This information is being provided to ensure that members of the Cornell Faculty are well-informed about federal disability laws and strategies to support students with disabilities.

Case Study in Universal Design for Instruction: Class Presentations

The ability to speak effectively in public is a valuable asset. Cornell offers courses in which developing public speaking skills is a primary focus. Other courses use assignments that incorporate presentations as a way to promote learning and assess outcomes. Speaking in public can be a challenge for students with certain disabilities, such as social phobia, panic disorder, effects from a traumatic brain injury, and stuttering. Accommodating students with disabilities in making presentations requires understanding, flexibility and creativity.

Using the concept of universal design for instruction (UDI) – that is, designing an inclusive curriculum that eliminates or reduces barriers to academic success for all learners – an instructor recently worked with staff in Student Disability Services to accommodate a student with an acute panic disorder in a group project that included a class presentation. The initial design was fairly standard: find others to form a group and decide how to divide up the work, including who will present in class. Because public speaking was not a focus of the course, it was easy to decide that this student would not be required to make a presentation to the class.

The challenge was how to design the process so that the student wouldn't be "outed" as a student with a disability. For example, if he was allowed to write a paper in lieu of participating in a group, others might question why he had that option and they did not. If he joined a group, he might feel pressured into divulging sensitive information to explain why he does not want to present in class. Because of his experience with group work in Cornell classes before the onset of the panic disorder, this was especially troubling to the student.

The UDI Approach

To address these concerns, the instructor modified the project requirements to include these key elements:

- Acknowledgement that individual strengths vary.
- Strong encouragement to identify and utilize individual strengths in carrying out this project.
- A range of roles for group members. In this case, research, writing, presentation and specialized areas pertaining to creative choices (e.g., videography, dialogue writing).
- Not all members required or expected to present in front of the class.
- All members required to contribute research and writing in some way, but someone would take the lead on each.
- Assignment by the instructor into groups. This gave the student with a disability placement into a group with at least two members the instructor felt had demonstrated presentation skills.

Outcomes

The results of this approach were surprising. The instructor had used this approach to accommodate a student with a disability. The student was very appreciative and reported a positive experience beyond his expectations with his participation in the group project. Unexpected was how positively other students experienced the project and gave feedback about how it enhanced their learning. Some student comments:

This presentation went so smoothly I actually am now rethinking my previously negative attitude towards group work, as I had previously dreaded it. Through our individual efforts and employing the skills we were most proficient with, we were able to construct a unified presentation that maximized the best of our abilities. **Continued**

Learn more about teaching students with disabilities

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The recently updated *Faculty Resource Guide to Teaching Students with Disabilities* has information about types of disabilities and their impact on student learning. The guide also has suggestions for inclusive instructional strategies that help all learners and reduce the potential need for individual accommodations.

The guide, along with other helpful information, can be found on the SDS website at sds.cornell.edu/faculty

UDI in Class Presentations: Student Comments

To be honest I always find it difficult to work on group projects because in the past I have had bad experiences where group members did not do any part of the project and I had to do it all myself. . . Our group was really cohesive and efficiently finished our project in a timely manner because we were all excited about our own specific contributions to the group. This is because, I believe, when members are participating in a group in a manner that best suits their personalities they will be more excited to contribute.

As a group, we especially made sure to apply the ideals of Universal Design for Learning, in the manner of having 'multiple methods of presentation.' We conducted an oral presentation that included a skit to help visually characterize a problem existing in our education system today, showed a video to visually explain a possible solution, and provided a handout for students to read the information we were presenting and take additional notes. Each approach aided us in creating a dynamic presentation that could appeal to variety of learning styles—the goal of Universal Design.

Utilizing universal design in the classroom can have a significant impact on learning. Its principles support Cornell's goal of creating inclusive classrooms and will often reduce the need for disability accommodation. More information can be found in the SDS Faculty Resource Guide.

Tools for Learning: Recording in Class

Note taking requires a skill set that can include areas of impairment for some students with disabilities. From the physical act of writing to listening and writing simultaneously, students with a broad range of disabilities seek assistance about note taking from SDS.

Because taking notes is an important aspect of the learning process, recording lectures is often an appropriate accommodation. This provides the opportunity for the student to go back to the recordings and develop notes later. Some may use digital voice recorders or other devices like smartphones, tablets or laptops to record. Instructors can assist students who record by ensuring they have seating near the front of the room to obtain a good recording.

Regardless of the tools they use,, students who record in class should always inform the instructor that they are recording and, if necessary, sign a confidentiality agreement that promises that the recordings are for personal use and will not be shared with anyone else.

An advanced tool for note taking is called a SmartPen by LiveScribe™. It has a digital recorder built into the upper part of the pen. A student can sit in class listening to the lecture while the pen records what is being said as they take notes using the pen. There is a camera in the writing end that electronically captures what is written on special notebook paper. While the user writes, the pen syncs the audio with what is hand written. Afterword, by tapping anywhere on the notes, the recording will replay the audio of what was said at that moment. This is a great tool for students to use to fill in the notes they missed. One SDS student said this about his use of the LiveScribe™ Echo SmartPen: "It has changed my whole academic experience. I attribute using the pen to much of my success."

Additional information about the SmartPen can be found on the LiveScribe™ web site: http://www.livescribe.com/en-us/

Technology: Polling Students in Class

Polling in the classroom is an effective way to obtain immediate feedback about student learning during lectures. However, using student response systems (e.g., i>clickers) can present difficulties in reading, understanding or responding quickly for some students with disabilities.

The challenge for some students will be accessing the questions and giving a response within a short timeframe. When using polling, consider the following strategies:

- Invite students with disabilities to discuss with you any concerns they have about its use.
- Present all questions and answer choices in writing.
- Read aloud all questions and answer choices.
- If video or audio is used, provide a transcript or captions.
- Allow enough time for all students to respond.
- If quick responses are necessary, do not penalize students who do not respond in the time allotted if they have provided accommodation letters that include extended time for quizzes, or find an alternative way for them to respond.

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If you have questions about these or any other accommodations, do not hesitate to contact the SDS staff. Our goal is to help identify effective solutions for barriers to equal access caused by disabilities.