

COOL4Ed ACCESSIBILITY CHECKPOINTS

METHODS FOR HTML FORMATS
(NONASSISTIVE TECHNOLOGIES)



Accessibility Checkpoints

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2. Text Access
3. Text Adjustment
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5. Reading Order
6. Structural Markup/Navigation
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12. Multimedia
13. Flickering
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15. Interactive Elements

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How to access texts

STEPS:

2. Select desired titles

Introduction to Statistics

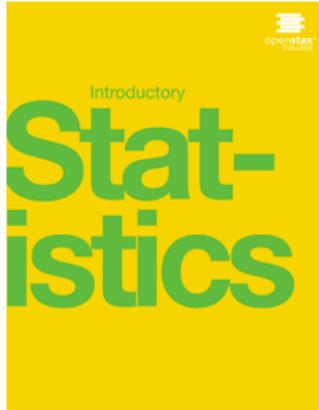


MATH 110

eTextbook	eTextbook Reviews
<i>Introductory Statistics From BC Campus</i>	Tami Matsumoto, CCC Faculty Andrew Noymer, UC Faculty Hasan Rahim, CCC Faculty
<i>Introductory Statistics From Open Stax College</i>	Tami Matsumoto, CCC Faculty Andrew Noymer, UC Faculty Hasan Rahim, CCC Faculty
<i>Online Statistics Education: An Interactive Multimedia Course of</i>	Tami Matsumoto, CCC

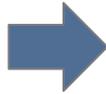
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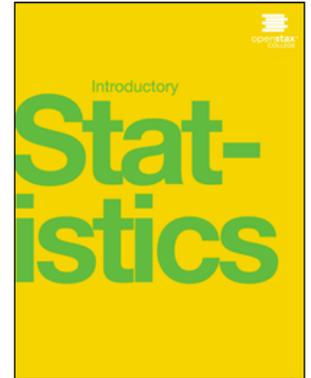
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Formats

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1. EPUB3
2. HTML
3. Microsoft Word
4. PDF

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Formats

In other words, EPUB3 is ideal, but if it is not available, we move down the list and search for the next available format

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Formats

Note: This is an OpenStax text. Although EPUB3 isn't listed, it is available!

To determine if there is an EPUB3 format for OpenStax texts, additional navigation is required.

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Introductory Statistics

Book by: OpenStax College

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Preface

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Introductory Statistics

Book by: OpenStax College

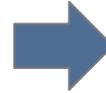
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Preface

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Note: At the time of this writing, only OpenStax texts have been found to need additional navigation. All other texts have been found to clearly list out all available formats.

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Checklist

All information obtained from textbook evaluation will be entered into checklists:

HTML Accessibility Checklist					
Content	Name of book	Format	OS Used	Total Number of Pages	Number of Chapters
HTML					

Check point	Criteria	Amount of Material	Pass/Fail
1 Acc. Documentation	A. URL to Formal Accessibility Policy		
1 Acc. Documentation	B. URL to Accessibility Statement		
1 Acc. Documentation	C. URL to Accessibility Evaluation Report		
2 Text Access	Text to Speech	0	
3 Text Adjustment	A. Compatible	0	
3 Text Adjustment	B. Adjust font and colors	0	
4 Reading Layout	A. Reflow the text	30 web pages	
4 Reading Layout	B. Page # match printed material & reflow of text	30 web pages	
5 Reading Order	Digital resource layout		
6 Structural Markup	A. Navigation text		
6 Structural Markup	B. Lists		
6 Structural Markup	C. eReader application		
7 Table Markup	Table Markup		
8 Hyperlinks	Hyperlinks (within book)		
8 Hyperlinks	Hyperlink (live on internet)	20 links	
9 Color and Contrast	A. Color redundancy		
9 Color and Contrast	B. Contrast		
10 Language	A. Markup		
10 Language	B. Passage Markup		
11 Images	A. Non-decorative		
11 Images	B. Decorative		
11 Images	C. Complex		
12 Multimedia	A. Text Track		
12 Multimedia	B. Transcript		
12 Multimedia	C. Assistive Player		
13 Flickering	Flickering	10 links	
14 STEM	A. Markup (figures)	10 figures	
14 STEM	A. Markup (graphs)	10 graphs	
14 STEM	A. Markup (equation)	10 equations	
14 STEM	B. Notation Markup (figures)	10 figures	
14 STEM	B. Notation Markup (graphs)	10 graphs	
14 STEM	B. Notation (equation)	10 equations	
15 Interactive Elements	A. Keyboard		
15 Interactive Elements	B. Markup		
15 Interactive Elements	C. Text Prompts		

EPUB Accessibility Checklist					
Content	Name of book	Format	OS Used	Total Number of Pages	Number of Chapters
EPUB					
#	Check point	Criteria	Amount of Material	Pass/Fail	Additional Info
1 Acc. Documentation	A. URL to Formal Accessibility Policy				
1 Acc. Documentation	B. URL to Accessibility Statement				
1 Acc. Documentation	C. URL to Accessibility Evaluation Report				
2 Text Access	Text to Speech		0 pages		
3 Text Adjustment	A. Compatible		0 pages		
3 Text Adjustment	B. Adjust font and colors		0 pages		
4 Reading Layout	A. Reflow the text		0 pages		
4 Reading Layout	B. Page #s match printed material & reflow of text		0 pages		
5 Reading Order	Digital resource layout				
6 Structural Markup	A. Navigation text				
6 Structural Markup	B. Lists				
6 Structural Markup	C. eReader application				
7 Table Markup	Table Markup				
8 Hyperlinks	Hyperlinks (in-book)		30 links		
8 Hyperlinks	Hyperlink (live)		20 links		
9 Color and Contrast	A. Color redundancy				
9 Color and Contrast	B. Contrast				
10 Language	A. Markup				
10 Language	B. Passage Markup				
11 Images	A. Non-decorative				
11 Images	B. Decorative				
11 Images	C. Complex				
12 Multimedia	A. Text Track				
12 Multimedia	B. Transcript				
12 Multimedia	C. Assistive Player				
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14 STEM	A. Markup (figures)		10 figures		
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14 STEM	A. Markup (equation)		10 equations		
14 STEM	B. Notation Markup (figures)		10 figures		
14 STEM	B. Notation Markup (graphs)		10 graphs		
14 STEM	B. Notation (equation)		10 equations		
15 Interactive Elements	A. Keyboard				
15 Interactive Elements	B. Markup				
15 Interactive Elements	C. Text Prompts				

Checklist

For every book, enter the following:

- Content area
- Name of book
- Format (i.e., EPUB, HTML, Word, or PDF)
- OS used (e.g., Microsoft; Windows)
- For EPUB, Word, and PDF formats: Total number of pages (obtained from Word or PDF format preferably, if available)
- For HTML only: Total number of chapters

Note: Only Windows will be used for analysis until Apple equivalents are decided upon.

Checklist

Example for the EPUB format of Introductory Statistics (PDF version has 863 pages)

Select content type from dropdown list

Select format and OS – note: each format has a different checklist

Use this box

EPUB Accessibility Checklist					
Content	Name of book	Format	OS Used	Total Number of Pages	Number of Chapters
Introduction to Statistics	Introductory Statistics	EPUB	Windows	863	

Enter name of book in its entirety

Checklist

Note: When certain information is entered such as the number of pages or number of chapters, certain information in the checklist is updated:

EPUB Accessibility Checklist					
Content	Name of book	Format	OS Used	Total Number of Pages	Number of Chapters
Introduction to Statistics	Introductory Statistics	EPUB	Windows	863	
#	Check point	Criteria	Amount of Material	Pass/Fail	Additional Info
1	Acc. Documentation	A. URL to Formal Accessibility Policy			
1	Acc. Documentation	B. URL to Accessibility Statement			
1	Acc. Documentation	C. URL to Accessibility Evaluation Report			
2	Text Access	Text to Speech	172.6 pages		
3	Text Adjustment	A. Compatible	86.3 pages		
3	Text Adjustment	B. Adjust font and colors	86.3 pages		
4	Reading Layout	A. Reflow the text	172.6 pages		
4	Reading Layout	B. Page #s match printed material & reflow of text	172.6 pages		

Checklist

This information is based upon predetermined values for the amount of information that needs to be evaluated. You only need to round up to the next page count (or link count).

EPUB Accessibility Checklist					
Content	Name of book	Format	OS Used	Total Number of Pages	Number of Chapters
Introduction to Statistics	Introductory Statistics	EPUB	Windows	863	
#	Check point	Criteria	Amount of Material	Pass/Fail	Additional Info
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1	Acc. Documentation	B. URL to Accessibility Statement			
1	Acc. Documentation	C. URL to Accessibility Evaluation Report			
2	Text Access	Text to Speech	172.6 pages		
3	Text Adjustment	A. Compatible	86.3 pages		
3	Text Adjustment	B. Adjust font and colors	86.3 pages		
4	Reading Layout	A. Reflow the text	172.6 pages		
4	Reading Layout	B. Page #s match printed material & reflow of text	172.6 pages		



173 pages
87 pages
87 pages
173 pages
173 pages

Checklist

The percentages used are included in this presentation, but that is only for your reference – the checklist will fill out this information for you!

EPUB Accessibility Checklist					
Content	Name of book	Format	OS Used	Total Number of Pages	Number of Chapters
Introduction to Statistics	Introductory Statistics	EPUB	Windows	863	
#	Check point	Criteria	Amount of Material	Pass/Fail	Additional Info
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1	Acc. Documentation	B. URL to Accessibility Statement			
1	Acc. Documentation	C. URL to Accessibility Evaluation Report			
2	Text Access	Text to Speech	172.6 pages		
3	Text Adjustment	A. Compatible	86.3 pages		
3	Text Adjustment	B. Adjust font and colors	86.3 pages		
4	Reading Layout	A. Reflow the text	172.6 pages		
4	Reading Layout	B. Page #s match printed material & reflow of text	172.6 pages		

173 pages
87 pages
87 pages
173 pages
173 pages

Skills Commons Accessibility Checkpoints

All information obtained from textbook evaluation will be entered into the checkpoints document:

3. *Text Adjustment*

PASS/FAIL: _____ Ranking: _____

- A. Text is compatible with assistive technology.
- B. The resource allows the user to adjust the font size and font/background color (or is rendered by an application such as a browser, media player, or reader) that offers this functionality).

Additional Information: Please describe the technologies (hardware and software versions) and methodologies you used to evaluate the accessibility of the resource for this feature.

Enter info such as the pages you evaluated here as well.

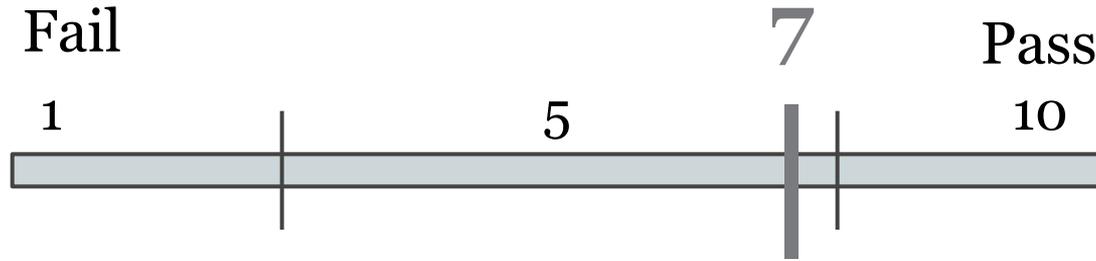


Pass, Fail, or N/A?

- Evaluate material based on the amount of material included in the checklist
- Example: Evaluate 10 links for flickering
7 / 10 links - PASS
6/10 links - FAIL
N/A cannot be used here!

Ratings

- Ratings are on a scale of 1-10



- Failure to meet a checkpoint (Fail) should not be rated above a 7
- Meeting a checkpoint (Pass) should not be rated below a 7

HTML

HTML Evaluation Requirements

OS and Native Software

- Windows OS (XP or above)

Require Downloading

- Color Contrast Analyzer ([Download](#))
- Google Chrome ([Download](#))
- Care your eyes (Google Chrome extensions) ([Download](#))
- Select and Speak (Google Chrome ext.) ([Download](#))

1. Accessibility Documentation

For the textbooks' organizations, find the following:

- URL to formal Accessibility Policy
- URL to accessibility statements
- URL to Accessibility Evaluation Report

2. Text Access

- ☑ The text of the digital resource is available to assistive technology that allows the user to enable text-to-speech (TTS) functionality

STEPS:

1. Download "Select and Speak"
2. Open the book with Google Chrome > Select text > Click on "Select and Speak" icon

2. Text Access

1. Download "Select and Speak" @ <https://chrome.google.com/webstore/detail/select-and-speak-text-to/gfjopfpjmkcfgjpogepmdjmcnihfpokn/related?hl=en>

The screenshot shows the Chrome Web Store interface for the extension "Select and Speak - Text to Speech" by iSpeech. The page is displayed in a browser window with the user's email address "debby130403@gmail.com" visible in the top right corner. The extension is marked as "ADDED TO CHROME" and has a 4.5-star rating from 736 reviews. It is categorized as "Productivity" and has 714,625 users. The "OVERVIEW" tab is selected, showing a preview of the extension's interface. The preview displays a text document with a blue selection bar and a small speech bubble icon. The text in the preview includes "Woolly mammoth" and "The woolly mammoth lived in a group of animals...". To the right of the preview, there is a "Compatible with your device" badge and a description: "Select and Speak uses iSpeech's human-quality text-to-speech (TTS) to read any selected text in the browser. It includes many...". Below the description, there are links for "Website", "Report Abuse", "Version: 0.2.21", "Updated: June 17, 2015", "Size: 535KB", and "Language: English". The background of the page shows other extensions like "AccuRadio" and "FireRTC".

2. Text Access

2. Open the book with Google Chrome > Select text > Click on "Select and Speak" icon

Note: make sure your speaker is on!

9442-6998-4686-ac05-ed152b91b9de@17.44:4/Introductory-Statistics

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Back Next

Data, Sampling, and Variation in Data and Sampling

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Page by: OpenStax College

Summary

Data may come from a population or from a sample. Small letters like x or y generally are used to represent data values. Most data can be put into the following categories:

- Qualitative
- Quantitative

Qualitative data are the result of categorizing or describing attributes of a population. Hair color, blood type, ethnic group, the car a person drives, and the street a person lives on are examples of qualitative data. Qualitative data are generally described by words or letters. For instance, hair color might be black, dark brown, light brown, blonde, gray, or red. Blood type might be AB+, O-, or B+. Researchers often prefer to use quantitative data over qualitative data because it lends itself more easily to mathematical analysis. For example, it does not make sense to find an average hair color or blood type.

Quantitative data are always numbers. Quantitative data are the result of counting or measuring attributes of a population. Amount of money, pulse rate, weight, number of people living in your town, and number of students who take statistics are examples of quantitative data. Quantitative data may be either **discrete** or **continuous**.

All data that are the result of counting are called **quantitative discrete data**. These data take on only certain numerical values. If you count the number of phone calls you receive for each day of the week, you might get values such as zero, one, two, or three.

All data that are the result of measuring are **quantitative continuous data** assuming that we can measure accurately. Measuring angles in radians might result in such numbers as $\frac{\pi}{6}$, $\frac{\pi}{3}$, $\frac{\pi}{2}$, π , $\frac{3\pi}{4}$, and so on. If you and your friends carry backpacks with books in them to school, the numbers of books in the backpacks are discrete data and the weights of the backpacks are continuous data.

Example: Data Sample of Quantitative Discrete Data

The data are the number of books students carry in their backpacks. You sample five students. Two students carry three books,

2. Text Access

- Amount of Material to Be Evaluated

*** Sample 15% of the chapters ***

Ex. If the book has 20 chapters in total

20 chapters x .15 = 3 chapters

Note: round up to nearest whole number

3. Text Adjustment (Size)

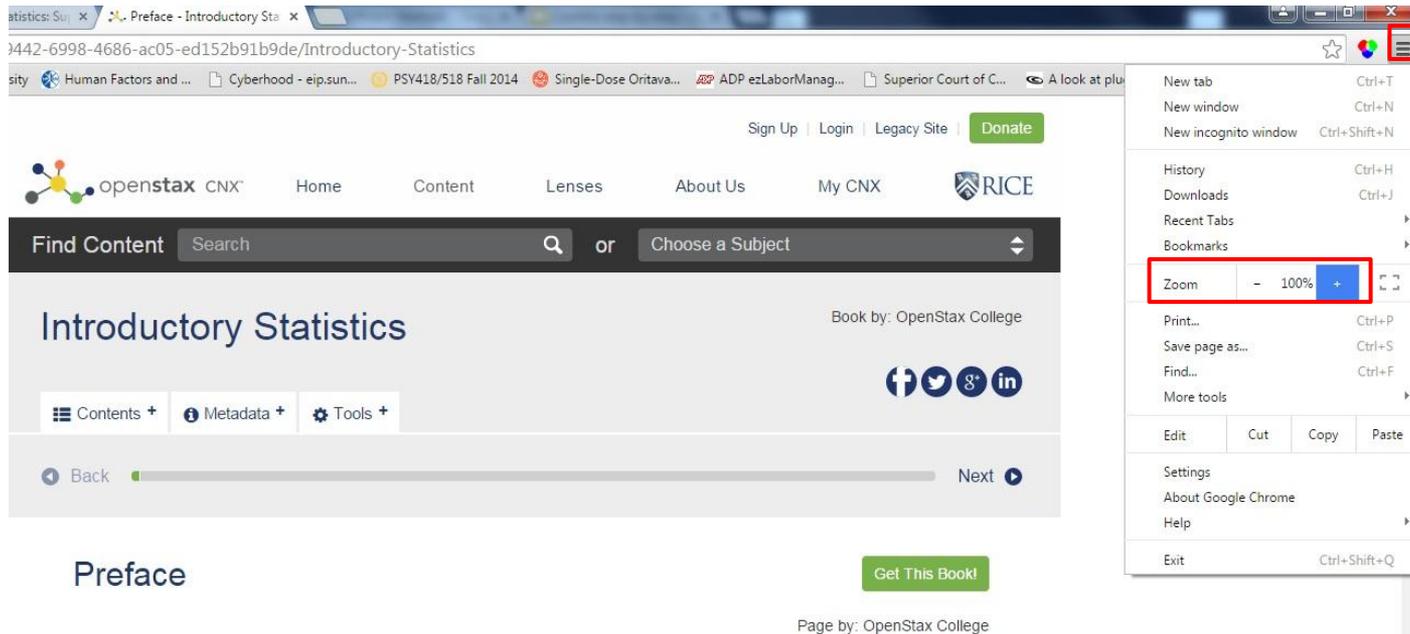
- ☑ The text allows the user to adjust the font size

STEPS:

1. Open the book with Google Chrome
2. Click on Menu > Zoom "+" for increase, "-" for decrease

3. Text Adjustment (size)

1. Open the book with Google Chrome
2. Click on Menu > Zoom "+" for increase, "-" for decrease



The screenshot shows a Google Chrome browser window displaying the OpenStax website. The address bar shows the URL: <https://442-6998-4686-ac05-ed152b91b9de/introductory-statistics>. The page title is "Introductory Statistics" and it is identified as a book by OpenStax College. The website header includes navigation links for Home, Content, Lenses, About Us, and My CNX, along with a search bar and a "Find Content" button. The main content area shows the title "Introductory Statistics" and a "Preface" section. A green "Get This Book!" button is visible at the bottom right. The Chrome menu is open on the right side, and the "Zoom" option is highlighted with a red box, showing a zoom level of 100% with "+" and "-" buttons.

Page by: OpenStax College

3. Text Adjustment (size)

- Amount of Material to Be Evaluated

*** Sample 15% of the chapters***

3. Text Adjustment (Color)

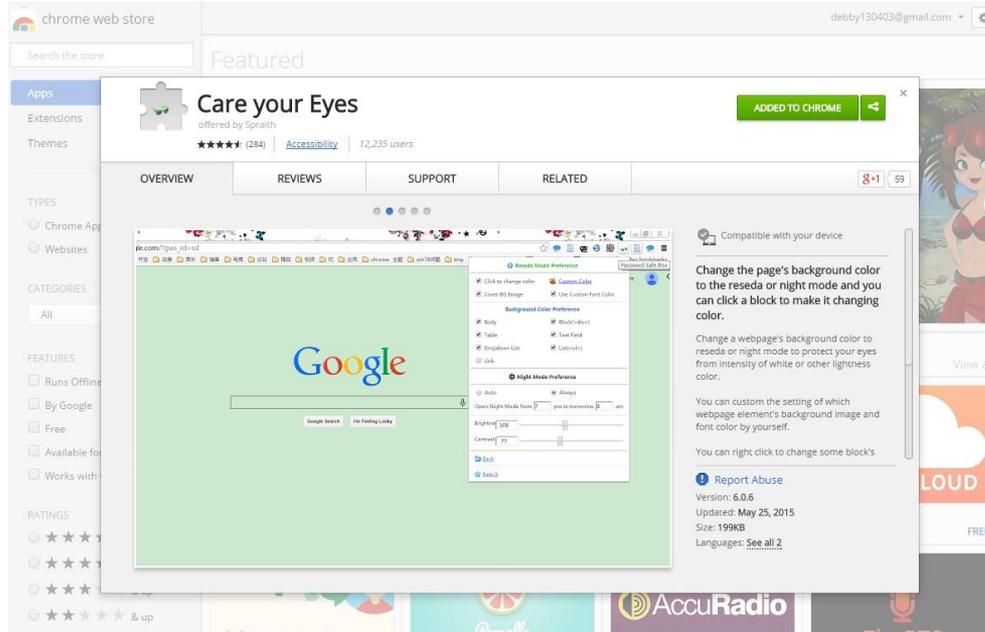
- ☑ The text allows the user to adjust the font size

STEPS:

1. Download "Care your Eyes"
2. Open the book with Google Chrome and click on the Care your eyes icon
3. > Select Night Mode > See if the font/background color changes

3. Text Adjustment (color)

1. Download "Care your Eyes" @ <https://chrome.google.com/webstore/detail/care-your-eyes/fidmpnedniahpnpkeomejhnpmbdamlhl?hl=en>



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Ratings

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★★★★

★★★

★★

★

up

Care your Eyes

offered by Sprath

★★★★★ (284) Accessibility 12,235 users

ADDED TO CHROME

OVERVIEW REVIEWS SUPPORT RELATED

Compatible with your device

Change the page's background color to the reseda or night mode and you can click a block to make it changing color.

Change a webpage's background color to reseda or night mode to protect your eyes from intensity of white or other lightness color.

You can custom the setting of which webpage element's background image and font color by yourself.

You can right click to change some block's

Report Abuse

Version: 6.0.6

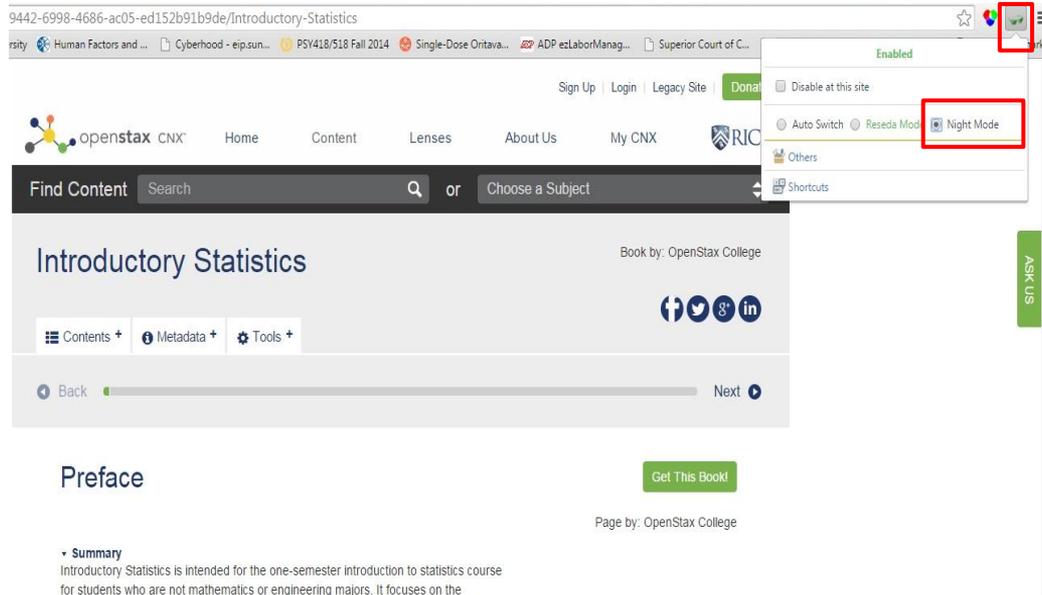
Updated: May 25, 2015

Size: 199KB

Languages: See all 2

3. Text Adjustment (color)

2. Open the book with Google Chrome and click on the Care your eyes icon > Select Night Mode > See if the font/background color changes



The screenshot shows a web browser window displaying the OpenStax book page for "Introductory Statistics". The browser's address bar shows the URL "9442-6998-4686-ac05-ed152b91b9de/Introductory-Statistics". The page header includes the OpenStax logo and navigation links like "Home", "Content", "Lenses", "About Us", and "My CNX". A search bar is present with the text "Find Content" and "Search". The main content area features the title "Introductory Statistics" and the author "Book by: OpenStax College". Below the title are social media icons for Facebook, Twitter, and LinkedIn, along with "Contents", "Metadata", and "Tools" buttons. A "Back" and "Next" navigation bar is visible. The "Care Your Eyes" menu is open in the top right corner, showing options: "Enabled", "Disable at this site", "Auto Switch", "Reseda Mod", "Night Mode" (which is selected and highlighted with a red box), "Others", and "Shortcuts". A "Get This Book!" button is located at the bottom right of the page. The page footer includes the text "Page by: OpenStax College" and a "Summary" section.

9442-6998-4686-ac05-ed152b91b9de/Introductory-Statistics

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Find Content Search or Choose a Subject

Introductory Statistics Book by: OpenStax College

Contents + Metadata + Tools +

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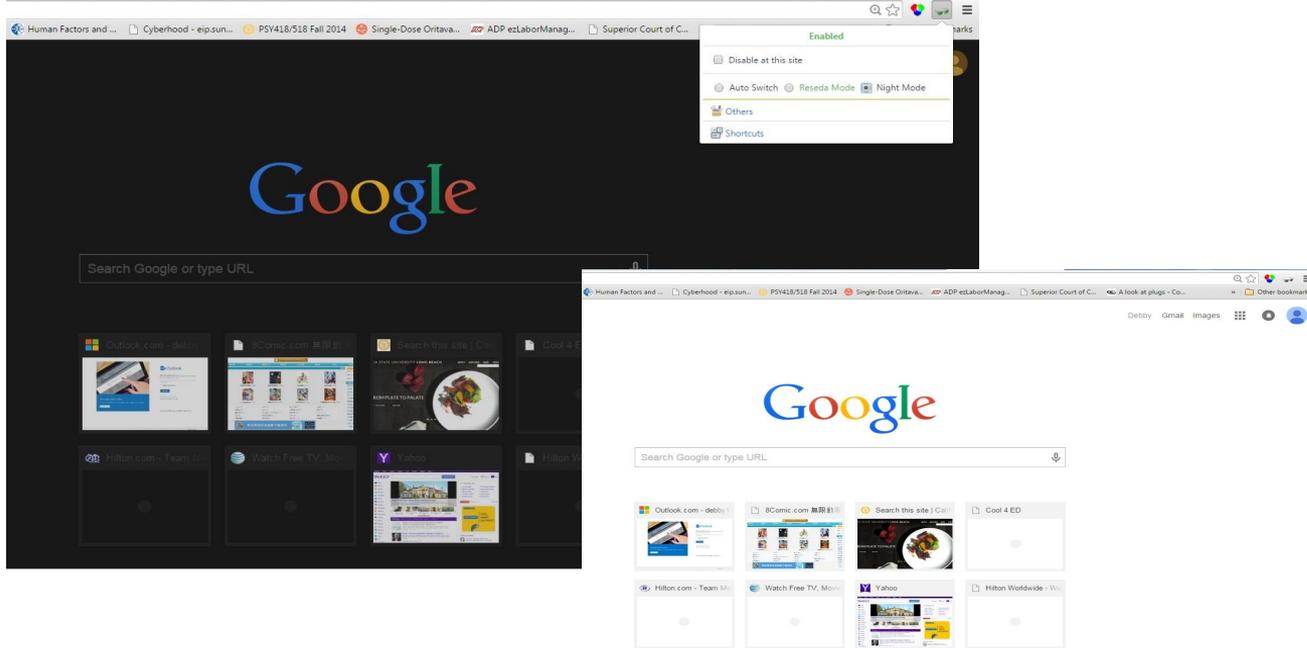
Preface Get This Book!

Page by: OpenStax College

Summary
Introductory Statistics is intended for the one-semester introduction to statistics course for students who are not mathematics or engineering majors. It focuses on the

3. Text Adjustment (color)

Example: Accessible website for font/background



3. Text Adjustment (color)

- Amount of Material to Be Evaluated

*** Sample 15% of the chapters***

4. Reading Layout

Do the page numbers correspond to the printed text?

STEPS:

1. Randomly select TEN pages from your online text from each third of the book (i.e., middle, beginning, and end)
2. Find corresponding pages in printed book or in PDF version
3. Determine if page numbers are the same in both versions

4. Reading Layout

HTML Book – Page 44

De Anza College			Foothill College		
	Number	Percent		Number	Percent
Full-time	9,200	40.9%	Full-time	4,059	28.6%
Part-time	13,296	59.1%	Part-time	10,124	71.4%
Total	22,496	100%	Total	14,183	100%

Fall Term 2007 (Census day)

Tables are a good way of organizing and displaying data. But graphs can be even more helpful in understanding the data. There are no strict rules concerning which graphs to use. Two graphs that are used to display qualitative data are pie charts and bar graphs.

In a **pie chart**, categories of data are represented by wedges in a circle and are proportional in size to the percent of individuals in each category.

In a **bar graph**, the length of the bar for each category is proportional to the number or percent of individuals in each category. Bars may be vertical or horizontal.

A **Pareto chart** consists of bars that are sorted into order by category size (largest to smallest).

Look at [Figure 1.5](#) and [Figure 1.6](#) and determine which graph (pie or bar) you think displays the comparisons better.

It is a good idea to look at a variety of graphs to see which is the most helpful in displaying the data. We might make different choices of what we think is the “best” graph depending on the data and the context. Our choice also depends on what we are using the data for.



Figure 3.

Printed Book – Page 14

14 CHAPTER 1 | SAMPLING AND DATA

Qualitative Data Discussion

Below are tables comparing the number of part-time and full-time students at De Anza College and Foothill College enrolled for the spring 2010 quarter. The tables display counts (frequencies) and percentages or proportions (relative frequencies). The percent columns make comparing the same categories in the colleges easier. Displaying percentages along with the numbers is often helpful, but it is particularly important when comparing sets of data that do not have the same totals, such as the total enrollments for both colleges in this example. Notice how much larger the percentage for part-time students at Foothill College is compared to De Anza College.

De Anza College			Foothill College		
	Number	Percent		Number	Percent
Full-time	9,200	40.9%	Full-time	4,059	28.6%
Part-time	13,296	59.1%	Part-time	10,124	71.4%
Total	22,496	100%	Total	14,183	100%

Table 1.2 Fall Term 2007 (Census day)

Tables are a good way of organizing and displaying data. But graphs can be even more helpful in understanding the data. There are no strict rules concerning which graphs to use. Two graphs that are used to display qualitative data are pie charts and bar graphs.

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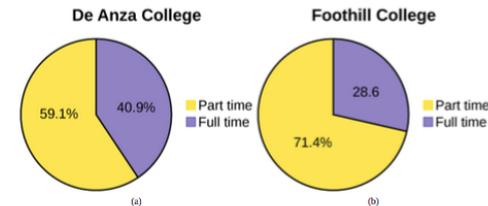


Figure 1.5



5. Reading Order

- ☑ Reading order for digital resource content logically corresponds to the visual layout of the page when rendered by assistive technology

****See Assistive Technologies PowerPoint****

6. Structural Markup / Navigation

- ☑ The text of the digital resource includes markup (e.g. tags or styles) that allows for navigation by key structural elements (chapters, headings, pages) using assistive technology

****See Assistive Technologies PowerPoint****

7. Tables

- ☑ Data tables include markup (e.g. tags or styles) that identifies row and column headers in a manner that is compatible with assistive technology

****See Assistive Technologies PowerPoint****

8. Hyperlinks

- ✓ **Functionality:** Links (e.g. website or email addresses) within the text of the digital resource are rendered as active hyperlinks in a manner that allows them to be detected and activated with assistive technology
- ✓ **Descriptive:** The link is descriptive enough for the users to know where the link will take them. If the link appears as an URL = fail this sub category.

STEPS:

1. Navigate through webpages using TAB key
2. Use ENTER key to select page

8. Hyperlinks

- Amount of Material to Be Evaluated
 - Check for functionality & descriptive of links
- *** Sample 20 hyperlinks***

- Recognize, describe, and calculate the measures of location of data: quartiles and percentiles.
- Recognize, describe, and calculate the measures of the center of data: mean, median, and mode.
- Recognize, describe, and calculate the measures of the spread of data: variance, standard deviation, and range.

Once you have collected data, what will you do with it? Data can be described and presented in many different formats. For example, suppose you are interested in buying a house in a particular area. You may have no clue about the house prices, so you might ask your real estate agent to give you a sample data set of prices. Looking at all the prices in the sample often is overwhelming. A better way might be to look at the median price and the variation of prices. The median and variation are just two ways that you will learn to describe data. Your agent might also provide you with a graph of the data.

In this chapter, you will study numerical and graphical ways to describe and display your data. This area of statistics is called **"Descriptive Statistics."** You will learn how to calculate, and even more importantly, how to interpret these measurements and graphs.

A statistical graph is a tool that helps you learn about the shape or distribution of a sample or a population. A graph can be a more effective way of presenting data than a mass of numbers because we can see where data clusters and where there are only a few data values. Newspapers and the Internet use graphs to show trends and to enable readers to compare facts and figures quickly. Statisticians often graph data first to get a picture of the data. Then, more formal tools may be applied.

Some of the types of graphs that are used to summarize and organize data are the dot plot, the bar graph, the histogram, the stem-and-leaf plot, the frequency polygon (a type of broken line graph), the pie chart, and the box plot. In this chapter, we will briefly look at stem-and-leaf plots, line graphs, and bar graphs, as well as frequency polygons, and time series graphs. Our emphasis will be on histograms and box plots.

NOTE

This book contains instructions for constructing a histogram and a box plot for the TI-83+ and TI-84 calculators. The [Texas Instruments \(TI\) website](#) provides additional instructions for using these calculators.

9. Color & Contrast (Contrast Ratio)

- ☑ The visual presentation of text and images of text in the digital resource has a contrast ratio of at least 4.5:1

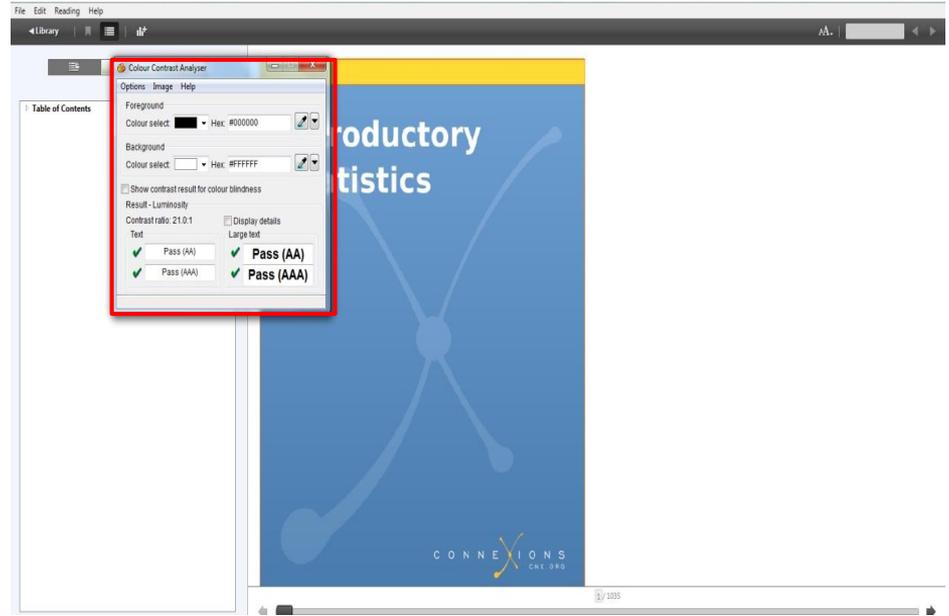
STEPS:

1. [Download Colour Contrast Analyzer Tool](#)
2. Open the document you want to evaluate
3. Open the application
4. Make sure you are in the **Result --Luminosity** mode.
5. Click the **Foreground eye dropper** tool, hover over and click the foreground color to select it.
6. Click the **Background eye dropper** tool, hover over and click the background color.
7. Check and compare the ratio to 4:5:1

9. Color & Contrast (Contrast Ratio)

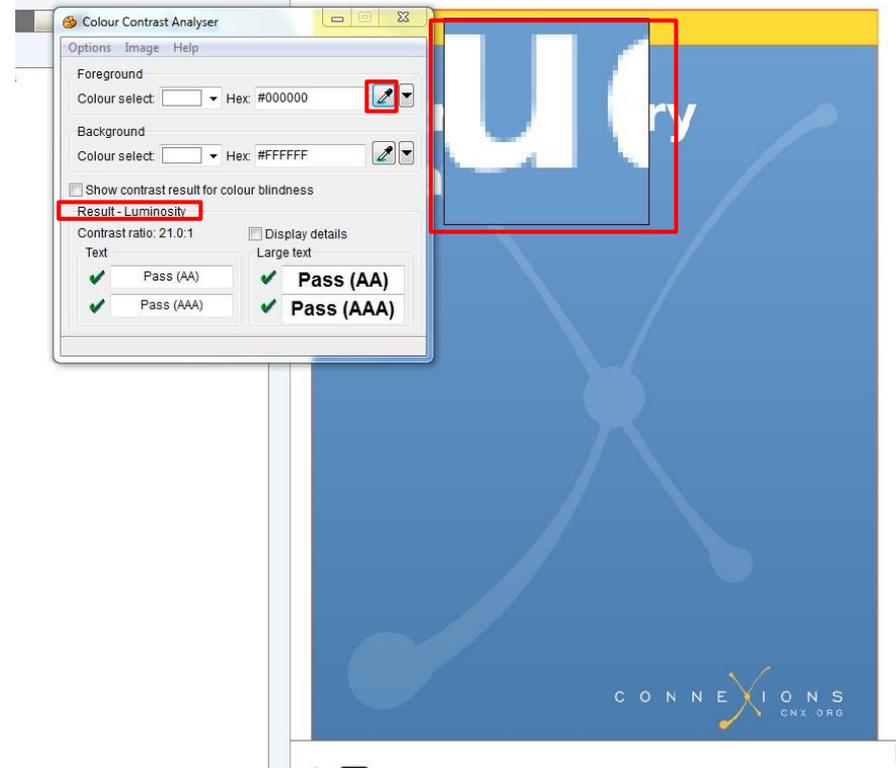
Colour Contrast Analyzer (CCA)

1. Download Colour Contrast Analyzer Tool
2. Open the document you want to evaluate
3. Open the application



9. Color & Contrast (Contrast Ratio)

4. Make sure you are in the **Result -- Luminosity** mode.
5. Click the **Foreground eye dropper** tool, hover over and click the foreground color to select it.



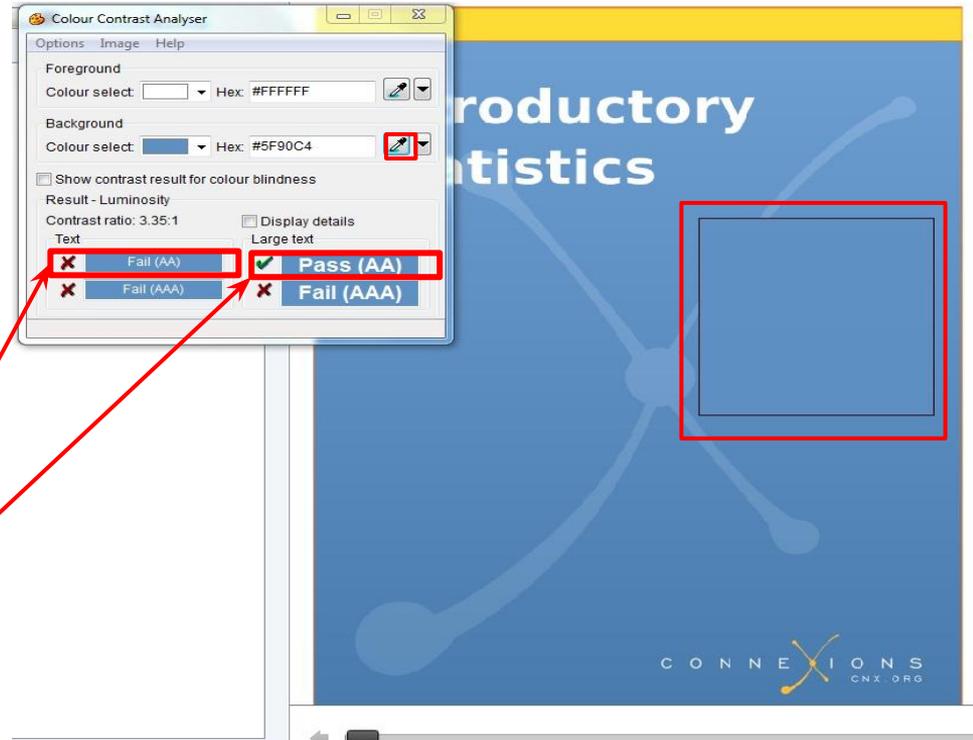
Color & Contrast (Contrast Ratio)

6. Click the **Background eye dropper** tool, hover over and click the background color.

7. Determine if the text is greater than 18 points (e.g. Header).

Small text: Check under "Text"

Large text (18+): Check under "Large text"



9. Color & Contrast (Contrast Ratio)

- ◉ Amount of Material to Be Evaluated

Contrast Ratio

*** Sample 15% of the chapters***

9. Color & Contrast (Color Redundancy)

- Amount of Material to Be Evaluated

*** Sample 15% of the pages ***

10. Language

- ✓ The text of the digital resource includes markup that declares the language of the content in a manner that is compatible with assistive technology
- ✓ If the digital resource includes passages in a foreign language, these passages include markup that declares the language in a manner that is compatible with assistive technology

10. Language

STEPS:

1. Open the book you want to evaluate in your browser
2. Click on Browser Menu > more tools > view source
3. Press on Ctrl + F to search
4. Type in lang="
5. Look for lang="language code"
ex: lang="en"

10. Language

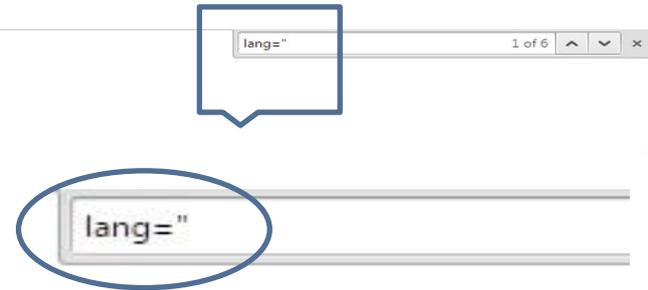
1. Open the book you want to evaluate in your browser
2. Click on Browser Menu > more tools > view source

The screenshot shows a Google Chrome browser window with the URL https://en.wikibooks.org/wiki/Art_History. The page content includes the Wikibooks logo, a navigation bar with 'Book', 'Discussion', 'Read', 'Latest draft', 'Edit', and 'View history', and a main heading 'Art History'. Below the heading is a quote: "The history of Art is long and varied, spanning tens of thousands of years from ancient paintings on the walls of caves to the glow of computer-generated images on the screens of the 21st century." The page also has sections for 'Preface - What Is Art?', 'Prehistoric Art', and 'Ancient Art'. The browser's 'More tools' menu is open, showing options like 'Clear browsing data...', 'Extensions', 'Task manager', 'Create application shortcuts...', 'Encoding', 'Developer tools', 'View source' (highlighted with a red box), 'JavaScript console', and 'Inspect devices'. The 'View source' option has the keyboard shortcut 'Ctrl+U' next to it.

10. Language

4. Press on Ctrl + F to search
5. Type in lang="
6. Look for lang="language code"
ex: lang="en"

```
1 <!DOCTYPE html>
2 <html lang="en" dir="ltr" class="client-nojs">
3 <head>
4 <meta charset="UTF-8" />
5 <title>Art History - Wikibooks, open books for an open world</title>
6 <meta name="generator" content="MediaWiki 1.26wmf11" />
7 <link rel="alternate" type="application/x-wiki" title="Edit" href="/w/index.php?title=Art_History&action=edit" />
8 <link rel="edit" title="Edit" href="/w/index.php?title=Art_History&action=edit" />
9 <link rel="shortcut icon" href="/static/favicon/wikibooks.ico" />
10 <link rel="search" type="application/opensearchdescription+xml" href="/w/opensearch_desc.php" title="Wikibooks (en)" />
11 <link rel="EditURI" type="application/rsd+xml" href="//en.wikibooks.org/w/api.php?action=rsd" />
```



```
1 <!DOCTYPE html>
2 <html lang="en" dir="ltr" class="client-nojs">
3 <head>
4 <meta charset="UTF-8" />
5 <title>Art History - Wikibooks, open books for ai
6 <meta name="generator" content="MediaWiki 1.26wm
7 <link rel="alternate" type="application/x-wiki"
8 <link rel="edit" title="Edit" href="/w/index.php
```

11. Images

- ✓ Non-decorative images have alternative text that is compatible with assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality)
- ✓ Decorative images are marked with null alternate text or contain markup that allows them to be ignored by assistive technology
- ✓ Complex images, charts, and graphs have longer text descriptions that are compatible with assistive technology

Non-decorative Images

- A description of the image should be found in the “ ”



James Tissot, *London Visitors*, 1874, oil on canvas, 160 x 114 cm (Toledo Art Museum)

A central premise of Postmodern criticism is that we are constructed in the codes, discourses, and languages of our cultural contexts. These codes do not seem to be artificial to us—instead, they seem natural. But this is an effect of the power of culture in defining us and the way we look at the world. Culture "naturalizes" codes of identity, and we forget that how we define ourselves—and others—depends on choices we make. We imagine instead that things "have always been this way." Postmodern art criticism offers a way to challenge that idea, by showing how visual (i.e., cultural) representations of race, class, gender, and sex are created, how they change, and how they shape identity.

The Rise of the Museum

```
<p><span class="image-wrapper inline-image">  
  
<span class="image-caption">James Tissot, London Visitors, 1874, oil on canvas, 160 x 114 cm (Toledo Art Museum)  
</span></span>
```

11. Images

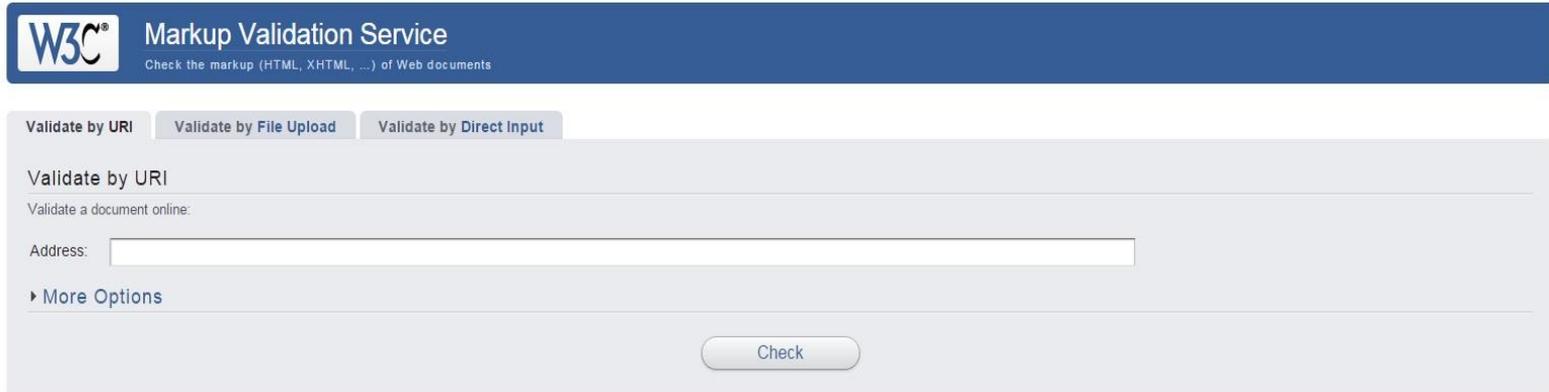
STEPS:

1. Open W3C in your browser
2. Open the eBook you want to evaluate in your browser
3. Copy the eBook URL into the URL address box
4. Open the eBook you want to evaluate in your browser
5. Copy the eBook URL into the URL address box
6. Look for error messages related to images.
If there are no error messages, the page passes.

11. Images

For complex images, check a minimum of 25 images, if applicable.

1. Open W3C in your browser https://validator.w3.org/#validate_by_uri



The screenshot shows the W3C Markup Validation Service interface. At the top, there is a blue header with the W3C logo and the text "Markup Validation Service" and "Check the markup (HTML, XHTML, ...) of Web documents". Below the header, there are three tabs: "Validate by URI", "Validate by File Upload", and "Validate by Direct Input". The "Validate by URI" tab is selected. Underneath, there is a section titled "Validate by URI" with the instruction "Validate a document online:". Below this, there is a label "Address:" followed by a text input field. A "More Options" link is visible below the input field. At the bottom of the form, there is a "Check" button.

This validator checks the [markup validity](#) of Web documents in HTML, XHTML, SMIL, MathML, etc. If you wish to validate specific content such as [RSS/Atom feeds](#) or [CSS stylesheets](#), [MobileOK content](#), or to [find broken links](#), there are [other validators and tools](#) available. As an alternative you can also try our [non-DTD-based validator](#).



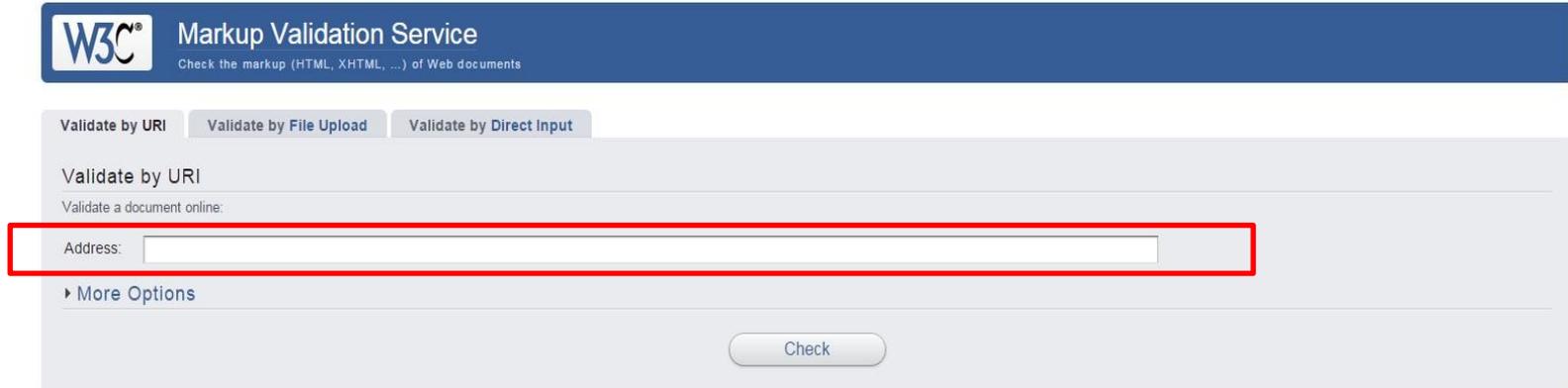
[Try now the W3C Validator Suite™](#) premium service that checks your entire website and evaluates its conformance with W3C open standards to quickly identify those portions of your website that need your attention.



The W3C validators are developed with assistance from the Mozilla Foundation, and supported by community donations. Donate and help us build better tools for a better web.

11. Images

2. Open the eBook you want to evaluate in your browser
3. Copy the eBook URL into the URL address box



W3C® Markup Validation Service
Check the markup (HTML, XHTML, ...) of Web documents

Validate by URI | Validate by File Upload | Validate by Direct Input

Validate by URI
Validate a document online:

Address:

► More Options

Check

This validator checks the [markup validity](#) of Web documents in HTML, XHTML, SMIL, MathML, etc. If you wish to validate specific content such as [RSS/Atom feeds](#) or [CSS stylesheets](#), [MobileOK content](#), or to [find broken links](#), there are [other validators and tools](#) available. As an alternative you can also try our [non-DTD-based validator](#).



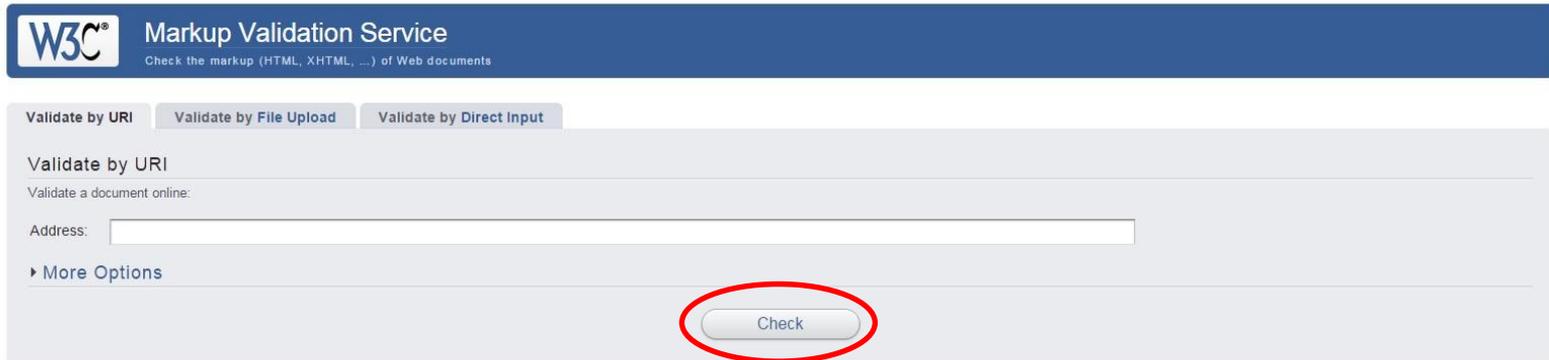
[Try now the W3C Validator Suite™](#) premium service that checks your entire website and evaluates its conformance with W3C open standards to quickly identify those portions of your website that need your attention.



The W3C validators are developed with assistance from the Mozilla Foundation, and supported by community donations. Donate and help us build better tools for a better web.

11. Images

4. Click on Check
5. Look for error messages related to what you want to check for



The screenshot shows the W3C Markup Validation Service interface. At the top, there is a blue header with the W3C logo and the text "Markup Validation Service" and "Check the markup (HTML, XHTML, ...) of Web documents". Below the header, there are three tabs: "Validate by URI", "Validate by File Upload", and "Validate by Direct Input". The "Validate by URI" tab is selected. Underneath, there is a text input field labeled "Address:" and a "More Options" link. A "Check" button is located at the bottom right of the form, and it is circled in red.

This validator checks the [markup validity](#) of Web documents in HTML, XHTML, SMIL, MathML, etc. If you wish to validate specific content such as [RSS/Atom feeds](#) or [CSS stylesheets](#), [MobileOK content](#), or to [find broken links](#), there are [other validators and tools](#) available. As an alternative you can also try our [non-DTD-based validator](#).



[Try now the W3C Validator Suite™](#) premium service that checks your entire website and evaluates its conformance with W3C open standards to quickly identify those portions of your website that need your attention.



The W3C validators are developed with assistance from the Mozilla Foundation, and supported by community donations. Donate and help us build better tools for a better web.

11. Images

6. Look for error messages related to images.
If there are no error messages, the page passes.

Ex: Any message that has "img" in it

✖ Line 102, Column 8: The big element is obsolete. Use CSS instead.

```
<p><big>_<a href="/wiki/Art_History/Movements" title="Art History/Movements"><b>..
```

✖ Line 103, Column 8: The big element is obsolete. Use CSS instead.

```
<p><big>_<a href="/wiki/Art_History/Authors" title="Art History/Authors"><b>Auth..
```

✖ Line 105, Column 4: Element dl is missing a required child element.

```
<dd><i>Participants helping to develop this text.</i>
```

Content model for element `dl`:

Zero or more groups each consisting of one or more `dt` elements followed by one or more `dd` elements, optionally intermixed with [script-supporting elements](#).

✖ Line 278, Column 178: Element link is missing required attribute property.

```
..gadget.extlinks%7Cext.wikimediaBadges&amp;only=styles&amp;skin=vector&amp;*"/>
```

Attributes for element `link`:

```
Global attributes  
href  
crossorigin  
rel  
media  
hreflang  
type
```

Images

- ◉ Amount of Material to Be Evaluated
For Complex images:
Make sure the descriptions for the images are descriptive enough
- ◉ Rule of thumb: if the image cannot be described in one sentence, it's complex!
- ◉ Dependent on intentions of text - if included in text, may be helpful to simply link them back

*** Sample 15% of the pages ***

12. Multimedia

- ✓ A synchronized text track (e.g., open or closed captions) is provided with all video content
- ✓ A transcript is provided with all audio content

STEPS:

1. Search webpages for multimedia content
2. Search for synchronized text tracks or transcripts

12. Multimedia

- ☑ Audio/video content is delivered via a media player that is compatible with assistive technology

See 15. Interactive elements

12. Multimedia (Synchronized Text)

1. Find multimedia
2. Search for availability of a text track (e.g., CC)

ALL CONTENT IN "FIRST THINGS FIRST"

First things first

New to art? This is a good place to start. Art gives us access to the way people at different moments in history have understood the world. Jump in and explore!

- Cave painting, contemporary art and everything in between
- ▶ Why look at art?
- A brief history of Western culture
- Common questions about dates
- ▶ A brief history of representing of the body in Western sculpture
- ▶ A brief history of representing the body in Western painting
- What made art valuable—then and now
- What maps tell us
- ▶ The skill of describing



Why look at art?
Total energy points 162

But maybe sometimes art is everywhere, in the street,

0:52 / 1:55

12. Multimedia (Transcript)

1. Find multimedia
2. Search for availability of a transcript

Why look at art?
Total energy points **266**



0:54 / 0:00

Why look at art? This was the question we posed to several of our colleagues at a conference for museum professionals. Special thanks to Laura Mann, Anna Velez, an anonymous professional, and David Torgersen whose voices and insights are included here.

Options Share Info



Options Share

1/4x 1/2x 1x 1 1/2x 2x

Interactive transcript

Embedded questions

12. Multimedia (Transcript)

Why look at art? This was the question we posed to several of our colleagues at a conference for museum professionals. Special thanks to Laura Mann, Anna Velez, an anonymous professional, and David Torgersen whose voices and insights are included here.

 Options ▾  Share ▾  Info

0:00 [MUSIC PLAYING]

0:05 SPEAKER 1: I think it's important

0:07 that people look at art because we live in a visual world.

0:11 And understanding, and looking at,

0:14 and thinking about the way images

0:16 communicate in all kinds of ways is important to being alive

0:21 today.

0:22 SPEAKER 2: If one has heightened visual acumen, which

0:26 you get from spending time looking at things, whether it's

12. Multimedia

- ◉ Amount of Material to Be Evaluated

*** Sample a minimum of three videos, if applicable***

13. Flickering

- ☑ Resources should not contain anything that flashes more than three times in any one-second period

14. STEM

STEM: Science, Technology, Engineering, and Math

- ☑ STEM content is marked up in a manner that is compatible with assistive technology

****See Assistive Technologies PowerPoint****

14. STEM

- ☑ The resource conveys both the notation (presentation) and meaning (semantics) of the STEM content

STEPS:

1. Manually check that the following have a description that conveys notation and meaning
 - Figures
 - Graphs
 - Tables

14. STEM

Manually check that all figures, graphs, and tables have a description that conveys notation and meaning



Figure 1.15 Biologists may choose to study *Escherichia coli* (*E. coli*), a bacterium that is a normal resident of our digestive tracts but which is also sometimes responsible for disease outbreaks. In this micrograph, the bacterium is visualized using a scanning electron microscope and digital colorization. (credit: Eric Erbe; digital colorization by Christopher Pooley, USDA-ARS)

14. STEM

Successive Ionization Energies (kJ/mol)

	Na	Mg	Al	Si	P	S	Cl	Ar
IE ₁	496	738	578	787	1012	1000	1251	1520
IE ₂	4562	1451	1817	1577	1903	2251	2297	2665
IE ₃	6912	7733	2745	3231	2912	3361	3822	3931
IE ₄	9543	10540	11575	4356	4956	4564	5158	5770
IE ₅	13353	13630	14830	16091	6273	7013	6542	7238
IE ₆	16610	17995	18376	19784	22233	8495	9458	8781
IE ₇	20114	21703	23293	23783	25397	27106	11020	11995

Table 4.1



Labels, descriptions, or tags should be descriptive

14. STEM

- Amount of Material to Be Evaluated

For BOTH Markup and Notation, find:

10 figures

10 graphs

10 equations

(as applicable)

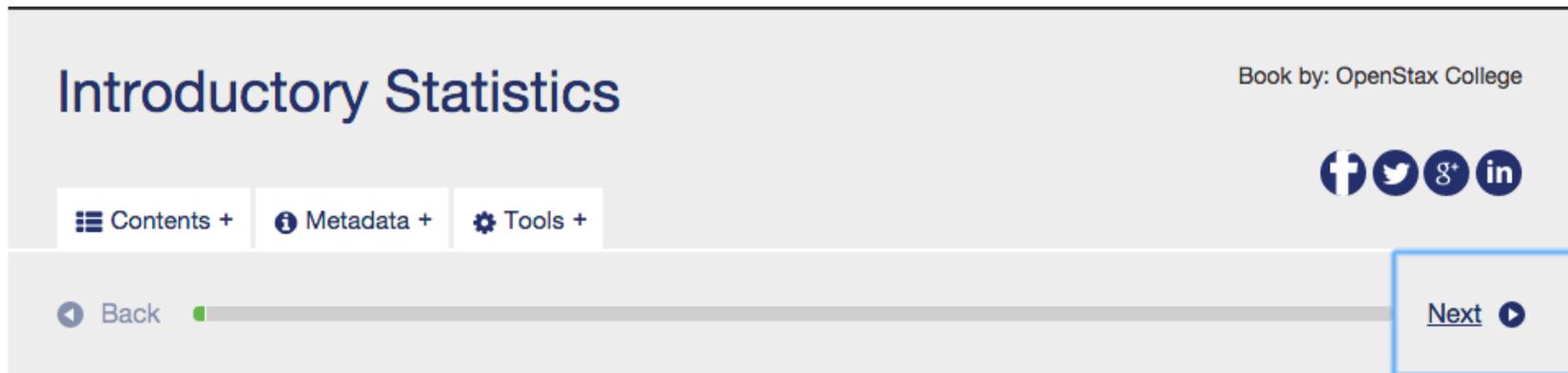
15. Interactive Elements

- ☑ Keyboard
Interactive elements allow for keyboard-only operation
WITH and WITHOUT assistive tech

**Evaluate 15% of the chapters in the book with assistive technology and another 15% without assistive technology.

15. Interactive Elements

- Without assistive technology, use the TAB key to navigate the menu
- Items that are selected will have a box around the link
- Use the ENTER key to select a link



The screenshot displays the top navigation bar of an OpenStax book page. The title "Introductory Statistics" is on the left, and "Book by: OpenStax College" is on the right. Below the title are three menu items: "Contents +", "Metadata +", and "Tools +". On the right side, there are social media icons for Facebook, Twitter, Google+, and LinkedIn. At the bottom, there is a "Back" button with a left arrow and a "Next" button with a right arrow. The "Next" button is highlighted with a blue rectangular border, illustrating the concept of a selected item.

15. Interactive Elements

- For navigation with assistive technologies..

****See Assistive Technologies PowerPoint****

15. Interactive Elements

- ☑ Markup
 - Each interactive element conveys information to assistive technology regarding the element's
 - ☑ name
 - ☑ type
 - ☑ status

****See Assistive Technologies PowerPoint****

15. Interactive Elements

- ✓ Text prompts

The following are conveyed with assistive technology:

- ✓ Instructions
- ✓ Prompts
- ✓ Error messages