From Idea to Implementation - Universal Design in Action

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Clemson Today:

- Students required to have laptops
- 14,000 on campus; 650 use services - 9 have HI
- Notes and powerpoints on Blackboard
- On-line classes
- On-line discussion boards
- E-portfolios and individual websites
- Creative Inquiry teams
- Pod Casts
- Graduation Captioning
The Medical Model for SWD

- Disability is a problem - just for the person “affected”
- Focus is on fixing the problem
- Person must ask for help
- Confidentiality is jeopardized
An Interactive Model for SWD

- Student is proactive
- Student is engaged
- Student guides services
- Student is not “special”
Paradigm Shift

- In the perception of disability
- In the environment
Universal Design Definition

- The design of products and environments to be usable by all people, to the greatest extent possible, without adaptation or specialized design. (Ron Mace, NCSU)
Universal Design

• Based on a user-centered approach
• Idea is to change the environment, not the student
• Removes barriers
• Anticipates rather than reacts
• Is largely invisible
Universal Design (cont.)

- Focuses on usability, not accessibility
- Is minimally concerned with code/legal requirements
- Is sustainable, stable, and equitable
- Involves entire community/institution
Universal Design Benefits:

- Students who speak English as a second language
- Older students
- Students with hearing and other disabilities
- International students
- All students/members of the community
Impact

- Fewer students requesting accommodations
- Decreased use of SDS
- Increased use of generic services by all students, faculty, and staff
Universal Design on Your Campus

- Awareness
- + Collaboration
- Everybody Wins
Access to Graduation: The Clemson Story

- First, a medical model
- Then, a paradigm shift
- Universal design concept
- Collaborative efforts
## Collaborators

<table>
<thead>
<tr>
<th>Video Production Services</th>
<th>Littlejohn Coliseum</th>
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</thead>
<tbody>
<tr>
<td>Computing and IT</td>
<td>VP of Computing and IT/CIO</td>
</tr>
<tr>
<td>Records and Registration</td>
<td>Dean of Undergraduate Studies</td>
</tr>
<tr>
<td>Student Affairs</td>
<td>Choral Ensembles</td>
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<tr>
<td>Mathematical Sciences</td>
<td>Associate Dean of Students</td>
</tr>
<tr>
<td>Alumni Association</td>
<td>Redfern Health Center</td>
</tr>
<tr>
<td>Student body</td>
<td>Student Disability Services</td>
</tr>
</tbody>
</table>
Hardware, Software, and Personnel

Laptop/ speed typing software
Laptop Computer

- Speed typing or voice recognition software installed (Instant Text, Dragon Naturally Speaking, etc.)
- Supports captioning software and provides live captioning input
- Check with CPC re: compatibility of speed typing/voice recognition software with Caption Maker software
Hardware, Software, and Personnel

Laptop/ speed typing software

Captioning software
Captioning Software

- Interfaces with encoder/decoder to mix captions with video feed and send to display
- Computer Prompting and Captioning Company (cpcweb.com)
- CPC 500 ($1995.00) or CPC 600 ($2995.00)
Hardware, Software, and Personnel

Encoder/Decoder

Laptop/ speed typing software

Captioning software
Encoder/Decoder

- Mixes captioning from laptop with video feed for output to screen
- Link Electronics ([www.linkelectronics.com](http://www.linkelectronics.com)) for product Link PCE-845D, ~ $1200.00
- Encoder/Decoder connects to laptop with RS-232 card and 25-pin to 9-pin cable ([RS-232 Cardbus PC Card, Koutech Systems Inc.](http://www.newegg.com), ~ $35.00)
Hardware, Software, and Personnel

- Video feed
- Encoder/Decoder
- Laptop/ speed typing software
- Screen display
- Captioning software
Video Feed and Screen Display

- Live video feed from video cameras
- Output to large screen display
Hardware, Software, and Personnel

Video feed

Encoder/Decoder

Laptop/ speed typing software

Captioning software

Screen display

Captionist and team
Personnel

- Captionist is trained to use both speed typing software and CPC Caption Maker software
- Team monitors output, communicates with event staff, assists in transition from pre-scripted segments to live captioning segments
Web Resources - UD

- [www.cast.org](http://www.cast.org)
- [www.washington.edu/doit](http://www.washington.edu/doit)
- [www.amac.uga.edu](http://www.amac.uga.edu)
- [http://www.webaim.org/](http://www.webaim.org/)
- [http://www.design.ncsu.edu/cud/about_ud.htm](http://www.design.ncsu.edu/cud/about_ud.htm)
Print Resources - UD


# Hardware and Software

<table>
<thead>
<tr>
<th>Component</th>
<th>Source</th>
<th>Price</th>
<th>Purpose</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laptop computer with speed typing or voice recognition software</td>
<td>Various</td>
<td></td>
<td>Support captioning software; live captioning input</td>
<td>Check with CPC for compatibility of speed typing or voice recognition software with Caption Maker software</td>
</tr>
</tbody>
</table>
| CPC Caption Maker software | Computer Prompting and Captioning Company | 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 | ~ $1200.00 | Mixes captioning from laptop with video feed for output to screen | |
| RS 232 Cardbus PC Card (Koutech Systems Inc) | 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 |