

Vocal Health and the Teaching Profession: A Case Study

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Introduction

Vocal Health as an Issue for Teachers

Many of us who have a strong background in singing are very aware of our singing voice and its progress or development. What teachers (music teachers as well as classroom teachers) may not be aware of is the strain and damage the day to day speaking in the classroom can inflict on the vocal mechanism. The medical profession refers to this damage as vocal misuse or abuse. Medical evidence speaks to the fact that the total health of a person contributes directly to a person's vocal health. Add to this the stress inherent in teaching, intensified teaching schedules, large class sizes, and a teacher is at great risk for vocal dysfunction. According to Chagnon and Stone, vocally demanding occupations (teachers, singers, lawyers, salespeople, receptionists) experience an increased incidence of vocal pathology (Chagnon & Stone, 1996).

This case study investigated a single teacher's voice practices and knowledge of vocal health information. I engaged in fieldwork that included passive and participant observation in conjunction with informal and formal interviews in an effort to address the issues that contribute to vocal misuse and abuse. In addition, my fieldwork sought to represent the perspective of the participant regarding her own vocal health. A critical look at the emerging data reveals a need for teachers to be educated on how to properly use and care for their voices as well as achieve a deeper level of understanding regarding the occurrence of vocal pathology in members of the teaching profession.

Background

Vocal health has been of interest to me since my teaching career began. As a middle school vocal and general music teacher, I began to experience vocal problems from the start of my first year of teaching. My teaching schedule for this first year had me teaching all of my classes back to back beginning with an extra curricular rehearsal at 6:45am, three class periods of choir, one of general music, and ending with a lunch supervision. I was using my voice in some capacity for six hours straight each workday, not including evening conferences or other contractual night commitments expected of me. I attributed these problems which included difficulty speaking for long periods of time, a weakened singing voice, and sometimes a loss of voice to overall stress and anticipated them going away once I settled into the job. But the opposite occurred. As the year progressed, my voice showed signs of fatigue almost constantly and I was not equipped with the knowledge to correct it. In my private voice study, my teacher and I would spend time focusing on phonation (I had lost the ability to make a "clean entrance") as well as just discussing the nature of the vocal problems I was experiencing. These initial discussions prompted me to see a local ENT who encouraged me to take a closer look at my diet as well as the ways in which I was using my speaking voice.

The issue had become quite large; vocal health developed into an issue that was influencing the way I spoke, sang, and ate. As I gained knowledge about how to use my speaking voice correctly or what foods or medications could be affecting my voice negatively, my vocal health

improved. However, I was still experiencing periods of vocal fatigue which were affecting the success with which I could perform my job. For this reason, I decided to take a leave of absence and enrolled in graduate school full-time to focus on learning more about the issue of vocal health as it relates to teaching. Related course work involved interdisciplinary study in the School of Music, the Department of Curriculum and Instruction, and the Department of Communicative Disorders. As a teaching assistant at the University of Wisconsin-Madison, my duties included teaching music methods classes to regular elementary classroom teachers, choral, and instrumental music education majors. These experiences strengthened my commitment to learning about vocal health as it relates to my own voice, other teachers, and pre-service teacher education programs.

Guiding Research Questions

My goal for this particular study was twofold: to obtain and subsequently present a rich description of a teacher's vocal practices and knowledge of good vocal hygiene. To this end, I developed two questions that served to guide this study:

- Do elementary general music teachers experience vocal problems as a result of their professional work? (Has this elementary general music teacher experienced vocal problems as a result of her professional work?)
- What do elementary general music teachers know about how to care for and maintain a healthy voice? (What does this elementary general music teacher know about to care for and maintain a healthy voice?)

Related Research

Vocal health is an issue that has been written about from multiple perspectives and disciplines; voice professionals including voice teachers, voice scientists, physicians, speech therapists, speech pathologists, and singers are all interested in the issue and have conducted both quantitative and qualitative research. Vocal health as an issue for teachers has been highlighted in the work of Chagnon and Stone (1996); Matiske, Oates, and Greenwood (1998); Smith, Lemke, Taylor, Kirschner, and Hoffman (1998); and Solberg and Duax (2000) just to name a few. The literature typically highlights several different sets of factors that can have negative effects on a person's vocal health. I have chosen to categorize them in this way:

- Voice issues such as speaking or singing outside of one's comfortable range or speaking or singing too loudly for long periods of time
- General health issues such as fatigue, stress, or the regular use of caffeine
- Work environment issues such as dry, dusty classrooms or teaching in spaces that are too large for the average speaker to speak comfortably without amplification

Within the current body of literature, the amount of quantitative studies far outweighs the amount of qualitative research. My research study utilized case study methodology as a way to provide a rich description of an individual teacher's vocal practices in her teaching setting. As is characteristic of qualitative work, an important component of this case study was the use of a wide range of interconnected interpretive practices (Denzin & Lincoln, 2000). These methods of interpretation allowed for interpretations based on the teacher's description of her voice and

vocal practices being employed as well as the researcher's role in generating and interpreting data. Despite a vast amount of excellent literature, I find that descriptions of individual teacher's experiences in their teaching setting and from their perspective are notably absent. This study highlights one teacher's experiences in the hope that interested practitioners and voice professionals will be able to learn more about their own voice and voice practices as well as better educate others on the subject.

Research Procedures

Methods

In the spring of 2000, I engaged in ethnographic methods, which included several sessions of passive and participant observation and informal and formal interviews. After gaining access and obtaining a commitment from the participant and her building administrators, I set up a schedule for four onsite visits to the participant's classroom. Passive observation included two two-hour long sessions in which I observed the participant teaching her regular schedule while I took field notes of the events. These field notes included both jottings and direct quotes and attention was paid to the timing of different events as well as to specific interactions of interest. Concurrently, memoing provided a space for my own questions and comments about what was taking place. An entry in my field notes from April 3, 2000 is a good example of this:

Description: As each song was sung, [participant] accompanied the children on the piano but did not sing along. This went on for the remainder of the class period—about twenty minutes.

My thoughts: This is a very challenging thing to do! When students are singing, they often need a leading voice to follow the melody correctly. Mrs. ____ [participant] did not sing for the rest of the class period. When kids began to pay a little less attention to the music or talk to friends, no verbalized directions were given. The combination of not singing and not verbalizing directions could be seen as "preventative maintenance" for the voice. Is this purposeful? Is she trying to save her voice on this particular day or is this typical behavior?

As the goal for these sessions was to get a sense of the participant's use of the voice in her classroom, I followed up each of the sessions with a brief, informal interview. I asked the participant to speak about her own vocal practices in relation to the observed teaching sessions. From there, this study included a two-hour session of participant observation during which I assisted in facilitating two general music classes. Finally, a one-hour long, formal, semi-structured interview was conducted in which the participant was asked to speak about her vocal history as related to her teaching career. As is typical of a semi-structured interview, the participant was asked to answer a set of pre-determined questions as well as afforded an opportunity to speak freely about topics she considered relevant. All of the interviews were tape-recorded and transcribed.

A grounded theory approach was taken for this study. A key component of a grounded theory approach is the process of coding. According to Charmaz (2000), "coding starts the chain of theory development" (p. 515). Several different types of coding were used throughout the study to provide direction; most prevalent was open coding or line by line coding in which

field notes, memos, and interview transcripts were examined and then analyzed for repeated actions or events. These actions and/or events then served as a way to further define, inform, and refine subsequent sessions. For example, after coding the data from the first observation, I noticed that the participant used non-verbal communication for reminding the children to focus. She used a gesture that involved holding up three fingers and then motioning a countdown to one. This gesture was used three times during the first class observed and twice during the second. Once this pattern was established, I was able to follow up with specific questions related to the participant's rationale for using this type of management device. Finally, it is important to point out that coding as a part of the grounded theory approach is helpful in examining what is present and what is not present in the data as a way to point the study in new directions. As themes emerged from the data, the participant and I pursued further related discussion.

Participant

As an instrumental case study (Stake, 2000), this particular participant's situation was examined to provide insight into the larger issue of vocal health as it relates to teachers. The choice of the case (i.e., the participant and teaching setting) was made to advance the understanding of that other interest. Readers who can relate to the case, whether as voice professionals or teachers experiencing similar situations, if appropriate, might then make generalizations. My participant was chosen on a recommendation from a fellow researcher based on her past vocal history, her long teaching career, and her extensive teaching schedule. The participant was a 47 year old female with a BA and an MM in music who had been teaching for twenty-five years. She had been at her current position, which includes teaching in two different buildings for thirteen years. At the time of the study, in addition to teaching elementary general music, the participant sang in her church choir and was married with two teenage children. This teacher was employed by her school district as a full-time music teacher and thus, taught thirty-six classes per week. She was responsible for 425 students, kindergarten through fifth grade. She described having children in her classroom from 8:15 a.m.–3:00 p.m. The amount of children participating in music as well as the teaching schedule of the participant parallels that of many elementary general music teachers in the area. Finally, in addition to her regular teaching duties, this participant used her preparatory time to prepare children involved in extracurricular (non-contractual) music activities.

Research Findings

Response to Questions

Has this teacher experienced vocal problems as a result of her professional work?

The clear answer to this question was yes. The participant articulated having experienced periods of dysphonia (abnormal voice) and aphonia (loss of voice) from the beginning of her teaching career. When asked how she might describe one such experience, she responded:

At the worst, [dysphonia] would effect my singing voice and it would get to the point where I would get to the end of the day and I couldn't sing anymore—I would open my

mouth and nothing would come out in certain ranges. And then my speaking voice was very gravelly. And Saturday mornings was the worst for whatever reason after Friday night. Friday night I always get a good night's sleep because I am exhausted by about 7:30 or 8:00pm, and I'd wake up and have almost no voice. So after that long sleep, no voice for awhile until later in the day on Saturday.

When asked how frequently she experienced this situation, she articulated, "For the majority of the beginning of my teaching career." The participant went on to describe experiencing voice problems particularly around the holidays when the performance schedule was more demanding as well as highlighting an increased need for disciplinary measures in the classroom at such times. It is the opinion of the researcher that voice use factors, general health factors, and work environment factors are all negatively affecting the health of this participant's voice. She is describing vocal strain that is compounded throughout the day as well as worse by the end of a week of teaching. She is referring to added stress and fatigue at certain times of the year, which are general health issues that relate to the particular work environment she is a part of. As a singer, the participant described feeling discomfort when she would sing too much or attempt to sing over the children, projecting in a way that was damaging. To provide a specific context for the speaking voice, she articulated experiencing strain to the voice when she would use a dramatic voice as a part of reading to the children. She stated:

I think when I misused my voice, it was mostly my speaking voice and I did that a lot when I used dramatic voices in the context of a story. I knew I was doing it wrong and I didn't know how to do it right.

This combination of normal use of the speaking voice as well as the added use of a dramatic voice (without having had training) caused strain and discomfort.

What does this elementary general music teacher know about how to care for and maintain a healthy voice?

An important facet of this study was my interest in ascertaining the level and source of knowledge my participant had related to having a healthy voice. I did not, however, go into the research process with a rubric or measurement device to determine whether or not the participant was "knowledgeable" by some sort of definition. Rather, I wanted to get the teacher's description of her voice and then proceed, by asking questions about the vocal practices I had observed in previous sessions. This approach matched the use of grounded theory and enabled me to get a sense of the participant's perspective on the subject. When asked if she had been given information about vocal health as a pre-service teacher, she answered, "As a future music teacher, I learned nothing. Through four years of undergraduate school and graduate school—nothing." The participant stated that she learned about how to care for and maintain a healthy voice "the hard way"—after experiencing problems which were affecting her job performance and quality of life. When asked to be more specific, the participant said,

Through bad practice—I learned by trial and error . . . misuse . . . I would begin a musical with the kids where there would be a number of class periods in a row where there would be a lot of singing and I did a lot of singing . . . That was actually . . . those were my worst times: the second and third grade musical because it was a half-day every single day of a lot of singing. And I foolishly sang with the kids a lot of the time and I was trying to sing in a volume that would carry over the kids and so they could hear the words and the notes, etc., and I finally, stupidly, I mean how many years should it take to figure this one out: [I] figured that was really [affecting] my voice in a bad way.

In addition to professing a “trial and error” approach to learning about voice, this participant did seek therapy from a speech pathologist. She also worked with her church choir director on developing more healthy habits. Her attention to learning about potential factors that can contribute to a voice problem helped the participant to eliminate many of the periods of dysphonia and aphonia she had experienced early on in her teaching career.

Discussion

In addition to the information presented in the previous section, analysis and interpretation centered on several themes extrapolated from the data. First, this teacher had experienced vocal problems as result of vocal misuse and abuse. Once educated on how to eliminate or correct damaging behaviors, this teacher no longer experiences such problems. Second, the participant learned about good vocal hygiene as a result of experiencing voice problems (after the fact): she did not realize prior to beginning a teaching career that her professional work would cause strain to the vocal mechanism. Third, this teacher sought out professional advice for maintaining better vocal health. Once a pattern of misuse and abuse was having too great an affect on the teacher’s personal and professional life, she worked with voice professionals to learn about and then maintain good vocal hygiene. Fourth, this teacher became proactive in restructuring her teaching schedule and in general health care as related to voice. Along with her administrator, the participant worked to design a yearlong schedule that allowed for space between performance commitments and day to day periods of vocal rest when needed. In addition, she began to pay attention to foods and medications that might negatively affect the voice. Fifth, this teacher proposed that education or pre-service teachers include information on vocal health and the use of the voice in teaching. She felt that much of the information she now uses to maintain healthy voice should have been included as part of her teacher education programs. She went on to advocate for this information to be given to both regular education teachers as well as music teachers.

Once these five themes were articulated, the participant and I discussed these finding thus providing an opportunity for the participant to clarify or add to the data. From there, we identified one additional theme she felt I had missed in the coding process. As a sixth theme, this teacher decided to change those vocal practices she knew were damaging as a result of a loss of singing ability in her free time (i.e., church choir participation).

And then I didn’t sing again [after having kids] until the church choir and I enjoyed the singing so much that I think I wanted to preserve my voice a little bit for that. I think that kind of helped me make the transition into better vocal practices in the classroom.

It is with this last point that I want to conclude my discussion. The participant sought to change unhealthy behaviors once her personal musical enjoyment was being threatened. As teachers, we are considered to be professional voice users (Koufmann, 1998). As such, we cannot perform our jobs adequately without the use of the voice as a communicative tool. But a loss of the voice to a singer is much more than the loss of a communicative tool. For me, the loss of my singing voice or even a decreased use of my singing voice is devastating to my quality of life. My voice is who I am: without it, making and teaching music would seem like drudgery rather than a powerfully joyful gift. It is for this reason that I am dedicated to sharing my own experiences as well as those of my participants in order to help others preserve their voices.

Future Directions

As an initial study, the amount of time spent in the field provided rich data with which to interpret and eventually represent the case. Case study work over a longer period of time would provide the researcher, and thus the literature, larger amounts of data with which to analyze and interpret. An increased period of time in the field would enable both the researcher and the participant time to explore issues that present themselves as a part of teaching and as a part of life. Case studies in which the case involved several teachers would provide a comparison on many levels with which to generalize. Triangulation of the data with a third party such as a speech therapist or vocal coach would provide an additional perspective from which to interpret the data. In terms of analysis of data, additional texts such as journals written by the teacher, video and/or audio taped teaching segments, and medical documents related to voice would add depth to the research. Finally, as I continue to learn about the issue of vocal health as well as how to perform valuable and credible research, I am interested in performing action research projects in which I study the use of my own voice in the many different situations in which I teach including children's choirs, university courses for pre-service teachers, and private voice and piano instruction.

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