

From Idea to Implementation - Universal Design in Action

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Abstract

The presenters demonstrated how one relatively small public university has managed to employ universal design concepts in certain settings across campus. Presenters will share their experiences in providing open captioning for commencement exercises as an example of how collaborative efforts can pay off in increasing access to all types of university programming.



Introduction

Sometimes you find yourself in situations that confound you. Dealing with those issues gives you an opportunity to not only meet the specific challenge but also to go beyond your known resources and skills and to achieve something that was originally quite idealistic. At Clemson University, we have been discussing for a long time how to implement Universal Design (UD) concepts on campus in a way that would make UD real, and manageable, and attractive to administration, faculty and staff members. Such an opportunity came to us a few years ago and although it took us a while to implement UD as a response to the challenge, we now have a real, manageable, and attractive response.

Clemson University is a small, top-30 public institution, in the rural Upstate area of South Carolina. We have about 14,000 students on campus. Students are required to come with a laptop and have many requirements for electronic data submission and development while they are at Clemson, including the development of an e-portfolio and the use of podcasts, clickers and other means of electronic communication.

Student Disability Services typically serves close to 700 students per year, providing the wide gamut of services from screen-reader services, to extended testing time, to interpreting to notetaking and other in-class and out-of-class accommodations for students with all types of disabilities. Like most disability service providers in higher education, we typically respond to student needs in as efficient and effective a manner as possible. We work hard to make sure that our students have access to services both in the classroom and out, and we try to help the students learn how to advocate for themselves.

Paradigms for Service Delivery

Some time back, we realized, however, that we were using the old medical model for services – that is, we were functioning in such a way that presumed that the student had a problem that was theirs and theirs alone and that we would try to “fix” that problem when the student asked for help.

The way in which “fixing” the problem worked often jeopardized the student’s confidentiality and sometimes was slow in being implemented.

As a program, we decided to try an approach that would use the concepts inherent in Universal Design and that would encompass a more interactive model of service delivery. The interactive model is much more student-centered and expects that the student be proactive, putting services in place before there is a specific need. The model also expects students to be engaged, involved participants in the services process, dealing directly with professors and advocating for themselves in a manner that is non-threatening to faculty but also clear and direct in specifying appropriate accommodations in the classroom. The approach incorporates the idea that the need is not for a “special accommodation” but rather for something that will allow the student to perform at optimal levels despite the identified disability. The interactive model, as we interpret it, is very effective and appropriate, and incorporates another model... Universal Design.

Universal Design

The concept of Universal Design comes from the work of Ron Mace at North Carolina State University in the early 1990s (The Center for Universal Design, 2008). Mace, an architecture and design professor and the person who coined the term Universal Design, saw that in his field and in others, it would be a better idea to plan for the needs of people in general rather than fix the problems for individuals with disabilities when they arise. The design of products and environments to be usable by all people, to the greatest extent possible, without adaptation or specialized design is his definition of the term.

Some of the basic understandings about Universal Design, especially in higher education, are as follows:

- Focuses on usability, not accessibility
- Is minimally concerned with code/legal requirements
- Is sustainable, stable, and equitable
- Involves entire community/institution
- Based on a user-centered approach
- Idea is to change the environment, not the student
- Removes barriers
- Anticipates rather than reacts
- Is largely invisible

In working to make Clemson’s services more interactive and more in keeping with the Universal Design concept, we adopted a goal of using Universal Design concepts not only in revamping our service delivery but also of educating people in administrative, staff, and faculty positions what that means and how to implement it. We’ve distributed literature to faculty, spoken at meetings, and discussed the UD concept at every opportunity. A few issues about interpreting at graduation led us to a perfect way of not only talking about UD but also of demonstrating it.

Graduation

As on other campuses, graduation—especially the big May/June graduation ceremony—is an opportunity for the University to show thousands of graduates, relatives, and others what a wonderful campus we have and how well we do things. In the Student Disability Services office, however, we had some concerns as related to access for students, and family and friends who are deaf or have hearing disabilities.

If we had a request for interpreter service for graduation, because of the design of our coliseum where the ceremonies are held, the only place an interpreter could stand was on the dais with all the

dignitaries. This proved to be far from ideal in that it was difficult to position the person who requested interpreter service in an appropriate place to have uninterrupted visual access between the interpreter and the person who requested services. It also presented a problem on the dais... where to put the interpreter so that members of the stage party were not looking at the back of the interpreter? One year we tried “the interpreter on a box” method. We put a wooden box behind the dignitaries for the interpreter to stand on. It worked, but it put the interpreter at a greater distance from the persons who requested the service, making it more difficult for the signs to be seen clearly.

Enter Universal Design. As we discussed the issues with interpreting, it became clear that many people who come to graduation ceremonies could use help in understanding the speeches and directions given from the podium but that most would not know to request services, assume that services may not be available, or just not want to request services and make their needs known . Grandparents with hearing issues, English as a second language speakers, those who have noisy children next to them, and those who were just not paying real close attention, in addition to those with hearing problems, could all benefit from open captioning.

We realize that we could have hired someone to come in, bring all the equipment, and do the captioning. We also know that that is an expensive proposition and that our budget could not handle an outside captionist so we decided to do it ourselves. Other than about \$5,000 for a one-time expense for equipment, the costs are minimal; we now have the equipment to use not only at graduation but at other events and in other venues.

Before we did graduation captioning, we had an opportunity to experiment in other areas and with other equipment. Our Alumni Office had requested help with hearing amplification for two of their spring activities which are heavily attended by older alumni who are likely to have hearing issues. We explained the Universal Design concept and asked them if they were willing to let us try the captioning at their events rather than provide amplification systems for a limited number of attendees. Those brave souls were willing, and we captioned three of their events in the year or so before we captioned graduation. Captioning at Alumni Association events was very well received and gave us the confidence we needed to do it in a bigger venue with a much larger audience.

Our coliseum, like many is also our basketball venue... with a lovely, large screen that is used for the scoreboard. The screen sits in the middle of the coliseum, moves up and down, and can be seen from every seat in the building. We set about finding out how to gain access to using that screen so that we could do captioning during the ceremonies in a way that could be easily accessed by the audience and yet was virtually invisible.

Collaboration

The need for collaboration became very clear as we began to work our way through all the questions that came up. It was interesting to us to learn how many different units on campus would be impacted by our efforts and how many would impact out activities.

The Graduation Planning Committee had many questions about how it could work, about the reliability of the system, and about the expense involved. Their questions were quite legitimate and took a while to work through.

The coliseum staff was most helpful in working with us to figure out how we could use our captioning equipment to plug into their system. There were two pieces of equipment missing: an encoder/decoder and a video switcher. Our campus computing department agreed to buy the video switcher since they could see the need for that equipment in the future in some of their activities.

The Dean of Undergraduate Studies was able to fund the encoder/decoder. The cost of a captionist for both ceremonies was approximately the same as the cost of two interpreters for the one ceremony.

Clemson Video Production Services always films graduation ceremonies, so there was no problem having cameras on site. The only difference was getting them to give us a live feed during the ceremony. At one point, a technician had to make a cable with an appropriate plug, but he was very willing to do that. In fact, he checked in with us frequently on the day of the first captioned graduation ceremonies to make sure it was working as it should. Since then we've been able to buy a cable (for less than \$40.00) to replace the homemade one.

Others became involved in the collaboration. The President's Office provided scripts for the ceremonies and for speeches by honorees. The Registrar's Office gave us a list of graduates by college and degree. The Director of the choral group gave us the words for the music. The Student Affairs Office gave us the script for the devotionals to be delivered by students. And the Communication Studies Department gave us a copy of the award-winning speech to be delivered by the student speaker. All this information was pre-loaded into the captioning program so we could follow along during the ceremonies to make sure we were showing the right information. We also had the option of switching to live captioning if one of the speakers chose to *ad lib*.

On graduation day, the coliseum staff provided an operator for the video switcher and Disability Services provided a person to help with logistics, should there be any problems. The logistics person also stayed in touch with members of the graduation committee to make sure there were no changes to the prepared script. Other staff needed to implement the process included the captionist and a reader to make sure that what is showing on the screen is what should be there.

Equipment Resources for Graduation Captioning

The following equipment is what we use. Note that we chose to use the 600 version of the CPC Caption Maker software. We have found this equipment to be both affordable and dependable.

Component	Source	Price	Purpose	Notes
Laptop computer with speed typing or voice recognition software	Various	Already in-house	Support captioning software; live captioning input	Check with CPC for compatibility of speed typing or voice recognition software with Caption Maker software
CPC Caption Maker software	Computer Prompting and Captioning Company www.cpcweb.com	CPC500 \$1995.00 CPC600 \$2995.00	Interfaces with encoder/decoder to place captions over video feed and send to display	CPC 500 handles live captioning ONLY; CPC 600 allows prepared scripts to be sent to screen as they are spoken

Encoder/Decoder Link PCE-845D	Link Electronics www.linkelectronics.com/home.htm	~ \$1200.00	Mixes captioning from laptop with video feed for output to screen	
RS 232 Cardbus PC Card (Koutech Systems Inc)	www.newegg.com	\$34.99	Connects laptop to encoder	The enclosed cable is short and may need an extender cable
Video feed	Video camera(s)		To mix with captions at the encoder	
Display screen			For display of mixed video and captions	Size and type depends on audience

Note: Costs indicated reflect the authors' experience when initiating this activity and may change over time.

Benefits of Graduation Captioning

We are pleased to report that Clemson University now considers captioning at graduation a service that is to be provided whether there are requests for interpreters or not. The comments from audience members-at-large have been very positive. Attendees with hearing issues are pleased that they no longer are singled out to receive services and that they have the option of sitting anywhere they would like in the coliseum, just like every other attendee.

A side benefit that parents appreciate is the opportunity to see their graduate's face on the large screen as they enter the coliseum. They also then get a good view of their graduate as they receive their degree from the university president.

Conclusion

Open captioning for large-scale events such as graduation is a very appropriate and helpful accommodation for individuals with hearing issues. In addition, it is a very appropriate and helpful service for all attendees, regardless of disability issues. We at Clemson encourage you to try it. You and everyone else will like it.

Resources

Bowe, F. (2000). *Universal design in education: Teaching non-traditional students*. Westport, CT: Greenwood Publishing Group.

Preiser, W.F. E & Ostroff, E. (2001). *Universal design handbook*. New York: McGraw-Hill Professional.

Rose, D.H. & Myer, A. (2002). *Teaching every student in the digital age: Universal design for learning*. Alexandria, VA: Association for Supervision and Curriculum Development.

The Center for Universal Design (2008). Retrieved October 1, 2008 from <http://design.ncsu.edu/cud/>

