

Increasing Student Engagement in a Survey Course on Communicative Disorders

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Summary: A speech-language-hearing professor used formative and summative writing assignments in a survey course to increase student engagement and deepen students' understanding of communicative disorders.

Background

Survey on Communicative Disorders (SPLH 261) ([link to syllabus](#)) is an introductory survey course that fulfills a major requirement for Speech-Language-Hearing majors and a social sciences requirement for College of Liberal Arts and Sciences students. Most students are freshmen and sophomores, about half majoring in SPLH and the other half trying to decide on a major or majoring in related subjects like biology or pre-dentistry. The course surveys the most prominent practice areas of speech language pathology, audiology, and research in these areas. Typically, this has meant that I have covered a lot of information at a very cursory level. The class enrolls between 35 and 50 students a semester.

The course goals are:

1. Gain an appreciation for the fields of speech pathology, audiology and research on communication disorders
2. Preview the anatomy and physiology and research principles students who stay with the field will be required to learn.
3. Increase interest in the field by presenting interesting case studies and examples and stories in the news.
4. Introduce concepts of normal development in communication processes.
5. Introduce clinical approaches to speech language pathology and audiology.

When I inherited the course it was already in good shape. I have now taught this course for three semesters. In my approach to the course during the Fall 2009 semester, I focused on increasing student engagement and student interest in the material. To this end, I designed formative and summative writing assignments that asked students to make connections between the course content and real-world examples. This portfolio describes my analyses of whether the creation of more opportunities for students to write about the course materials, as well as the inclusion of examples from the media and students' personal experiences, had a positive impact on engagement and understanding of the course material.

Implementation

In order to increase student engagement with and comprehension of the course material, I made several changes to the class structure during the Fall 2009 semester. These changes impacted the work that students were doing in my course, as well as how the resulting learning outcomes were assessed.

One change that I made to the class was to provide students with multiple opportunities to write about the course material. In particular, writing assignments encouraged students to make connections between their personal experiences, popular media sources, and the class content. Formative writing assignments were completed throughout the semester; these assignments were also intended to replace my former method of taking attendance. Students receive points for class attendance and in past semesters, I have asked students to sign-in to document their attendance. This past semester I expanded these experiences such that attendance was now based on students' in-class participation in activities. In this way, students were asked to do more than just show up. One activity that I included was a short writing activity ([link to assignment](#)) related to the film *Mr. Holland's Opus*, which depicts the struggles of a music teacher who is learning to communicate with his son, Cole, who has a hearing impairment. We also discussed several assigned readings from popular books about communication disorders. The first such assignment ([link to assignment](#)) involved an excerpt from the book *The Ha-Ha* by Dave King, in which an individual named Howard suffered brain-damage from a war injury, resulting in an inability to speak or write. In this assignment, students were asked to reflect on questions related to the case of Howard and our class discussions about adult language. In the completion of these assignments, I attempted to model my reading of the text to students, showing them what key points I extracted from the reading.

Along with formative writing assignments, students also engaged in summative writing about the course materials. This past semester, I added a couple of short answer questions to each exam. The short answer questions allowed me to evaluate the depth of student understanding much better than multiple choice questions. I was able to ask students to integrate materials from readings and discussions and apply their knowledge to realistic situations. For example, one question presented students with a short communication sample from a five year old with a speech impairment. Students were asked to explain whether they thought that the child had a speech problem and what phonological processes were present. Conversely, in previous course offerings all of the exam questions were multiple-choice.

Finally, I was also interested in capturing potential changes in student understanding of the key issues related to communicative disorders across the semester, so I created a pre/post survey ([link to survey questions document](#)). Students completed the survey during the first class meeting, and they received credit for completing it. The survey was administered again at the end of the semester. A rubric ([link to rubric here](#)) was developed to assess the levels of student responses on the survey, and to determine where improvements were made across the semester. Using this rubric, I was able to examine what novice, intermediate, and advanced understanding looked like on these core course concepts.

Student Performance

Overall, students did well in the course, with the final grade distribution of 14 As, 10 Bs, 8 Cs, 3 Ds, and 5 Fs. To examine the impact of writing assignments on student engagement, and on their understanding of the course material, I looked at the nature of student writing, as well as the potential shifts in understanding on the pre-post survey.

Formative Written Responses: In-Class Writing

In terms of student writing, I looked at the formative, in-class writing that students completed. My goal with these assignments was to increase engagement with the course material, and I found that students were indeed demonstrating greater connection with the course concepts. In particular, their writing often indicated empathic responses to the individual's condition and demonstrated awareness of the emotional impact of a communication disorder.

For instance, after the screening of *Mr. Holland's Opus*, students were asked, "How do you think Cole's deafness may impact his relationship with his father and his mother and the relationship between his mother and father in the future?" One student wrote: "His mother has a difficult time because she wants to be able to talk with her son, to tell him that she loves him, and to know what he needs. At least in these scenes, deafness creates a distance between his parents. As stated in question one, Cole's deafness is particularly difficult on Mr. Holland because of his love for music. The stress of Cole's deafness is straining his parent's relationship. They seem to fight over money for schooling and what way to teach Cole to communicate." In this response, it is clear that the student is thoroughly considering the wide-ranging implications of communication disorders.

Another example comes from the writing that students did in response to their reading of the novel, *The Ha Ha*. They were asked to respond to the following prompt: "How does Howard communicate? He has had speech therapy but is no longer participating. Why do you think he may have given up on speech therapy?" One student wrote: "He communicates through gestures, such as body language and hand gestures. He gave up speech therapy because he got frustrated with how slow he was progressing. He was very worn down." This response suggests that the student is thinking about the emotional strain that communication disorders can generate, in a way that is empathetic to Howard's situation.

As these examples demonstrate, the in-class exercises using movie scenes and popular writings have been very successful for raising awareness of social and emotional implications of having a communication disorder. In addition, class discussions following these assignments have been stimulating and lively. I will continue to use similar exercises in the future.

Summative Written Responses: Exam Answers

I also examined student performance on the new, short-answer questions in my exams. As would be expected, there was greater variability in these responses. In particular, students had more difficulty with questions that asked them to apply the information that

they had learned to a novel setting than questions that required the production of a closed list of answers. For instance, one question that required students to apply the course material asked:

"Results from your assessment of a 5-year-old child indicate that he was understood about half of the time and that he said the following:

"ca" instead of cat

"wabbit" instead of rabbit

"shoe" instead of "shoes"

"bo" instead of "bowl"

"dod" instead of "dogs"

Based on these productions and his intelligibility, do you think the child has a speech sound disorder? Why or why not?"

An example of a student's response that indicates a high-level of understanding of the developmental time course of language and language impairment was as follows: "Yes because the child has final consonant deletion tendencies, even for sounds that he should be able to produce, such as 't'. Some errors, such as saying 'w' for 'r' are OK at 5 years old, but he should develop these sounds soon. The substitution of 'd' for 'g' also indicates a problem. At 5 years old, there should not be this many errors." In comparison, an example of a response from a student who is not considering the normal time course of language development was: "No because it is probably something more than a speech sound disorder because the mistakes were so varied and inconsistent."

Pre- and post-test results

To focus my analyses of the pre- and post-test data, I examined five of the questions that I consider to be key concepts in my course. These questions were:

1. What is communication?
2. What are some of the major communication problems of children with autism?
3. How might someone communicate if they couldn't speak?
4. What are some parts of anatomy involved in speech production?
5. What are some parts of anatomy involved in language production?

Each response was coded as novice, intermediate, or expert, and the results comparing the Fall 2009 pre-test and Fall 2009 post-test are provided [here \(link to 2009 Histograms\)](#). To control for differences in the number of students responding to the survey at the beginning and end of the semester, the y-axis depicts the percent of student responses in each category.

As is clear from the distribution of responses, the percentage of students in the novice category has decreased for all five questions. I am particularly encouraged by the shift in understanding in response to the question, "How might someone communicate if they couldn't speak?" Looking at the post-test responses, about 95% of students are in the intermediate or expert category, with almost 50% at the expert level. An example of an expert answer to this would include three or more different modes of communication such as sign language, graphic selection, computer assisted voice output, gestures, writing, Morse code, etc." For instance, one student wrote: "Picture exchange, pad and

pen, sign language, gestures," which are all alternate forms of communication that we discussed through the semester. In contrast, a novice response is one that provides only one type of communication, and often consisted of: "sign language."

Alternately, it appears on the post-test that students are still struggling with the question, "What are some parts of anatomy involved in language production?" An "expert" answer would include the brain, perhaps particular parts of the brain, and parts of the vocal tract and other body parts such as hands for sign language. For instance, an expert response from a student was: "Broca's area, Wernicke's area, tongue, teeth, lips, vocal cords, hands, eyes." However, the percentage of student responses that met the expert criteria was lower on this question than on the other four. In contrast, I was more likely to see novice responses, such as "tongue and lips." These analyses indicate that I need to provide students with more practice and support related to the anatomical structures required for language production, beyond the obvious articulators.

Reflections

Overall, I am happy with how the writing assignments increased student engagement with course material, and I will continue to include these types of assignments in the course. I am also happy with the improved understanding that students demonstrated at the end of the course, as evidenced by shifts on the pre-post survey. After reviewing the Fall 2009 pre-post survey results, I can see that I have done a good job emphasizing some areas, such as alternative ways to communicate and characteristics of children with autism. However, I see I need to stress some anatomy basics more, perhaps by referring to the anatomy involved in each disorder as it is discussed.

As the pre-post test survey has been very useful to my understanding of what students are taking away from the class, I have continued to administer the survey in other course offerings. Given my interest on increasing students' connections to the material, I added two additional questions to the survey: "Imagine that you suddenly can't speak. What could friends and professionals do to help you to communicate?" and "Imagine that you just met someone that has a great deal of trouble communicating with speech. What are some of your thoughts and feelings in meeting this person?"

I have also analyzed the Spring 2010 responses to the five questions that I previously focused on, and those results are presented [here \(link to Spring 2010 histograms\)](#). These analyses indicate improved understanding in all five domains, and again I see particular improvement in the question "How might someone communicate if they couldn't speak?" In fact, there were no novice-level responses provided to this question on the post-test in the Spring 2010 semester class. However, it appears that there is great variability in responses to the question that asks students to describe the anatomy required for language, so I will continue to emphasize that material in future iterations of the course. Also, the highest percent of novice responses on the post-test appears in response to the "What is communication?" question. My suspicion is that this question is too broad, and students may not understand what I am asking. In particular, this question is much broader than the other four questions that I have focused on in my analyses. I plan to modify the wording of this prompt on the survey for future classes.

Finally, while I am happy with the direction of the course, I find it challenging to modify the current course structure in order to allow time for some of these new activities. One of my goals for the next semester is to narrow the focus of the course to some of the key concepts so that it doesn't feel as though I'm trying to cram it all in. Affecting the decision of what material to focus on in the course requires building time for students to develop basic understanding before they can do more advanced application of the material. It's a balancing act.