

# Reaching Across Disciplines: The Benefits of Collaborative Teaching

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## ***Abstract***

*The purpose of this project was to develop and implement an effective, collaborative, interdisciplinary course component for a speech-language pathology (SLP) and a vocal performance course at Columbia College. Student evaluations of this experience showed a high rate of satisfaction with the interdisciplinary interaction and showed that they gained new understanding about the topics introduced in the collaborative classes. Faculty evaluations of the experience also showed a high rate of satisfaction with the experience. Instructors stated that they not only gained more expertise about the other's discipline but also learned new pedagogical techniques.*

Faculty members teaching in professional programs often become focused on their own discipline and don't consider the benefits of collaborating with those outside their professional area. Although the implementation of collaborative, interdisciplinary teaching has been increasing in American colleges and universities (Edwards, 1996), the most common interdisciplinary studies programs have involved general education courses (Payne, 1998), not discipline-specific courses.

It has been found that both students and faculty can benefit from collaborative, interdisciplinary courses. Robinson and Schaible (1995) stated that students' benefits include "higher achievement, greater retention, improved interpersonal skills and an increase in regard for positive interdependence" (p. 58). Faculty can also benefit from interdisciplinary teaching

experiences. Payne (1998) cites Thorburn and Blackburn's study in 1986 that found that faculty who taught interdisciplinary courses reported that they had "increased vitality, higher intellectual stimulation, increased respect for other disciplines" and that they tended to take on "new teaching techniques" (p. 213).

The purpose of this project was to develop and implement an effective, collaborative, interdisciplinary course component for a speech-language pathology (SLP) and a vocal performance course at Columbia College. We collaborated to develop an interdisciplinary teaching model that benefits students and faculty in both professional programs.

## **Method**

### ***Participants***

Participants included 11 undergraduate, speech-language pathology students enrolled in a Speech Disorders course and 25 undergraduate voice students enrolled in a Vocal Performance Seminar course. Two faculty members, an associate professor of speech-language pathology and a professor of voice, collaborated to implement the interdisciplinary teaching and learning experience.

### ***Procedures***

First, we met and discussed material and activities that would be beneficial for students in both courses. A recent technical report [American Speech-Language-Hearing Association, 2005], the result of a collaboration between three professional

organizations; the American Speech-Language-Hearing Association (ASHA), the National Association of Teachers of Singing (NATS), and the Voice and Speech Trainers Association (VASTA), served as a good reference in developing interdisciplinary course objectives. The voice instructor wanted like his students to become more aware of the anatomy and physiology of voice production and the types of voice problems that can occur due to vocal abuse and misuse as well as a better understanding of how to prevent vocal problems. The SLP instructor's objectives for her students was to improve their understanding of how voice use was different for speaking and singing, how singers learn to optimize voice use for performance, and what types of voice disorders are common in singers.

Next, materials and activities were developed using a variety of resources from both disciplines. The SLP instructor's program for the voice students included administration of the *Voice Handicap Index (VHI)* (Jacobson et al., 1997) - a voice problem, self-assessment, screening tool, the use of anatomical models and videotapes (Biggers, 1991), as well as Internet sites including images of vocal fold pathologies and specific advice for singers [Shah & Shapshay, 2005; University of Pittsburg Voice Center (UPVC), n.d.; Sandage & Emerich, 2002]. She addressed the following topics in her presentation: functions of the larynx, basic laryngeal anatomy and physiology, vocal abuse and misuse, voice disorders common in singers, prevention of voice disorders, and treatment of voice disorders. The voice instructor's program for the SLP students involved administration of the *VHI* (Jacobson et al., 1997), group vocal warm-up exercises in the music studio, a discussion of speech and singing similarities and differences (McKinney, 1982), and a demonstration of how the voice disorder of one of his voice

students was affecting her speech and singing. Topics addressed in his presentations included: comparison of speech and singing, habitual versus optimal pitch level, and some key works used by voice teachers.

It should be noted that this project has evolved over a 3-year time period. After each co-teaching class, we have evaluated how we thought it went and have talked about how to improve the process for the next semester. For example, one semester we involved students in presentations. This worked well when the vocal performance professor had a student with a voice disorder demonstrate what types of problems she was having to the SLP students. It did not work quite as well when we had SLP students present vocal hygiene information to the vocal performance students. Their lack of experience and knowledge in the area did not allow them to answer questions like the SLP instructor could. Each semester's experience has helped us to "tweak" the project to make it more and more helpful for our students.

After the project's completion in the fall semester of 2005, SLP students, voice students, and faculty formally evaluated the collaborative teaching experience. This data was analyzed and reviewed by both faculty members. Students who were identified as being "at risk" for having a voice disorder were referred for further voice evaluation.

## **Results**

### ***VHI Scores***

The *VHI* (Jacobson et al., 1997) was administered to all students to raise awareness of voice problems and to identify any students who may be at risk for developing voice disorders. This screening tool is a self-assessment of how an individual perceives the effect of voice

problems (if any) on daily activities. A score of 0-30 on the *VHI* indicates a minimal amount of handicap associated with a voice disorder, while a score of 31-60 indicates a moderate amount of handicap often seen with a voice disorder like vocal nodules or vocal polyps. A score between 60-120 represents a significant handicap due to a voice problem (UPVC, n.d.). *VHI* scores from the SLP students ranged from 1 to 20 with a mean score of 8. It was judged that none of these students demonstrated clinical symptoms of a voice disorder. *VHI* scores for the voice students ranged from 0 to 51 with a mean score of 16. Four students scoring above a 30, while four additional students demonstrated clinical symptoms of a voice disorder. Three of these students were already being treated by an otolaryngologist for their voice problems. The other students were referred for further evaluation of their voice problem.

### ***Student Evaluations***

All students were asked to evaluate the collaborative, interdisciplinary class experience. Students were asked to rate eight statements as *strongly agree* (SA), *agree* (A), *disagree* (D), or *strongly disagree* (SD). Table 1 shows the questions asked on the voice students' evaluation and how they rated them. The voice students responded positively to the objectives with 84%-100% of students responding *agree* or *strongly agree* to all questions. When asked what they found the most helpful about the experience, some representative voice student responses were, "The difference between misuse and abuse and knowing how to take care of my voice," and "Finding out why voice disorders occur and how to prevent them was very helpful." Many students stated that they were unaware of some of the things that they did to abuse or misuse their voices.

**Table 1. Voice Students' Responses to Evaluation of Collaborative, Interdisciplinary Experience (SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, NR = No Response)**

Questions	% SA + A	%SD + D	%NR
1. Questions on the VHI made me consider some potential difficulties I may have with my voice.	84	12	4
2. I have a better understanding about the functions of the larynx.	96	0	4
3. I have a better understanding about the anatomy and physiology of the voice mechanism.	96	0	4
4. I understand the difference between vocal abuse and vocal misuse.	100	0	0
5. I have a better understanding about voice disorders common in singers.	100	0	0
6. I learned new ways to prevent voice problems.	100	0	0
7. I will change my vocal hygiene habits as a result of the information learned in this presentation.	92	8	0
8. I have a better understanding of the treatment options for individuals with voice problems.	100	0	0

**Table 2. *Speech-Language Pathology (SLP) Students' Responses to Evaluation of Collaborative, Interdisciplinary Experience* (SA = *Strongly Agree*, A = *Agree*, D = *Disagree*, SD = *Strongly Disagree*, NR = *No Response*)**

Question	% SA + A	%SD + D	%NR
1. Questions on the VHI made me consider some potential difficulties I may have with my voice.	82	9	9
2. I gained new understanding about how Voice teachers' goals/objectives are related to SLPs' goals/objectives.	100	0	0
3. I gained new understanding about how speech and singing are related.	100	0	0
4. I gained new understanding about how to treat voice disorders in singers and other clients.	91	9	0
5. I gained new understanding about how a voice teacher works with singers who have vocal problems.	100	0	0
6. I learned new ways to prevent voice problems in singers.	100	0	0
7. I will pay more attention to my vocal habits since attending this presentation.	82	18	0
8. I will change some of my vocal behaviors as a result of this presentation.	73	27	0

Table 2 shows the questions asked on the SLP students' evaluation and how they responded. The SLP students also had a very positive response to the objectives with 73%-100% of students responding *agree* or *strongly agree* to each of the eight questions. When asked what they found the most helpful about the experience, some representative student responses were, "Having the student come in and talk about her voice problem," and "Learning how to relax the laryngeal muscles, body, and proper breathing techniques."

### ***Faculty Self Evaluations***

We also evaluated the project by answering open-ended questions about the experience. The questions and how we evaluated the experience were as follows: (a) What did you find to be the most beneficial to you in participating in the

collaborative teaching project? Both faculty responded that learning more about the other's discipline was very beneficial. They were also glad that they could identify students who might be at risk for developing voice problems. (b) What would you change about how the collaborative teaching project was implemented? One faculty member had no specific recommendations. The other faculty member stated that she wished that they had more time for collaborative teaching activities as well as more planning time. (c) Did participation in the collaborative teaching project affect your teaching style? The SLP faculty member reported that she would use more interactive activities as the voice instructor did. The voice professor was interested in using more educational technology in his teaching as the SLP instructor did. (d) Did participation in the collaborative teaching project affect your perspective on your content area? Both

instructors stated that they were surprised at how much their disciplines overlapped in the topic areas. Both instructors also commented on how much they learned about the other's discipline. (e) Do you think the collaborative teaching approach was beneficial for the students? Why or why not? Both faculty members felt the experience was extremely beneficial to students. They felt that seeing a voice and an SLP instructor collaborate was a wonderful professional model for them in their future professional lives. The voice instructor stated that he felt that students took their vocal hygiene more seriously since another "expert" was telling them things that he had told them in the past but in a different way. The SLP felt that her students gained new ideas to use in clinical settings by what they did in the music studio.

### **Discussion**

Although this collaborative, interdisciplinary teaching experience did not involve an entire course, it certainly benefited both the SLP and voice students in their respective courses. First, seeing a vocal performance artist and a speech-language pathologist collaborate was a wonderful professional model for the students. The recommendations of three collaborating professional organizations ASHA, NATS, and VASTA were reflected in the classroom and will hopefully make voice and SLP students seek out the other discipline in the future when dealing with singers who develop voice disorders. Another benefit of the project was that eight students are being followed more closely for actual or potential voice problems. Although the vocal performance professor had already identified several of these students, the *VHI* (Jacobson et al., 1997) helped identify others who may be at risk for developing vocal problems. The students also learned a great deal about

a discipline related to but outside their own professional areas. The evaluations of the project showed that both groups of students felt that they gained new information. Further research could look at how well students retain this information over time and if they do change their vocal behaviors as a result of the project.

We both agree that the collaborative teaching project has been beneficial to us in a variety of ways. First, in accordance with Thorburn and Blackburn's (1986) research, both instructors found that they developed increased respect for the other's discipline and that they unexpectedly learned new pedagogical techniques. The SLP instructor, accustomed to teaching about vocal fold pathology, assessment, and clinical treatment techniques, gained new ideas about how to specifically assess and treat vocal performers. She also learned some new, interactive ways to demonstrate voice treatment techniques in the classroom as modeled by the voice instructor in his studio. The voice instructor, who is skilled at teaching students how to maximize the use of their singing voices, learned new information about vocal fold pathology as well as assessment and treatment of voice disorders. He would like to use more educational technology in his teaching in the future to better demonstrate concepts he discusses in his courses.

Our personal, positive experiences with this collaborative teaching project can be generalized to faculty in all content areas. The interdisciplinary collaboration truly allows for faculty to learn more about others' areas of expertise. We all often focus on our own discipline or on topics relevant to our own departments and are not aware of what is going on across campus. This is a wonderful way to bring the strengths of different disciplines together in innovative ways. The project also allows for much needed peer observation and feedback on

teaching skills. Faculty members rarely get feedback on their teaching abilities from other instructors so this is a great way to get that type of interaction and pedagogical input.

We began this collaborative, interdisciplinary teaching project because we thought it would benefit our students. Both of us were pleasantly surprised to find that it not only benefited our students but it also helped us become more knowledgeable, effective teachers in the process. Because of the multiple benefits we have experienced, we both plan on continuing the project in the future.

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