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Technology-Delivered Content Accessibility for Students with Disabilities

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Technology-Delivered Content Accessibility for Student With Disabilities

Gina Oswald, PhD, CRC, LPC- Wright State University

Agenda

- Why is accessibility in content important?
- What needs to be considered for accessibility
- How do you assess your content and then adapt?
- Discussion

Why: Current State of College Students with Disabilities in Higher Education

- According to the US Department of Education (2009), students with disabilities (SWD) at 60.1% are closing the gap with regards to enrolling in postsecondary education within 8 years of graduating high school compared to their counterparts (67.4%).
- Unfortunately, students with disabilities may be enrolling at near comparable rates but are not graduating similarly to their nondisabled peers. In one longitudinal report, about 51.2% of young adults in the general population completed a postsecondary program while only 34.2% of young adults with disabilities did the same (US Department of Education, 2009).

Why: What about online?

- In conjunction with the increase in enrollment with students with disabilities, online education has exploded in recent years.
- Allen and Seaman (2010) reported that approximately 5.6 million students were enrolled in at least one online course during 2009. This is equivalent to more than one in four higher education students taking at least one course online.
- Online learning was an important part of 61% of all reporting institutions and a vital part of their long-term strategy.
- For-profit institutions reported a 10% increase in providing online services from 2009 to 2010 (Allen & Seaman, 2010).
- The increased student interest and the ability to reach students in any geographic area has led to more professionals returning to school and more institutions adopting online instruction, abating SOME disability barriers (Allen & Seaman, 2010; Bejerano, 2008).

Why: Legislative Requirements for Accommodations

- Currently, SWD have some standard legislative protections and services guaranteed at postsecondary institutions:
 - Section 504 of the Rehabilitation Act of 1973 requires anyone who takes federal funding to provide accommodations.
 - The Americans with Disabilities Act requires all public accommodations to provide reasonable accommodations.
- Thus, many postsecondary institutions offer services through some type of disability services office.
 - Typical accommodations include distraction free test taking, extended time on exams, alternative format for content, interpreting services, and physical accessibility.

Why: Current

Barriers/Opportunities for CSWD

- Many students with disabilities prefer not to request accommodations until they have already failed due in part to concerns over stigma and faculty resistance (Roberts, Crittenden, & Crittenden, 2011)
- Case-by-case accommodations are time consuming and often last minute.
 - Providing curriculum that is accessible and student centered can enhance the ability of all students to participate fully in instructional strategies and course activities leading to deeper student learning and more diverse course interactions between students of all abilities (Higbee, 2003; Higbee, 2009).
 - Concepts, under the umbrella of Universal Design for Learning (Burgstahler, 2009), often require minimal up front time and adjustments during course/instructional method development while providing optimal impact on student engagement and learning (Dukes, Koorland, & Scott, 2009).

What: Technology Usage

- What do you use in the classroom and what do you upload to D2L (or other learning management systems)?

What: Technology Usability

- Think about your electronic course materials. You probably use:
 - Microsoft Word Documents
 - PowerPoint Slides
 - PDFs
 - Videos
- Could you still access those same materials if you had:
 - Blindness or low vision
 - Deafness or had a hearing impairment
 - Dyslexia
 - Reading Comprehension Issues
 - ADHD

What: Technology Accessibility

- Watch this video NPR video about WSU's very own Jeff Hiles:
- [Accessibility Video](#)
- Now how would you assess your materials?

What: Technology Accessibility

Instructors are encouraged to be aware of the impact of physically and electronically-provided content, technology and media usage for SWD and how such instructional methods interact with assistive technologies such as:

- open and closed captioning
- Large print
- Braille format
- taped texts
- interpreters
- screen readers
- video text displays
- talking calculators
- electronic readers
- laptops
- voice synthesizers
- Voice recorders
- Digital Note-takers

How?

- First,
 - I could spend a whole day on this (but I have an hour)
 - There will always be exceptions to the rule
 - Even some accessibility measures are better than none
 - The differences between PC and Mac in accessibility are vast and will require you to know which system you are working on and what each one offers (don't worry, I have lots of resources)
- Now to the fun part,
 - My Strategies, Tips and Tricks Handout

Microsoft Word and PowerPoint

- Create a hierarchy of headings- bolding, underlining, increasing font size, and italicizing does not make the document accessible.
- Create a simple structure to the document.
- Avoid using floating characters and watermarks.
- Make hyperlink text meaningful-change the description using the “Edit Hyperlink.”
- Add alternative text to pictures (Format>Picture>Alt text) and videos describing important media in the document and include closed captioning when appropriate
- Use simple table structure while avoiding blank cells
- Make sure all slides in PowerPoint have unique headings
- Use easy to read “gray scale” for color blind readers

PDFs

- Making the native document accessible allows for less work when changes are made to the native document and the PDF document is regenerated.
- Adobe Acrobat Pro DC provides several tools including the Make Accessible Menu in the Action Wizard mode and the Accessibility Checker to assist authors in evaluating and fixing issues that can impact accessibility.
- Document structure tags in a PDF define the reading order; identify headings, paragraphs, sections, tables and other page elements; and allows for documents to be resized.
- When making a form, create fillable fields instead of underscore line.
- Searchable Text

Videos

- Making videos accessible from the start is vital- gets more hits on internet and companies make more profit off accessible videos
- Do not use the picture or color alone to convey the message- create a transcript, closed-captioning, and video description of important content.
- Do not use patterned backgrounds, flashing or flickering content, or automatic starts.
- Make sure the video is in an accessible format and that the video can play using an accessible media player- allows stops, pauses, rewind, fast-forward and sound with keyboard and mouse
- Use audio descriptions of the content of the video

Additional Considerations

- Websites
- Educational Applications
- Guest Speakers
- Out of Class Activities that may involve technology (speaker series, etc.)

Discussion



Thank you

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