

How to Make Online Tests, Quizzes, and Learning Materials Accessible

Taylor Spencer

Table of Contents

Table of Contents.....	iii
Introduction.....	v
Making Tests and Quizzes Accessible.....	1
Checking for Inaccessible Questions.....	3
Accessible Questions vs Inaccessible Questions.....	3
Making Inaccessible Questions Accessible.....	4
Improving Questions that Might Be Inaccessible.....	4
Making PowerPoint Presentations and Other Academic Materials Accessible.....	5
Checking for Inaccessible Objects.....	7
Making Inaccessible Objects Accessible.....	7
Making Sure Your Layout is Accessible.....	8
Accessibility in Non-Microsoft Office Suites.....	8
OpenOffice/LibreOffice.....	8
iWork.....	9
Google Docs.....	9
Office for Mac.....	10
Conclusion.....	11
Appendix.....	15
Works Cited.....	17

Introduction

Introduction

Making learning accessible to those with disabilities has always been challenging, especially when the disability is blindness. The advent of computers and the Internet represents a new opportunity to these people, but it also represents a challenge.

This is because while blind people use the same types of computers as seeing people, they use them in a very different way. Instead of navigating a mouse to a point on a screen, blind people rely on a screen-reader to read out every single line of text on a screen. Then, when they hear the name of the link or button they want to click on, they speak back to the computer and the screen-reader tells the computer program to press that link or button.

Or at least this is what is supposed to happen. All too often, blind people encounter inaccessible content. When an instructor's content is inaccessible, it means that the student, at best, will be at a disadvantage in the course. At worst, inaccessible content may cause a student to fail a test or quiz, not because the student didn't know the material, but because the student couldn't understand the questions.

This is why it is imperative that you, as an instructor, ensure all of your course material is accessible. The next few chapters will help you to do just that.

Making Tests and Quizzes Accessible

Making Tests and Quizzes Accessible

Ensuring that the tests and quizzes you administer online are accessible is one of the most, if not the most, important duty to your students as an instructor. Fortunately, Qualtrics, the online testing and survey software package which you are most likely to be using as a UNT instructor, makes that process pretty easy. However, it is not automatic, which means that you, as an instructor, still need to go through some steps to ensure that your test or quiz will be accessible to all of your students.

Checking for Inaccessible Questions

The first step in making your test or quiz accessible is to check your survey's accessibility. To do this, open your test or quiz, and navigate to Edit Survey. Once there, click on the Advanced Options drop-down menu and choose "Check Survey Accessibility" ("Check Survey Accessibility" 1). You will see a list with two types of questions: Those that are inaccessible and those that might be inaccessible.

Accessible Questions vs Inaccessible Questions

In making your test or quiz accessible, it is important to know which questions are accessible and which are not. Here are the types of questions that are accessible:

- Multiple Choice
- Matrix (except Bipolar)
- Text Entry
- Side-by-Side
- Rank Order (except Drag and Drop)
- Constant Sum (except Slider)
- Timing
- Meta
- Descriptive Block
- Drill Down

In contrast, here are the types of questions that are inaccessible:

- Slider
- Constant Sum Slider
- Matrix Bipolar
- Rank Order Drag and Drop
- Pick, Group, and Rank
- Heat Map

- Hot Spot
- Sliding Scale
- GAP

Accessible questions will be designated with a green icon, while inaccessible questions will be designated with a red icon (“Check Survey Accessibility” 1).

Making Inaccessible Questions Accessible

When Qualtrics finds an inaccessible question, it will notify you and suggest an accessible replacement to that question. Repeat this process for every question Qualtrics has found to be inaccessible. When you are done, select Re-check and, if you did this correctly, you should no longer have any inaccessible questions (“Check Survey Accessibility” 1).

Improving Questions that Might Be Inaccessible

In addition to the inaccessible questions Qualtrics designates with a red icon, Qualtrics will point out a second type of question: A question that *might* be inaccessible. These questions will be designated with an orange icon. These are questions that, while accessible, might be difficult to navigate.

You should handle these questions much like you would handle inaccessible questions. In the case of a drop-down question, you should replace it with a multiple choice question. Again, do this until you have addressed every question that Qualtrics has marked as potentially being inaccessible.

Making PowerPoint Presentations and Other Academic Materials Accessible

Making PowerPoint Presentations and Other Academic Materials Accessible

An equally important responsibility to your students is to ensure that the academic material that you distribute to your students is also accessible to blind students. As academic materials usually encompasses presentations created in software like PowerPoint, the accessibility of those documents will be the chief concern of this section of the manual.

Checking for Inaccessible Objects

The most common barrier to accessibility in PowerPoint presentations are inaccessible objects. These usually consist of images without any alternative text, but can also include WordArt, formulas, and even embedded Word and Excel documents.

To make sure that you don't have any inaccessible objects, go to the Outline view and read through your presentation. There you will be able to see if any objects do not have alternative text.

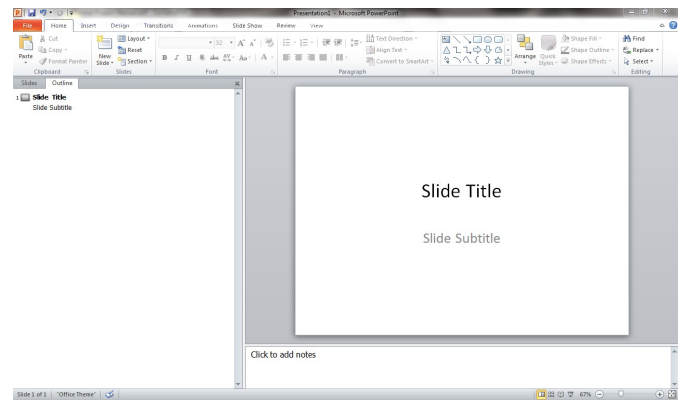


Illustration 1: Outline View under PowerPoint 2010

Making Inaccessible Objects Accessible

Now that you know which objects are inaccessible, go back to the Slide view, right-click on the object in question, and select “Format Object”. Depending on your Office version, you will see a dialog with either tabs on top or options on the left. Select the one that says “Alt Text”. In the text box that says either “Alternative Text” or “Description”, type in a textual version of what you would wish to convey through that object.

Now that you have finished this on one image, repeat this process on all the inaccessible objects you have found. When you think you are finished, go back to the Outline view. If, in place of your objects, you see the text you have typed in, you have successfully made your presentation accessible. If you have missed anything, go back to those objects and repeat the process detailed above until everything is accessible.

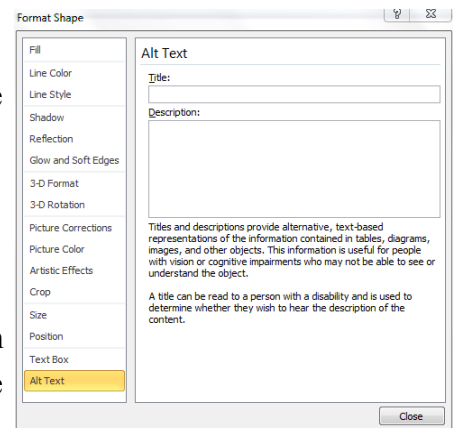


Illustration 2: Alt Text Section under PowerPoint 2010

Making Sure Your Layout is Accessible

Another thing that can cause accessibility issues in a presentation is the layout of your presentation. Normally this is caused by text boxes that are out of order.

To ensure your presentation's layout is accessible, go to the Outline view and look at the order the text is in. This will be the order most screen-readers will read the text in. If you have paragraphs that are in the wrong order or missing altogether, go back to the slide view and choose one of the standard layouts ("PowerPoint Accessibility" 1).

Then, cut and paste your text (but not the text boxes!) until they are in the right order again. If you have done this correctly, the text in your outline should be consistent with your slide view and, most importantly, in the right order.

Accessibility in Non-Microsoft Office Suites

A decade ago, there would not be a need for this section, as almost everyone was using Microsoft Office to get their work done. However, times have changed, and as time has gone on, other office suites have made inroads into Microsoft's market share. Additionally, there is also the advent of smartphones, the vast majority of which can't even run Microsoft Office. With this in mind, it is necessary to ensure that your documents will be accessible not just in Microsoft Office, but in several non-Microsoft office suites as well.

OpenOffice/LibreOffice

OpenOffice is a free and open-source office suite for computers running Windows, Mac OS X, and Linux. The market share of OpenOffice varies widely across different types of computer users and countries. Valve Corporation found that OpenOffice was installed on 14.63% of users of Steam, an online game distribution platform ("Steam Hardware & Software Survey" 2). A more conservative estimate of market share comes from Webmasterpro.de, which found that 9% of users from the United States have OpenOffice installed (H 1).

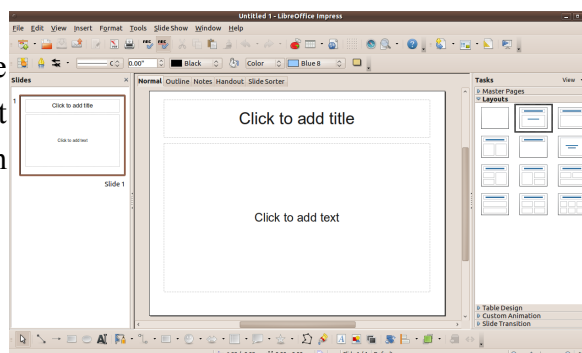


Illustration 3: LibreOffice Impress

LibreOffice was a fork of OpenOffice that started on January 25, 2011 after Oracle bought Sun Microsystems, the publisher of OpenOffice, and let many of their open-source products languish. Due to the recent nature of this fork, we will treat the two software packages the same for the purposes of accessibility.

OpenOffice's presentation component, Impress, is a mixed bag when it comes to accessibility. On one hand, it has great support for reading existing presentations, including the accessibility text of images ("Office Application Accessibility Review: OpenOffice Impress 3.2 (for Mac OS)"). This is something that is welcome, because OpenOffice Impress is the only Mac and Linux compatible office suite that supports alternative text. However, OpenOffice Impress does not have any accessibility support for objects created from grouped shapes ("Office Application Accessibility Review: OpenOffice Impress 3.2 (for Mac OS)"). Fortunately, the solution for this limitation is quite simple: Simply export the grouped shapes to an image.

On the other hand, OpenOffice Impress has very poor support for creating and editing presentations from a screen-reader. Many dialogs, including the Numbering and Lists dialog, are inaccessible, and OpenOffice Impress won't respond to keyboard shortcuts dictated to it through a screen-reader ("Office Application Accessibility Review: OpenOffice Impress 3.2 (for Mac OS)").

iWork

iWork is an office suite created by Apple for Mac OS X and iOS. It has failed to gain market share on Mac OS X, where Microsoft Office dominates, however, it is more widely used on iOS, and specifically the iPad, where neither Microsoft Office nor OpenOffice are available.

iWork's presentation component, Keynote, is mostly accessible, however, it still has some major flaws that need to be avoided. Here are the shortcomings that might pose a problem on an accessibility front:

- Keynote does not allow images to have alternative text for screen-readers to read.
- It is possible for an automatic transition to advance the presentation to the next slide before the screen-reader has finished reading the current slide's text.
- Screen-readers cannot read text that is inside a text box.

Google Docs

Google Docs differs from the other office suites that we have mentioned that it is a web application that runs in the browser.

While other components of Google Docs have some level of accessibility support, Google Presentations is completely inaccessible ("Use Google drawings and presentations with a screen reader" 1). For this reason, if you have a blind student in your class, it is strongly advised that you do not post any presentations to Google Docs.

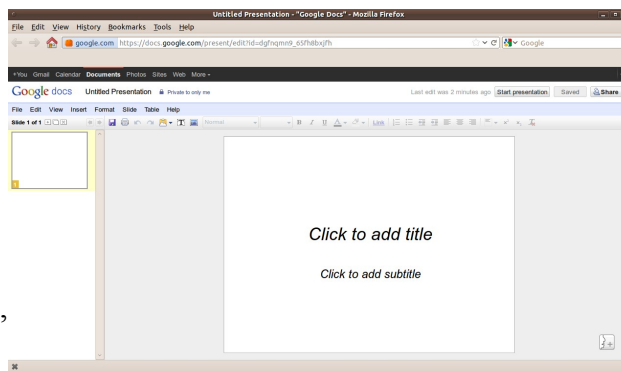


Illustration 4: Google Docs Presentations

Office for Mac

Wait, if I created my presentation in PowerPoint for Windows, shouldn't it be accessible on PowerPoint for Mac because Microsoft made both software packages? In an ideal world, there would be no accessibility differences between PowerPoint for Windows and PowerPoint for Macintosh. However, Microsoft, instead of designing their code to work on both Windows and Mac OS X so that they can deliver the same office suite across both platforms, employed different teams to work on the Windows and Macintosh versions of Microsoft Office.

The end result is that several of the accessibility features that are available in PowerPoint for Windows are missing in action in PowerPoint for Mac. A major example of this is the fact that the Mac version of PowerPoint does not allow images to have alternative text ("PowerPoint Accessibility" 1). If your presentations put important information inside the alternative texts of images, you should recommend that students with Macs use OpenOffice, as OpenOffice Impress is the only Mac-compatible presentation program that supports alternative text.

Conclusion

Conclusion

Over the last couple of chapters, I have shown how you, as an instructor, can make your tests, quizzes, and learning materials accessible to those with disabilities.

Making learning accessible to those with disabilities has always been challenging. However, as technology evolves, so does the potential for learning, especially for those with disabilities. By following the instructions in this manual to make your materials accessible, you are making sure that you are not an obstacle but an opportunity to those with disabilities.

Appendix

Appendix

The appendix section consists of all the sources that I have cited to make this manual.

Works Cited

“Check Survey Accessibility | Qualtrics University.” 2 Nov 2011.

<<http://www.qualtrics.com/university/researchsuite/advanced-building/advanced-options-drop-down/check-survey-accessibility#>>.

H, Thomas. “International OpenOffice market shares - Portal - Tutorials, Tipps und Tricks für Webmaster auf Webmasterpro.de.” *Webmasterpro.de*. 23 Nov 2011.

<<http://www.webmasterpro.de/portal/news/2010/02/05/international-openoffice-market-shares.html>>.

“Office Application Accessibility Review: OpenOffice Impress 3.2 (for Mac OS) | Accessible Digital Office Document (ADOD) Project.” *Accessible Digital Office Document (ADOD) Project* 16 Feb 2011. 22 Nov 2011. <<http://adod.idrc.ocad.ca/ooimpress-mac-review>>.

“Steam Hardware & Software Survey.” 23 Nov 2011. <<http://store.steampowered.com/hwsurvey/?platform=combined>>.

“Use Google drawings and presentations with a screen reader.” 17 Nov 2011.

<<https://docs.google.com/support/bin/answer.py?answer=1634140>>.

“WebAIM: PowerPoint Accessibility.” *WebAIM*. 22 Nov 2011.

<<http://webaim.org/techniques/powerpoint/#layouts>>.