

Seeking Solutions to Accessibility Issues in an Online Medical Terminology Course

Presenter

Ms. Amy Clark, MS, CHES

Date

August 25, 2016

Time

10:10am-11:00am

Abstract

Authentic accessibility from an instructor's point of view: discover how asking questions and looking for solutions helped improve accessibility in her online Medical Terminology course. Explore how she determined the problem, implemented accessible tools, and went above and beyond to reach out to all learners.

Materials

Ms. Clark presented a total of 23 slides including two reference slides and utilized the internet as well as an overhead projector and mouse.

Props

Ms. Clark brought eight preplanned questions and/or quotes to engage the audience as well as provided two handouts to accompany her presentation. One of the handouts outlined how to check a PowerPoint (PPT) for accessibility (2010 version or newer) as well as how to add alternative text to a PPT. She also provided information on how to create a script of a PPT in a Word document as well as how to check it for accessibility. The second handout was a scripted version of the presentation, which provided the alternative text Ms. Clark added for each image in the PPT; basically, this script could have been provided to a blind learner attending the presentation because it contained an exact equivalent of the information presented in the PPT as well as a description of all of the images used in the PPT. Accordingly, she brought the book *Universal Design in Higher Education: From Principles to Practice* by Burgstahler and Cory (2013) as well as a business card for Disability Support Services at TWU.

Summary of Presentation

The presenter (Ms. Clark) begins by asking the audience to close their eyes. She provides the following prompt:

Imagine you are a blind learner who has signed up for your first online course. From what you can tell, the instructor is friendly and warm. She has posted inviting announcements and sent welcoming emails. Then, you open up your first module of content. One of the required readings is a PowerPoint. Then, the following scenario happens to you.

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The audience is directed to open their eyes. Next, they see slide one of the PPT, which has a hideous color scheme (blue on light blue). Moreover, the text (yellow, red, orange, light blue) only appears as Wingdings. (There is actually statistical information presented in text format on the slide, which has been converted to Wingding font.) Therefore, the information is illegible to the entire audience. At the same time, the presenter is mouthing the text on the slide, but no sound is audible. Similarly, she is gesturing toward the content on the slide as though it is significant in some way.

Ms. Clark clicks to slide two, which contains a pie chart. However, the text description of the statistics and graphic is written in Wingding font, so the content is illegible again. Likewise, the background color scheme is not visually appealing (red, yellow, blue). Accordingly, the pie chart is both orange and yellow against the distracting background color scheme. In the same manner, the presenter is acting as though the content is important and pointing toward the slide, but she is not saying any words.

For slide three, Ms. Clark begins speaking and says that the audience will be quizzed on the information she has presented via text and graphic so far in the PPT. The quiz question is as follows on slide four:

What percentage of undergraduate learners in college reported some form of disability from 2011 to 2012?

The options are provided in a multiple choice format on slide four. The choices are included below:

- A) 2%
- B) 11%
- C) 20%
- D) 30%

Speaker's Notes: This quiz was designed to illustrate that it would have been almost impossible to choose the correct answer given that the information was presented in an incomprehensible format for any member of the audience.

On slide five, Ms. Clark provides the answer to the quiz question from slide four; eleven percent of the undergraduate learners in the United States declared a disability from 2011-2012 based on information provided by the National Center for Education Statistics (2016a, b). However, the number of veteran undergraduate learners with disabilities was almost twice as high (21%). Based on this data, more than 2 million undergraduate learners have some form of a disability, and this rate would be even higher for veterans.

To transition into discussion and involve the audience, Ms. Clark asks the following question, which is covered in slide six:

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How did you feel being presented with and quizzed over information that you could not see or hear?

Responses from two of the audience members included the following:

I would have dropped the course or have become disengaged. I did not like it.

Speaker's Notes: The first two slides were intentionally designed to make the audience uncomfortable, distracted, and upset. Essentially, there was no way that they could pass a quiz after encountering information that was incomprehensible. Therefore, the slides had the intended effect.

Then, Ms. Clark asked a participant to read a notecard with the following question:

What are some reasons why PPTs are hard to see?

The audience responded that (1) some fonts are difficult to read, (2) content crammed on one slide can be distracting, and/or (3) background colors can be visually unappealing.

Next, Ms. Clark transitioned to slide seven, which contained similar answers.

Speaker's Notes: In order to consistently convey the message to remember that some fonts are hard to read, the presenter actually wrote "just think Wingdings" in Wingding font on three separate slides, which were interspersed throughout the presentation. So, it was an incomprehensible message, but she utilized the slogan repeatedly to drive a point.

Before moving to slide eight, Ms. Clark asked another volunteer to read a notecard with the question below:

What are some reasons why PPTs cannot be viewed by screen readers?

A discussion with the audience arose of how screen readers work. Some key themes emerged, which are listed below.

Essentially, blind learners listen to what the screen reader says, and sometimes, it will simply say "graphic" without being able to read an image. Also, screen readers may "jump around" and have trouble reading PPT slides in order. One audience member mentioned that screen readers may vary, and some may not be able to read PPTs (even those which are checked for accessibility), so choosing the appropriate tools for a virtual environment is essential.

In slide eight, the presenter also mentioned screen readers have trouble seeing PPTs because of the following reasons: (1) images do not have alt text, (2) speaker's notes or slides without titles cannot be read, and (3) notes pages cannot be read.

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In slide nine, Ms. Clark briefly explains the purpose of alt text in a PPT. Basically, alt text provides options to title a graphic, describe what it contains, and explain the significance of why it is added. Then, Ms. Clark involves the audience by asking them to reference the handout where she explains the steps outlining how to add alt text to a PPT. (She also notes that adding alt text could be slightly different between versions of PPT.) Also, she describes step by step how to check the accessibility of a PPT (2010 or newer) in the same handout.

Speaker's Notes: Slides 10 through 14 deal with the issue of inheriting online course content, which can be passed down from one instructor to another. To involve the audience, the presenter asks for a volunteer to read the following two questions:

Who has ever inherited an online course with pre-established content, and how many people use PPTs regularly in their online courses?

There was agreement between audience members that time is a factor when considering what instructional materials to utilize in an online course, and some online instructors believe the myth that PPTs "save time and condense content" for everyone. Rather, one of the audience members stated that those who are "not disabled" should "embrace their privilege" but remember that PPTs should not necessarily be a "go to source" in a virtual environment. Moreover, one participant stated that "not all publisher materials are accessible," and not everyone learns in the same style.

Based upon the discussion, there was consensus that heavily relying on PPTs can unfairly disadvantage the blind in an online course. Likewise, online instructors may want to reevaluate how they choose tools in order to embrace a more "equitable learning environment." An obvious sense of burden was apparent when the audience realized that many online instructors rush to use PPTs in order to save time when, in actuality, they could be causing the blind to feel alienated and prevent them from learning.

One audience member said she felt "guilty" for not knowing more about accessibility. In response, Ms. Clark stated that she experienced a "reckoning" when she found out blind learners could not read PPTs, which was a major motivating factor to redesign her course content. Ironically, she meant to say "awakening." Though restructuring her online class was proactive in nature, Ms. Clark still took this action for the benefit of all learners.

In slides 15 and 16, Ms. Clark further described her own path to embrace more accessible tools in her online course. For example, she no longer heavily relies on PPTs as instructional materials. Rather, she specifically discussed her goals of accessibility with the publisher of the textbook she adopted. Likewise, Ms. Clark specifically sought out a publisher with accessible tools. For example, she utilizes dynamic lectures, which can be accessed via course links in the LMS. When a learner clicks on the link, audio plays, and a text equivalent is built in for the entire presentation (including videos and images). Blind learners in her course have been able to use these tools successfully along with everyone else.

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Overall, Ms. Clark chooses to infrequently use PPTs in introductory course material, and she also provides the text equivalent in an accessible word document for each PPT. For example, she uses PPTs 80% less frequently than she did before her course redesign.

In slides 17 through 19, Ms. Clark provides an actual testimonial from a blind learner who took the course since she redesigned her course in favor of accessibility. In order to garner participation, Ms. Clark asked one of the audience members to read the learner's quote below:

The accessibility in your course was better than most that I've experienced. The format of your dynamic notes was very helpful. A lot of teachers do their notes on PowerPoint and that is not accessible for my screen reader. So, I appreciated your format for the notes. Thank you for helping make my class experience that much better by me not having to worry about things not being accessible for me. (Anonymous, August 22, 2016, personal communication)

Ms. Clark shared that emails, such as this one, make all of the time and attention she spent redesigning her course worth the effort. Moreover, her goals include both reaching all of her students and providing them with equal opportunities to learn and gain an education.

Ms. Clark ended the presentation with slides 20 through 21, and asked a participant to read a quote from the book *Universal Design in Higher Education*, which is included below:

Faculty members who implement Universal Instructional Design gain in many ways, not just because they are making their courses more accessible to all students but often in the form of better teaching evaluations and recognition for excellence in teaching as well. (Burgstahler & Corey, 2013, p. 69)

Coming to an end, members of the audience talked about specific ways that they could make changes to their online courses especially related to graphics/images. As the presentation was ending, one audience member requested additional information, so Ms. Clark gave the individual the book *Universal Design in Higher Education* (Burgstahler & Corey, 2013) as well as a business card to Disability Support Services at TWU.

References were presented in slides 21 through 23:

Burgstahler, S. & Cory, R. (Eds.). (2013). *Universal design in higher education: From principles to practice*. Cambridge, Massachusetts: Harvard Education Press.

Hanover Research Council. (2009, July). *Best practices in online teaching strategies*. Retrieved from <http://www.uwec.edu/AcadAff/resources/edtech/upload/Best-Practices-in-Online-Teaching-Strategies-Membership.pdf>

National Center for Education Statistics. (2016a). *Back to school statistics*. Retrieved from <http://nces.ed.gov/fastfacts/display.asp?id=372>

National Center for Education Statistics. (2016b). *Students with disabilities*. Retrieved from <https://nces.ed.gov/fastfacts/display.asp?id=60>