



# **Thesis and Dissertation ADA Web-Accessibility Handout**

## **Table of Contents**

Thesis and Dissertation ADA Web-Accessibility.....	1
Purpose.....	1
Requirements.....	1
Technology.....	1
University Operating Policy.....	2
Helpful Tips.....	2
Adding Alt Text to Figures, Schemes, Tables, and Equations.....	2
Alt Text to Figures and Schemes.....	2
Alt Text for Equations .....	4
Checking for Accessibility .....	6
Setting up Word for Accessibility Checks .....	7
Conducting an Accessibility Check.....	7
Errors : Figures, Schemes, and Equations .....	8
Errors : Tables.....	8
Splitting Tables and Inserting New Header Row .....	9
Splitting Table.....	9
Inserting New Header Row.....	12
Final Notes: Microsoft Word Accessibility Checker.....	12
Contrast .....	13
Examples .....	14



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Beginning Spring of 2020, we will require all students to ensure their document is Web-Accessible based on Federal Code, The Rehabilitation Act of 1973 Section 508. We will be utilizing standards set forth by the World Wide Web Consortium (W3C) and Web Content Accessibility Guidelines (WACG 2.0).

This document was created to help you ensure your document is compliant and how to fix what is not compliant. This document will focus on Word and PDF documents. If you are a LaTeX user, you will need to review the document created for LaTeX. You will also find the Mississippi State University Operating Procedure, OP 01.13 World Wide Web Pages and Other Electronic Publications, at the end of this document.

If you have any questions after this workshop, please feel free to call, email, or stop by our office! You can find our contact information at the end of this booklet.

## **Purpose**

The purpose of having a web-accessible document is to provide everyone the same opportunity to read your work. Web-accessible documents allow those with little to no vision access to your document with the aid of screen readers or other visual aids. Even if you will withhold your document to MSU only or even embargo it for a period, you need to ensure your document is ready for the general public when it is released.

## **Requirements**

As the author of a thesis or dissertation, you are required to add Alt text to all figures, schemes, and equations. We will discuss specific standards later in this document. You will also find the standards in the official Standards document in the Canvas module and on our website. You are also required to use one of the templates created by the Office of ETD Formatting and Submissions. Finally, you are required to perform an accessibility check in Word. This document will guide you through those steps.

## **Technology**

You will need access to Microsoft Word. If you do not already have a copy on your computer, you have access to a free copy from University ITS.



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## University Operating Policy

MSU Operating Policy 01.13: World Wide Web Pages and Other Electronic Publications is the policy upon which we will determine what will meet the requirements of this document. You can find a copy of the policy using the link or the QR code below.

<https://www.web.accessibility.msstate.edu/policy-standards>



*Scan the code for more information*

## Helpful Tips

- Add Alt Text as you work through your document. Then it won't be a daunting to complete the task
- Ask questions as you go. Again, completing each small task as you go will save you time in the end.
- Make sure your tables, figures, or schemes are not text wrapped. The image **MUST** be in line with the text to be considered acceptable
- You **MUST** use a template. Using a template will help ensuring your document is accessible.
- Make sure you use the styles. This will help the PDF converter find a logical order for accessibility.

## Adding Alt Text to Figures, Schemes, Tables, and Equations

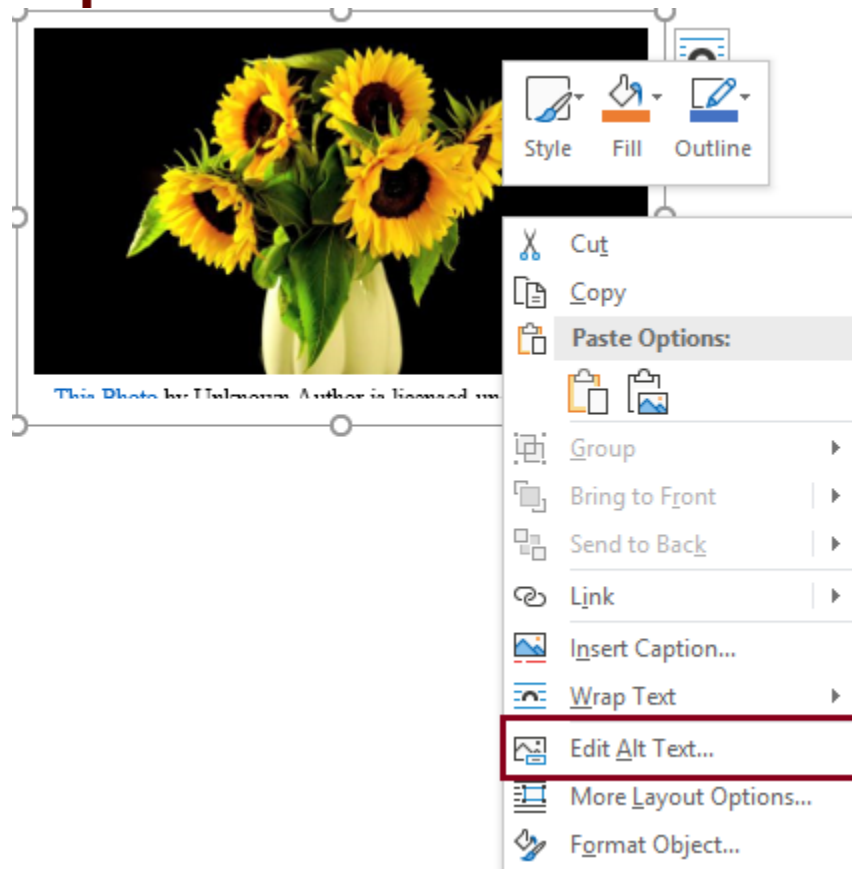
### *Alt Text to Figures and Schemes*

Adding Alt Text is not near as scary as it sounds. Below, you will find images and instructions to guide you through the process.

After you have inserted your image, you right click the image and choose "Edit Alt Text"



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When you click “Edit Alt Text”, a window will open to the right.

### Alt Text

How would you describe this object and its context to someone who is blind?

*(1-2 sentences recommended)*

Generate a description for me

☐ Mark as decorative ⓘ



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In the blank window, you will write your alternative text. Please refer to the Standards for appropriate input. You will complete these same steps for inputting Alt Text for Schemes.

If you had an image that was decorative, it was just there to look pretty and did not serve a purpose, you would make sure you checked the “Mark as decorative” box. This will tell screen readers to skip the image.

For theses and dissertations, there should not be any decorative images. All images should serve a purpose in your document.

### *Alt Text for Equations*

You will need to use the “Equation number” Quickpart to create an invisible table to insert your equation. The Quickpart will create a numbering system to match your chosen template.

Sample Equation:

$$A = \frac{1}{2}bh \quad (1.1)$$

First, you will need to insert the equation quickpart by typing:

1. Equation number
2. F3


This will give you the image area and the equation number for your new equation.

<i>Insert your equation</i>	(1.1)
-----------------------------	-------

*The dotted lines of the table will disappear once saved as a PDF.*

You will then type your equation where it says, “Insert your equation”.

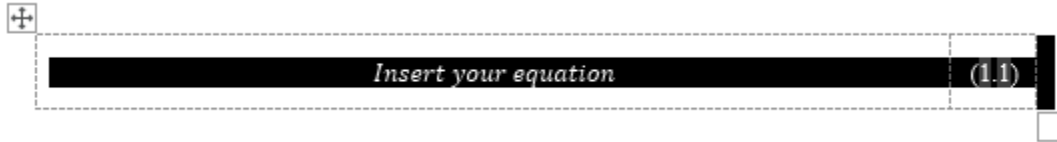
Next, you will highlight the entire table. To highlight the entire table, hover over the table to see a plus sign in the top left corner.

	<i>Insert your equation</i>	(1.1)
---	-----------------------------	-------

Click this to highlight the entire table.



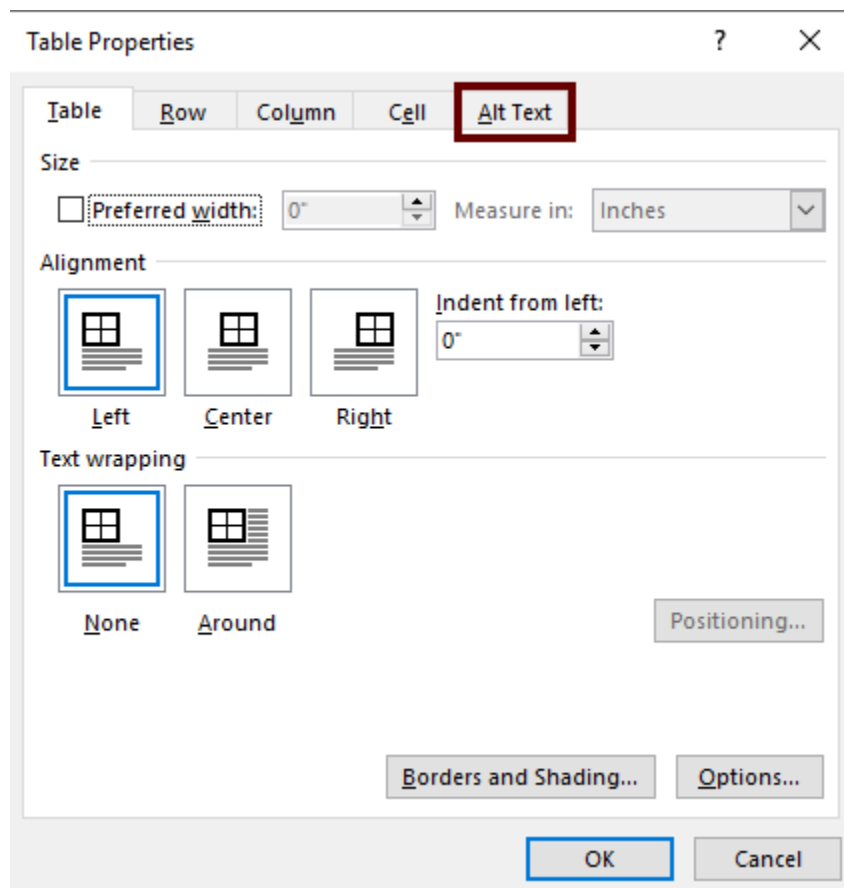
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Next, you will choose “Properties” in the “Layout” section of the “Table Tools” tab.



Once you click “Properties” that will bring up a new window. You will click the “Alt Text” tab.





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That will bring up the section where you will enter the alternative text for your equation.

Table Properties

Table Row Column Cell **Alt Text**

Title

Description

**Alternative Text**  
Titles and descriptions provide alternative, text-based representations of the information contained in tables, diagrams, images, and other objects. This information is useful for people with vision or cognitive impairments who may not be able to see or understand the object.  
  
A title can be read to a person with a disability and is used to determine whether they wish to hear the description of the content.

OK Cancel

In the title section, you will write “Equation” and then the number. In the blank window, you will write “This equation is discussed on page xx. If you have any questions, please contact the author.”

Click “OK” and that is all you need to do for the equations.

You will repeat the accessibility steps for all of the figures and equations in your document.

## Checking for Accessibility

Once you have added Alt Text for all of your figures, schemes, and equations, and you have connected all of your headings and titles to the correct style, you will need to conduct a full accessibility scan of your Word document.

As long as you have input Alt Text as you worked through your document and connected everything in the styles pane, you should have little issue with the accessibility checker. For your Word document, Word has a built-in checker we will use.



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## *Setting up Word for Accessibility Checks*

You should be able to see “Check Accessibility” in the “Review” tab of Word.



If not, contact the office and we can walk you through getting access.

## *Conducting an Accessibility Check*

Conducting a check is easy! You will need to click the “Check Accessibility” button on the “Review” tab.







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Once you click the icon, a window will open to the right with all the issues you may have in your document.

You can see all of the errors in Word. Below the errors, there is some helpful information to help you fix the issues. The Warnings section will have things you will need to check as well.

### ***Errors : Figures, Schemes, and Equations***

To fix the issues, you will just click the error, for the document we checked, you would click “Picture 3” in the Accessibility Checker box. This will take you to that image. You will then follow the Alt Text directions found on page 2. You will need to do this for every error that is under the “Missing alternative text” section.

If you get the message “Image or object not inline” that means you have that item text wrapped. It could be a figure or a table. You will need to remove the text wrapping to make your document compliant.

### ***Errors : Tables***

You may have an error that reads “No header row”. You may come across this error if you have a long table that is continued on another page. All you will need to do is copy and paste the top row onto the next page after you split the table. You can find directions to complete this task below.

**Accessibility Ch...** x

Inspection Results

**Errors**

- Missing alternative text
  - Picture 3
  - Picture 5
  - Picture 5
  - Picture 4
  - Picture 5

**Warnings**

- Hard-to-read text contrast
  - Template A v4.0 (beta): Create...
  - TITLE PAGE
  - COPYRIGHT PAGE
  - APPROVAL PAGE
  - ABSTRACT

**Additional Information** v

**Why Fix?**

Alternative text for images and other objects is very important for people who can't see the screen. Screen readers read alternative text aloud, so it's the only information many have about the image. Good alternative text helps them understand the image.

**Steps To Fix:**

1. Right-click the object, then select Edit Alt Text.
2. If the object is meaningful, type a description of it in the text box on the Alt Text pane; otherwise, if the object is purely decorative, select the Decorative check box.

[Read more about making documents accessible](#)



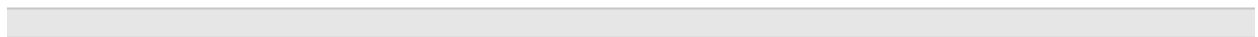
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## Splitting Tables and Inserting New Header Row

Let's say you have a table that starts on one page and ends on the second page like the image below.

Table 1      University clothing donations for 2019

Person	Place	Thing
John	Mississippi State	Pants
Jane	U. of Southern Mississippi	Coats
Samantha	Alcorn State	Shirts



Noah	U. of Mississippi	Socks
Sherman	Mississippi College	Shoes
Molly	Millsaps College	Sweaters

You will need to split the table, copy and paste your title row, and make sure that title row is a "Header Row"

## Splitting Table

Depending on how your data is presented in the table, you may have a more natural break in the information. You can break there following these same steps.



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Highlight the top row on the second page or wherever you want the table to break.

Table 1 University clothing donations for 2019

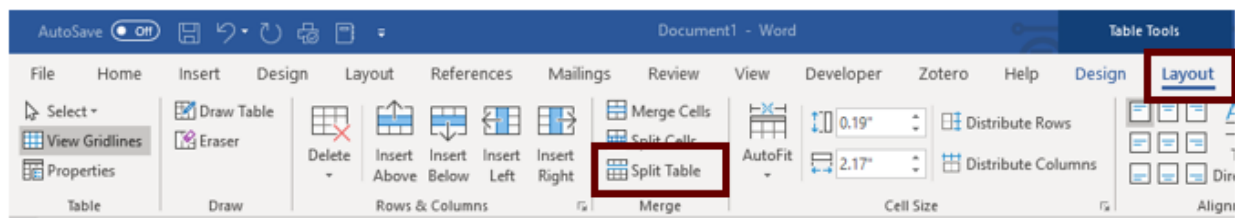
Person	Place	Thing
John	Mississippi State	Pants
Jane	U. of Southern Mississippi	Coats
Samantha	Alcorn State	Shirts

Noah	U. of Mississippi	Socks
Sherman	Mississippi College	Shoes
Molly	Millsaps College	Sweaters

This will open a “Table Tools : Design and Layout” tabs at the top of the document.



Choose “Layout” and then choose “Split Table”





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This will split the table for you. Next, you will title the continued table, Table *insert number* (continued).

Table 1 University clothing donations for 2019

Person	Place	Thing
John	Mississippi State	Pants
Jane	U. of Southern Mississippi	Coats
Samantha	Alcorn State	Shirts

Table 1 (continued)

Noah	U. of Mississippi	Socks
Sherman	Mississippi College	Shoes
Molly	Millsaps College	Sweaters

Next, you will want to make sure the first line of the table is a “Header Row”.

Highlight the top row of the table.

Table 1 University clothing donations for 2019

Person	Place	Thing
John	Mississippi State	Pants
Jane	U. of Southern Mississippi	Coats
Samantha	Alcorn State	Shirts

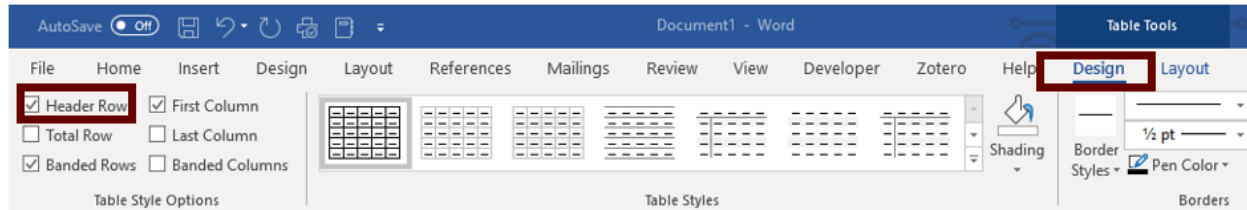
Table 1 (continued)

Noah	U. of Mississippi	Socks
Sherman	Mississippi College	Shoes
Molly	Millsaps College	Sweaters



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Go to the “Design” tab of the “Table Tools” section. Make sure the “Header Row” box is checked.



## Inserting New Header Row

After you have checked the top row of the first table, you will need to copy and paste that row to the “continued” table. You just need to complete the following steps:

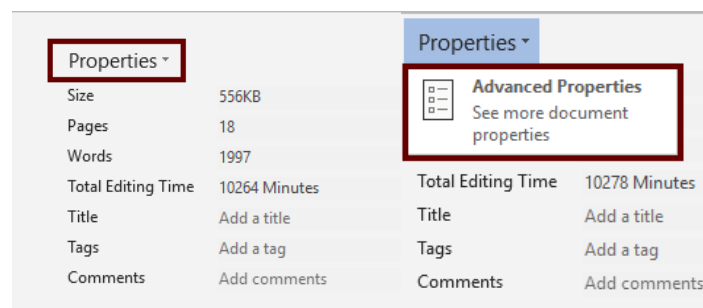
1. Highlight and copy the top information row
2. Click after the word “continued”
3. Hit the Enter once
4. Paste.

This should connect this information row to the “continued” table. You will then highlight the top row, the one you just pasted, and make sure it is a “Header Row”. You will do this just the same as above.

## ***Final Notes: Microsoft Word Accessibility Checker***

While you are working in your document, you do have the option to keep the Accessibility Checker running while you complete your document. This will alert you of a new image or table that will need alternative text as you go instead of having to return and do them all at the same time.

Before you publish your PDF, make sure you have adjusted the title in the ‘Advanced Properties’. You can find these properties when you click “File”. To the right, you will see “Properties”. You will click “Properties” and it will provide a drop-down menu.



Once you have clicked “Advanced Properties” you will get this menu.



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A screenshot of a Windows-style dialog box titled 'Web Accessibility Portion of Workshop Properties'. It has five tabs: 'General', 'Summary', 'Statistics' (which is selected), 'Contents', and 'Custom'. The 'Statistics' tab contains several text input fields: 'Title:' (empty), 'Subject:' (empty), 'Author:' (containing 'Threet, Lara'), 'Manager:' (empty), 'Company:' (containing 'Mississippi State University Library'), 'Category:' (empty), 'Keywords:' (empty), 'Comments:' (empty), and 'Hyperlink base:' (empty). Below these fields is a 'Template:' dropdown menu set to 'Normal'. At the bottom left is a checkbox labeled 'Save Thumbnails for All Word Documents' which is unchecked. At the bottom right are 'OK' and 'Cancel' buttons.

The Title will be the title of your thesis/dissertation. Make sure your name is listed in the Author line. Those are the only two pieces that you need to make sure you have completed. By doing this, it fix the “Title” issue in the PDF Accessibility Checker.

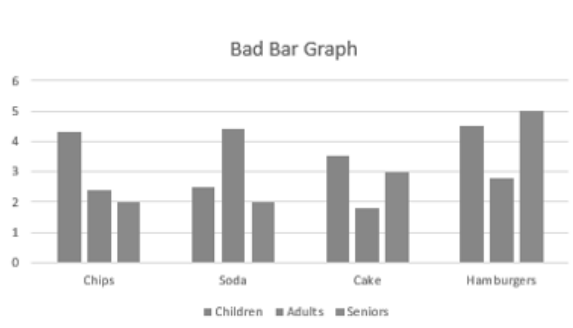
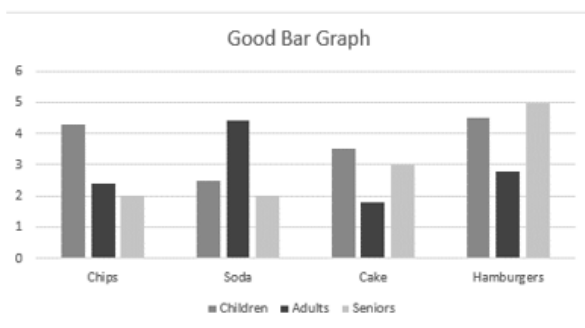
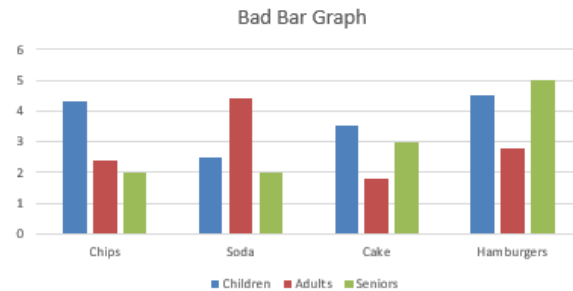
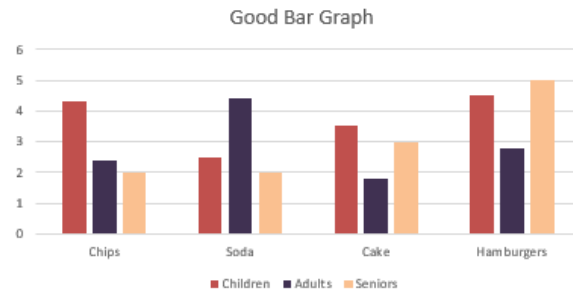
## Contrast

When creating graphs and charts, you need to make sure your color contrast and line weight choices are distinct enough for users with color-blindness or low vision will be able to read your info-graphic easily. The following are some examples of good and bad graphs and charts.



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## *Examples*

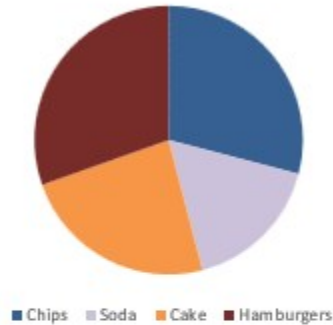


When selecting your color choices for your bar graphs, think about how they would look if they were in black and white. Is there enough contrast difference between the colors you chose that someone with color blindness would be able to distinguish between the colors?

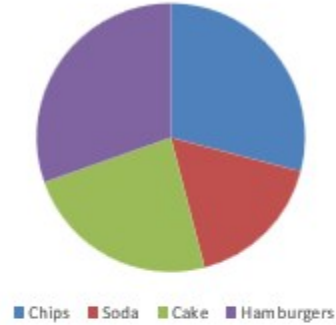


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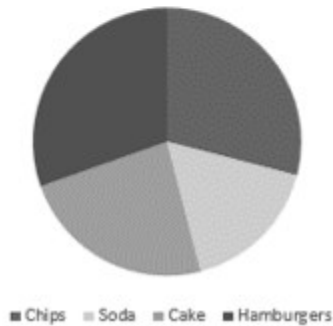
Good Pie Graph



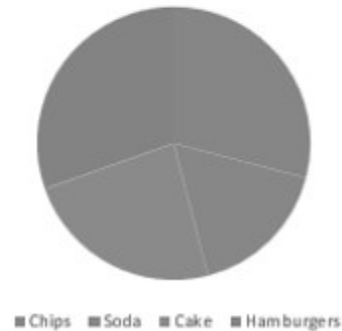
Bad Bar Graph



Good Pie Graph



Bad Bar Graph

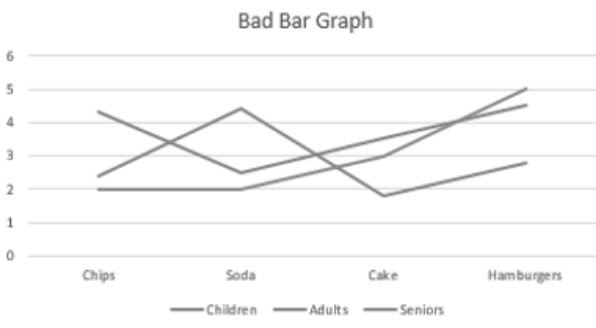
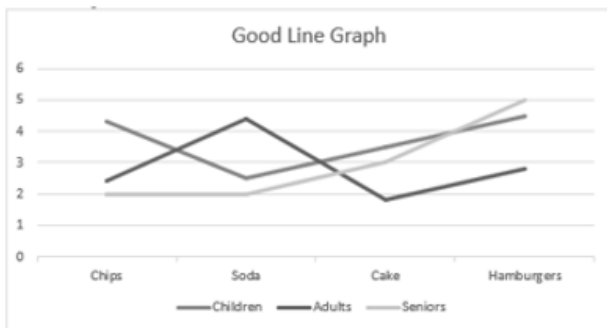
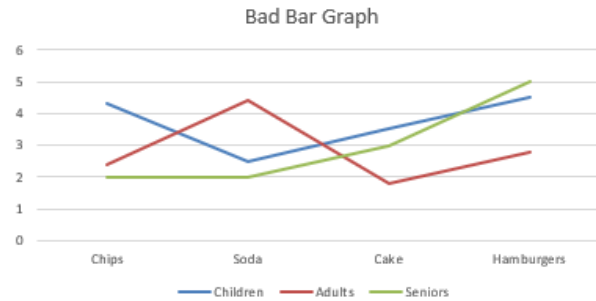
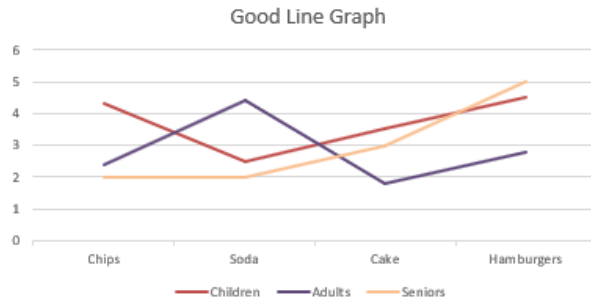


When selecting your color choices for your pie graphs, think about how they would look if they were in black and white. Is there enough contrast difference between the colors you chose that someone with color blindness would be able to distinguish between the colors?

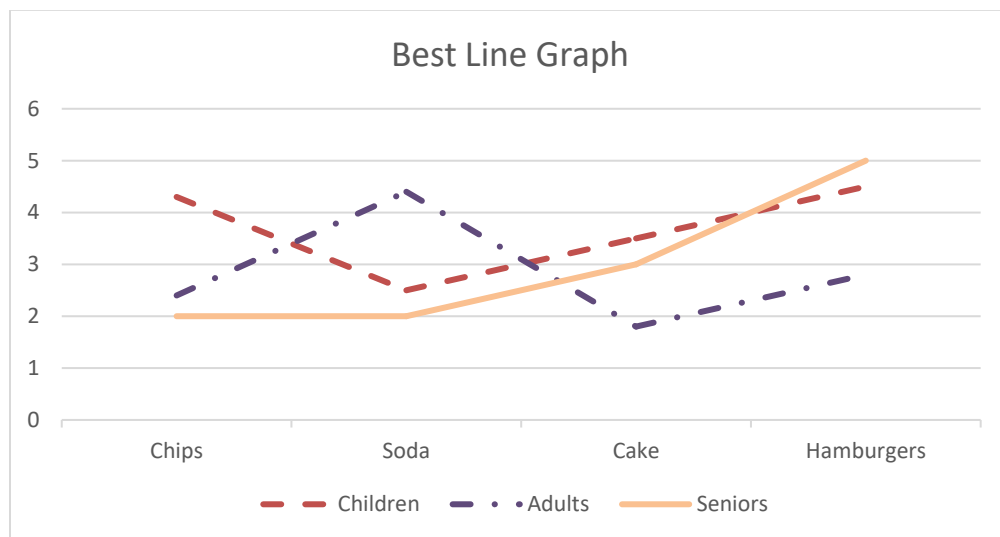




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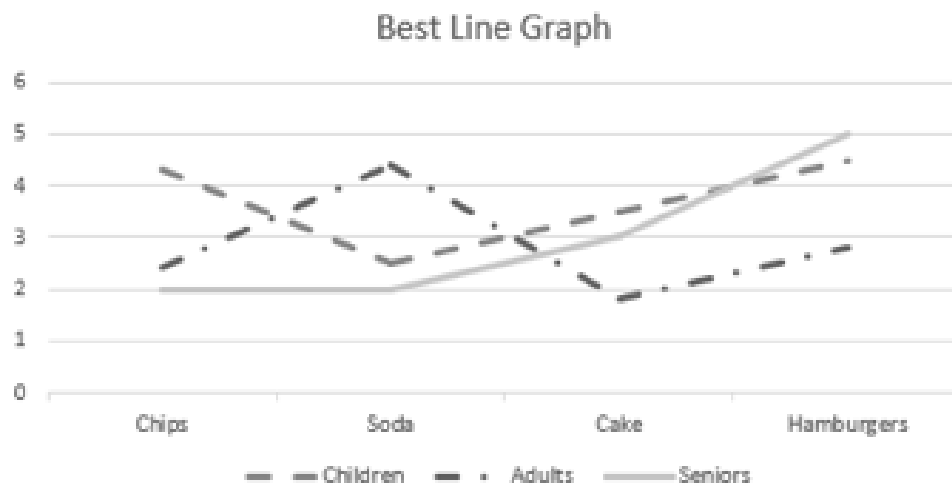


When selecting your color choices for your line graphs, thing about how they would look if they were in black and white. Is there enough contrast difference between the colors you chose that someone with color blindness would be able to distinguish between the colors?





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The best line graphs will consider color contrast as well as line styles. Keep this information in mind as you create your charts and graphs. If your contrast is not different enough, you can change the line styles to make it more acceptable.



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## **Office of Thesis and Dissertation Format Review**

### **Contact Information**

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Website

<http://lib.msstate.edu/thesis/>

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  - In-person and Online Workshops available
  - Mac user specific
  - College of Education and Department of Psychology specific
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