



## UNIVERSAL DESIGN in EDUCATION - FAQ

### 1. What is Universal Design?

Universal Design in Education (UDE) stems from a larger universal design movement that has its roots in architecture. “Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design”<sup>1</sup>. Its intent is to simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost. Though there are a few varying theoretical frameworks for universal design, all of them share that universal design benefits people of all ages and abilities. More about the origins of Universal Design can be found at The Center for Universal Design, North Carolina State University website<sup>1</sup> - [http://www.design.ncsu.edu/cud/about\\_ud/udprinciples.htm](http://www.design.ncsu.edu/cud/about_ud/udprinciples.htm).

### 2. Why Universal Design in Education (UDE)?

“When all the principles (of Universal Design) are applied to instruction, physical, sensory, and cognitive barriers within on the learning environment are reduced. Specifically, instruction is provided in ways that meet learning needs of visual, auditory, tactile, and kinesthetic learners. This might include use of the Internet, multimedia presentations, presentations, handouts, discussions, and experiential activities. These can be combined to provide comprehensive and equitable instruction . . .”<sup>2</sup>

Universal design strategies in education have grown more prevalent in conjunction with the scope of rapidly changing and available educational technology and media, and also with the advent of Learner Centered Education<sup>3</sup>.

Applying universal design to post-secondary education can significantly improve the access for all students to higher education. Components of post-secondary education to which UDE can be applied, and is applied, include: (a) built environment and learning spaces; (b) information environment, (c) curricular environment, and the (d) service environment.

The current medical model of disability places the emphasis on the individual having a disability. Their disability must be affirmed and documented by medical professionals,

and this documentation must then be delivered by the individual to the disability service offices. Eligibility is then determined and it is then that accommodations are decided upon through interaction with disability service professionals, and in the case of post-secondary, with the input of instructors. This medical model applies now to educational services and to vocational rehabilitation services.

Universal Design utilizes a proactive approach to accessibility for all. It is also compatible with a social model of disability, rather than the current medical model that is applied to providing individualized accommodations. In short, the social model of disability places the emphasis on the environment, which may hold barriers to accessibility and may cause a person inability to access. Some would say that this social model has been representative of the civil rights movement and that people with disabilities should be afforded access similarly. Who does UDE benefit?

UDE benefits all students of all ages, with and without disabilities, including students from different cultures and those with diverse learning styles. Examples of individuals who need more UDE options include: A blind individual who wants to read a master's thesis or a doctoral dissertation from the library; a prospective student who is scanning a university Web site to download and complete a university application; a student with a learning disability sorting through the complex maze of financial aid forms; a student with a visual impairment trying to read PowerPoint slides; a student in a wheelchair, who must sit in the back of a big stadium-style lecture hall, trying to turn in an assignment to the Instructor in the front of the room; or a student who cannot use a standard keyboard in a computer lab. Examples of students without disabilities who may also benefit include people who speak English as a second language and people who are not primarily auditory and need more than a lecture format. As UDE is developed, we are certain that unimagined benefits will be discovered for all students.

Design for disability is good design for everyone!

### 3. Why should faculty and staff involved in higher education learn about UDE?

The number of students with disabilities in post-secondary education is increasing, particularly students with so-called hidden disabilities (e.g. learning disabilities, mental health disabilities, and chronic medical problems). With this increase, the current system of one-on-one accommodations becomes strained, with its limited resources. Also, we know that many students do not come forth to obtain disability services within the current system due to stigma and the need to self-identify and provide documentation of their disabilities. Creative approaches are needed to facilitate the inclusion and success of this large proportion of students with disabilities. A climate of inclusiveness will benefit a campus in a myriad of ways.

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Universal design benefits people of all ages and abilities. Just as sidewalk curb cuts, which were designed for people with wheelchairs are benefiting all of us, so will universal design approaches to education benefit all students and all of the campus community.

4. How can faculty and other campus personnel implement universal design approaches?

Universal design principles can be applied to any product or environment - curriculum, instruction, career services offices, multimedia, tutoring and learning centers, conference exhibits, museums, vending machines, computer labs, work sites, Web pages, etc. A large selection of material promoting universal design is available on the Web and the number of resources is increasing. We are working to fill the gaps, by providing hands-on materials and resources to aid staff in adopting universal design practices. Though different theories vary in their approaches to the principles of universal design in education or instruction, they all promote certain ideas of flexibility, diversity, engagement, usability and simplicity.

Applying UD in the built environment includes all external campus areas such as sidewalks, routes, parking lots, buildings, dormitories, food service, and campus signage. It also includes inside instructional areas such as lecture halls, laboratories, restrooms and furniture. Think about the layout of furniture. Is it accessible and safe to a wheelchair user? Are the safety features in your lab inclusive of visual clues (lights blinking, for instance) for deaf students as well as sound alarms for your blind students? Is the reception desk at a good height for someone in a wheelchair to be seen? Is the signage available in Braille and placed appropriately for all to see? (See Classroom Tips Posterette)

The information environment includes all media, both electronic and nonelectronic information. Examples are the Internet sites, registration processes, financial aid application forms, textbooks, university policy and procedures, human resources documents, library journals, radio and television shows, and master's and doctoral theses. Are your forms, videos, documents and web pages accessible? Many easy to use tools are available at our ACCESS-ed website to assist you. Link to [http://access-ed.r2d2.uwm.edu/Tools\\_Resources/](http://access-ed.r2d2.uwm.edu/Tools_Resources/) to see tips and hints.

Are you captioning your videos? Are you creating your documents by using the Styles feature in Word? "Styles" is a useful tool for organization and also allows a blind student using a screen reader to understand that organization just as the sighted person would. (See the "Accessible Documents Using Styles" Posterette). Are you creating web pages with accessible pictures and graphics? Using Equivalent Text Descriptions enables a blind person to know the graphics and their purpose. (See the "Writing EqTDs" Posterette). Both of these resources are available on the website at [http://access-ed.r2d2.uwm.edu/Tools\\_Resources/Tips\\_Posterettes/](http://access-ed.r2d2.uwm.edu/Tools_Resources/Tips_Posterettes/).

The curricular environment includes attention to pedagogy and best teaching practices, as well as all course materials supporting instruction (e.g., the materials an instructor

provides in a PowerPoint slide show, information placed in front of a class on a white board, syllabi and class handouts).

Are your PowerPoint slides created with a font size that is accessible to everyone in the classroom? Minimum 18 point font and minimum 6 lines per slide is recommended. Providing the slides hand-out ahead of time allows a blind student or a deaf student time to understand the presentation as it is actually delivered. It also allows a student with a learning disability, who may have trouble taking notes while attending, the opportunity for a different way to refer back to important material. Do you explain the pictures in your slide show so that the student who is blind or the student taking notes knows what you are showing? (See the Slides Posterette [http://access-ed.r2d2.uwm.edu/Tools\\_Resources/Tips\\_Posterettes/](http://access-ed.r2d2.uwm.edu/Tools_Resources/Tips_Posterettes/) ).

Is your syllabus accessible? Do you use “Styles” and inform students how to get assistance, if needed? (See Syllabus Posterette) With exams, except where graphic interpretation is being tested, are alternative text descriptions provided for test items based on tables, graphs, or pictures? (See Accessible Tests Posterette). Both of these resources are available at the ACCESS-ed website [http://access-ed.r2d2.uwm.edu/Tools\\_Resources/Tips\\_Posterettes/](http://access-ed.r2d2.uwm.edu/Tools_Resources/Tips_Posterettes/) .

The service environment includes forms and all of the other considerations already mentioned. Is signage available on the first floor and every floor that is adequate to direct a student to appropriate service offices or to the restroom that is accessible? Are service providers disseminating flyers electronically as well as in paper format?

Most teachers, service providers and administrators already are using at least some of the principles of universal design, though they may not define it as such. Campus personnel are using some good strategies that promote a more inclusive campus climate. Learn from your colleagues, too!

#### 5. What is Assistive Technology and how does it relate to Universal Design strategies?

According to the Assistive Technology Act of 1998, assistive or adaptive technology commonly refers to "...products, devices or equipment, whether acquired commercially, modified or customized, that are used to maintain, increase or improve the functional capabilities of individuals with disabilities..." Note that assistive devices are most often made for individuals and are seen as an extension of who they are. Examples include technology, such as wheelchairs or hearing aids, but also include canes or guide dogs and the like.

## 6. Will there still be a need for the Student Disabilities Office services?

The simple answer is that campus disability services will always be needed. There will always be some need for professionals who can provide assistance in meeting the needs of a portion of the students on campus who have a disability or multiple disabilities.

The Student Disabilities Service Providers can have a large role in assisting a campus toward an emphasis on Universal Design in Education (UDE). Their understanding of the model and their knowledge of disability issues and challenges are the most powerful tools to help educate others on campuses.

How this is done deserves a great deal more discussion. Currently there are no major incentives from campus administrations or government to implement universal design in higher education, and this movement might still be considered as being in its initial development stage. We hope you will help to make your campus accessible for all!

<sup>1</sup>[http://www.design.ncsu.edu/cud/about\\_ud/udprincipleshtmlformat.html](http://www.design.ncsu.edu/cud/about_ud/udprincipleshtmlformat.html)

<sup>2</sup>Rickerson, N., & Deitz, J (2003). Integration of Universal Design of Instruction in Occupational Therapy Professional Education: Responding to Student Diversity. The American Journal of Occupational Therapy, 57(5), 594-597.

<sup>3</sup>Chickering, A.W., Gamson Z.F., Seven Principles for Good Practice in Undergraduate Education. <http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/7princip.htm>

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