

# **PRACTICE BRIEF**

## **Community Collaboration, Use of Universal Design in the Classroom**

**Rachel E. Smith**  
**Tara Buchannan**  
**Western Illinois University**

### **Abstract**

Barriers to classroom participation for postsecondary students with disabilities are often addressed through accommodations via disability resource offices. However, the use of individualized accommodations as the sole method for resolving access barriers in the classroom is neither sustainable nor equitable. Furthermore, this somewhat flawed methodology creates systemic barriers, places the locus of control in the disability resource office, and reinforces stereotypical thinking about disability. An evaluation and redesign of course material by faculty may decrease the need for retrofit accommodations, create a community environment of empowerment, and change the nature of the relationship between faculty, students with disabilities, and disability resource center professionals. This practice brief details the results of a collaboration between a faculty member and a disability resource professional on course design to create sustainable, equitable, and just learning environments at Western Illinois University, a Midwestern comprehensive university.

*Keywords: Disability, universal design, higher education, collaboration, accommodation*

### **Problem**

The postsecondary accommodation process for students with disabilities typically follows a medical model (Guzman, 2009) through which the student becomes the focus of interventions that are determined by a disability resource professional. This model requires constant administrative oversight on the part of the disability resource staff, places additional responsibilities on students with disabilities beyond what their non-disabled classmates experience, and often puts disability service providers at odds with faculty. In addition, the process itself creates a systemic barrier and serves to perpetuate the myth that persons with disabilities require assistance. The locus of control is placed within the disability resource department rather than with the primary constituents in a classroom setting, the students and faculty. Furthermore, accessibility modifications made through this approach tend to be retroactive and consumable in that each semester they must be reapplied. Although we cannot expect to completely eliminate the need for individual classroom accommodations at our institutions, we can and should

explore avenues to create more equitable and sustainable access in the classroom.

### **Proposed Resolution**

Universal design (UD) refers to a design approach that strives to ensure that environments are useable by the broadest possible spectrum of people rather than being designed to accommodate the needs of either disabled or non-disabled people alone (Lusher & Mace, 1989). While UD has its roots in the field of architecture, its application to education is readily apparent in the variety of ways the concept has been reinterpreted recently: Human Centered Design, Universal Design for Learning (UDL), Universal Design for Instruction (UDI), and the broader approach of Universal Design for Education (UDE).

When used in the process of course design, a UD approach can minimize the need for separateness and accommodations for students with disabilities. Additionally, "Universal Design (UD) shifts our focus from the person with a disability, the focus of the medical model, to the environment within which she or he lives"

(Harrison, 2006, p. 152). It can also lessen administrative demands because usability is considered during the design phase of course production rather than only later, when the course is being offered.

In a UD approach to course design, faculty proactively create a usable and accessible course product, ideally in consultation with the institution's disability resource department. The basic access that this creates places the locus of control with the student; the more immediate, independent navigation of college classroom requirements that is promoted through this method promotes self-efficacy and advocacy, and if specific individual accommodation remains necessary, students can choose when and if they collaborate with faculty and disability resources.

If this design technique offers so many benefits, why aren't more people using it? Simply put, they don't know how. While several sets of guiding principles for UD have been developed to assist in implementation, UD is a dynamic process and a theoretical framework. Each class and classroom environment is unique and must be designed according to the needs of the course content. This practice brief illustrates an attempt by a faculty member and a disability resource professional to work collaboratively to customize UD techniques to course content and individual classroom environments at the university level.

### **Faculty/Disability Resource Collaboration**

A Western Illinois University (WIU) faculty member and the WIU Disability Resource Center director participated in a 3-year program called Project SHIFT (Shaping Inclusion Through Foundational Transformation) designed to transform disability resource department practices and the instructional environment utilizing UD principles. On the last day of training, the faculty member and the director developed a course re-design action plan that focused on a review of course elements by the instructor and the collaborative development of design ideas to reduce the need for separate accommodation requests. Once the action plan was developed, the instructor took the responsibility for redesigning courses while the disability service professional was available as a consultant. The faculty member and the disability service professional communicated several times throughout the semester to discuss course design and the outcomes of the initiative.

### **Strategy**

Five courses in the WIU Department of Recreation, Park, and Tourism Administration were modified utilizing UD techniques in preparation for the 2010-2011 academic year. These courses were selected due to the instructor's willingness to collaborate with the Disability Resource Center. The courses demonstrated a variant sample in student population as well as course material, length, and teaching delivery methods (See Table 1).

The implementation of course changes began with a theoretical application in which each course was evaluated in terms of delivery method, assessment of learning outcomes, and communication methods with an eye to maintaining the academic integrity of the course. Questions asked included: What is the point of the course? How is the point conveyed? What is critical to assessment? What can't be changed? What won't be changed? How will changes impact all students? What assumptions are being made about students? Changes applied to the design of individual courses depended on the nature of the course and the resources available. All changes made to course design were available to all students enrolled in the courses, regardless of disability status. The following sections describe the changes made to the delivery, communication, and assessment methods used in these courses in general terms. See Table 2 for a list of all techniques applied to project courses.

### **Delivery Methods**

**PowerPoint.** PowerPoint slides used to complement lectures were evaluated to ensure that they were accessible with screen reader software, and all presentations were placed on the electronic course management system (CMS) to be accessed by students at any time during the semester. Students were helped to understand how they could most effectively use the slides to assist their learning.

**Lectures.** Lectures were recorded and made into podcasts that were placed on the server in multiple formats. Videos were evaluated for captions.

**Course Management System.** An online CMS was used to ensure student access to information. During the 2010-2011 academic year, WIU used a Blackboard CMS product. Because the product had limited accessibility features for students who access the Web with adaptive technology, accommodations were used for those students. All resources on the CMS site were provided to students by way of direct email from the instructor if requested.

Table 1

*Test Presentation and Auditory Design*

Course	Enrollment	Level	Description
Concepts of Leisure	Maximum 22	Freshman, general education, First Year Experience	Traditional lecture with off-site group exposure to a variety of recreation environments
Introduction to Therapeutic Recreation	20 to 60, depending on the semester	Predominantly juniors	Traditional lecture and extensive hands-on, outside-the-classroom learning experiences
Programming Principles and Applications	20 to 60, depending on the semester	Predominantly juniors	Traditional lecture and extensive hands-on, outside-the-classroom learning experiences
Internship Seminar		Senior seminar	Eight week intensive course designed to prepare students for internship and career placement
Issues in Leisure Services		Senior seminar	Eight week intensive course designed to expose students to ethical issues.

Table 2

*UD Techniques Applied to Project Courses*

UD Techniques	
Delivery of Content	<ul style="list-style-type: none"> <li>• PPT slides constructed using Outline function</li> <li>• PPT slides posted to CMS</li> <li>• Students advised to print slides, bring to class for notes</li> <li>• Slides give outline of what to expect in lecture, don't repeat it</li> <li>• Lectures recorded using Mac OS X Podcast Producer and mic, PPT slides synched with audio</li> <li>• Lecture podcasts posted to CMS and available through RSS feed</li> <li>• Lectures available in multiple formats: audio, video + audio, plain text transcription (used Dragon Naturally Speaking)</li> <li>• YouTube videos captioned using a captioning service</li> <li>• Ensured access anytime through materials on CMS: lecture notes, handouts, web links, videos shown in class, podcasts of lectures, transcriptions of podcasts, discussion and announcement boards, gradebook</li> <li>• Resources on the CMS provided by email upon request</li> <li>• Selected textbooks that were available to all students in both print and electronic formats</li> </ul>
Communication	<ul style="list-style-type: none"> <li>• Course expectations communicated in multiple ways: in course syllabus (print and electronic), explained verbally in class and with PPT</li> <li>• University accommodation statement in syllabus</li> <li>• Usability statement highlighted in class</li> <li>• Introduction to the environment (building layout, restrooms, emergency procedures)</li> <li>• Collaborative notetaking process</li> <li>• Notes posted to CMS</li> <li>• Students comment on notes as part of class participation</li> <li>• Class announcements and changes verbalized in class, posted to CMS as part of podcasts</li> <li>• Announcements typed, posted to CMS</li> <li>• Group email and text lists used for immediate changes</li> <li>• Text-only phone number created for class use</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>• Assignments designed to allow choice of modes/medium (e.g. project, paper, or service activity)</li> <li>• All students given as much time as needed to complete exams</li> <li>• Instructor remained flexible in receiving accommodation requests</li> </ul>

**Textbooks.** When possible, textbooks available to all students in a choice of print or electronic format were chosen. This is because electronic texts can be read by screen readers and enlarged using screen magnification software, require low physical effort, and are often more economical for the student. Multiple textbooks can be transported easily using a reader device, and tablet devices offer in-text highlighting, note-taking, and group work options.

## Communication

**Course expectations.** Course expectations were communicated to students in a variety of ways. The University's accommodation statement was included in all syllabi, and the instructor highlighted a usability statement that emphasized the desire for usable learning environments and encouraged all students to be advocates:

It is the policy and practice of this instructor to create inclusive learning environments. If there are aspects of the instruction or design of this course that result in barriers to your participation or accurate assessment of achievement, please notify the instructor as soon as possible.

Furthermore, the first day of each course also included an introduction to the environment, including building layout, restroom locations, and emergency procedures.

**Notes.** Note-taking accommodations were completely eliminated by use of a collaborative note-taking process in which students were assigned to note-taking groups at random intervals. Students in each group decided who would be the primary note-taker(s), and after class, group members collaborated to create a final draft of the notes and post it on the CMS discussion board. In addition all students were encouraged to comment on the notes as one form of class participation.

**Changes and announcements.** When announcements and changes to due dates and/or schedules were verbalized during class, these items became part of the podcast and thus recorded and transcribed. The announcement was then typed and placed on the CMS announcement board. Group email and text lists were used to convey immediate changes. A text message application generated a text-only phone number that allowed students to have text access to their instructor without disclosure of the instructor's personal cell phone number.

## Assessments

**Choice of assessment method.** Where possible, assignments were designed to allow student choice. For example, a student could choose to complete a project, write a paper, or participate in a service activity. This allowed the student to decide which method would best demonstrate their learning in the course.

It has been observed that extended testing time is one of the most requested accommodations (Lindstrom, 2007). Because length of exam time was not a crucial element for the courses in this project, all students were given as much time as they needed to complete exams. When the classroom was used immediately following the exam period, students were given the option to complete the exam outside the instructor's office in an outer office area secluded from the main hallway. Similarly, students were able to use this space to start an exam early.

## Accommodations.

In all courses in this project, the use of UD techniques minimized but did not entirely eliminate the need for accommodations. For example, one student chose to take exams in the Disability Resource Center for its reduced distraction and private testing environment. This was not viewed as a flaw in the project, but rather as an example of student advocacy and choice. The same student chose not to request a copy of class notes as the collaborative note-taking process eliminated the need. The student voiced her appreciation for the techniques used in class as a way of making her feel that she belonged and was part of the group. This example demonstrates the multifaceted collaboration between the instructor, Disability Resource Center, and student and illustrates one of the many positive outcomes from using UD in the classroom.

## Outcomes

Using UD to redesign the project courses changed content delivery to meet student needs proactively rather than reactively, and as a result, in most of the project courses retrofit accommodations were no longer necessary. Prior to changes in course design, 100% of eligible students in the courses used testing accommodations. This changed dramatically when UD techniques were utilized: only one eligible student used testing accommodations in the altered courses.

At WIU the most commonly requested accommodations are extended test time and a copy of class notes.



While 13 students with disabilities in the project courses had approved note-taking accommodations, none of them used that accommodation in these courses--in comparison, note-taking accommodations were used by this same sample of students in other courses where UD techniques had not been applied. Techniques such as collaborative note-taking also produced an increase in student involvement as a community, and students with disabilities expressed a feeling of equality because provision of notes was no longer seen as something different or negative when it was done for the entire class. Class discussion regarding the effectiveness of note-taking resulted in one student disclosing her learning disability to her peers and voicing relief that her notes were of the same caliber as theirs. Having been told by past teachers that she was not capable of taking collegiate level notes, it was liberating for her to view how other students take notes and to contribute to the success of a group in note taking.

Furthermore, we know that students used the notes (both PowerPoint and text) that were posted in the CMS. Of the total time spent viewing materials from one of the project courses, freshman students accessed the PowerPoint slides 36.2% of the time and the notes section 17.53%. To put this in perspective, the students in this course spent only 14.95% of their time accessing their grades. The notes were being used!

Having lectures available via podcast allowed students to replay lectures to reinforce their learning. Since the students could access the podcasts either through a link on the course website or through a direct RSS feed emailed to them, data was not available on usage. This presentation method benefitted students who learn from repeat information and was also helpful when a student missed a class meeting due to illness, death in the family, or other unforeseen circumstance. According to anecdotal student feedback, both students with and without disabilities benefited from the flexibility of presentation for missed classes.

It was initially thought that community note-taking and podcasting of all class sessions would negatively impact student attendance. Attendance levels remained normal, however, possibly due to the fact that students were randomly assigned note-taking duties on the day of class and were assessed on the quality of their note-taking. These results are similar to those presented by Rose (2006), which noted that students continued to attend class despite lectures being available in video format via the internet. Students said they used the

recorded lectures for study sessions before exams or to catch up on days missed, not as alternatives to class attendance. One student who disclosed a hearing impairment to the instructor stated that she did not use Disability Resource Center services for that class because the combination of community note-taking and podcasting allowed her to thoroughly review daily lectures to ensure that she did not miss key points when looking down to take notes.

Video captioning provided another mode through which information was delivered to students. While no students requested a video captioning accommodation, this modification may have assisted some students in attending to the videos being shown. Transcriptions and e-text were also offered for all students, although there was no way to collect data on the usage or results or impact of these modalities. Allowing unlimited time to complete exams eliminated the need for the Disability Resource Center to administer exams, although exams were still administered when a quiet room or a scribe was requested by the student.

Students consistently performed better when choice was offered on assignments as compared to assignments with no choice. One possible explanation is that students chose assignments that more accurately reflected their learning preferences and that provided a more accurate reflection of their learning. Having the opportunity to choose may also have impacted their motivation in a positive manner. Overall, students reported feeling more comfortable and safe in the learning environment. This was achieved in part by meeting their basic needs for information regarding bathroom location and emergency procedures on the first day of class.

### Implications

The goal of this pilot project was to investigate the practical application of UD principles, and we have seen that faculty collaboration with the Disability Resources Office on course design provided sustainable, usable courses for students with varying learning needs and preferences. Despite diverse course formats and student populations, practical application of UD proved to be flexible and usable beyond the theoretical framework. And while the changes discussed in this practice brief were limited to one faculty member in one department, the results appear to be applicable across disciplines. We therefore believe that collaboration between faculty and disability resource profes-

sionals can assist in propelling the UD movement from theory into practice.

Training faculty on the use of UD ensures that real change will occur at the course level, resulting in fewer requests for accommodations. Less need for accommodations will, in turn, free up the resources of disability resource offices to focus on training and consulting and will encourage both faculty and students to become vested in the UD process. This shift in the locus of control away from the disability resources office does not diminish their role in supporting students with disabilities, however. In fact, it allows each party to serve as the experts in their appropriate areas: disability resources in the area of accessibility, faculty in their academic disciplines, and students in their learning. Disability resource staff can then be viewed as consultants to both faculty and students when they need additional support.

As a follow up to this pilot project, a faculty partners program is being developed in which faculty will be trained on UD principles and their individual courses evaluated and redesigned with UD techniques, all using a collaborative approach. The goal of the program is for faculty members who have received formal training on UD to take on the role of design experts and share their best practices with colleagues.

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## About the Authors

Rachel E. Smith received her BS degree in psychology and MS in recreation, park and tourism administration both from Western Illinois University. She is a certified therapeutic recreation specialist. Her experience includes 17 years as an advocate and educator in the many facets of disability. She is currently associate faculty and Internship Coordinator in the Department of Recreation, Park and Tourism Administration at Western Illinois University. She can be reached by email at: Re-Smith@wiu.edu

Tara Buchannan received her BS degree in physical education and her MS degree in rehabilitation administration and services from Southern Illinois University at Carbondale. She has 12 years of experience in disability resources in higher education. She is currently the Director of the Disability Resource Center at Western Illinois University. She can be reached by email at: T-Buchannan@wiu.edu.