
Accessibility Checkpoints for **WORD DOCUMENTS** in Online Courses

This Accessibility Checkpoints guide provides recommendations on how to make common elements in your **MS Word (2010 or higher)** documents accessible to students with disabilities. ***This guide is not intended as a tutorial on how to use Word.***

BEFORE YOU BEGIN:

Microsoft has developed an **Accessibility Checker*** that is built-in to MS Word. If you have Word 2010 or higher, you can use this tool to more easily identify and correct accessibility issues in your document. To use the tool and test your document, follow this path from your Word menus:

FILE → Info → Check for Issues → Check Accessibility

The Checker will provide you a set of “Inspection Results”, summarizing any accessibility errors present (e.g. skipped heading levels, images without ALT text), as well as warnings about elements that might be a problem for some users. These errors and warnings will be followed by feedback (*why the issue is important*) and tips (*how to repair the problem*).

All accessibility improvements you make to the Word version of a resource document will remain if you later choose to convert your file to PDF format.¹

This Guide covers the most common and critical elements of a Word document; the **Accessibility Checker in Word 2010 or higher provides feedback on many more.*

CHECKLIST FOR DOCUMENTS

Required for **ALL** documents:

- [Use proper headings](#)
- [Proper document structure](#)

Required for **SOME** documents:

- [Provide text alternatives for images, charts and diagrams](#)
- [Concept is not dependent on colour to be understood](#)
- [Data tables provide row and column headers](#)

HEADINGS

1. *What are headings?*

Headings help to identify the hierarchical structure of a document (e.g. sections, sub-sections). Headings provide a visual cue that helps a sighted reader quickly navigate through sections of a document, skimming through content until they find a section they are looking for. Similarly, true headings create logical divisions in your content and allow a non-sighted user to navigate a page or document easily using assistive technology (e.g. screen reader).

2. *Why do you need to worry about headings?*

To put it plainly:

“A good heading structure is probably the most important accessibility consideration in most Word documents.”²

When it comes to using visual references to indicate the hierarchy and structure of your document, you may be accustomed to just using the **Font** formatting tool to create the impression of a heading by changing the font face, enlarging the font size, making it bold or underlined or italicized, etc.

For accessibility purposes, the problem with this approach is that while for a visual reader the text will *look* like a heading, a screen reader won't *identify* the text as a heading. A screen reader will just read through the text as if it were part of another paragraph of content and will miss your intended cues about structure and organization. In Word, you should use the **Styles** tool to create hierarchical header structure to your document that screen readers will identify.

Example of text formatted to LOOK like a heading; all of the formatting to make it appear this way has been manually added using the **Font** tool:

This text only looks like a heading

Example of a TRUE heading, using the **Styles** tool; all of the formatting here is part of the “Heading 4” style settings in this document:

This text is formatted as a real heading

Using proper header styles affects a student who:

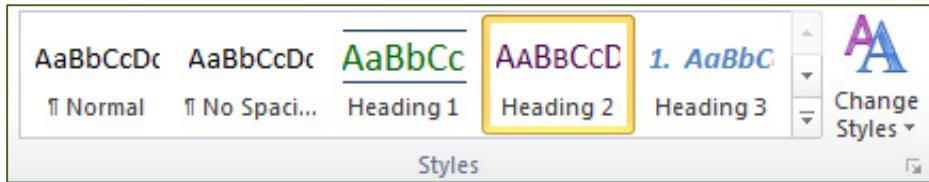
- Is blind or has low vision and **cannot access visual cues about content organization and sequence.**
A Screen Reader will identify true headings, which gives the user information about the structure and organization of the content in your document. Text that is only formatted to look like a heading will only be identified by a Screen Reader as a new paragraph.
- Is blind or has low vision and **wants to skim the document to find a specific section.**
A Screen Reader can “skip sections by jumping from one heading to the next, or display a list of all of the headings in a document, or sort the list of headings alphabetically or in the order they appear in the document.”³

HEADINGS (*CONTINUED*)

3. How should you use headings?

To create a document structure that will be understood by a screen reader:

1. Use the **Styles** tool and begin with the built-in heading styles* (i.e. Heading 1, Heading 2, Heading 3, etc.)
*You can modify these Styles if you want to apply different font types, sizes, line spacing, etc.



2. Nest headings and sub-headings properly.⁴
(E.g. the sub-heading for a **Heading 1** is a **Heading 2**, the sub-heading for a **Heading 2** is a **Heading 3**, etc.)
3. Do not skip heading levels.

4. Check Point – Are your headings:

- Based on **true headings**, defined in the Styles tool?
Without proper headings, a Screen Reader has no means of knowing that the content it is reading is a heading and cannot provide navigational assistance to a user who wants to move from one chunk of content to the next.
- Nested** in proper (hierarchical) sequence?
Sequentially nesting headings and sub-headings allows users to easily navigate the hierarchical organization of your document's content. Screen Reader users can "jump" forwards – or backwards – from one section to the next using headings and sub-headings to navigate. Among other benefits, this allows a user accessing your document with a Screen Reader to skim through sections and more quickly find a specific section they wish to review.

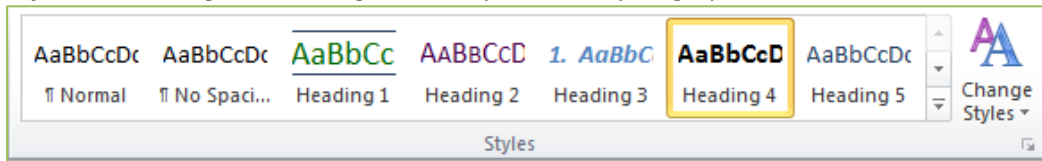
CREATING DOCUMENT STRUCTURE IN WORD

This section builds off the recommendations from the [previous section on headings](#) and their role in defining the structure of your document.

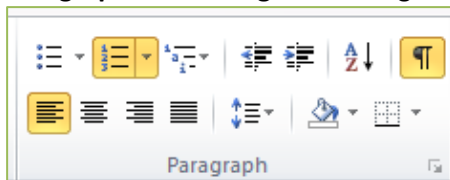
1. What is document “structure”?

When we talk about *structuring* a Word document for accessibility purposes, we are primarily referring to *tagging* elements of your document using such Word features as **Styles, bulleted and numbered lists, and page numbers**. This tagging ensures that a screen reader will interpret your headings, lists, italicized citations, etc. correctly.

Styles menu – e.g. for headings, italics, quotations, paragraphs



Paragraph Formatting menu – e.g. for Bulleted and Numbered Lists:



2. Why do you need to worry about document structure and styles?

“Even the most complex documents can be made easily navigable with a screen reader if the correct styles and formatting are applied. By applying this type of formatting, people who are blind or who have low vision may be able to access and read documents as quickly and as efficiently as their colleagues who have good vision.”⁵

For example, a sighted user might not notice a difference between the two numbered lists below. However, the list on the left was formatted without the use of Styles or numbered lists, while the list on the right uses a “Heading 4” style for the title and a proper numbered list for the items:

Example of Unstructured	Example of Structured
<p>Shopping List</p> <ol style="list-style-type: none"> 1. Apples 2. Milk 3. Spinach 	<p>Shopping List</p> <ol style="list-style-type: none"> 1. Apples 2. Milk 3. Spinach

The difference for a user listening to the content via a screen reader would be that the list on the left would be interpreted as a somewhat jumbled and incomplete sentence. Below is an approximate visual representation of what would be conveyed by a screen reader:

Shopping List 1. Apples 2. Milk 3. Spinach

CREATING DOCUMENT STRUCTURE IN WORD (CONTINUED)

However, the second list would be interpreted by a screen reader as having both a true heading and three listed items, and the user would be given that information and the clarity that comes with it.

Using proper structural markup (or *tagging*) affects a student who:

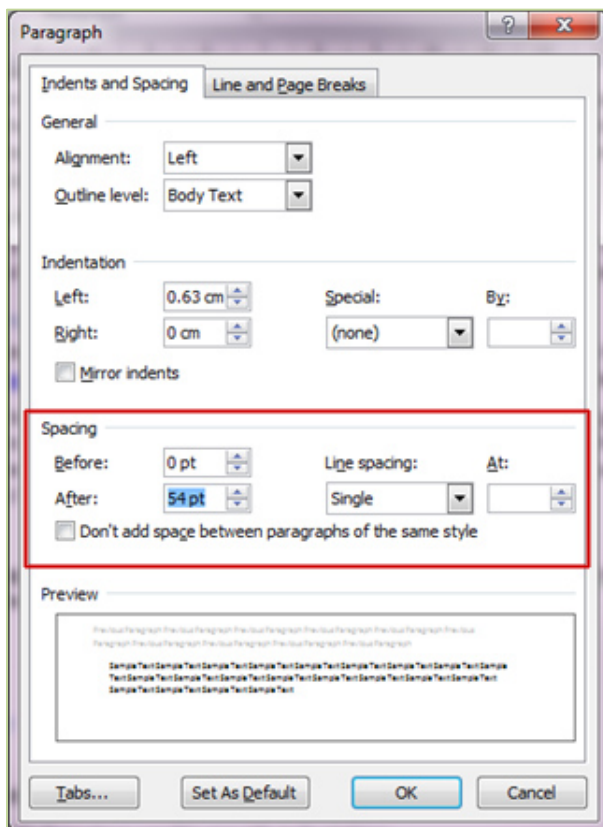
- Is blind or has low vision and **cannot access visual cues about content organization and sequence.**
A Screen Reader will identify headings, lists, tables, etc., which gives the user information about the structure and organization of the content in your document. Text that is not formatted with Word “tags” will be interpreted by a screen reader as a jumbled or run-on paragraph.

Additional benefit:

Using proper structure is critical if you plan to save your Word document as a PDF file as these same tagging features help to ensure that your PDF document can be read by a screen reader.

3. How do you properly use styles to create your structure?

To ensure your content is marked up or tagged in a way that will be accessible to screen readers, use the [Paragraph and Styles menus](#) to format your document’s content and layout.



In addition to the [headings and list recommendations described earlier](#) in this guide, it is equally important to set up your paragraph spacing correctly – i.e. using the **Paragraph** and **Styles** menus to define the spacing between sections of text and content.

For example, if you want to insert several lines’ worth of space into your document, you should define this in the “*Spacing*” section of your **Paragraphs** settings; **do not just use multiple “carriage returns” to create this space.** This is because:

“When paragraph line spacing is done incorrectly with multiple ‘carriage return’ (¶) characters, screen readers hear “Blank... Blank... Blank...” for each line”⁶

CREATING DOCUMENT STRUCTURE IN WORD (CONTINUED)

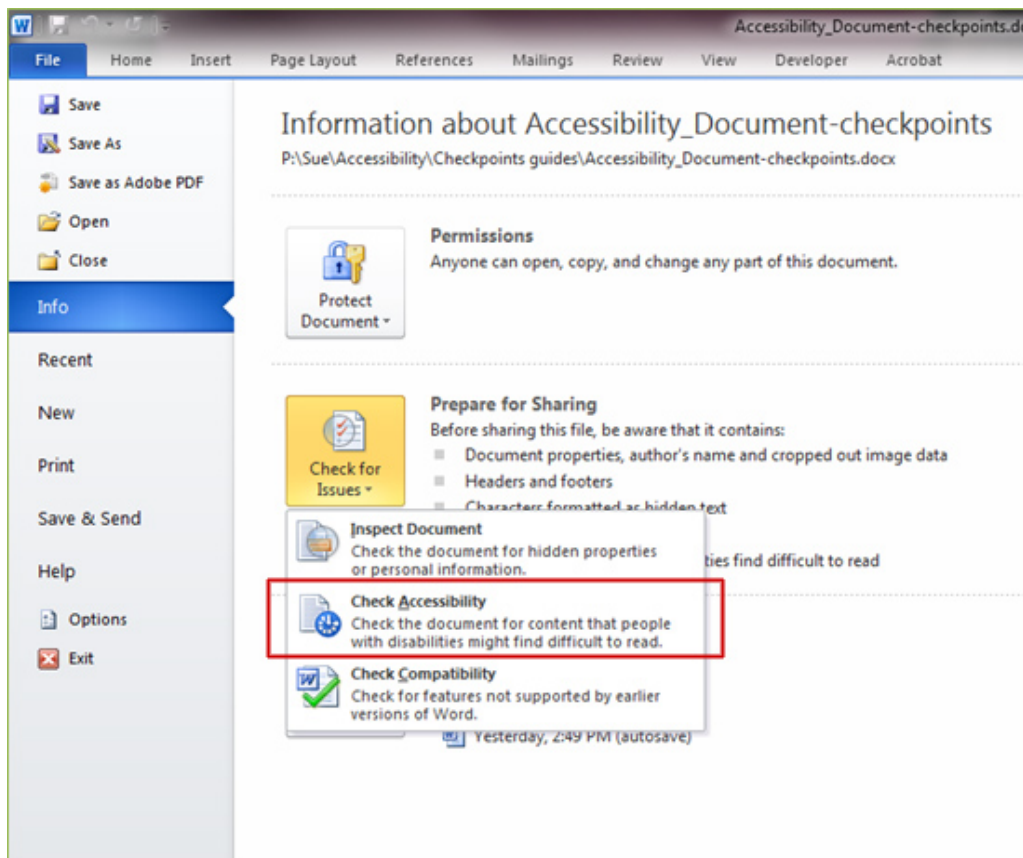
4. Check Point – Is your document structure:

- Based on settings defined in the **Paragraph** and **Styles** menus?

This includes properly marking up elements such as headings, bulleted list, numbered lists, italics, etc. when formatting your text, as well as managing paragraph spacing and indentation. If “tabs are used to provide indentation” and “multiple paragraph ‘returns’ (are) used to provide spacing between paragraphs...then the document is NOT properly formatted with styles.”

- Free of errors** when you run the **Accessibility Checker**?

*The Accessibility Checker in Word 2010 or higher can provide helpful feedback on the accessibility of your document, along with recommendations on how you might address accessibility issues. You can access this tool via the following path: **File → Info → Check for Issues: Check Accessibility***



ALTERNATIVE (ALT) TEXT FOR IMAGES, CHARTS AND DIAGRAMS

1. Why do you need ALT text?

Alternative text in a Word document provides students access to the content when he/she:

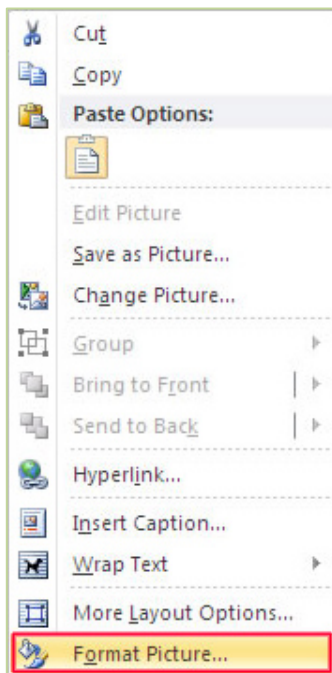
- Is blind or has low vision.
ALT text is read by screen readers in place of images.
- Has a form of cognitive disability.
ALT text can help clarify or describe the concept/s being conveyed by the image.

2. How should you add ALT text and what should you include?

How would you describe the intended concept of an image to someone who wasn't looking at the page? Now try writing alternative text for each image that would work as a replacement. **Alternative text must convey the content and functionality of an image** and should be more than a description of the image (e.g. *ALT="photo of cat"*). Rather than providing what the image looks like, **ALT text** should convey what the content of the image is and what it does.⁸

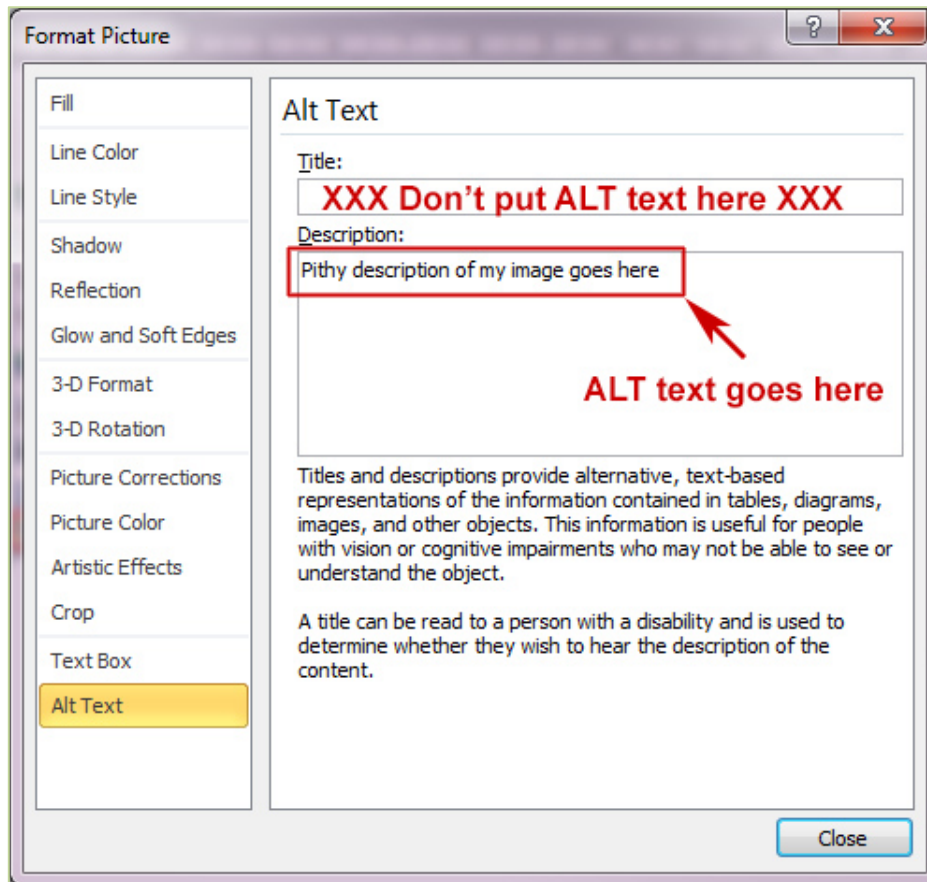
To add an ALT Text description to an image in your Word document:

1. **Right-click** on the image and select **Format Picture...** from the pop-up menu.



ALTERNATIVE (ALT) TEXT FOR IMAGES, CHARTS AND DIAGRAMS (*CONTINUED*)

- From the left-menu in the **Format Picture** menu, select the **Alt Text** option. In this section, you will find two form-fields: *Title* and *Description*. Your ALT Text should go in the **Description** field.



3. **Check Point – Is your ALT Text description:**

- An **accurate and concise** equivalent to the information in the image/chart/diagram?
Typical maximum: 1-2 short sentences.
- Providing **NECESSARY information**?
*ALT text description **should not include phrases like “image of...” or “graphic of...”** to describe the image; screen readers will already identify the object as an image.*

THOUGHTFUL USE OF COLOUR & BACKGROUND IMAGES

1. *What do you need to consider when using colour in your Word documents?*

When using colour in your Word files (e.g. in diagrams or as background), confirm that it is being used “as an enhancement, [and] is not the only means of conveying information.”⁹ Additional visual cues provide students access to the content when he/she:

- Is colour blind and cannot differentiate between certain colours.
- Is using a device with monochrome display.
- Has poor contrast vision.

Similarly, avoid using textured or patterned backgrounds. If you are presenting information as a graphical background, “screen reader users and some users of screen magnification applications will not be able to access [this] information,”¹⁰ and it may also not provide enough contrast with the foreground text for a user with poor contrast vision.

2. *Check Point – Is colour in your course materials and images:*

One of several means of conveying information?

If the point you are making depends on colour to be understood, you may need to edit your image or formatting so that concepts presented in the visuals are not lost to those who are colour blind or who require high contrast between colours.

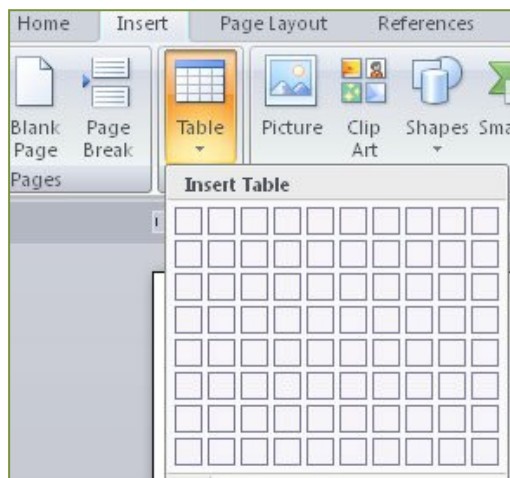
High contrast between background colour and foreground text colour?

Users with poor contrast vision may have difficulty accessing content that is not presented as dark text on a light background.

DATA TABLES

1. What do we mean by “data tables”?

When we talk about data tables in a Word document, we are referring to true tables – i.e. those tables that are created with Word’s “**Insert Table**” tool and which present data in columns and rows. Tables are a handy tool to use for formatting data like course schedules, grading criteria and rubrics, or instructor contact information and office hours.



True tables allow you to visually organize your text into columns and rows that can still be interpreted by screen readers. If you use the “Draw Table” tool, or if you use tabs and spaces to align your text, the content may **look** the same as content in a true data table, but it may not be fully accessible to a student using a screen reader.

2. What do you need to consider when using tables in your Word documents?

In the same way that your document needs true headings and structure, tables need a properly defined structure to be accessible. This means that you must add **Row and Column Headers** to define the different sections of data. Screen readers read tables horizontally – cell by cell, row by row – and Row and Column Headers help give the context of the data in each cell to students who are blind, have low vision, or have a cognitive disability.

Consider the two examples below in which an instructor has conveyed the same information about group memberships and presentation dates to his/her students.

Example 1: Data aligned using tabs

In this example, the instructor has just used a combination of tabs and bolded text to format and align this information:

Student Name	Member of Group	Presentation Date
Bobbi Smith	Group A	November 24
Peter John	Group B	November 25

DATA TABLES (CONTINUED)

Example 2: Data aligned using a true table

In this example, the instructor has inserted a 3-column, 3-row table to organize the data, and has used true headings to define the data in the Header Row:

Student Name	Member of Group	Presentation Date
Bobbi Smith	Group A	November 24
Peter John	Group B	November 25

The difference for a user listening to the content via a screen reader would be that the content in *Example 1* would be interpreted as three cryptic or incomplete paragraphs, without conveying any thematic context for the data. Below is an approximate visual representation of what would be conveyed by a screen reader:

Student Name Member of Group Presentation Date
 Bobbi Smith Group A November 24
 Peter John Group B November 25

However, the content in *Example 2* would be interpreted by a screen reader as having true headings and would associate the context provided by the Header Row with the data in each cell. The screen reader user would therefore be advised that “Bobbi Smith” is a “Student Name” and that “November 24” is the “Presentation Date” for her group.

3. Check Point – Is your document’s tabular content:

- Created using the “Insert Table” function in Word?**
A Screen Reader will not recognize “columns” created using tabs and spaces, which will likely result in a confusing jumble of data for a non-sighted student.
- Formatted with Column and Row headings?**
Without proper headings, a Screen Reader has no means of identifying the context or meaning of the data in that Column and/or Row or how it relates to other data in the table.

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Word Document 508 Checklist. U.S. Department of Health & Human Services. <http://www.hhs.gov/web/508/accessiblefiles/checklistword.html>

OTHER GUIDES IN THE *CHECKPOINTS* SERIES

Accessibility Checkpoints for Audio Materials in Online Courses. (Spring 2014). Centre of Excellence for Teaching & Learning (CETL), Camosun College.

Accessibility Checkpoints for Documents in Online Courses. (Fall 2014). Centre of Excellence for Teaching & Learning (CETL), Camosun College.

Accessibility Checkpoints for Images in Online Courses. (Spring 2014). Centre of Excellence for Teaching & Learning (CETL), Camosun College.

Accessibility Checkpoints for Video Materials in Online Courses. (Summer 2014). Centre of Excellence for Teaching & Learning (CETL), Camosun College.

¹ *Tips for Creating Accessible Online Documents.* (2013) Purdue University.

http://www.purdue.edu/webaccessibility/documents/Tips_Creating_Accessible_Online_Documents.pdf

² Microsoft Word. WebAIM. (2014) <http://webaim.org/techniques/word/>

³ *SSA Guide: Producing Accessible Word and PDF Documents.* Social Security Administration Access Resource Center (ARC), p.6

⁴ *Authoring Techniques for Accessible Office Documents: Microsoft Word 2010.* (April 2013) Accessible Digital Office Document (ADOD) Project by Inclusive Design Research Centre (IRDC). <http://adod.idrc.ocad.ca/word2010>

⁵ *SSA Guide: Producing Accessible Word and PDF Documents.* Social Security Administration Access Resource Center (ARC), p.7.

⁶ *SSA Guide: Producing Accessible Word and PDF Documents,* p.26.

⁷ *SSA Guide: Producing Accessible Word and PDF Documents,* p.23.

⁸ *Alt text blunders.* 2014 WebAIM. <http://webaim.org/articles/gonewild/#alttext>

⁹ *Microsoft Office Word.* Computer Accommodations Program, University of Minnesota

¹⁰ *Microsoft Office Word.* Computer Accommodations Program, University of Minnesota