chest to amplify the sound. However, singing requires learning to correctly use these complex components within the human body to produce a balanced, technically correct, and *bel canto,* "beautiful singing" sound.[10] The vocal production process requires the respiratory, diaphragm, musculoskeletal, and vocal tracts to work together and create the singing voice.

Respiration Process

Basic Anatomy for Breathing

While professionals have studied the basic anatomy of breathing for centuries, vocal pedagogues have continuously debated aspects of every function of the mechanisms required for singing. Breathing in the realm of singing is no exception to this. The process of breathing has three stages: a slow intake of air, a somewhat quicker release of air, and a waiting or recovery

[9] M. S. Benninger, "The Professional Voice," *The Journal of Laryngology and Otology* 125, no. 2 (February 2011): 111.

[10] Brian J Winnie, "Bridging the Gap Between Classical and Contemporary Vocal Technique: Implications for the Choral Rehearsal, *Voice and Speech Review*. 11, no.1 (September 2017): 58.

period between the next intakes.[11] This is the body's automatic function controlled by the brain's respiratory center. Air is taken into the body through the nose or mouth, down the throat, trachea, and eventually to the lungs. The diaphragm, located below the lungs, is a large dome-shaped muscle separating the chest cavity from the abdominal cavity. Since the lungs are an organ and do not function as a muscle, the diaphragm and the abdominal muscles, called the intercostals, are responsible for the expansion and contraction in the breathing and respiration process. The diaphragm's shape is like that of a parachute that is lower in the back than in the front. When the muscles contract, they cause the dome of the diaphragm to contract and flatten and the chest cavity/upper abdomen to enlarge.[12]

Bringing air into the body requires the diaphragm assisted by the external rib or intercostal muscles and the relaxation of the upper abdomen.[13] To relieve air from the body, the diaphragm has to relax, the lungs need to turn back to their original shape after expansion, the abdominal wall and organs return to the correct position after the diaphragm releases, and the internal rib and abdominal muscles help exit air out of the body. Though this happens involuntarily regularly, this whole process requires more intentionality when singing. The singer must consciously think about breath control until they become conditioned reflexes. The singer is breathing to receive oxygen and sustain a pitch for a specific duration of time until a breath is needed or taken.

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[11] James C. McKinney, *The Diagnosis & Correction of Vocal Faults: a Manual for Teachers of Singing and for Choir Directors*, (Long Grove, Il: Waveland Press, 2005), 46.

[12] Ibid.

[13] Ibid., 47.

Inhalation

As stated before, inhalation uses both the diaphragm and the intercostal muscles. Often, singers are told "use the diaphragm" when supporting their breath. However, this incorrectly identifies the process of taking a breath. The diaphragm's only goal when inhaling is to contract or lower. Teachers who "urge diaphragmatic control may only be using such terminology loosely to indicate other possible muscular controls around the diaphragmatic region focus on all the muscles utilized in breath management that singers can learn to control."[14] Therefore, the correct terminology about inhalation and the proper explanation of the function of the diaphragm remains important for vocal pedagogues to understand and relay to students.

During inhalation, the intercostal muscles, located between the ribs, lift and separate while the diaphragm contracts and moves down. Boyle's law is activated, therefore; the greater lung volume (less air pressure) allows air to rush into the lungs.[15] Pressure in the lungs, called intrapulmonary pressure, matches the atmospheric pressure (760 mm Hg) when neither inhaling nor exhaling. When inhalation occurs, the intrapulmonary volume increases, allowing the intrapulmonary pressure to decrease. Oxygen, therefore, flows into the lungs down its pressure gradient, from an area of high pressure to an area of low pressure.[16] When breathing for singing, the singer inhales more air than resting, breathing faster and deeper into the lungs. The body must be in a proper postural state for a proper breath to be taken for singing. The chest should be positioned high, the lower abdomen should be comfortably in, and the upper abdomen should be

[14] Brian J Winnie, "Bridging the Gap Between Classical and Contemporary Vocal Technique." 59.

[15] Lindsey Elizabeth Blackhurst, "Exploring the Whole Singing Self with Technique, Contemplative Education, and Mindfulness," (PhD. diss., Columbia University, 2021), 52, ProQuest Dissertations & Theses Global.

[16] Hasudungan, Armando, Mechanism of Breathing. YouTube. Accessed February 13, 2023.

free to move.[17] Then, as one inhales, the breath goes into the body to the lungs and is felt in the middle of the body, rather than a shallow breath in the area between the mouth and the rib cage. The singer can imagine the breath moving in, down, and out of the middle as a primary way to establish and remember the middle-body expansion. This supported diaphragmatic breathing stabilizes the intake of air. It allows the abdominal muscles and lungs to bring in the air that will sustain pitch in a supported manner, called suspension. In natural breathing, the inhalation and exhalation process happen seamlessly, as they merge without distinct boundaries. As the breath is suspended for singing, the body allows phonation to occur.

Exhalation

When the singer reaches the end of a phrase, "the least amount of air is available to power the voice, the muscles of expiration are most fatigued, and mental and physical energy are at an ebb."[18] Therefore singers need to know how to best utilize their bodies for exhaling efficiently. Exhalation, with the support of the vocal folds, creates phonation. The musical phrase determines the phonation duration. When singing, the breath is slowly released rather than the quick exhalation of unconscious breathing to conserve air throughout the entire musical phrase. The diaphragm releases its tension gradually and returns to its original position before taking another breath.[19] The internal intercostal muscles, located on the inside of the ribcage under the external intercostals, play a role in the exhalation process and, upon contraction, are pulled down and

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[17] James C. McKinney, *The Diagnosis & Correction of Vocal Faults : a Manual for Teachers of Singing and for Choir Directors*, 49.

[18] Lawrence Indik, "The End of Breath for Singing: Exhalation and the Control of Breath at the End of the Phrase," *Journal of Singing - the Official Journal of the National Association of Teachers of Singing* 66, no. 2 (11, 2009): 131.

[19] James C. McKinney, *The Diagnosis & Correction of Vocal Faults : a Manual for Teachers of Singing and for Choir Directors*, 51.

inward toward the lower rib. This depresses the ribcage and decreases its circumference, which allows for exhalation to occur. More importantly, there are five muscles in the abdomen used primarily for exhalation: the external oblique, internal oblique, rectus, transverse abdominis (abdominal muscles), and quadratus lumborum, which all work to pull the ribs down in the exhalation process.[20] At the end of the exhalation, all muscles should return to their proper, fixed state. As well, the muscles will function better when they relax entirely before the next inhalation. However, sometimes, singers cannot complete an entire exhalation, release, and inhalation because of the nature of their singing song. Singers may use a catch breath or breath quickly to continue a phrase.

The Larynx and the Vocal Tract: Description and Importance

The vocal tract comprises the larynx, pharynx, nasal, and oral cavity. The oral cavity can be simply described as containing the lips and cheeks and, inwardly, the tongue, salivary glands, the hard palate, and mucosal glands and tissue. The pharynx is the muscle-lined tube that connects the nose and mouth to the larynx and esophagus and is divided into the laryngopharynx, oropharynx, and nasopharynx.[21] The laryngopharynx exists between the epiglottis and esophagus and allows for the passage of food to the stomach. The oropharynx begins at the soft palette and ends at the epiglottis, while the nasopharynx is the uppermost section of the pharynx and allows air to move through the nose and into the lungs.

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[20] Scott Jeffrey McCoy, *Your Voice, an Inside View: Multimedia Voice Science and Pedagogy*, (Princeton, N.J: Inside View Press, 2004), 64.

[21] Steven D. Handler, "Throat Anatomy and Physiology," Children's Hospital of Philadelphia. April 2009. https://www.chop.edu/conditions-diseases/throat-anatomy-and-physiology#:~:text=Pharynx%20%E2%80%94%20is%20the%20muscle%2Dlined,that%20contains%20the%20vocal%20cords.

Larynx and Vocal Folds

The larynx contains the vocal cords, which are folds of tissue made up of muscles covered by a thin layer called the mucosa. The larynx is protected by the thyroid cartilage, which is seen as the bump that goes up and down when swallowing. The trachea sits atop the larynx, allowing airflow from the lungs. In regular breathing, one breathes in and out freely through the vocal cords with no restrictions. Once a person speaks, the vocal cords close and vibrate, which makes the sound of the voice. The larynx allows for maximal control of aerodynamic forces, resulting in rapid vibration of the vocal cords in a coordinated fashion.[22] In other words, touching the vocal cords keeps the air from the windpipe from escaping. This traps pressure on the vocal cords and causes a vibration as air escapes through- which produces sound. This sound is first created in singing from the relationship between airflow and true vocal fold adduction. The process and the function of the vocal folds can be described using adduction and abduction. Adduction occurs when the vocal folds come together (adduct) and trap air in the lungs, while abduction brings the vocal folds apart to let air in and out of the lungs during breathing.[23] Therefore, when breathing, the vocal folds are abducted, and when singing or speaking, the vocal folds are adducted. In greater detail, the law of physics that applies to aerodynamics, known as the Bernoulli effect, also applies to the vocal mechanism. Once the exhalation process has begun, the vocal folds are adducted toward the midline of the larynx, pulled together due to pressure changes in the glottis versus outside of the glottis. This is

[22] M. S. Benninger, "The Professional Voice," *The Journal of Laryngology and Otology* 125, no. 2 (February 2011): 111.

[23] University of Minnesota, Department of Otolaryngology-Head & Neck Surgery, "Cartilages and Muscles of the Larynx", accessed April 10, 2023. https://med.umn.edu/ent/patient-care/lions-voice-clinic/about-the-voice/how-it-works/anatomy

followed by a buildup of sub-glottal pressure below the vocal folds, which eventually pushes the vocal folds apart again, and the cycle repeats.[24]

The vocal cords are extremely small, only a few millimeters wide and long, and are made of a ligament or connective tissue. The second layer consists of the thyroarytenoid muscle, also known as the TA muscle, and the last layer consists of a layer of protective mucosal tissue. The vocal fold forms the shape of an upside-down "V" when open and comes together to close when phonating. During phonation, contracted abdominal muscles prevent the shortening of the diaphragm and provide the muscular antagonism required for the rib cage to develop strong subglottal pressure to increase sound pitch and/or loudness.[25]

Subglottal Pressure

Breath impacts singing by changing the subglottal pressure.[26] Subglottal pressure is the relationship between vocal fold resistance, pressure beneath the folds, and airflow. Adjustments above the level of the vocal folds can also impact subglottic pressure. The air pressure as someone exhales flows between the vocal folds, and the subglottic pressure increases and overcomes the tension of the closed vocal folds, which pushes them apart, allowing air to pass through the vocal folds.[27] The subglottic pressure then drops quickly, and:

> The pressure of the muscular tension of the vocal folds becomes greater than the subglottic pressure, allowing the vocal folds to come back together. The stronger the force of airflow, the more rapidly this cycle occurs. As air passes through the narrowed glottis, the reduced

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[24] Scott McCoy, *Your Voice: An inside View* 2nd ed. (Delaware, OH: Inside View Press), 64.

[25] Sauro Salomoni den Hoorn Wolbert van, and Paul Hodges, "Breathing and Singing: Objective Characterization of Breathing Patterns in Classical Singers," *PLoS One* 11, no. 5 (05, 2016), https://go.openathens.net/redirector/liberty.edu?url=https://www.proquest.com/scholarly-journals/breathing-singing-objective-characterization/docview/1787763610/se-2.

[26] Brian J Winnie, "Bridging the Gap Between Classical and Contemporary Vocal Technique: Implications for the Choral Rehearsal, *Voice and Speech Review*. 11, no.1 (September 2017): 60.

[27] M. S. Benninger, "The Professional Voice," *The Journal of Laryngology and Otology* 125, no. 2 (February 2011): 112.

> pressure creates a Bernoulli effect, drawing the vocal folds together and reducing the subglottic pressure as the air passes through the open larynx.3 In the very short period of time that the vocal folds are together, the subglottic pressure will again increase, and so the cycle repeats itself. This cycle occurs many times per second, enabling the human larynx to produce vibrations of frequencies ranging from below 100 cycles/second to well over 1000 cycles/second in some individuals.[28]

After the initiation of sound, the vocal folds produce sound waves of both fundamental and harmonic frequencies amplified by the vocal tract. Once again, the vocal tract comprises the three main resonating cavities: the larynx, the pharynx, and the oral cavity. The pharynx is divided into three resonators: the laryngopharynx, oropharynx, and nasopharynx and the larynx contain the vocal folds or, cords.[29] The larynx is comprised of four essential components: skeleton, mucosa, intrinsic muscles, and extrinsic muscles. The intrinsic muscles that impact the vocal cords include the thyroarytenoid, cricothyroid, cricoarytenoids, and arytenoids.

Registration: The Thyroarytenoid and Cricothyroid Muscles

The term vocal registration has resulted in semantic confusion between speech scientists, vocal pedagogues, and singers.[30] Since the 1970s, researchers and pedagogues have researched and debated what "registration" is, and there is still much debate. A standard definition of registration comes from Manuel Garcia, who defined register as "a series of consecutive tones with a similar color and a similar method of production, differing from another series of

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[28] M. S. Benninger, "The Professional Voice," *The Journal of Laryngology and Otology* 125, no. 2 (February 2011): 112.

[29] Brian J Winnie, "Bridging the Gap Between Classical and Contemporary Vocal Technique: Implications for the Choral Rehearsal, *Voice and Speech Review*. 11, no.1 (September 2017): 63.

[30] Wendy DeLeo LeBorgne, Marci Daniels Rosenberg, and Marci Daniels Rosenberg, The Vocal Athlete, Second edition. (San Diego, CA: Plural Publishing, 2019), 121.

consecutive tones with a different color and method of production.[31] Initially, the terms head voice and chest voice came about from singers explaining where in their body they felt the most resonance, for vibration in the head when singing lighter and more in the chest for heavier.[32] However, scientists and vocal pedagogues now know registration occurs because of changes in the vocal mechanism.

The two main muscles that affect registration in the voice are the thyroarytenoid muscle and the cricothyroid muscle. The thyroarytenoid muscle (abbreviated TA muscle for the remainder of paper) connects the thyroid and arytenoid cartilages and is the main joint that allows the vocal cord to move. It is also one of the most complex joints in the body because it provides three degrees of rotation: rocking, gliding, and rotation that is adjusted through minute changes in the laryngeal muscles.[33] The cricothyroid muscle (abbreviated CA muscle for the remainder of paper) "starts at the front of the cricoid cartilage and fans upward and backward to the lower surfaces of the thyroid cartilage."[34] Its contraction leads to the thyroid being pulled forward and down while stretching the thyroarytenoid muscle: ultimately, the vocal cords are lengthened.

The TA muscle runs the length of the vocal cords. Increasing or decreasing the TA muscle's tension changes the pitch. The TA muscle is dominant when singing in a lower register, and the vocal cords are short and thick. Singing in a high register utilizes the CT muscle. The CT muscles, which are attached to the back of the thyroid cartilage, pull the vocal cords up and

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[31] Richard Miller, "Voice Pedagogy: Registration." *Journal of Singing - the Official Journal of the National Association of Teachers of Singing* 62, no. 5 (05, 2006): 537.

[32] Ibid.

[33] M. S. Benninger, "The Professional Voice," 112.

[34] James C. McKinney, *The Diagnosis & Correction of Vocal Faults,* 71.

down. The CT muscles stretch the vocal cords, which makes them long and thin when resonating, and raises the pitch. The singer must find the correct balance using the CT and TA muscles when singing. The pitch will fall flat if the TA muscle engages too much when singing high. If the CT is used too heavily in the lower register, the passagio will flip too suddenly. Therefore, it can be summarized that singers need to maintain some of each quality in every tone made, using the CT muscle more predominately in higher or softer tones and the TA muscle for lower or louder tones.[35] Often, singers engage the TA muscle too strongly, creating a crack when singing higher. Also, when the singer is singing in the CT muscles and moving to the TA muscle, and vice versa, the chances for a "vocal break" are greater. This smooth transition of the TA and CT muscles is key for seamless singing.

"Defining" Registers

As noted above, register characterization and terminology remain areas of much ambiguity, debate, and disagreement among singers, singing teachers, and voice scientists alike.[36] Therefore, categorizing registration results in varied definitions. Richard Miller generalizes registration below, from high to low:

1)whistle register, flageolet, bell register;

2)falsetto (can be used to mean what many call head voice);

3)head, light mechanism, predominantly cricothyroid, CT dominant;

4)middle (blend or mixing of head and chest);

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[35] Richard Miller, "Voice Pedagogy: Registration." *Journal of Singing - the Official Journal of the National Association of Teachers of Singing* 62, no. 5 (05, 2006): 537.

[36] Karen Ann Kochis-Jennings, Eileen M. Finnegan, Henry T. Hoffman, Sanyukta Jaiswal, and Darcey Hull, "Cricothyroid Muscle and Thyroarytenoid Muscle Dominance in Vocal Register Control: Preliminary Results." Journal of Voice, 28, no. 5 (September 2014): 652.e21.

5)chest, heavy mechanism, predominantly thyroarytenoid, TA dominant, modal; and 6)fry, strohbass [37]

Though vocal pedagogues may disagree with this list, it encompasses a large number of pedagogical terms used by many vocal pedagogues. Most vocal instructors will agree with the highest register being whistle and the lowest vocal fry; however, in between is where vocal pedagogues have much debate in defining and deciphering the registers.

Whistle register, also referred to as flageolet or bell register, is the highest register a female can produce pitches at the highest part of their range and can be defined as a "very high-pitched piccolo-like sound produced in the larynx."[38] Whistle register phonation sounds lighter and less full than head voice, due to the laryngeal configuration used when phonating in whistle register.[39] The upper register, also referred to as head register or head voice, includes higher pitches sung with a thinner and less-full bodied sound. As described before, higher register singing predominately uses the CT muscle, as singing in the upper pitch ranges requires the vocal cord to be more contracted, and when the vocal folds are lengthened, they become thinner and resonate at a higher pitch. The mix register, or middle register, is a blend or mixing between the chest and head voice. Rather than an abrupt shift between head and chest voice, the singer smoothly transitions between the CT and TA muscles, allowing the voice to be flexible in singing in this transition. When mixing is done correctly, the voice can sound loud and with a chest-like quality, having the overall essence of a higher chest voice. However, mixing is a

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[37] Richard Miller, "Voice Pedagogy: Registration." *Journal of Singing - the Official Journal of the National Association of Teachers of Singing*, 538.

[38] Ingo R. Titze, "Voice Research and Technology: A Hypothesis about Whistle Voice." *Journal of Singing - the Official Journal of the National Association of Teachers of Singing* 64, no. 4 (March 2008): 473.

[39] Allison Ruth Holmes-Bendixen, "The Influence of Whistle Register Phonation Exercises in Conditioning the Second Passagio of the Female Singing Voice," (PhD diss., University of Iowa, 2013), 2.

healthy vocal technique that protects the vocal cords from damage, allowing them to hit higher notes in a commercialized style, without having to strain their chest voice. Chest voice, as stated before, primarily uses the TA muscle is the range used in the speaking voice. For chest sounds to resonate correctly, the singer needs to engage their diaphragm for the correct amount of airflow needed to sustain the pitches. Lastly, vocal fry is the lowest register of the voice, and often is characterized by a deep, creaky, and breathy sound. The vocal cords are relaxed but do not increase the amount of air being pushed out of the vocal cords. In other words, the vocal cords are vibrating but do not come together completely, which produces slower vibrations and ultimately creases the low, gravely sound of vocal fry.[40]

What is belting?

Belting, put simply, is when the singer carries the chest voice past the passagio and is characterized by a relatively high and forward tongue position, a more constricted pharynx, a higher laryngeal position, and a more open mouth shape than used in classical vocal production.[41] More muscular involvement is used in belting, and it should have a heavier and brighter feeling than that of head voice. Belting requires more upper diaphragmatic energy to sustain the pitch. Therefore, the higher the belt, the more the diaphragm contraction should be consistent and active. Also, belting is only attainable when the mouth is open, and the vowel is internally brightened. Many singers may confuse chest voice and belting, and though they are similar, they are not the same. Chest voice is the registration used in everyday speech and when singing lower in one's range. "Belt" carries the chest voice higher than usual, resulting in a more

[40] Lee Akst and Kristine M. Pietsch, "Is Vocal Fry Ruining My Voice?" Is Vocal Fry Ruining My Voice? Johns Hopkins Medicine, March 1, 2022. https://www.hopkinsmedicine.org/health/conditions-and-diseases/is-vocal-fry-ruining-my-voice#:~:text=What%20is%20vocal%20fry%3F,produce%20sound%20(your%20voice).

[41] Tracy Bourne and Dianna Kenny, "Vocal Qualities in Music Theater Voice: Perceptions of Expert Pedagogues," *Journal of Voice.* 30, no. 1 (January 2016), 132.

"commercialized" sound, very different than a mix or head-dominated sound, which is lighter, higher, rounder, etc. Singers of all genres use chest voice, but only those singing a commercial genre use belt.

Belting has had much debate among vocal pedagogues and its use in commercial music, including musical theater. Due to the laryngeal pressure and constricted pharynx needed to produce the "belting" sound, consistent use, overusing, or incorrect belting can damage the vocal cords. However, with the proper combination of breath pressure, laryngeal, and glottal changes belt is not unhealthy, and can be used in many commercial genres. Belting will continue to be a conversation of the 21st century in vocal pedagogy as the emergence of commercial and musical theater genres will continue to expand.

Classical and Musical Theater Registration

Registration between classical and musical theater is one of the key differences in singing and teaching these genres. Classical singing requires a "stable laryngeal position, widened pharynx, vowel consistency, and 'ring' result from vocal tract shaping."[42] The classical singer should adjust for their vocal tract to ensure consistent quality throughout their singing. The audience should hear consistency in the vowel quality, vibrato, and vocal weight.[43] The singer's passagio, the transitions between the TA and CT muscles, should be seamless and have no break in the voice. However, musical theater singing often makes these shifts in registers very noticeable, with changes in the singer's vocal quality and timbre used to display a specific sound they are trying to make. However, when done incorrectly and without proper technique, these

[42] Wendy DeLeo LeBorgne, Marci Daniels Rosenberg, and Marci Daniels Rosenberg, The Vocal Athlete, Second edition. (San Diego, CA: Plural Publishing, 2019), 124.

[43] Ibid.

prominent register shifts can be unhealthy for the voice. As well, due to the many subcategories of musical theater music, including legit, mix, and belt, these singers must be multitalented within the musical theater singing styles to become more versatile and marketable. Therefore, pedagogues who teach musical theater repertoire must gain an understanding and appreciation for the genre, and model this well to effectively train a singer's entire vocal range with flexibility and versatility in registering.[44]

Historical Approaches of Breathing and Registration

Lodovico Zacconi of Italy, and Dominico Cerone of Spain, were among the first to declare that the voice had two registers: chest and head.[45] Supporting this, Pedagogue Pier Tosi, a Castrati tenor, wrote on the topic of chest and head voice being the two registers in his treatise for Castrati sopranos.[46] As stated before, Manuel Garcia II was profoundly influential in 18th-century vocal pedagogy with his research on the anatomy of the voice, leading to the development of his laryngoscope. His findings also led him to believe in a 2-model system. Garcia would describe the chest register as the range that contained the lower notes that stretched the entire vocal fold length. However, differing from his colleagues and fellow pedagogues, Garcia believed the head register had two distinct functions within the registers: head and falsetto. Singers would use head voices in the higher register, and as the voice got higher, another passagio would allow falsetto to occur naturally. Throughout the 19th century, Garcia

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[44] Ibid., 132.

[45] James Stark. Bel Canto: A History of Vocal Pedagogy, (Toronto: University of Toronto Press, 1999), 58-59.

[46] Becky L. Morrison, "The Chest Voice Function in the Classically Trained Soprano: A Survey of Selected Vocal Pedagogy Treatises from the Seventeenth Century through the Twentieth Century and Recording Analysis from 1900 to the Present with Discussion of the Implications for the Modern Vocal Pedagogue," (PhD diss., The University of Oklahoma, Norman, Ok, 2013), 22, ProQuest Dissertations & Theses Global.

trained many famous singers and vocal pedagogues, and his techniques became the leading methodology, even being used throughout the beginning of the 21st century. It was not until 1949, when vocal pedagogue and teacher William Vennard published his book *Singing: The Mechanism and the Technic* in 1949 (with revisions in 1967), that another text would provide significant attributions to the field of vocal pedagogy.

William Vennard

William Vennard was a forerunner of vocal pedagogues whose life work was to teach and bridge the gap between voice professionals, "learning extensively about the science of voice, and translating it to voice teachers worldwide through his writing and his research."[47] Vennard held degrees in Vocal Performance from Northwestern University and the American Conservatory of Music, was an accomplished opera singer, and taught at the University of Southern California from 1950-1971. In *Singing: The Mechanism and the Technic,* Vennard's stance on breathing suggests that a combination of diaphragmatic and rib breathing is most efficient for singing. [48] He describes that correct breathing can be summarized by using the phrase "in, down, and out" and encourages the use of "abdominal" breathing for the action of diaphragmatic breathing. Vennard uses the term "muscular antagonism," showing that "no muscle works alone; it is opposed, and steadied, in its action by one or other muscles."[49] The internal intercostals are the externals' antagonists; at the same time, the abdominal muscles are the antagonists of the external intercostal muscles. Vennard's belief on registration is detailed using the cricothyroid and

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[47] Vocal Pedagogy, William Vennard: Voice Researcher, Author, and Singer, accessed April 10, 2023, https://vocalpedagogy.com/vocal-pedagogue/william-vennard/

[48] Chelsea Dehn, "Bridging the Gap: The Application of "Classical" and "Nonclassical" Vocal Pedagogy in the Rehearsal and Performance of Diverse Choral Repertoire," Master's Thesis, California State University, Los Angeles, 2016. ProQuest Dissertations Publishing, 59.

[49] WilliamVennard, *Singing: the Mechanism and the Technic*, (New York: Carl Fischer Inc., 1967), 29.

thyroarytenoid muscles in his text, going into detail about the functions of the voice and adduction vs. abduction. In classifying registers, Vennard begins with an explanation of a heavy mechanism, or chest voice, and light mechanism, falsetto, and the role of thyroarytenoid and cricothyroid muscles in singing these registers. Following, Vennard explains that ideally, a "one-register" approach would be the singer's goal as the voice "should produce all the pitches of which it is capable smoothly and consistently, without 'breaks' or 'holes' or radical changes to technic," but realistically, there are three female registers: chest, middle, and head.[50] The goal of the voice teacher is to teach singers how to blend these registers, bridging one register to another.

Richard Miller

Richard Miller is one of the most notable vocal pedagogues, holding degrees from Marseilles Conservatory, Westminster Choir College, the University of Michigan, and studied under the Fulbright scholarship in Rome, Italy, at L'Accademia di Santa Cecilia.[51] He was a professor at Oberlin Conservatory from 1964-2004, wrote multiple books on vocal pedagogy, and taught master classes across the globe. In 1996, Miller wrote *The Structure of Singing: System and Art in Vocal Technique*, which became his most famous vocal pedagogy book to date. Miller's discussion on breathing in his book begins with the idea that inhalation posture is maintained to ensure cooperative muscle activity in the entire torso, including the pectoral, epigastric, umbilical, and diaphragmatic regions.[52] Miller's chapter entitled "Breath Management in Singing" discusses subglottal pressure and *appoggio*, which Miller defines as breath

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[50] Ibid., 69.

[51] Vocal Pedagogy, "Richard Miller: Pioneering Researcher, Author, and Teacher of Vocal Pedagogy, accessed April 10, 2023, https://vocalpedagogy.com/vocal-pedagogue/richard-miller/

[52] Chelsea Dehn, "Bridging the Gap: The Application of "Classical" and "Nonclassical" Vocal Pedagogy in the Rehearsal and Performance of Diverse Choral Repertoire," Master's Thesis, California State University, Los Angeles, 2016. ProQuest Dissertations Publishing, 59.

management and support. Miller's text also provides exercises in each chapter to actively help or improve the topic he discusses, this chapter being exercises for improving breathing management.

Miller categorizes the female registers as chest, lower middle, upper middle, upper, and flageolet. The middle registers, which Miller defines as a mixture that is not entirely head nor entirely chest, is controlled by the laryngeal action. Miller describes this as follows:

> A limited amount of head sensation is present in chest mixture. *Head mixture* in lower-middle voice produces a somewhat "headier" feeling that is felt in chest mixture. An increase in "headiness" characterizes upper-middle voice. An even more decisively "heady" sensation occurs above the upper *passaggio.*[53]

Though Miller classifies singing into these categories, it is known that Miller expanded his mentality as seen in the list of registers provided in the Registration section of this thesis. The updated classifications of registration are derived from this publication.

Scott McCoy

Vocal pedagogy in the 21st century has had much influence from Scott McCoy, who is the current Director of the Swank Voice Laboratory at The Ohio State University, former president of NATS, and has written many books and journal articles related to singing and vocal pedagogy in the last decade.[54] In 2004, McCoy released a book entitled *Your Voice: An Inside View,* which explores vocal science and pedagogy with the ability use to the available audio and video to have visual and photographic examples that go along with the text. McCoy's chapter on voice registers begins by classifying the different types of registers that have been used in the

[53] Richard Miller, *The Structure of Singing: System and Art in Vocal Technique,* (New York: Schirmer Books, 1996), 136.

[54] National Association of Teachers of Singing, "Vocal Pedagogy: Scott McCoy," accessed April 10, 2023. https://www.nats.org/scott_mccoy.html

field of vocal pedagogy into five categories: lowest tones, lower tones, middle tones, high tones, and highest tones.[55] Though this list has many terms that have been used over the field of vocal pedagogy (such as chest voice, belt voice, mixed register, head voice, etc.), McCoy explains that registration is a controversial and diverse topic that leads to much confusion and misunderstanding among voice students. Rather than establishing what McCoy believes the male and female registers are, McCoy describes that registration is defined as having continuous pitches, produced in the same physiological manner, and sharing the same timbre. McCoy spends much of the rest of the chapter discussing Thyroarytenoid-Dominant and Cricothyroid-Dominant singing.

In McCoy's chapter on breathing for singing, he details the entirety of the respiratory anatomy as well as breathing techniques for singing. The diaphragm is explained in detail, stating that the diaphragm is a voluntary muscle that singers must learn to control "through sensations in the abdomen and ribcage" and continues with describing its function for singing.[56] McCoy also discusses breath support vs. breath control, explaining breath support as "the dynamic relationship between the muscles of inspiration and expiration that are used to control pressure in the air supplied by the larynx."[57] Breath control is relating to the efficiency that the glottis uses air, therefore the duration that a note can be sung. Overall, the singer's goal with breathing is to provide a stable supply of air at the correct pressure for the desired pitch and loudness and accurately adjust this pressure through muscular antagonism to produce good singing.

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[55] Scott Jeffrey McCoy, *Your Voice, an Inside View,* 64.

[56] Ibid., 89.

[57] Ibid., 93.

Chapter Three: Methodology

Introduction

This chapter explains the methodology used for gathering and analyzing data for this research study. It provides information about the overall design of the study, the research methods used, the research questions, the participants, and how the study was conducted. The researcher describes the overall design of the study and why is best suited this type of research. The different types of participants are explained and why they were each influential in the research study. Lastly, the researcher explains the way in which the data was recorded for further investigation and data analysis.

Design

The design of this study used observation and interview to gain practical knowledge of how collegiate professors approach teaching holistically (their own pedagogical beliefs) and observe how this was implemented in teaching collegiate female voice students. This study focused on female students as differences in male and female repertoire and biological differences in vocal production broadened the research and would not have allowed for understanding on a specific level. Qualitative research methods, including observation and interview, allowed the professors to provide deep insight into their teaching approaches. In observing the students, the researcher found insight into the professors' teaching style and pedagogy, specifically looking into their approaches on breath support and registration. The interview portion of the study allowed for further insight of knowledge regarding the professors' vocal and pedagogical background, stances on registration and breathing, and personal principles in their respective areas of expertise. Lastly, having the researcher take a lesson with each professor provided the opportunity for understanding the teaching styles on a personal level.

Questions and Hypotheses

The main research question remains the same as in Chapter 1: How does the difference in pedagogical backgrounds of collegiate voice professors impact teaching musical theater and classical singing to collegiate female vocalists? The expected hypothesis is that the difference in pedagogical background is going to affect the professor's teaching philosophy, therefore; each professor will have varied approaches in teaching musical theater and classical singing. The expected hypothesis for Sub Question 1 is that the professors will strongly focus on teaching the differences and significance in breathing for both genres. As well, registration will be highly discussed in musical theater teaching as register changes are a frequent and characteristic aspect of that genre. Sub Question 2's excepted hypothesis is that the professor's difference in education and how they were taught voice is going to impact their teaching style and methodology.

Participants

The participants in this study are separated into three different categories. The first group of individuals were chosen by selecting collegiate voice professors who had obtained doctoral (or equivalent) degree in Vocal Performance or Vocal Pedagogy. Four professors were selected that met these requirements, two female and two males. Each professor had taught at the collegiate level for at least 15 years. The second group of individuals was the collegiate female students studying under these professors. Two students from each of the professor's studios were selected for a total of 8 female collegiate vocalists. The qualifications for these individuals included (1) being 18 years or older, (2) being enrolled in a music program degree, and (3) the primary instrument of the student was voice. Each professor selected two students from their

studio with their judgment selecting the best-qualified students. Lastly, the researcher was a participant themselves.

Setting

The study was conducted in the School of Music at Liberty University's campus in Lynchburg, Virginia. The observation and individual lessons took place in the professors' vocal studios. For the observation of teaching, the researcher arrived at the professor's studio at the student's lesson allotted lesson time. The researcher recorded an audio file of the lesson while writing these findings on a hand-written rubric. For the interview, the option of doing an in-person interview or by email was given to the professors. Two professors opted to interview in person, while two professors wrote their answers in a word document. The word document consisted of 12 questions pertaining to the professors focusing on their musical and pedagogical background, fundamental pedagogical beliefs, and stances on registration and breath support.

Procedures

Obtaining approval from the International Review Board (IRB) was the first step in beginning this study. The next step was contacting the professors that qualified for this study and asking them to participate. Once the professors agreed to be involved in this study, emails were sent to schedule times to observe two students per professor. Over the course of a month, eight students were observed. Each student sang one classical song and one musical theater song for the study. When all of the observations had been completed, professors were contacted to schedule the interview. Two professors opted to do it in the same time slot allotted for the observer's lesson, while two opted to answer via a word document and email the responses. Finally, the researcher received a lesson from each of the professors mirroring the students' lessons, singing one classical and one musical theater song. Each lesson lasted between 45

minutes – 1 hour. For this lesson, the classical and musical theater songs remained consistent for continuity. “Il mio bel foco” was chosen for the classical piece and “When I Look at You” from *The Scarlett Pimpernel* for the musical theater piece.

Data Analysis

To record the data for the student observations, I created a rubric titled Observation Protocol to record my findings (see Appendix B). Since the goal of the observation was to see how the professors approached teaching and make notes of their pedagogical choices, I divided the left side of the column into five sections: Professor discussing breathing, Professor discussing registration, Professor discussing language/diction, instruction on musicality, an instruction on tone/pitch. Each section had space to write observations and give the professors a score from 1-5. The right column had space to write general notes and observations, and time stamps of what occurred during the lesson. During the lesson, these observations were recorded by hand, along and the lesson a voice recording. I listened to each recorded lesson and logged important information on a word document. Then, I gathered the information into a generalized chart per student, that informs if the professor of the student discussed breathing, registration, and if there were any other notable pedagogies used. This can be seen in chapter 4 under Observation Results. For the personal observation, I recorded the lessons on a recording device, and did the same process for the student lessons.

To record the findings for the professor interviews, I created an Interview Questions word document containing twelve questions asking the professors professional and educational background, their pedagogical stances on registration, breathing, and belting, along with various other questions pertinent to the study (see Appendix C). After conducting the interview or receiving the completed document, the information was categorized into five charts that

displayed the answers to each of the questions, as seen in chapter four of the interview results. For the personal observation, I recorded the lessons on a recording device and did a more extensive review of the information after the initial lesson.

Chapter Four: Research Findings

The following chapter will discuss the research findings of this study focusing on how collegiate vocal professors approach teaching classical and musical theater styles regarding breath support and registration. The professor interviews are summarized and compared in a chart and paragraph analysis. The student observation results are recorded for each professor and the students involved in the study, including a chart that summarizes the information and paragraph analysis. The exact process is repeated for the personal observation results.

Interview Results

Two students from each professor's vocal studio were observed. Therefore, the students will be identified with the corresponding number of their voice professor and distinguished by letter to differentiate the two students for each professor. As seen in the Table 1, the professors and students are organized by number of the professor and differentiated using the letters a and b.

Table 1. **Anonymous Identification of Professors and Students**

Professor 1	Student 1a
	Student 1b
Professor 2	Student 2a
	Student 2b
Professor 3	Student 3a
	Student 3b
Professor 4	Student 4a
	Student 4b

In interviewing the voice professor for knowledge of their background and pedagogical views, professors had the option for an in-person or email interview. Professors 1 and 2 opted for the in-person interview, which was recorded on a recording device. Professors 3 and 4 chose to

interview by email; they were each sent a word document with the interview questions to type their responses and email upon completion. The interview questions included the background of the professors singing and vocal pedagogy knowledge and expertise in breath support and registration, and registers. The following charts summarize key information from professor interviews, including professor background, opinions on belting, definitions of breath support, registrations, and technique of teaching musical theater versus classical singing.

Table 2. **Professors' Vocal Background and Education**

Vocal Background:			
Professor 1	**Professor 2**	**Professor 3**	**Professor 4**
No formal training before college	No formal training before college	No formal training before 16	Formal training beginning in 8th grade
Education:			
Professor 1	**Professor 2**	**Professor 3**	**Professor 4**
1988-1993: B.M in Vocal Performance and B.M.E. in Music Education: Choral from Baldwin Wallace College	1977-1981: B.M. in Music Ed – Vocal Performance from Oral Roberts University	2002-2006: B.M in Vocal Performance from University of Illinois	1987-1991: B.S. in Vocal Performance from Liberty University
1993-1995 – M.M. In Vocal Performance from University of Illinois, Champaign-Urbana	1981-1983: M.A. in Vocal Performance from University of Kansas	2006-2008: M.M. in Vocal Performance, Yale University	1991-1993: M.A. in Vocal Performance from Winthrop University
2005-2009 – D.M.A in Vocal Performance from Shenandoah University	1983-1987: D.M.A in Vocal Performance from University of Kansas	2009: Artist Diploma in Vocal Performance, Yale University	2010-2012: Ed. S. in Education A specialist from Liberty University

			2010-2014: Ed. D. in Education: Curriculum and Instruction from Liberty University 2014-2018: D.W.S. in Worship Studies from Liberty University

Three professors had little to no training before the age of 16-18. Only one professor began voice lessons around the age of 13 and continued through their high school and collegiate studies. However, there was consistency among the three professors without formal training: they came from musical families or were introduced to musical opportunities from a young age. Professor 1 grew up singing contemporary church music. They sang in choirs throughout high school and were heavily involved in musical theater. Professor 2 grew up singing classical German lieder and in church, and Professor 3 grew up in a highly musical family but was never formally trained. An early introduction to music is consistent throughout each of their lives. In terms of education, all professors had a similar track, beginning with an undergraduate degree in Vocal Performance, a master's degree in Vocal Performance, and a doctoral degree or equivalent in Vocal Performance. It is also interesting that Professors 2-4 began their undergraduate degrees and immediately continued to their master's and doctoral degrees or degrees of equivalence. Assuming each professor eventually wanted to teach at the collegiate level, this was the fastest track to pursue that career path.

Table 3. Professors' Approach and/or Opinions on Belting

Professor 1	Professor 2	Professor 3	Professor 4
Definition changes depending on the person teaching students to create the sound needed, the color of the vowel	Not often used in professor's teaching, utilizes mixing and a "sympathetic" approach	Believes belting is a predominant registration technique used in non-classical	Believes that belting has its technique and approach, "power mixing" can be used for healthy belt-like sound

In any conversation among vocal pedagogues concerning belting, it becomes apparent that there is little agreement on what belting should sound like or even what it is.[58] There is a constant debacle about whether belting should be deemed a technique or a style, when, how, or even if it should be used, and ways it can be done healthily. Overall, the consensus of the professors was that belting is a technique used in non-classical singing. However, each professor had their own opinions on its place in singing and their approach to teaching belting techniques.

Professor 1 began the conversation by pointing out that each person has a different definition of belting. For their approach to teaching belt, rather than using the word "belt" to describe what the student should do, the professor describes what the student should "sound" like, using verbiage such as coloring of the vowel and timbre. Professors 2 and 3 expressed that they rarely teach students with belting technique, as they focused strictly on classical singing. Professor 4 focuses on teaching their students technical exercises that help keep the larynx free from tension. They use a technique they deem "power mix" or "fake belt" for singing a D or above. It is not the same for every singer but requires each vocalist to find their passagio and

[58] Lisa Popeil, "Popular Song and Music Theater: The Multiplicity of Belting," *Journal of Singing* 64, no. 1 (September 2007): 77.

what works best to create a belt-like sound without the strain or yell-like sound that can damage singers.

An interesting point Professor 2 made concerned the use and impact of belting in today's Broadway Cast Album recordings. They believe that belting has become an unhealthy obsession in popular music today and resulting in young singers trying to emulate these sounds before their vocal cords are developed or trained, creating too much of a forced "yell." In listening to the cast album recorded for the newly revised and staged production of *Parade,* starring Ben Platt and Michaela Dimond, it is clear that belting is predominately used. However, after a student of Professor 2 went and saw the show live, they reported that the performers rarely belted but were instead opting to use mixed voice. If singers are belting on the professional recordings but mixing during all live performances, listeners of these Broadway cast albums are being alluded to think belting is sustainable. Singers imitate singers, and young singers are incredibly impressionable. An apparent disconnect between recording and the stage impacts young singers to think they need to sound like recordings, trying to emulate what they hear and causing damage or unhealthy technique.

Table 4. **Professors' Definitions of Breath Support**

Professor 1	Professor 2	Professor 3	Professor 4
The active opposition between the inhalation and exhalation muscle systems.[59]	The control and manipulation (instead of support) of airflow with the abdominal muscles (not the manipulation of sound)	Breath support is breath antagonism, two opposing forces working together to achieve balance. Those forces are pushing air out and creating resistance to prevent that air from going out too quickly	Breath management is the exhalation process crucially used depending on different styles and techniques with consistent airflow to support the tone.

[59] Tom Blalock, "Vocal Exercises Levels 1 to 6: The Blaylock Vocal Method: Vocal Artistry and Functional Singing Technique," Northwest Institute of Voice, 1982.

The term “breath support” was chosen for a specific reason. Using the phrase “breath support” does not adequately encompass or define what happens when a singer breathes for singing, though this term is often used by singers and teachers alike. “Breath support” relays the idea that support is done only by breathing, however, this is not true. The voice feeling “supported” has little to do with breathing; it is finding the balance needed to control airflow. Therefore, it was not surprising when all four professors did not agree with the term “breath support,” and each gave a different approach to defining this. Professor 1 noted that antagonism or opposition was the preferred way to define how the breath is used. This definition is derived from Tom Blaylock’s curriculum, stating that breath support is “the active opposition between the inhalation and exhalation muscle systems.” Professor 2 used the word manipulation, Professor 3 used antagonism, and Professor 4 used “breath management” as a more appropriate term than “breath support.”

Table 5. Professors’ Categorization of Female Registers

Professor 1	Professor 2	Professor 3	Professor 4
Register 1 Register 2	Chest Lower Head Voice Upper Head Voice Whistle	Chest dominant Middle voice Head dominant Whistle-tone/register	Sighed chest Chest Mix Head Whistle

Professors were asked to define the female registers. As seen earlier in Chapter 2, the views on registration are deeply varied among vocal pedagogues. Therefore, it was not surprising that each professor had similar, yet slightly varied approaches to registration. Professor 1 has most the unique approach of the four professors, following a two-register model, namely, Register 1 and Register 2. Professor 1 uses the Blaylock Singing Method, developed by “Singing Voice Specialist” Tom Blaylock, which follows the idea that there are two registers, and the goal

of the singer is over time, naturally these two registers blend and work in tandem with one another. While Professor 2 refers to the lowest part of the register as "chest," Professor 3 refers to this as "chest *dominant*," and Professor 4 splits it even further into "sighed chest" and "chest." The same can be said for the middle register, as professor two deems the next register as lower head and upper head, Professor 3 has a middle voice distinctive from head dominant, and Professor 4 simply states mix and head. Professors 2-4 agreed that the highest female register is whistle.

Table 6. Professors' Differences Between Musical Theater and Classical Pedagogy

Professor 1	Professor 2	Professor 3	Professor 4
Balance of registration and glottal pressure.	The voice is in a different spot, the chest is carried higher in musical theater, passaggio is more pronounced.	Focus on breathing technique.	There are differences in vibrato, breathing, and placement

Lastly, the professors were asked their varying opinions on how they instruct pedagogical techniques between musical theater and classical singing. Professor 1 stated they believed the difference between the two genres focused on registration balance and the glottal pressure while singing. Professor 2 also touched on registration and described how the chest voice is higher in musical theater singing, and the passagio is more purposefully pronounced. Professor 3 believes that breathing for classical singing is more intense than musical theater, due to longer phrases and a higher tessitura, and therefore teaches their students breathing for classical music for both classical and musical theater. Professor 4 believed, as stated in the table above, that the key differences between classical and musical theater are vibrato coming in later in musical theater than classical, breathing, and placement.

Observation Results

In the next portion of the study, professors were observed in their instruction to two students from each of their studios singing both a classical and musical theater piece, focusing on registration and breathing. The female students ranged from freshman to graduate students. The charts below show each student and the two songs sung during their lesson. The initial intent was to watch how the professors approached teaching classical vs. musical theater and their overall teaching style while each was singing the same classical and musical theater song. However, due to the varying nature of the student's skills level, majors, and timeline of the semester, this was unattainable. Therefore, each student sang a classical song and a musical theater song of the professor's choice. The observations still produced usable data due to each professor teaching at least one musical theater and one classical with at least one student. In contrast, students 1b, 3b, and 4a made two musical theater selections.

Table 7. Professor 1 Student Overview

Student Alias:	Student 1a	Student 1b
Academic Year:	Graduate Student	Freshman
Song 1:	Sure, on This Shining Night	How Could I Ever Know – from *The Secret Garden*
Song 2:	Easy as Life – from *Aida*	Pulled – from *The Addams Family*

Table 8. Professor 2 Student Overview

Student Alias:	Student 2a	Student 2b
Academic Year:	Freshman	Senior
Song 1:	Il Mio Bel Foco	Il Mio Bel Foco
Song 2:	No One Else – from *The Great Comet*	I Don't Need a Roof – from *Big Fish*

Table 9. Professor 3 Student Overview

Student Alias:	Student 3a	Student 3b
Academic Year:	Senior	Senior
Song 1:	Romance	Pre des Remparts de Seville
Song 2:	Pulled – from *The Addams Family*	Fight Through the Fire (Original Song)

Table 10. Professor 4 Student Overview

Student Alias:	Student 4a	Student 4b
Academic Year:	Junior	Sophomore
Song 1:	In My Dreams – from *Anastasia*	O del mio amato bien
Song 2:	When I Look at You – from *The Scarlett Pimpernel*	Stupid with Love – from *Mean Girls*

The following section of this thesis reviews the observation of the eight student lessons. Each student's lesson was recorded using the Observation Protocol Chart (Appendix B). As well, the findings were recorded on an audio device and further analyzed following the lesson. To summarize each student lesson, a chart was created to display information on breathing, registration, and notable methodology used in the student lessons.

Professor 1 Student Observations

Table 11. Professor 1- Student 1a

Breathing:	No	
Registration:	Yes	Worked on strengthening the higher register.
Notable methodology or points:	Yes	Emotion pulls out color

Student 1a

Student 1a was a first-year master's student studying Music and Worship. The most notable method that is used throughout Professor 1's teaching is their use of the Blaylock technique for all their students. Therefore, the lesson began with Blaylock method warmups. Professor 1 often asked Student 1a to explain what their voice was doing and why they did the exercises. This involved repeating and doing the exercises with revisions and asking the student to hear if they noticed anything different. Professor 1 highly focuses on the purity of vowel sounds using Blaylock's examples. This includes using the "oh" sound found in "moan" and the "oo" sound found in "moon." Professor 1 conducted warmups with the two-register mentality, beginning the first set of warmups on "yoh," moving to "yoo" as the singer went up the scale. Register 1 warmups began on a B3 and Register 2 warmups began on a G5.

Throughout the warmups, the professor worked on having a correct balance between the registers. The professor talked to Student 1a about separating the registers while they were still improving the voice. Student 1a had a more developed lower register than a higher register. Therefore, Professor 1's goal was to isolate and separate the registers to build strength in the upper register, using an analogy of training a bicep vs. triceps in working out: both are working

in tandem but have different roles. Professor 1 explained that as they were going to isolate and work on each register, and eventually, the registers would naturally bridge together through the C-C middle octave range. By the end of the warmups, the student was doing exercises that used both Register 1 and Register 2. The warmups lasted for 30 minutes.

Student 1a began by singing "Sure on this Shining Night" while the professor listened and observed. After Student 1a sang through the song, Professor 1 worked on identifying vowel purity needed in the first note and then connecting the first phrase, working on the overall musicality to be flowing and natural. After working through a balance of correct vowels, Student 1a went back through and sang the song again. The process repeated with Professor 1 making suggestions and corrections for vowel and mouth placement throughout the last half of the song. Student 1a sang "Easy as Life" from *Aida* for the musical theater selection. Once again, Student 1a began by singing through a portion of the song for the professor to hear and observe. Professor 1 told Student 1a produce a more speech-like sound. Also, Professor 1 and Student 1a worked on the expression and emotion of the song. Professor 1 stated, "If you sing with emotion, it pulls things out of the voice, the color, and not just a louder sound."[60] As Student 1a went back through the song, Professor 1 worked on stabilizing the pitch on some notes with too much vibrato, finding the correct balance of power and straight tone versus vibrato.

[60] Lesson Observation of Liberty University Professor 1, November 2, 2022.

Table 12. Professor 1- Student 1b

Breathing:	No	
Registration:	Yes	Bridging the registers without trying
Notable methodology or points:	Yes	Prosody, vowel sound over the placement

Student 1b

Student 1b was a freshman student studying Musical Theater and had no prior training or music reading before college. The lesson began with Student 1b singing the song "How Could I Ever Know" from *The Secret Garden*. Professor 1 had Student 1b sing through the beginning section of the song and stop to work on vowel placement for words such as "how" and "know." Then, Student 1b listened to the original Broadway recording, listening to how the original singer shaped their vowels. Professor 1 warned the student they were putting too much emphasis on placement rather than the vowels, saying, "placement is deceiving, you try to find a placement and not pay attention to the vowel."[61] A method Professor 1 uses with their students is through imitation. Professor 1 would play certain words or sections of the song for the student to hear from the original recording and then have the student immediately copy the singer. The professor also had the student then play back their recording of what they sang for them to hear.

Professor 1 worked on registration with Student 1b as they were singing through the song, and stated that registration is something the voice naturally does, "you don't try to figure it out, it's just based on sound, color, and attitude makeup."[62] The prosody, the melodic rhythm

[61] Lesson Observation of Liberty University Professor 1, November 7, 2022.

[62] Ibid.,

according to the natural stress of the words used, was brought up to have Student 1b sing with intonation that matched the text. Professor 1 had Student 1b sing on "loo" to help with proper vowel placement and as a way to keep the student from pushing their voice. Having the student focus on the vowel sound rather than trying to place the sound somewhere helps the voice to naturally produce the necessary sound without worrying about the text. Student 1b sang their second song, "Pulled," from the musical *The Addams Family.* This song is a modern musical theater song with a pop/belt style. Professor 1's approach for singing this song was similar to that of the first. Student 1b would sing a section, the professor would play the original recording, work on getting the correct vowels, go back and forth between professor and student, and then have the student sing the phrase again.

Professor 2 Student Observations

Table 13. Professor 2-Student 2a

Breathing:	Yes	Breathing and vibrato, diaphragm, and abdominals
Registration:	Yes	Head vs. chest- need for different terms
Notable methodology or points:	Yes	Asking students pedagogical questions

Student 2a

Student 2a began the lesson by singing "Il mio bel foco" by Benedetto Marcello. Professor 2 had Student 2a first sing through the entire song. After the song, the first question Professor 2 asked was, "How did you feel?" Professor 2 pointed out the common tendencies of the student's voice, which they described as a "Kermit the Frog" sound and told the student they hung onto their vowels "too hard." Professor 2 often asked their students technical questions and used it as a bridge to discuss vocal pedagogy. The next few questions Professor 2 asked Student

2a were, “what’s responsible for stabilizing the throat? and “how is your throat supposed to establish itself?”[63] Professor 2 explained that Student 2a should establish vertical freedom and that breath will take them through the end of sound without trying to manipulate it. Professor 2 talked about their dislike of the term “placement” as it often implies that you are trying to put “it” somewhere, which leads to manipulation. Therefore, Professor 2 states, “I think that what we need to do is build the chamber in which everything needs to ring and allow it to go there rather than you trying to *put* it there.”[64] Professor 2 also touched on breathing and vibrato, as they explained the student’s vibrato was too forced. Professor 2 discussed the Bernoulli Effect and talked about air going through the vocal folds, stating, “the fluctuation of airflow is responsible for the fluctuation of pitch that has to be established in the vibrato,” and explained the student does not do this well at the end of phrases. After this explanation, Student 2a and Professor 2 worked on stabilizing the vibrato at the ends of phrases and worked on exercises that encouraged this.

Professor 2 continued to explain that it is the teacher’s job to listen to ask, “what is the singer feeling?” When Student 2a would sing a phrase correctly, Professor 2 would repeat section over again, and then ask, “how did that feel?” Continuing the lesson, Professor 2 periodically paused for short pedagogical discussions with Student 2a. This included a discussion on the pitch being a product of the mind, attaching itself to the body, not attaching itself to the throat. Another consistent discussion with Student 2a revolved around breathing- how the support base attaches itself to how one sings, never collapsing the diaphragm, and explaining how the diaphragm contracts with the use of the isometric role of the abdominals.

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[63] Lesson Observation of Liberty University Professor 2, November 9, 2022.

[64] Ibid.,

Student 2a's selection for the musical theater piece was "No One Else" from the musical *Natasha, Pierre, and the Great Comet of 1812.* Once again, Professor 2 let Student 2 begin working on parts of the song that felt tense in the student's voice. This caused the student to ask about registration, which the professor used as a teaching moment, asking, "what is registration?" and "what is chest voice and what is head voice, and what is falsetto?"[65] Professor 2 explained that they disliked the terms chest voice and head voice because placement is a concept, trying to figure out where the sound rings. Therefore, where the sound enhances itself through resonance is where it rings. Professor 2 explained that Student 2a sings 90% of the time in head voice until going to belt, such as in this song. This led to a discussion about vocal cord health for both head voice and chest voice. Student 2a was carrying their chest voice up with a too-pronounced break, and Professor 2 explained that they would have to work on learning how to better mix/ move between registers. Professor 2 touched on their belief that the head voice is divided into the upper and lower head voice, meaning there is a break in the head voice.

Table 14. Professor 2 - Student 2b

Breathing:	Yes	Vocal depth vs. vocal weight
Registration:	Yes	Discussing head vs. chest voice
Notable methodology or points:	Yes	Tongue

Student 2b

Student 2b was a senior Vocal Performance major. The lesson began with Student 2b singing "Il mio bel foco" for the professor to observe. Professor 2 asked Student 2b to explain

[65] Lesson Observation of Liberty University Professor 2, November 7, 2022.

the difference between vocal weight and vocal depth, and then explained that vocal depth comes from a good support base rather than shallow breathing but has nothing to do with heaviness. Professor 2 had Student 2b aim to consistently sing the "ah" sound, working on the tone and vowel sound. Then, Student 2b worked on visualizing the setting of the song and Professor 2 helped the student to sing with more emotion, envisioning the character to add more depth to the song. In singing the end of the song, Professor 2 helped Student 2b sing the whole way through the phrases, not clipping them off and not allowing the vibrato to be cut off too early.

Student 2b's musical theater selection was "I Don't Need a Roof" from the musical *Big Fish.* Before beginning the song, Professor 2 explained that this song unlocked part of Student 2b's chest voice which they had rarely ever used, and they were working on the transition back into the head voice from chest voice. This led to a conversation, where Professor 2 talked about the dangers of belting on recordings and the bad example that belting sets for children. Student 2b sang through the first section of the song, and the professor stopped to correct the "ah" vowel. Then, Professor 2 asked Student 2b to explain the difference between head voice and chest voice. Student 2b was more unfamiliar with singing in chest voice, so Professor 2 explained how chest voice uses the entire cord versus how the Singer 2b typically sings in head voice. Next, they worked on a portion of the song that required Student 2b to make the switch from chest voice to head voice. As Student 2b continued to sing, Professor 2 would stop and work on the same idea in each of these chest/head sections in the song.

Professor 3 Student Observations

Table 15. Professor 3-Student 3a

Breathing:	Yes	Breath pressure
Registration:	No	
Notable methodology or points:	Yes	Posture

Student 3a

Student 3a began their lessons with their classical song selection, "Romance," by Claude Debussy. Professor 3 described that Student 3a predominately uses their chest voice because they are an alto. The lesson focused on breathing and having Student 3a focus on using proper breathing techniques. Professor 3 described that Student 3a needed to obtain breath support for head dominant registration, including a lower chest position and release in the lower abdomen. Professor 3 worked with Student 3a to correct their posture and help their abdominal muscles provide the best support for head dominant singing. Student 3a continued to sing through the song using low breathing and expansive breath. Professor 3 explained to Student 3a that there shouldn't be any stoppage of air, as stopping will increase the breath pressure and add more chest registration in the tone, which is less desired for the classical head voice sound. As Student 3a continued to sing through the song, Professor 3 paused and told the student they were collapsing and losing all the breath pressure, explaining that chest-dominant singing needs more breath pressure than head dominant. Consequently, Student 3a did not have enough breath pressure because their chest was concaving, letting air seep out, so Professor 3 asked the student to use more breath pressure and define what it is. Professor 3 explained their definition of breath pressure – the muscles used to bare down, air needs to be met with abdominal muscles, and

pressure to produce (the pressure between the vocal folds) tone. Professor 3 demonstrated to Student 3a how they needed more of this pressure to keep from running out of air or being too breathy while keeping the chest poised. As Student 3a continued singing, they were able to and fix their breath pressure issue. Professor 3 visually explained where the breathing should occur, having to expand the ribcage and expand the lower abdomen to maximize low breath pressure if that is the desired sound and need of the student- resulting in releasing and still using the ribcage.

Student 3a sang "Pulled" from the musical *The Addams Family* for the musical theater selection. To begin, Student 3a sang through the first portion of the song, and Professor 3 paused and asked the student to sing with better posture and use higher breath pressure. Professor 3 touched on belting using a more chest-dominant sound or chest presence, and explained that, to some degree, there is a mix between head and chest voice. Student 3a needed to execute higher breathing by using more of the external intercostal muscles that help maintain the high position needed. Student 3a continued to sing through more of the song, and Professor 3 asked Student 3a to breathe higher and from the ribcages rather than from their throat. Professor 3 repeated the section multiple times with intentions of improving the tone of Student 3a's belt.

Table 16. Professor 3-Student 3b

Breathing:	Yes	Taking in enough air, breathing lower for head-dominant singing
Registration:	No	
Notable methodology or points:	No	

Student 3b

Student 3b was a senior Worship and Music major. The lesson began with lip trills up and down from dol-so, moving up the scale. Professor 3 explained that Student 3b breathed

excellently with a lifted sternum, a poised posture, and releasing the ribcage and lower abdomen, and explained that singers don't need high breath pressure to sing high- lower breath pressure allows us to sing high as well. Student 3b began singing "Pre des Remparts de Seville" by Georges Bizet for the classical selection. Since this song was completed, Professor 3 had Student 3b sing the whole way through the song. Student 3a explained they felt caught in a mix and could not achieve proper upper resonance. Student 3a and Professor 3 worked on singing through the beginning of the song on "ooo," and asked the student to use their breath to support the sound and keep the tone flowing. As Student 3b sang higher, Professor 3 explained that Student 3b should continue to breathe lower, to achieve a freer feeling while singing. As the professor and student worked on this section of the song, the focus was on getting in more air to carry through the phrase and help stabilize the vibrato.

Rather than a musical theater piece, Student 3b sang an original song titled "Fight Through the Fire," Professor 3 selected to show belting techniques. Student 3b sang through the first verse, exhibiting a chest/belt sound. Professor 3 explained that Student 3b was correctly taking a higher breath to be able to effectively sing, but still needed to take a bigger breath and get more oxygen. Student 3b continued to sing through the rest of the song, and Professor 3 commented at the end that the student should breathe more, pushing more air through. To help with this, Professor 3 had Student 3b breathe in for three counts before singing to help the student get enough air intake in the mouth shape of the first note and help the student achieve a better quality sound.

Professor 4 Student Observations

Table 17. Professor 4- Student 4a

Breathing:	Yes	Keep from getting dizzy
Registration:	Yes	"Power mix," mix, and belt
Notable methodology or points:	Yes	Fixing before moving on, correct vowels

Student 4a

Student 4a was a sophomore Artist Development major and did not have any classical voice instruction prior to college. The lesson began with Student 4a singing "In My Dreams" from the musical *Anastasia.* Professor 4 had a standard way of teaching their lessons, which included frequent pausing throughout the song to instruct the singer when an error was made in breathing, registration, vowel clarity, etc. When the student would make an error, Professor 4 would immediately pause and address the issue, often singing the word or phrase correctly, explaining what they did, and having the student copy Professor 4. This became a constant back and forth between students to listen and copy the professor. Professor 4 would pause when Student 4a would add too much of a contemporary sound, such as a vocal cry, and move to consonants of "r" too quickly, such as the words "river," "hear," and "square." Most of the time, this was focused on using the correct vowels for words such as "city," having a true (ih) sound, dropped jaw, or diphthongs. Professor 4 ensured that Student 4a accomplished singing the word or noted correctly before continuing to the next word or phrase of the song. This would mean that sometimes the phrase was sung 3 to 4 times while working on a word before moving on. Professor 4 worked on musicality within the text, an example being the word "Paris," which repeats twice, asking Student 4a to make the word sound different for more emphasis. Professor

4 and Student 4a discussed when to switch from chest voice to mix. Student 4a explained that they felt dizzy with the change of singing to mix, and Professor 4 explained that the brain is taking in too much or not enough oxygen regarding breath pressure.

One tactic Professor 4 used in the middle of the correction moments was taking the text away and singing on a vowel to help Student 4a. Student 4a had trouble with the voice being constricted while belting and finding their mix. The phrase that Professor 4 and Student 4a spent a substantial amount of time with this was the phrase, “I’ve seen flashes of fire or the echo of screams, but I still have this faith in the truth of my dreams.” Professor 4 went back and forth with Student 4a; Professor 4 would mix, and the student would try and copy the sound. This took multiple attempts with the back and forth between professor and student. Once the voice worked in a healthy vicinity of a head/mix sound, Professor 4 said they would start with what was healthy and build from there. Professor 4 explained that using the “power mix” will save Student 4a from belting too much and too hard, causing vocal damage. This same process was used for “When I Look at You” from *The Scarlett Pimpernel.* This song focused more on the vibrato and when it should come in, typically starting with a straight tone, and letting the vibrato come in at the end of the note.

Table 18. Professor 4-Student 4b

Breathing:	Yes	Needing more breath
Registration:	No	
Notable methodology or points:	No	

Student 4b

Student 4b was a sophomore Artist Development student and began with the song "Stupid with Love" from the musical *Mean Girls.* Professor 4 continued with their teaching style of having the student sing, stop to correct pitch or registration, work with the student back and forth until the student locked in the concept, and continue through the next part of the song. Notable parts of this song include Professor 4 and Student 4b working on the words "feel so," which are on a D5 and E5. Professor 4 asked Student 4b to add more "honk" into the word "so" to keep it in the pocket and keep the head level for everything to be open and forward. Student 4b worked on avoiding diphthongs and avoiding overusing falloffs at the ends of phrases. A tactic Professor 4 used while working with Student 4a on breathing was to plug one ear and see if the student can hear the air moving when taking a breath. Professor 4 explained that the student should not hear themselves taking the breath, and this shows how the false vocal cords retract and keep them from being restricted. The classical song Student 4b sang was "O del mio adato bien" by Stephano Donaudy. This song was performance ready; therefore, the student sang through most of the song before Professor 4 paused to work on the vibrato, not pulsating but letting the air spin the vibrato. The lesson ended with Professor 4 and Student 4b discussing raising the soft palate to keep a more classical sound and avoid contemporary sounds from happening.

Personal Lesson Results

The final part of the study included the researcher taking a lesson from each professor to understand how the professor used their pedagogical techniques and approached teaching both genres from a personal perspective. I chose to sing the same classical and musical theater piece for each professor to gauge the differences in how these songs were specifically taught. “Il mio bel foco” and “When I Look at You” were songs I had already memorized and/or performed. Therefore, the professors were each teaching at the same level rather than a song that I was in the process of learning. Voice lessons were captured on an audio recording device and later transcribed for observation. I will be analyzing the professors in the same format as the previous section.

Table 19. Professor 1 – Personal Observation

Breathing:	Yes	Using breath to sustain phrase well
Registration:	No	
Notable methodology or points:	Yes	Blaylock method

Professor 1- Personal Observation

Professor 1 set up their audio system for playing backing tracks and I sang through the first half of “Il mio bel foco.” The first question Professor 1 asked was what I had done over the past six years of schooling about controlling my vibrato, and I explained the different tactics we had tried. Professor 1 talked about how there is no such thing scientifically as only singing straight tone; there is always some vibrato centering the pitch, but the perception changes. It can conceptionally sound like a straight tone, but trying to have someone hold a straight tone pitch is difficult, as “there has to be some fluctuation above and below the note to center the pitch.”

Then, we worked on a section from the beginning of the aria. I sang through the beginning six notes, and we worked on making sure each note had the completely correct note value. I sang on "loo" and kept it "absolutely accurate." Professor 1 asked me, "How long is one?" in this song, which is in ¾. This puzzled me, as I tried to explain that one beat in ¾ is a quarter note. Professor 1 explained the definition and concept they used was singing on beat one until reaching beat two, and said that I sang as if the note was a hit, and it doesn't move to 2. Professor 1 said that "every note is in a state of becoming," and as the singer advances, this becomes easier. I repeated the phrase singing on "loo" to display this technique. Next, we talked about breathing and where to breathe in a phrase. Professor 1 discussed how other students, especially newer students, may need to break the phrase into smaller sections to get the support they need, and we tried this to show how the breath can help bring more energy to each note. We went back and forth singing on "loo," then the words, and lastly discussed how the words did not have the correct resonance they needed, singing with a muddier feel and direct tempo.

Next, we discussed the rhythmic timing of vowels and consonants. Professor 1 showed a chart from the Blaylock method for finding this rhythmic timing. According to the Blaylock method, the sound of the consonant should be slightly ahead, and the vowel is on the beat because singers should sing vowel to vowel. We worked on doing this exercise by clapping and saying the vowels at the correct time to help the double consonants on "Quella, fiamma." Next, Professor 1 instructed that I held the jaw and sang the same section again to ensure the jaw was not incorrectly moving and trying to make the words. We continued to work through the following phrase using the prior techniques, connecting the phrase as one long word and ensuring I was singing correctly in the resonator. Professor 1 had me go back to singing on "loo" adding a bit of "muddiness," not letting go towards the end of the phrase.

Next, we began singing the musical theater selection, “When I Look at You,” which Professor 1 had me sing the whole way through. Professor 1 asked me what I believed were the focus points needed, to which I replied I needed to work on my vibrato trailing off and getting the registration breaks in the correct places. Professor 1 asked me who my model was for the song, and I replied with Laura Osnes, and they brought up the recording of her singing the song. After listening to Laura Osnes singing, Professor 1 said I was singing too “properly” and needed to be more natural. Professor 1 described how prosody would help to correct the style I was hoping to sing in. Professor 1 defined prosody as “the melodic rhythm according to the natural stress of the language,” and we worked on acting as the character, asking questions such as, “Who are you? What are you trying to say? Whom are you speaking to? and What is your attitude?”[66] We focused on these aspects in terms of the character of this song and figured out the approach we wanted to take. I said the first phrase a few times, emphasizing and stressing certain words and having meaning with the melodic rhythm. Professor 1 had me look in the mirror and ensure I was not using my mouth too much and overusing my jaw. We went back and listened to Laura Osnes and how she focused on the notes, using the modeling process Professor 1 typically uses with their students. We worked on a vowel modification, getting a pure vowel on the word “you,” going back and forth between the professor, and correcting stylistic choices and vowel sounds. Professor 1 would ask me to say a word as one would typically speak it, then immediately sing it. If a pitch were under, I would sing it over again until it was to Professor 1’s liking. We continued this pedagogical approach for the next 15 minutes. Lastly, we skipped to the end of the song where there is more belting. Professor 1 asked me to hold the jaw, knowing it would sound muddy, to try and get the proper vowels, and described that power needs depth, and

[66] Lesson Observation of Liberty University Professor 1, January 7, 2023.

I tried it again without holding my jaw. Professor 1 explained that adding more vowel integrity helps to hold power and balance and creates a nice overall color, and since musical theater requires a brighter sound that this balance needed corrected.

Table 20. Professor 2 – Personal Observation

Breathing:	Yes	Breathing for vibrato support
Registration:	No	
Notable methodology or points:	Yes	Questioning

Professor 2 – Personal Observation

To begin the lesson with Professor 2, we started singing up and down a scale on a lip trill. Professor 2 asked me to find my voice box and feel for the "V," thyroid cartilage. Following finding the cartilage, Professor 2 asked me to sing again and then describe what the voice box felt like it was doing, to which I replied it felt as if it were going up and down a bit, and Professor 2 asked, "why do you think that is happening?" This is because the back of the tongue is going up and down, which causes a fluctuation in quality. By creating this consistency, Professor 2 explained that the vocal line is the "motion from one vowel to the next with the least amount of interruptions for resonant quality" because the singer builds one space where everything resonates.[67] I sang through the exercise again and created that space with better results. Professor 2 explained that vocal depth is largely due to physical positioning, with an open chest including standing up correctly versus having the head extended forward or hunching, which could be due to singing into a microphone.

[67] Lesson Observation of Liberty University Professor 2, January 12, 2022.

We started with the classical selection of "Il mio bel foco," and sang through the first recitative and part of the aria. After singing through this section, the first point Professor 2 brought up was about my vibrato and asked what I have done to slow it. I explained that throughout my undergraduate career, I sang with mostly straight tone to avoid my vibrato, which combatted the issue while singing but did not effectively improve the problem. I continued to explain that I have to be very aware of stabilizing my breath and using my muscles while making sure my breath is engaged the whole way through phrases. Professor 2 asked me to define vibrato, which I defined as the fluctuation of pitch, and Professor 2 followed with the question, "What causes it?" to which I answered the fluctuation of airflow. We discussed my vibrato, and Professor 3 explained that I was "trying to make up for the lack of the control and manipulation of air by trying to do something else to cause it" and this had most likely been a habit I have done for years .[68] We worked on exercises to combat the fast-paced vibrato, going back and forth with one another, trying different examples to fix this vibrato. Professor 2 explained they believed that diligence and repetition of these exercises would help in controlling the vibrato. Professor 2 asked me to stand with one foot in front of the other and act as if holding a football. This exercise is to help the singer realize they need to engage more in the lower abdominals while taking a breath. As I did the exercise, with adjustments from Professor 3, they concluded that I was most likely not engaging my abdominal muscles as much as needed. In the last few minutes of the lesson, I sang "When I Look at You." Professor 2 had me sing the song the whole way through, and explained they enjoyed the straight tone in my voice, but it was worth figuring out how to fix my vibrato. Professor 2 asked me to sit in a chair, lean forward with my elbows on my thighs, and focus on grounding the breath, which helped stabilize the vibrato.

[68] Lesson Observation of Liberty University Professor 2, January 12, 2022.

Table 21. Professor 3 – Personal Observation

Breathing:	Yes	Support is = breath antagonism, breath antagonism = balance
Registration:	Yes	Healthy belting and mixing
Notable methodology or points:	Yes	Exercise to combat vibrato problems

Professor 3- Personal Observation

The lesson with Professor 3 began with warmups starting on middle C, doing slides up to high C and a fast scale to warm up the voice. We discussed how a fast vibrato leads to a faster coloratura and a slower vibrato leads to a slower coloratura. As we went up from do-sol on "ee," we worked on coordinating the natural fluctuation of the voice with the uncontrolled portion of my vibrato. Professor 3 explained that this was a tactic to help tame the vibrato in a percussive way, and then we worked on a more legato coloratura warm-up involving the vibrato. Throughout these warmups, Professor 3 clarified that this method applies the same amount of breath pressure the whole time. Professor 3 explained another exercise to help with vibrato control, fluctuating between two notes back and forth, singing every note in between. I inadvertently did the exercise as purely switching back and forth between pitches while speeding up, which is not what the professor was asking, but explained was still a good way of warming up the voice and working on vibrato. Professor 3 explained that as a teacher, the goal is to provide a well-rounded and versatile voice explaining with the analogy that students can "have the primary colors, and pastels, and neon, and neutrals and to mix them to expand their "color palate." We then talked about vibrato, and did the exercise again, correctly doing the exercise with equally distributed breath pressure, with Professor 3 deemed "a warm hug," in the voice.

The first song we worked on was “Il mio bel foco,” in which I sang the recitative. Professor 3 explained that since my vibrato is attention-grabbing, I should try and sing with straight tone for about 75% of a piece. Another point Professor 3 brought into the conversation was about breath antagonism, defining it as “two opposing forces working together to achieve balance.” They explained using a physical demonstration, where Professor 3 and I held our hands up and against one another, and they acted as the antagonizing force- as I kept my hands firm. Professor 3 explained that only one person should be antagonizing, and the other should be balancing. We went through different dynamic levels using this physical example to show the different pressure in the voice. After this example, Professor 3 explained this anatomically. They explained that the external intercostal muscles hold the ribcage up and assist with breathing and that an antagonizing force is needed to achieve balance. This alluded to Professor 3’s point that I would run out of breath, leading to my tone and vibrato’s rapid fluctuation, and not getting through long phrases. We then discussed how the vocal folds must come together to produce sound, or else one only exhales air. To end this conversation, Professor 3 summarized that support is breath antagonism, which is what the singer spends their lives trying to achieve, trying to change the pressure, airflow, and space that impacts the balance. To demonstrate what was talked about, I sang “eee” being mindful of using consistent breath pressure to see if I could sustain it and control the vibrato. Then, I sang through the next portion of the song. After singing, Professor 3 said they wanted to hear me stay longer on the A3, and to hold back a little bit to preserve energy and air so I can hit the A, and not hold the notes before as a way to get me to hold the A longer. I sang it as instructed, and then continued through the next part of the song. Professor 3 instructed that I should not hold back on the words “giammi po tra” a tempo, rather than holding them as I would and keep it to the Baroque time period, and then continued. We

worked on differentiating the instrumentation of notes and not overusing the expression of the voice and on a few pitch corrections before continuing to the end part of the song.

Next, we continued to the musical theater selection, “When I Look at You” and sang through the entire song. After singing, we talked about registration, as this song includes a lot of mixing and belt. The end of the song has a belt on a D, and we discussed that if we are belting something and cannot sustain it, it probably should not be continually used. This led to a conversation about the voice industry and how some singers make a living off belting and singing with poor technique. Regardless of classical or musical theater, the pedagogical basis Professor 3 holds is that singers should use the registration changes and mix correctly. Proper technique, the use of mixing, and understanding registration are key to having a long-sustaining voice and career. Professor 3 discussed how singers like Lauren Daigle and Adele create exciting sounds with improper techniques that most likely damage their vocal cords. Professor 3 explained that they have students who can belt a C, but to sustain the voice long term, they need to learn how to mix to reach a D and higher. We then worked on the end of the song with expression and finding the correct balance. We tried different tactics, holding notes in, using less vibrato on specific notes, expressing more on certain notes, etc. We worked on a decrescendo without cracking on the last notes by sustaining the breath pressure.

Table 22. Professor 4- Personal Observations

Breathing:	Yes	Breath management and consistent breath
Registration:	Yes	Mix to belt
Notable methodology or points:	Yes	Pedagogical techniques

Professor 4: Personal Observation

The lesson with Professor 4 began by doing lip trills. Professor 4 explained that they do lip trills for the lips to stay moving because the breath pressure is even, rather than feeling the air pulsating. A straw was blown into as an example of constant air flow, an example of how the air should be continually moving. As I was singing, Professor 4 had me look in the mirror to ensure I was inhaling correctly, expanding, and contracting when exhaling. The following exercise I sang was on "awe," on a do-sol scale up and down the scale. Professor 4 pointed out that I slightly moved my jaw on the descension and had me look in the mirror to ensure I was breathing correctly and not moving my jaw. Professor 4 described that they have their students record a video each day for each song they practice, watch the video, and record the positives and negatives of the recording. Then, students are to work on fixing the negatives, instantly re-recording the video to immediately catch what they are doing and work on fixing it in real time, making effective use of their practice time. Lastly, we did a belt/mix warm-up in the warmups to prepare for the musical theater. Professor 4 explained they teach their students a three-part belt training called hybrid training and showed me a worksheet they use for learning these concepts. Professor 4 uses the ABC approach: A is for the symptom of what the singer is doing, B is the problem, and C is the cure.

As I went up the scale, I became constricted around a Bb. Professor 4 asked me to be retracted and explained how the false vocal folds are above the true vocal folds, and if the false vocal folds are not retracted, one can hear the breath upon inhalation. To help the false vocal folds retract, Professor 4 had me plug one ear, take a breath with my mouth closed, and ensure I wasn't hearing any airflow, which puts the larynx in a ready-position and prepares to sing. In summary, plugging the ear helps notify if the breath is heard; and if it is, more retraction is needed. Professor 4 explained they remove the finger when phonating and put it back in the ear on each inhalation. They used this tactic with their students because it uses less vocal effort and doesn't give as many commands as quickly to prepare the voice to sing.

Next, I sang through the first section of "Il mio bel foco." Professor 4 wanted to work on the ending of the recitative, where I sang using the plugging of the ear method, singing on "ah." Professor 4 began to speak on breath management, which can be explained as economical exhaling, the rate at which we release the breath or the rate of breath pressure. To have the breath pressure correct for classical sounds, I did a few exercises by taking out the words and focusing on my breath pressure. This worked well, and Professor 4 explained I was using less vocal effort and letting the breath work efficiently. We moved to the last long descending phrase of the song, starting by taking most of the consonants out and slowly adding them back in. Professor 4 does this with their students to exaggerate the needed openness and slowly adding back the diction. To conclude this section, Professor 4 had me explain all the concepts I had just learned.

I began the musical theater selection singing through the first two phrases of "When I Look at You." Professor 4 noted that I was displaying the differences in vibrato between classical and musical theater. In classical music vibrato is used throughout the phrase and long, and in musical theater, often the long notes are straight tone with vibrato coming in towards the

end of the note. Professor 4 said we wanted to be more selective with where straight tone versus vibration would be and described how they wanted me to “warm up the ends of the phrases,” and demonstrated by singing the first phrase and adding a bit of lift toward the end of the notes. To further added color to the phrase, Professor 4 described that the breath is pushing and pulling; and having an onset to the peak of the phrase is a way of coloring the phrase. We continued singing more of the song, and Professor 4 explained that my middle voice, around an F#-B, was going what they call “splat.” Professor 4 had me sing as if my nose was plugged underwater on “ooo.” We stopped and focused on the words “in the air,” working to narrow the epiglottic sphincter on the word “air.” We continued singing through the following phrase and stopped on the word “before,” discussing the modification of the vowel “e” to “eh,” and Professor 4 demonstrated how the vowel should be kept in the pocket. Towards the song's end, we discussed the registration shift between a mix and belt. Professor 4 said they liked how I was singing the ending, but it felt too different as I shifted into the belt compared to the rest of the song. The next part of the song focused on bringing the sound forward as we worked on mixing. This ensured a back and forth between Professor 4 doing different exercises for a high mix, almost in a call and response. We talked about speech-level singing as easy and healthy and as sopranos not to fear it, and it helps to unlock a belting sound rather than closing off the voice. We worked on the phrase “even a memory is paradise,” especially opening on “a.” and modified the vowel for “is” to “eh” for the ‘ih’ sound. As we continued through the end of the song, I worked on elongating the words “miss,” “at,” and “you” with pure vowels, as they are lower and don’t require modification. Professor 4 summarized the lesson, and our discussion about vowel modification in the upper range, how to keep a skinny and honky mix to the belt, and anything below a B having a true vowel.

Chapter Five: Conclusions

Summary of Study

The goal of this study was to understand how collegiate voice professors from varying pedagogical backgrounds teach both classical and musical theater genres, specifically focusing on breath support and registration. Through the qualitative observation and interview process, this study's findings were collected by observing collegiate female vocalists singing both classical and musical theater songs, interviewing professors to understand their pedagogical opinions and background, and personal observation of these professors' teaching styles.

Summary of Findings

This study proves that the difference in collegiate voice professors' pedagogical backgrounds impacts their musical theater and classical singing techniques for collegiate female vocalists. Each professor has curated their pedagogical beliefs based on their personal development from their education and private studying. Thus, the professors' philosophies and pedagogies are used habitually in teaching collegiate female vocalists. As well, each professor has a varied approach when differentiating pedagogical techniques between musical theater and classical. While the general teaching style remained consistent, the vocabulary and explanations varied among professors.

The Blaylock technique was introduced to Professor 1 while studying under Tom Blaylock. Professor 1's pedagogical beliefs are the main foundation for teaching and the information they provide to their student. As they are teaching their students, they are in turn shaping their pedagogical beliefs. Professor 2, immersed in classical and operatic music and styles, taught their students from a profoundly classical standpoint. Professor 3, similarly to Professor 2, was adamant about being classically trained. Therefore, Professor 2 and Professor 3

used a predominately classical approach to teaching both classical and musical theater. Professor 4's pedagogical background included classical, musical theater, jazz, and other styles sung professionally in their career. Therefore, their teaching pedagogy reflected their ability and belief that each genre has a way to be taught and thus learned.

The researcher hypothesized, in response to Sub Question 1 (How do the professors focus specifically on breath support and registration between the two genres?), that professors would have a highly differentiated approach in teaching breath support and registration between classical and musical theater genres. However, this hypothesis was incorrect. The research findings show that breath support and registration had varied levels of instruction between classical and musical theater. The main takeaway for approaching breath support between classical and musical theater involves properly using the abdominal muscles. Breath support in classical music requires the lower engagement of the abdominal muscles, versus in musical theater, singing in a belt or mix needs to engage the upper abdominal muscles. This information was best explained in Professor 3's lessons, where breath support was heavily discussed. However, this conclusion is not derived from the other professors in this study. While multiple professors touched on breathing, it was not equally prevalent in both classical and musical theater instruction. Breathing was primarily discussed in the classical repertoire. In teaching the musical theater genres, breathing was very rarely discussed. There may be multiple reasons for this: professors already discussed it with their students, the student had excellent breathing technique and did not need discussion, the professor decided to focus on pedagogical aspects other than breathing in the lesson, etc. However, this was not as highly prevalent in explaining the differences between musical theater and classical singing as expected.

Registration was discussed primarily in the musical theater repertoire. This is understandable and as predicted, as musical theater singing styles include registration shifts between head voice, chest voice, mix, and belt. Discussing registration in musical theater genres is almost unavoidable because it is so prominent in the genre. Female classical singing mostly uses head voice; therefore, it does not warrant as much conversation about registration as musical theater. In the study, Professor 1 touched briefly on registration in the musical theater piece sung by Student 1a. Professor 2 and Professor 3 touched on differences in registration between musical theater and classical in at least one of their students' lessons. Professor 2 worked with Student 2b in transitioning to chest voice while singing "I Don't Need a Roof" and conversed with the student about registrations. Professor 3 discussed head voice versus mix versus belt/chest with their students in musical theater. Lastly, Professor 4 heavily focused on this, discussing registration shifts in musical theater with both of their students.

As hypothesized, the educational background of the professors naturally impacted their pedagogical teaching styles. Considering each professor has different professional backgrounds, approaches, and methodologies, the findings should be different for each professor. Interestingly, in terms of the professor's degree types, each professor took a similar approach, with a Bachelor of Music in Vocal Performance, a Master of Music or Arts in Vocal Performance, and a doctorate in the same. Professor 4 is the only professor who does not have a doctorate or equivalent degree in Vocal Performance, instead holding a Doctorate in Education: Curriculum and Instruction and a D.W.S. in Worship Studies. Professor 4 is also the only of the professors to teach classes outside of voice-related lessons or ensembles, teaching classes for worship studies, curriculum design, etc. Professors 2, 3, and 4 continued through their undergraduate degrees to decorate and immediately began teaching at the collegiate level. Therefore, these professors have

had years to shape and define their philosophy based on what they have learned from their education and teaching and their individual teaching experiences. While educational background impacted each professor's pedagogy, years of private teaching experience and research have greatly influenced the professors' teaching.

One of the most interesting findings from this study's completion was how the pedagogical lesson outline of each professor was the most impactful tool in teaching both classical and musical theater. As the researcher observed the lessons and participated themselves, each professor's overall timeline and teaching style remained a significant takeaway from the lesson. Over the years of teaching voice, each professor has created a teaching framework to execute their lessons. In this framework, the professors have each developed ways of incorporating pedagogical discussion and instruction for each student. This happens more organically in conversation and discussion than distinctly discussing differences between the two genres. As the professors taught, conversations about breathing and registration as they pertained to classical and musical theater naturally occurred and brought about moments of teaching between professor and student. Professor 1 used the Blaylock warmups in the same style for the student and observer, and the lesson flow remained similar. Professor 1 used mirroring, a quick transaction in corrections between student and teacher on correcting vowels and continued to work with the student on a section until the professor believed the student had grasped the concept and moved on. Professor 2 remained consistent in their questioning and feelings-based approach. Professor 3 used descriptive and anatomical approaches to teaching pedagogy, and Professor 4's methodology for teaching remained consistent regardless of the genre. Through these teaching styles, each professor teaches their pedagogical beliefs to the students the best

way they see fit. Overall, the study showed that each professor found the way they believe is most effective in teaching both classical and musical theater genres.

Limitations

This study was limited in two ways: similarity in student skill level/experience and student repertoire. Ideally, the students selected for this study would be the same age and skill level regarding vocal knowledge and experience taking lessons. Due to university requirements, scheduling, and the varied number of degrees Liberty University offers, obtaining students who were at the same skill level, in the same degree, and in the same experience was not possible. However, the students were all collegiate vocalists, ranging from 18-24. As well, limitations existed in students' repertoire. Having every student sing the same classical and musical theater song would have allowed for a fixed variable for the research. Nonetheless, having each student sing a song selected by the professor allowed their expertise in choosing a repertoire that best fit the student and allowed the professor to teach without limitations.

Recommendations for Future Study

In the future, continued research on the verbiage used between voice professors would provide more insight into what the students learn in their private lessons. As seen in this study, teaching breath support and registrations varied among the four collegiate voice professors, whom each obtained degrees in voice. Therefore, understanding what the main pedagogical approaches are at conservatories and universities alike in vocal pedagogy classes and the prominent texts used in these classes and institutions may provide an understanding of why there are similarities and differences among voice teachers at the collegiate level. Also, surveying voice teachers across multiple universities would provide more information regarding collegiate voice professors' pedagogical instruction. Further research concerning not only classical and

musical theater, such as jazz, R&B, and pop, instruction would also add to this research. Music of the 21st century will continue to evolve, and voice instructors will continue to see an influx of these genres. Researching professors' and voice teachers' approaches of instruction in these genres would provide vital information for vocal pedagogy study.

Implications for Practice

Upon completion of this study, the findings attribute to the belief that the field of vocal pedagogy lacks consistency in vocal instruction. In this study alone, the four voice professors had degrees from different universities and most likely had professors whom each had differences in their vocal pedagogy instruction. Higher-level institutions of teaching voice need a level of consistency for students to learn about the voice. The difference between classical and musical theater instruction also showed an increasing gap in pedagogy and a need for professors who can adequately teach both genres. Moving forward, collegiate voice instructors at universities should continue to research and collectively agree on the fundamentals of pedagogy with one another to better provide their students with standard terminology and foundations of vocal instruction.

Summary

The 21st century has brought a new challenge for the vocal pedagogue and voice teacher: creating healthy, marketable, and versatile singers for styles of music outside the classical aesthetic. Due to the development of musical theater and commercialized singing styles, the increase of professors who proficiently understand both classical and commercial pedagogy and can effectively teach these concepts to singers will need to rise in years to come. As this study shows, the difference in voice instructors' pedagogical beliefs plays a significant role in their instruction of voice. The increase of various genres will continue to influence the singers of the

21st century, and vocal instructors will need to understand and teach vocal pedagogy that reflects the music of the world today, and the future.

Appendix

Appendix A: IRB Approval Letter

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

September 28, 2022

Christina Hoss
Samantha Miller

Re: IRB Exemption - IRB-FY22-23-199 Musical Theater and Classical Vocal Pedagogy: An Observation on Breath Support and Registration

Dear Christina Hoss, Samantha Miller,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Appendix B: Observation Protocol

Student:

Professor:

Songs:

Date:

Professor discussing breathing: Overall Score: 1 2 3 4 5	**General Notes: (specific musical notes, techniques, etc.)**
Professor discussing registration: Overall Score: 1 2 3 4 5	
Professor discussing language/diction: Overall Score: 1 2 3 4 5	
Working on musicality: Overall Score: 1 2 3 4 5	
Working on tone/pitch: Overall Score: 1 2 3 4 5	

Appendix C: Professor Interview Questions

1. Did you have a classical background in voice from a young age?
2. Why were you interested in vocal performance/pedagogy?
3. What is your performance history?
4. How did your college education impact your pedagogical technique?
5. What do you believe are the key differences between classical and musical theater pedagogy?
6. What are the different ways you approach breathing and registration between classical and musical theater genres?
7. Do you believe belt is a style of singing?
    a. If you do, belt, how do you approach belting techniques?
8. Define breath support.
9. What is the correlation between breath support and intonation?
10. What do you believe the female registers are?
    a. When is it appropriate for females to use these registers?
11. How does your approach to teaching classical vs. musical theater change when using these registers?
12. How do you teach the differences in vowel placement and production?
13. How would you teach a student to change their breathing technique to successfully produce the stylistic needs of a song? (Ex. legato vs. speech-like musical theater style)

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