

Sponsoring Committee: Dr. Christopher Herbert, Project Advisor
Dr. Carl Bolleia
Dr. Timothy Newman

VOCAL HEALTH AND REHABILITATION CURRICULUM:
A REVIEW OF SELECTED PUBLIC INSTITUTIONS
IN HIGHER EDUCATION

Jamie Lee Ruggiero

Program in Music Education
Department of Music

A THESIS
Submitted in partial fulfillment
of the requirements for the degree of
Master of Music Education in the
College of Arts, Humanities, and Social Sciences
William Paterson University
May 2025

Copyright © 2025 by *Jamie Lee Ruggiero*.

ALL RIGHTS RESERVED.

ABSTRACT

Vocal pedagogy courses and degrees in higher education are a great start for future voice teachers to gain knowledge and experience. The curriculum highlights technique well, but units on vocal health and rehabilitation tend to be omitted. In this study, the research examined colleges and universities that offer curricula on vocal health and/or rehabilitation in New Jersey, New York, and Pennsylvania. The study investigated the layout and depth of the units offered. Professors participated in questionnaires as well as interviews to discuss the inner workings of their classes and to gain insight on the decisions behind the curricula. Data gathered was used to compare and contrast the curricula of the institutions to see if only vocal health is offered, only rehabilitation is offered, or both. It was found that vocal health was included in all schools interviewed, but only one included rehabilitation.

ACKNOWLEDGMENTS

I would like to express my sincere gratitude to my advisor, Dr. Christopher Herbert for his feedback and support throughout my research. His knowledge and experience helped make this all possible. I would also like to thank Dr. Carl Bolleia and Dr. Timothy Newman for being part of my committee and taking their time to support me throughout this process.

I am also extremely grateful to my friend Hannah Comia, who assisted me throughout my research. Her previous experience going through this process helped me immensely. Her willingness to answer my questions and read over my work when she was not required to is something I will forever appreciate.

In addition, I would like to thank my parents, sister, close friends and my partner, Stephen Reiver for their unwavering support during these last few years. Thank you for always encouraging me to continue on and believing in me during this process. I am extremely grateful to have all of you in my life.

TABLE OF CONTENTS

Abstract.....	ii
Acknowledgements.....	iii
Table of Contents.....	iv
Chapter 1.....	1
Introduction.....	1
Problem Statement.....	3
Purpose Statement.....	4
Research Questions.....	4
Methodology.....	5
Table 1.....	7
Chapter 2.....	8
Literature Review.....	8
Pedagogy Textbooks.....	8
Articles and Dissertations on Vocal Pedagogy.....	16
Chapter 3.....	18
The Sample.....	18
Data Collection and Results.....	19
Table 2.....	19
Table 3.....	20
Limitations.....	23
Recommendations for Further Study.....	22
Chapter 4.....	25
Summary.....	25
Conclusion.....	26
References.....	28
Appendix A.....	33
Appendix B.....	36
Appendix C.....	37

CHAPTER ONE

Vocal health and hygiene practices date back to the second and third centuries C.E., as evidenced by the writings of Claudius Galen (Gross, 1998), but it was not until 1888 that Morel MacKenzie wrote the first scientific book on the matter (Nichols, 2010). Good vocal health can allow professional singers to maintain their instruments and help them avoid injury. Not only do they have to worry about the larynx, where their instrument lives, but vocal health also includes their overall physical health. Nichols explained, “irrespective of their medium, all performing artists can be negatively affected by poor general health. This is especially true of singers, whose body is their instrument and whose connection to that instrument changes with internal physiological variations” (p. 6).

In 2010, Nichols wrote a dissertation about the vocal health practices of professional singers. It was found that most practices are passed down verbally from their vocal teachers, and those vocal teachers learned the tips from their vocal teachers. Although many traditions are passed on this way, it can also cause the ideas to get lost in translation, and there are very few standard vocal health practices written by vocal pedagogues. (Nichols, 2010).

Vocal injury and therapy studies are a relatively new phenomenon compared to texts about vocal technique. During the twentieth century, Charles Van Riper put forward a text that established vocal disorder as a diagnostic classification (Spencer, 2009). The creation of speech language pathology kicked off decades of heavy research into vocal rehabilitation. Similar to vocal health, the literature on vocal rehabilitation has continued to be recorded by speech language pathologists, and not by vocal pedagogues. (DeLoach, 2000).

Vocal pedagogy as a subject is well-researched, especially in the last two centuries. According to Brian White (1989), “During the twentieth century, scientific research on the voice

has escalated, and there is a multitude of publications” (p. 15). Hundreds of textbooks and articles have been published on the subject. The last century has also brought us organizations such as the National Association of Teachers of Singing (NATS), the National Opera Association (NOA), and the American Choral Directors Association (ACDA). These organizations hold conferences and workshops that have allowed the research on vocal pedagogy to be spread further (White).

During the twentieth century, vocal pedagogy became a regular facet of undergraduate curricula for vocal performance majors, but it was not until the 1970s that a separate degree was created for vocal pedagogy in the United States (DeLoach, 2000). Over the last fifty years, programs have emerged all over the country from Shenandoah University in Virginia to the University of Colorado.

With more programs also came more vocal pedagogues who published textbooks to be used in their courses. Some of these include Appelman (1967), Miller (1986), Bunch Dayme (2009), and Davids and LaTour (2021). In these texts the main focus tends to be on singing technique. A look into Appelman’s (1967) table of contents shows chapters on topics such as respiration, phonation, resonance, and diction. Many of the other sources cited above share similar contents.

Vocal health and rehabilitation chapters tend to be overlooked from vocal pedagogy textbooks. Since speech-language pathologists lead the research on vocal anatomy, injury and therapy, vocal pedagogues put their focus into technique. However, in 1992, Belinda Andrew Smith performed a study on voice disorders and turned her research into a handbook for vocal teachers. Thirty years later, this handbook continues to be one of the only publications on vocal health and rehabilitation done by a vocal pedagogue (DeLoach, 2000).

Research and studies into vocal health curricula are relatively limited (DeLoach, 2000). Thomas Cleveland (1992) and (1996), wrote a series of nine articles that included information on vocal pedagogy curricula. In 2009, Peeler, a professor at The Ohio State University, completed a deep dive on the curriculum in her own institution, which was published in the *Journal of Singing*.

My study was influenced by Dionne Bateman DeLoach's dissertation published in 2000. She investigated public institutions in the southern part of the U.S. to see if their vocal pedagogy programs included curricula on vocal health and rehabilitation. At the conclusion of her dissertation, she called for further investigation in different geographical locations.

Problem Statement

DeLoach's dissertation found that most public institutions that offered vocal pedagogy courses included units on vocal health, but none offered units on vocal recovery and rehabilitation. All of her data is useful to both vocal students and teachers alike, however, it only focused on one portion of the country. In my study, I will focus on a section of the eastern portion of the United States, as determined by NATS (National Association of Teachers of Singing), which includes New Jersey, New York, and Pennsylvania, to find if public colleges and universities in this region offer vocal health and rehabilitation education studies to their students.

Purpose Statement

This study will investigate public higher education institutions that offer vocal health and rehabilitation curriculum. The thesis will focus on NASM-accredited 4-year public colleges and universities in New Jersey, New York, and Pennsylvania. My intention for the findings is to fill a gap in the literature for future vocal health curricula researchers. My aim is to create additional

presentations and articles based on this research to make information about vocal pedagogy curricula readily available to vocal professors and students.

Research Questions

1. What schools in the eastern region of the U.S offer vocal pedagogy classes or degrees?
2. Out of the schools that offer vocal pedagogy classes and degrees, which ones offer units on vocal health?
3. Out of the schools that offer vocal pedagogy classes and degrees, which ones offer units on vocal rehabilitation?
4. How is the curriculum set up for classes that offer vocal health and/or rehabilitation?

Methodology

This study used quantitative and qualitative data to reach its goals. The quantitative data was gathered in the initial research to obtain a list of schools that offer units on vocal health and/or rehabilitation. The qualitative data was obtained from investigating the curriculum of the courses and evaluating their effectiveness.

At the beginning of this study, I gathered a list of schools to investigate. An initial list of all public four-year colleges and universities in New Jersey, New York and Pennsylvania was made using Google and other internet sources. Utilizing the NASM websites, I narrowed down which ones are accredited. The schools' course catalogs allowed me to taper down the list even further to only those that offer vocal pedagogy degrees and courses. After establishing the list of universities that offer vocal pedagogy courses, I continued to use the websites to identify the professors who taught those courses. When the information was not available on the websites, I reached out via email to the heads of the vocal departments. I then sent an email to each of the professors explaining the thesis, outlining what data I would gather, and asking them if they

would be willing to participate in questionnaires and interviews. A consent form and letter was sent to each of those willing to participate.

A questionnaire that consists of demographic, short answer and open-ended questions was emailed to each participant. The questionnaire allowed me to collect preliminary data on the participants background, teaching experience, and the curricula of their current courses. The questionnaires were tested in a pilot study before being given to the participants.

The data collected from the questionnaires influenced the questions for my interviews. The interview questions enabled the participants to elaborate on their teaching experience, their current course curriculum and their pedagogical techniques. Similar to the questionnaires, the interview questions were tested in a pilot study first before scheduling took place. With permission from the participants, interviews took place over Zoom and were recorded.

After all the interviews were finished, the data was reviewed. The interviews were transcribed and read through. Responses were categorized into those that pertain to mainly vocal health and those that pertain mainly to vocal rehabilitation. The demographic information from the questionnaires were also reviewed to help gain further context of the interview responses by each participant. A data report was created to compare and contrast the findings into one concise document. The document was split into three sections. The first section outlined the participants educational background, current positions and current courses taught. The second section compared their vocal health curricula and teaching methods. Section three compared their vocal rehabilitation curricula and teaching methods (See Table 1).

Table 1: Summary of Methodology

Method	Why	How
Gather and narrow down list of schools	To gain preliminary information and see what schools to reach out to for participants	Researched using Google, as well as the schools' websites and course catalogs and reached out to schools via email
Gather Participants	To find the group of people that will allow me to do this study as intended	Gathered professor emails from schools websites and via email to vocal department heads and reached out to them with all of the information asking them to participate. Consent forms followed.
Questionnaires	To gather preliminary data from the faculty participants which I will base my interviews questions from	Created a questionnaire using a model that included demographic, closed and open ended questions
Interviews	To allow the faculty participants to elaborate on their questionnaire responses	The questionnaire acted as the guide to create the questions. All interviews were recorded using Zoom.
Data Report	To separate and compare the data gathered from the faculty	A Data Report was created outline the demographic information, the vocal health curricula, and the vocal rehabilitation curricula all in one concise document

CHAPTER 2

Literature Review

Although the singing voice has been used for centuries, vocal science and medicine has only been substantially researched during the last fifty years (Greschner, 2020). Thanks to technological advancement and innovations in the late nineteenth century, scientists have more ways to see the voice and its anatomy for research (Sataloff, 2017). The majority of the research has been conducted by laryngologists, speech-language pathologists, and other voice scientists.

Vocal pedagogues also saw a rise in publications throughout the twentieth century (DeLoach, 2000). With more voice-centered research and increasing numbers of colleges adding classes and degrees in voice, there was a need for more textbooks. A majority of the texts from the 1960s through the 1990s focused heavily on the technical aspects of singing but would overlook vocal health and rehabilitation topics (DeLoach).

Pedagogy Textbooks

One of the first key vocal pedagogy textbooks was William Vennard's (1967) *Singing: The Mechanism and the Technic*. As the title suggests, the book focuses heavily on the mechanics of singing. Chapters include breathing, resonance, and articulation. The textbook has no mention of vocal health/ rehabilitation.

D. Ralph Appelman's (1967) *The Science of Vocal Pedagogy* published the same year as Vennard's textbook, included similar contents such as respiration and resonance. Appelman divided his book into two sections: theory and application. The first section dives into the anatomy and mechanics of the voice, and the second section describes how to use the anatomy to create different sounds in singing. Chapter 10 illustrates every vowel sound used in classical singing. Like Vennard, Appelman does not mention vocal health or rehabilitation.

In 1973, John Carroll Burgin published *Teaching Singing*. The chapters include topics such as breathing, resonance, dynamics, and interpretation. Burgin gathered ideas for these techniques from publications written between 1941 and 1971. Each chapter compares and summarizes the topics. Burgin does not mention vocal health or rehabilitation in the book.

Throughout the 1960s and 1970s, most vocal pedagogy textbooks followed the format of the ones mentioned above, which only focused on the technical aspects of singing. While scientific research into the voice was growing at the time, it was not readily available to teachers until the 1980s and 1990s (Velarde, 2013). The textbooks over the subsequent thirty years showed a big change in thoughts on the voice and how it is used, thanks to that research being accessible. In her dissertation on late twentieth-century vocal pedagogy Velarde states, “This understanding enabled teachers to change their pedagogic strategies and tailor their teaching to individual students, resulting in a dramatic change in approach to that of teaching with a scientifically based pedagogic purpose” (p. 5).

In 1982, Meribeth Bunch Dayme’s first edition of *Dynamics of the Singing Voice* showed the shift to a scientifically based approach. A total of five editions were published with the latest one being in 2009. Her first edition opens with a statement of her intent to make voice science attainable for voice teachers and “her desire to facilitate communication between medical professionals and teachers” (Velarde, 2013, p. 17).

In the fifth edition, Bunch Dayme (2009), opened the book with a chapter on the “human energy field” which explores the mental, physical, and emotional aspects of singing, and then flows into a chapter of vocal pedagogy in the twenty-first century. The second chapter expands on the idea of using the whole body and mind to better engage while singing. The rest of the

book focuses on topics such as breath, posture, phonation, and resonance, similar to the aforementioned publications.

Chapter 10 centers around vocal health. Bunch Dayme (2009) splits the chapter into general vocal health, exploring ailments that may affect the voice such as respiratory illness, allergies, drugs, and smoking. The second half goes briefly into rehabilitation and discusses possible surgeries, vocal health care professionals and general vocal care.

Richard Miller's (1986) book *The Structure of Singing* "provided a basis for vocal freedom in performance through efficient handling of acoustic and physiologic aspects of the singing voice" (p. xvi). Although Miller's contents include many similar topics as the books mentioned previously (breath management, resonance, range, etc.) it also has chapters on the registers of both the female and male voice and how to unify those together.

Vocal health has a place in Miller's (1986) last chapter, entitled "Healthy Singing." He begins the chapter comparing the voice to woodwind instruments; he explains that a variety of outside factors, such as weather, can affect how the voice functions similar to woodwinds. "Furthermore, heat, cold, precipitation, digestion, toothache, bad back, cocktail party, hernia, nosebleed, domestic quarrel, and especially respiratory ailments, may be totally incapacitating" (p. 218). Performance day routines, when not to sing, diet, exercise, laryngologists, and more are discussed in the chapter.

Miller published more books in the 1990s and 2000s, including *Solutions for Singers* in 2004. For this monograph, Miller collected over 200 frequent questions from his master classes and pedagogy courses and answered each of them within the book. The larger topics, such as breath management, resonance, and registration stayed the same as his 1986 textbook and he also

ventured into new subtopics that would not normally be included in a comprehensive overview textbook.

For example, chapter 8 in *Solutions for Singers* (Miller, 2004) shares the title of chapter 17 in *The Structure of Singing* “Healthy Singing” (Miller, 1986), but the subtopics differ. The first section of the chapter focuses on the professional singer or “the singing athlete” (2004, p. 169). Miller also discusses voice rest, gargling, inhaling steam, tea with lemon and honey, and tips for vocal longevity.

Bunch-Dayme (1982) and Miller (1986) changed the way vocal pedagogy was written about and gave a template for texts written in the 1990s. Velarde (2013), when speaking of Bunch-Dayme said, “With this book, the trajectory of vocal pedagogy moved from descriptive writing to a factual analysis of vocal production,” (p. 24). The texts were also more likely to include chapters on vocal health and hygiene than in previous years.

Marilee David (1995) published *The New Voice Pedagogy*. David describes her books as a way to help bridge modern science and vocal technique, and adds ideas that had not been included much, if at all, in textbooks before hers. Each chapter refers to specific scientific research on the topic (breath, phonation, resonance, etc.) and provides exercises to help strengthen those areas. Unique to this textbook is a chapter on ethics in which David discusses different case studies focusing on ethical questions that may arise in a voice studio. Similar to Bunch Dayme (1982) and Miller (1986), David includes a chapter on vocal hygiene but, “...with the inclusion of an additional chapter discussing the relatively recent field of voice therapy, in order that the voice professional had a better understanding of procedures to follow when such therapy was indicated, after examination by a qualified laryngologist” (Velarde, 2013, p. 33-34).

David (2008) published a second edition of her book fourteen years after the first edition. This edition has longer chapters with each one addressing a different function of the voice. For example, the first chapter explains the structure of the larynx, while chapter three focuses on sound which includes tone quality, volume and vibrato. Chapters six and seven are further developed in the second edition. Chapter six adds sections on HIV and AIDS, and expands the topics of female hormones and aging. Chapter seven, which only included an overview of dysphonias in the first edition, has sections on dysphonias such as hoarseness, hemorrhage, nodules, ulcers, and more.

Basics of Vocal Pedagogy: The Foundations and Process of Singing by Clifton Ware (1998) provides a comprehensive introduction to many aspects of voice use. Rather than starting with technique, Ware's first two chapters focus on the psychological aspect of singing and discuss how to integrate the mind with the body to bring out one's best voice.

Ware's (1998), chapter eleven focuses on vocal care, vocal disorders, vocal abuse and vocal treatment. The first part of the chapter discusses vocal disorders, what causes them, and how to be aware that a disorder may be present. This section also includes factors that can lead to vocal misuse. The second section explains hormones and vocal irritants. Smoking, alcohol intake, colds/flu, allergies and acid reflux are discussed as well as serious disorders, such as nodules. The final section is about vocal rehabilitation. Ware talks about what medical professionals to see, treatments and therapies as well as possible surgeries. The chapter ends with a chart simplifying the "dos and don'ts of vocal health" (p. 224).

With voice science being more readily available to vocal teachers in the 1980s and 1990s, a period of collaboration between voice scientists, speech language pathologists and voice teachers began (Greschner, 2020). Indeed, over the last twenty-five years, there has been more

interest in combining voice science and pedagogy, as evidenced by voice conferences around the world. For example, in 2023, a workshop entitled “Good Singing: Where Voice Science and Teaching Meet” was presented at a conference in New Zealand (Kayes & Bartlett, 2024). More articles have been written combining the disciplines as well, such as “Working Toward a Common Vocabulary: Reconciling the Terminology of Teachers of Singing, Voice Scientists, and Speech-Language Pathologists,” published in the *Journal of Singing* (Hoch & Sandage, 2017).

Further research into vocal disorder and therapies started to change the topics that vocal pedagogues focused on. Joanna Cazden (2011), a voice teacher and speech-language pathologist, published *Everyday Voice Care*. Being a professional in both the music and science areas allowed her to combine current scientific findings with anecdotes from treating her own patients and teaching her own students.

Cazden’s (2011) book has five sections focused on vocal hygiene, health and lifestyle. The first section gives an overview about how the voice works. The second section reviews basic voice care, addressing food, drink, exercise and warm-ups. Part three discusses injury, doctors and therapies, and sections four and five focus on modern lifestyle routines that can challenge the voice and how to overcome those obstacles.

Robert Sataloff (1998), a well-known ear, nose and throat doctor published *Vocal Health and Pedagogy: Science Assessment and Treatment* as a companion book to *Professional Voice: The Science and Art of Clinical Care* (Sataloff, 1991), with its third edition being published in 2017. Most of the first fourteen chapters focus on technique, but the section that includes vocal health is also in the beginning of the book in chapter four. Typically, if a vocal pedagogy textbook includes a section on vocal health or rehabilitation it is included after the sections on techniques.

Sataloff (2017) expands on chapter four in the second and third sections of the book including chapters on vocal care professionals, patient history, medical diagnosis, effects of age on voice, pediatric voice disorders, among many others. Sataloff, as a medical professional first and foremost, focuses on the science, health, and rehabilitation of the voice, rather than on vocal technique. Although different from the typical vocal pedagogy textbook, Sataloff's monograph includes the following in its preface:

The first and second editions of *Vocal Health and Pedagogy* were written as a companion book to *Professional Voice: The Science and Art of Clinical Care*.

When I wrote the first edition of *Professional Voice: The Science and Art of Clinical Care*, which was published in 1991, I had hoped that it would be used not only as a medical text, but also for courses in vocal pedagogy and speech-language pathology. (p. xi)

More recently, in 2020 Kari Ragan published *A Systematic Approach to Voice: The Art of Studio Application*. The framework of this text continues to follow the twentieth century approach of combining pedagogy with vocal science principles. Similar to Sataloff (2017), Ragan introduces vocal health and hygiene at the beginning of her book.

Chapter 2, "The Twenty-First Century Voice Teacher," includes a section about vocal habilitation. Similar to vocal hygiene, vocal habilitation is a series of guidelines for singers to try in order to prevent injury as much as possible. Ragan (2020) also presents examples of vocal warm-ups and vocal function exercises in addition to explaining the difference between the two and when to use them.

Scott McCoy and Lucinda Halstead co-authored *The Basics of Voice Science and Pedagogy* published in 2020. This book was written as an update to *Your Voice: The Basics*,

which was published in 2016. Updated to include full-color photos of vocal anatomy, McCoy and Halstead's text is specifically geared towards undergraduate vocal pedagogy courses. Each chapter, including Chapter 7 ("Vocal Health") contains supplemental videos on the Inside View Press website.

Davids and LaTour (2021) published a second edition of their textbook *Vocal Technique*, originally published in 1994. The penultimate chapter, "Guarding Singers' Vocal Health," discusses hydration, stamina, stress, acid reflux, and respiratory illness, and also touches on concerns of the professional singer as compared with those of amateur singers. In the chapter's introduction, Davids and LaTour highlight the importance for vocal lessons in order to gain knowledge regarding vocal health. "As more voice teachers are trained to teach singing in a variety of styles, we encourage all singers to add voice lessons to help learn vocal health-preserving singing techniques" (p.257).

Articles and Dissertations on Vocal Pedagogy

Vocal pedagogues not only wrote a multitude of textbooks as the subject gained increased relevance at the college level, but a number of studies were done on the curricula over the years as well. The studies performed each highlight a different aspect of vocal pedagogy curricula such as teaching methods, institutional comparisons, and course content. These studies were turned into books or used in journals to fill gaps in the literature and to make them accessible for teachers.

In 1989, Brian White published a dissertation entitled *Singing Techniques and Vocal Pedagogy*. The study consists of surveying British singing teachers to explore their pedagogical approaches. Prior to the results of his dissertation, White investigated the history of vocal

pedagogy, including sections on breath, vocal registers, acoustics, and analysis of the recorded voice. Vocal health and rehabilitation are not explored in his prior research or in the study on the teacher's pedagogy.

Voice Disorders: A Handbook For the Voice Teacher Examining the Diagnosis, Treatment, and Rehabilitation of the Damaged Singing Voice by Belinda Andrews Smith (1992) is a doctoral dissertation turned into a handbook geared towards voice teachers who have students with voice disorders. The handbook goes into detail about a variety of vocal disorders, each with therapies and exercises to help remedy the problem. "The scope of the handbook described not only vocal problems but also the means to rectify problems with examples of rehabilitative techniques related to relaxation, resonance, breathing and strengthening the voice" (DeLoach, 2000, p. 14). At the time, it was the only vocal rehabilitation text to be written by a vocal pedagogue rather than a voice scientist (DeLoach).

Thomas Cleveland (1996–98) published a total of nine articles in *The Journal of Singing* about the curriculum of vocal pedagogy master's and doctoral degrees at universities around the United States. Each article highlights three to four schools, and the ninth is a summary and comparison of all the schools' curricula. Out of twelve schools he researched, two have a course related to communication/vocal disorders.

In 2000, Dionne Bateman DeLoach performed a study investigating vocal health and rehabilitation curriculum at public colleges in the southern United States. Out of that area, eleven institutions fit the scope of the study and eight of them participated in questionnaires and interviews. All eight participants included vocal health and hygiene in their courses, but none touched on rehabilitation. At the end of her dissertation, DeLoach calls for further investigation in different geographical areas.

Karen Peeler, former head of the graduate voice program at The Ohio State University, explored her own degree curriculum in 2009. Publishing an article in the *Journal of Singing*, “Training the Artist-Teacher: Voice Pedagogy at The Ohio State University,” she detailed each of the pedagogy courses and degrees offered at the graduate and doctoral level. Classes such as Alexander Technique, voice disorders, and endoscopy are offered as electives for the pedagogy degrees. There is a graduate certificate program for “Specialization in Singing Health,” which requires classes in endoscopy, medical practice and diagnosis, voice pathologies and disorders, and voice assessment and teaching methods.

CHAPTER 3

Results

The Sample

The participants of this study were selected from a pool of publicly funded, NASM-accredited, four-year universities in New Jersey, Pennsylvania and New York. The schools were researched with the use of the Internet and the NASM accreditation website. The pool was narrowed down to only include the NASM-accredited schools that offered vocal pedagogy courses at the undergraduate, graduate, or doctoral level. The schools' websites were investigated to narrow down the original list.

There were sixty-seven public four-year universities in the three states and twenty-two of those were NASM-accredited. Sixteen schools fit the parameters of the study by offering vocal pedagogy courses. Professors from those schools were contacted via email. Four of those who responded were willing to participate. Five were unable to participate. The other seven failed to respond.

A follow-up email was sent to those four with a participant consent form (Appendix A) for them to sign and send back. The consent form insured participant confidentiality and procured permission to record a Zoom video call. The confidentiality was represented by a participant code number which was written in the top right corner of the questionnaire sheet. All participants were asked to change their names to their code numbers during the Zoom interview as well. All four participants filled out the questionnaire and three participated in a Zoom interview.

Data Collection and Results

The four participants were sent questionnaires aimed to gain insight about their education and teaching backgrounds, current classes taught, and the curriculum covered. All of them have master's degrees with three having obtained their doctorate. Only two out of the four were required to take vocal pedagogy at the undergraduate and graduate level. All of the participants who received their doctorates took vocal-use courses, two being vocal pedagogy and the other being vocal anatomy.

The two participants who took vocal pedagogy during their undergraduate studies mentioned studying vocal health, but also recalled little or no focus on rehabilitation in these courses. Only one of the two studied vocal health at the graduate level, but there was no mention of rehabilitation in the course syllabus. All of those who obtained a doctorate studied vocal health curricula, but only two mentioned studying any topics related to vocal rehabilitation. (See Table 2)

Table 2: Summary of Participant Education

Degree Levels	# of Participants with Degree Type	Vocal Pedagogy Required	Vocal Health Included	Vocal Rehabilitation Included
B.A	1	0	0	0
B.M (MUS)	3	2	2	0
M.M (MUS)	4	2	1	0
D.M.A	3	3	3	2

Three of the participants recorded keeping current on vocal health and rehabilitation advancements by attending conferences and workshops. One mentioned that they attend NATS conferences every year and hope to attend a conference at the University of Oklahoma in

summer 2025. The final participant has not had a chance to attend many workshops in recent years, but continues to study voice with a private teacher to keep abreast of current trends.

Towards the end of the questionnaire, the participants listed all the classes they teach. Besides vocal pedagogy, all participants teach applied voice. Two participants recorded teaching a voice class for non-vocal majors. Another participant teaches a course devoted entirely to vocal health, specifically for graduate students. In addition, they teach a course that focuses on the business of opera. One participant teaches a diction course and another directs a small opera ensemble. (See Table 3)

Table 3: Summary of Participant Courses

Course Title	# of Participants Who Teach Course
Vocal Pedagogy (undergrad)	4
Vocal Pedagogy (undergrad/graduate)	2
Vocal Health (graduate)	1
Voice Class (non-voice majors)	2
Applied Voice Lesson	4
Business of Opera	1
Opera Ensemble	1

The last question of the questionnaire asked the participants to list any textbooks used in their vocal pedagogy courses. Each participant uses a different book, and each text was published in the twenty-first century. Only one participant uses a single book, whereas the others draw upon multiple sources for their classes.

One participant uses *Dynamics of the Singing Voice* by Meribeth Bunch Dayme (2009) as their main text and supplements it with *Vocal Technique* by Davids and Latour (2021) and *The*

Vocal Athlete by Wendy D. LeBorgne (2021). Another participant uses *The Singer's Guide to Complete Health* by Anthony F. Jahn (2013). Other non-required texts they suggest to their students are *Anatomy of the Voice* by Theodore Dimon (2018), which is an illustrated guide for anyone who relies on their voice in their profession. *Everyday Voice Care: The Lifestyle Guide for Singers and Talkers* by Joanna Cazden (2011) is also a suggested choice. The other two participants both use books written within the last five years. One uses *A Systematic Approach to Voice* by Kari Ragan (2020) and supplements with online articles and videos. The other uses *Basic of Vocal Science and Pedagogy* by Scott McCoy (2020) because it was specifically written for use in an undergraduate vocal pedagogy class. (See Appendix C)

Three out of the four participants were interviewed over Zoom. There were a total of ten interview questions that allowed the participants to elaborate on topics included in the questionnaire, as well as a few questions not included. Questions one through eight expanded on the participants' educational backgrounds, their courses, and materials used.

Question nine inquired about their teaching methods used in their pedagogy classes. One professor has their students research and write papers about the chapters of the textbook they do not cover by the end of the semester or other vocal health articles they find online, which they then discuss in class. The students also perform a research project on the technology available to view and diagnose different vocal disorders. In addition, the professor brings in doctors to give presentations to the class. Another participant focuses on vocal habilitation. They want to make sure they present as many techniques and skills as possible to ensure healthy singing, so that rehabilitation may not be necessary.

Two of the three participants that were interviewed break up their semester into two main parts. The first is mainly lecture-based and focuses on anatomy. During the second half of the

semester, the students partake in a vocal practicum. One participant has their students film them teaching others and those videos are then critiqued by the rest of the class. The other has their students teach during the class time and has them observe, comment, and discuss.

Question ten of the interview asked the participants if they believe that vocal health curricula should be more standardized in higher education. The response was a “yes” from all the participants. They all agreed that vocal health should be included for college-level vocal students. One participant emphasized that although it needs to be included, teachers need to make sure what is taught is backed by science to make sure they are giving their students the best information.

Another participant mentioned noticing that most incoming college students have not received any vocal health or anatomy instruction, so it is important to include vocal pedagogy in the curriculum in order to allow students to develop a healthy routine. The other two participants also pointed out how common it is that students come into a program not having much vocal knowledge and by not including it for their undergraduate studies is a disservice to the students. One participant has had graduate students take their undergraduate vocal pedagogy course because they had never received any pedagogy curricula in their own undergraduate studies.

There was time given at the end of the interview for the participants to speak about anything else they thought was important when it came to vocal health at the college level. One participant mentioned that they believe it is important not just for vocal performance majors to receive this curriculum, but for music education majors as well. Even if their main instrument is not voice, they may end up in a position where they will need vocal pedagogy knowledge as part of their employment. One other participant spoke about vocal teachers delving more into science, so that vocal rehabilitation could become a bigger part of the curriculum alongside vocal health.

Limitations

This study only included four-year, NASM-accredited institutions that are publicly funded. My intention for this study is for it to become a guide for students who are looking to pursue voice or vocal pedagogy in their continuing education. By focusing on publicly funded schools I thought it would appeal to those of all socioeconomic backgrounds. Private institutions could have expanded the sample pool and gave more insight to schools in the area. For example, Westminster Choir College in Princeton, New Jersey offers a graduate degree in vocal pedagogy. Future studies of university-level vocal pedagogy courses and programs could be expanded to include more geographic diversity and a range of public and private institutions.

Recommendations for Further Study

A variety of other research topics emerged through the course of this study. Originally, I thought of surveying vocal pedagogy students as well to obtain their opinions on the courses' curricula. A separate study focused on the students would give an added perspective. Through the research I learned how the collaboration between vocal pedagogues and speech-language pathologists has grown in recent years. A study into how colleges and universities can implement this collaboration could add valuable literature. Replicating this study to include both public and private institutions would allow for added comparison of all available schools in a given area.

CHAPTER 4

Summary and Conclusion

Summary

The purpose of this study was to investigate whether vocal health and rehabilitation topics are included in higher education music programs. The study was limited to publicly funded, NASM-accredited, four-year institutions in New Jersey, New York, and Pennsylvania. The public institutions that offered vocal pedagogy courses were considered for participation in the study. A total of sixteen schools in the three states fit the scope of the study, and four of them participated in a questionnaire and interview.

Four research questions were the basis of this study. The first question was made to determine how many schools offer classes or degrees in vocal pedagogy in the states chosen for the study. Sixteen schools were found to offer vocal pedagogy classes, but no schools offer a vocal pedagogy degree at an undergraduate, graduate, or doctoral level. Fifteen of the sixteen schools offer a vocal pedagogy class at the undergraduate level, six offer a vocal pedagogy class at the graduate level, and two have a vocal pedagogy class at the doctoral level.

The second research question was created to determine if the schools that have vocal pedagogy courses include vocal health in the curriculum. The data collected from the participants found that they all include vocal health in their courses. One school offers a semester-long course focusing only on vocal health. Some of the sub topics included in the course are vocal hygiene, anatomy, and habilitation.

Research question three determined whether vocal rehabilitation was included in the vocal pedagogy courses. It was found through the participant data that two of the four mention rehabilitation. One presents a brief overview of possible injuries and therapies, specifically

SOVTs or semi-occluded vocal tract exercises. These exercises close off a part of the vocal tract (the lips) to allow more efficient occlusion of the vocal cords. The other brings in doctors to speak to their class about diagnoses, treatments, and therapies. One participant mentioned that because vocal teachers are not licensed scientists or doctors that they are not certified to teach rehabilitation.

The final research question sought to determine the different pedagogical approaches used by the professors for their courses. The data determined that three participants utilize a practicum to give students a hands-on approach to the curriculum. Research projects are employed by all the participants as well as video demonstrations, readings, and guest speakers.

Conclusion

It was found from the data collected that all participants include vocal health in their vocal pedagogy courses. Anatomy, habilitation, hygiene, illness, and hormones are common topics among the participants. Only half the participants touch on vocal rehabilitation in their curriculum. Discussion of common vocal disorders, injuries, treatments and therapies are among topics included by those participants.

It is unanimous among the participants that more science-based curriculum should be added to vocal pedagogy courses. Half the participants continue to read articles and attend conferences regularly to inform themselves of the newest advancements. One participant continues to take private voice lessons and talks with doctors often to obtain updated information.

The data concluded that all participants find vocal health and rehabilitation an important part of their curriculum, and this curriculum should be standard in college vocal programs. The participants that were interviewed all mentioned that they find many incoming vocal students

have never received any teachings on vocal health or rehabilitation. The participants stressed how important it is for students to create a healthy vocal routine sooner rather than later to ensure longevity for their voices.

References

- Appelman, D. R. (1967). *The science of vocal pedagogy: Theory and application*. Indiana University Press.
- Bunch Dayme, M. (1982). *Dynamics of the singing voice*. Springer.
- Bunch Dayme, M. (2009). *Dynamics of the singing voice* (5th ed.). Springer.
- Burgin, J. C. (1973). *Teaching singing*. Scarecrow Press.
- Cazden, J. (2011). *Everyday voice care: The lifestyle guide for singers and talkers*. Hal Leonard Books.
- Cleveland, T. (1996). Voice pedagogy degree programs. *Journal of Singing*, 53(1), 43-44.
- Cleveland, T. (1996). Voice pedagogy degree programs: Part II. *Journal of Singing*, 53(2), 47-48.
- Cleveland, T. (1997). Voice pedagogy degree programs: Part III. *Journal of Singing*, 53(3), 43-44.
- Cleveland, T. F. (1997). Voice pedagogy degree programs: Part IV. *Journal of Singing*, 53(4), 47-48.
- Cleveland, T. (1997). Voice pedagogy degree programs: Part V. *Journal of Singing*, 53(5), 51-52.
- Cleveland, T. F. (1997). Voice pedagogy degree programs: Part VI. *Journal of Singing*, 54(1), 51-53.
- Cleveland, T. F. (1997). Voice pedagogy degree programs: Part VII. *Journal of Singing*, 54(2), 55-57.
- Cleveland, T. F. (1998). Voice pedagogy degree programs: Part VIII. *Journal of Singing*, 54(3), 57-58.

- Cleveland, T. F. (1998). Voice pedagogy degree programs: A spreadsheet comparison. *Journal of Singing*, 54(4), 51-53.
- David, M. (1995). *The new voice pedagogy*. Scarecrow Press.
- David, M. (2008). *The new voice pedagogy* (2nd ed.). Scarecrow Press.
- Dauids, J., & LaTour, S. A. (2021). *Vocal technique: A guide to classical and contemporary styles for conductors, teachers, and singers*. Waveland Press, Inc.
- DeLoach, D. B. (2000). *An investigation in the teaching of vocal health, recovery and rehabilitation in vocal pedagogy courses at selected public institutions* (Publication no. 99897190 [Doctoral dissertation, The University of Mississippi]).
- Gross, C. (1998). Galen and the squealing pig. *The Neuroscientist*, 4, 216-221.
<https://doi.org/10.1177/107385849800400317>
- Greschner, D. (2020). Manual of singing voice rehabilitation: A practical approach to vocal health and wellness. *Journal of Singing*, 76(3), 359-360.
- Hoch, M., & Sandage, M. J. (2017). Working toward a common vocabulary: Reconciling the terminology of teachers of singing, voice scientists, and speech-language pathologists. *Journal of Voice*, 31(6), 647-648.
<https://doi.org/10.1016/j.jvoice.2016.12.014>
- Kayes, G., & Bartlett, I. (2024). Singing voice teaching and voice science: Where is the meeting point? *Journal of Singing*, 81(1), 69-76.
<https://doi.org/10.53830/sing.00064>
- McCoy, S. J., & Halstead, L. (2020). *The basics of voice science and pedagogy*. Inside View Press.
- Miller, R. (1986). *The structure of singing: The technique and the art*. Schirmer Books;

Collier Macmillan.

Miller, R. (2004). *Solutions for singers: Tools for performers and teachers.*

Oxford University Press.

Nichols, L. L. (2010). *Investigating vocal hygiene habits in professionally managed classical singers* (Publication no. 3411868) [Doctoral dissertation, University of Minnesota]. ProQuest Dissertations & Theses Global.

Peeler, K. (2009). Training the artist-teacher: Voice pedagogy at The Ohio State University. *Journal of Singing*, 66(2), 157-159.

Ragan, K. (2020). *A systematic approach to voice: The art of studio application.* Plural Publishing, Inc.

Sataloff, R. T. (1991). *Professional voice: The science and art of clinical care.* Raven Press.

Sataloff, R. T. (1998). *Vocal health and pedagogy: Science, assessment, and treatment.* Singular Publishing Group, Inc.

Sataloff, R. T. (2017). *Vocal health and pedagogy: Science, assessment, and treatment* (3rd. ed.). Plural Publishing, Inc.

Smith, B. A. (1992). *Voice disorders: A handbook for the voice teacher examining the diagnosis, treatment, and rehabilitation of the damaged singing voice.* Ohio State University.

Spencer, M. L. (2009). Care of the professional voice: Integration of singing into voice therapy. *Journal of Singing*, 66(2), 161-166.

Velarde, R. (2013). *Vocal pedagogy at the end of the twentieth century: Revealing the hidden instrument.* Arizona State University.

Vennard, W. (1967). *Singing; The mechanism and the technic*. C. Fischer.

Ware, C. (1998). *Basics of vocal pedagogy: The foundations and process of singing*.

McGraw-Hill.

White, B. (1989). *Singing techniques and vocal pedagogy*. Garland Pub.

APPENDIX A**Participant Questionnaire**

Data Questionnaire Sheet

Participant Number _____

Demographics:

1. Gender: Male___ Female___ Rather not specify___
2. Age___
3. Please mark all degree levels that apply:

- a. Bachelor's

- i. B.A ___
- ii. B.S ___
- iii. B.M (Ed) ___
- iv. B.M (Mus)___

- b. Master's

- i. M.A ___
- ii. M.S ___
- iii. M.M (Ed)___
- iv. M.M (Mus) ___

- c. Doctorate

- i. D.A___
- ii. D.M.A___
- iii. PhD___

Background:

1. Did your undergraduate study include vocal pedagogy courses?
 - a. If yes, did the courses include units on vocal health?
 - b. If yes, did the courses include units on vocal rehabilitation?
2. Did your Master's Degree include vocal pedagogy courses?
 - a. If yes, did the courses include units on vocal health?
 - b. If yes, did the courses include units on vocal rehabilitation?
3. Did your Doctoral Degree include vocal pedagogy courses?
 - a. If yes, did the courses include units on vocal health?
 - b. If yes, did the courses include units on vocal rehabilitation?
4. Beyond the courses in your degrees, have you taken any further classes on vocal health or rehabilitation?
 - a. Yes__
 - b. No__
5. Do you attend workshops or conferences on vocal health or rehabilitation?
 - a. If yes, please list those workshops or conferences attended in the last three years.

Teaching Experience:

1. Please provide the name of the institution at which you currently teach.
2. Name of position:
3. How long have you taught there?
4. Are you tenured?
 - a. Yes__
 - b. No__

5. Please list any teaching positions held prior to your current institution. (Include name of institution, position title, and names of courses taught)

Current Courses:

1. Please list the courses you are currently teaching. (Name of course and level)
2. Out of the courses you currently teach, which include units on vocal health and/or rehabilitation?
3. For the courses that do include vocal health and/or rehabilitation, please list the text(s) used.

APPENDIX B

Interview Questions

Interview Questions

1. Please describe any vocal health and/or rehabilitation curricula that was part of either your Master or Doctoral Degrees. Did this curricula influence the way you teach your own courses?
2. How were the courses you took as part of Master or Doctoral Degrees relevant (or not relevant) to the courses you currently teach?
3. Please describe the courses you currently teach.
4. Please describe the vocal pedagogy courses you currently teach.
5. Please describe the curriculum taught in the vocal pedagogy courses you currently teach?
6. Are vocal health and rehabilitation units included in your vocal pedagogy courses? If units are not offered, what was the decision behind excluding those?
7. What specific aspects of vocal health and/or rehabilitation are included?
8. Please describe the text(s) and other materials used in your vocal pedagogy courses. What went into the decision to use those specific materials?
9. What pedagogical approaches do you use in the concepts you teach in your vocal pedagogy courses? Are there concepts you find are more important to get across to the students than others?
10. Do you believe that vocal health and rehabilitation curricula should be more standardized across higher education?

Appendix C

Data Report

Demographics

Total Number of Participants: 4

Education

B.A- 1

B.M (Mus)- 3

B.M (ED)- 0

M.A- 0

M.M (Mus)- 4

M.M (ED)- 0

D.A- 0

D.M.A- 3

PhD- 0

Teaching Position

Adjunct- 1

Assistant (Visiting)- 1

Instructor (of Voice)- 1

Head of Voice Dept.- 1

Tenured: 1

Current Courses Taught

Vocal Pedagogy (Undergraduate)-3

Vocal Health (Graduate)- 1

Business of Opera- 1

Applied Voice Lessons- 4

Diction- 1

Voice Class (non-vocal majors)- 2

Opera Ensemble- 1

Vocal Health Curricula

Included in courses: 4

Common topics discussed:

Vocal Hygiene

Vocal Habilitation

Hydration/diet

Teaching Methods:

Readings

Vocal Practicum

Vocal Rehabilitation Curricula

Included in courses: 2

Common topics discussed:

Vocal Therapies

Surgical Options

Healthcare Professionals

Textbooks:

A Systematic Approach to Voice- Kari Ragan

The Singer's Guide to Complete Health- Anthony F. Jahn

Everyday Voice Care: The Lifestyle Guide for Singers and Talkers- Joanna Cazden

Your Voice at Its Best: Enhancement of the Healthy Voice, Help for the Troubled Voice
(5th Edition)- David Blair McClosky

Anatomy of the Voice- An Illustrated Guide for Singers, Vocal Coaches and Speech
Therapists- Theodore Dimon

The Basics of Voice Science and Pedagogy- Scott McCoy & Lucinda Halstead

Dynamics of the Singing Voice (5th Edition)- Meribeth Bunch Dayme

Vocal Technique- A Guide to Classical and Contemporary Styles for Contemporary,
Teachers, and Singers- Julia Davids & Stephen LaTour

The Vocal Athlete (2nd Edition)- Wendy D. LeBorgne & Marci Daniels Rosenberg