



California Open Online Library for Education & Accessibility

COOL4Ed (the California Open Online Library for Education) was created so that faculty can easily find, adopt, utilize, review and/or modify free and open etextbooks for little or no cost. The COOL4Ed accessibility open textbook evaluations can inform faculty, staff, and students how the free and open etextbooks meet 15 accessibility “checkpoints” that could impact the learning of learners with a range of disabilities.

SUMMARY OF ACCESSIBILITY EVALUATION:

Textbook: Managerial Accounting
Format of Textbook: PDF

| | |
|--|---------------------------------|
| Assistive Technology (AT) Evaluation Score: Overall | 7.2 (Maximum score = 10) |
| <p>Assistive Technologies (AT) Evaluations applies specialized tools and software in the accessibility evaluation process. These specialized assistive technologies, see list below, are typically not used or available by the general public into the accessibility evaluation process.</p> <ul style="list-style-type: none"> • Accessibility features of desktop operating systems (e.g. high-contrast display themes, settings from the Keyboard and Mouse control panels) • Accessibility-related software included with desktop operating systems (e.g. VoiceOver, Microsoft Narrator) • Third-party accessibility software and hardware: • Screen readers (e.g. JAWS, Window Eyes) • Magnification software (e.g. ZoomText Magnifier/Reader, MAGIC Pro with Speech) • Reading software for users with learning disabilities (e.g. Read and Write Gold, Kurzweil 3000) • Refreshable Braille displays | |
| Non- Assistive Technology (NAT) Evaluation Score: Overall | 5.9 (Maximum score =10) |
| <p>Non-Assistive Technologies (NAT) Evaluations applies only native or basic tools and software such as the keyboard and Narrator in the accessibility evaluation process. These non-assistive technologies are readily available and used by the general public.</p> | |



COOL4Ed Accessibility Evaluation Methods:

The California State University [Accessible Technology Initiative](#) and [MERLOT](#) (Multimedia Educational Resources for Learning and Online Teaching) developed the rubric or “checkpoints” for the accessibility evaluation. [CAST](#), a nationally recognized organization with expertise in accessibility and UDL, reviewed and affirmed the appropriateness and value of the accessibility evaluation rubric and contributed the references and support resources to help people learn how best to design, evaluate, and remediate the learning materials to maximize the accessibility of the learning resources for all. The “checkpoints” have been built upon the Section 508 technical standards and has been organized and tailored to the typical characteristics of digital resources used in higher education courses.

The accessibility evaluations were performed by the [Center for Usability in Design and Accessibility](#) at California State University, Long Beach; faculty and graduate students with expertise in human factors, usability, and accessibility performed the evaluations of over 150 free and open etextbooks. COOL4ed.org has published the accessibility evaluation rubric and provides a detailed description of the methodology used to evaluate the accessibility of the etextbooks in COOL4ed.

LOOKING FOR DETAILED ACCESSIBILITY REPORTS?

[See Detailed Accessibility Evaluation Report using Assistive Technologies](#)

[See Detailed Accessibility Evaluation Report using Non-Assistive Technologies](#)



DETAILED ACCESSIBILITY EVALUATION REPORT using Assistive Technologies

Assistive Technologies (AT) Evaluations applies specialized tools and software in the accessibility evaluation process. These specialized assistive technologies, such as Kurzweil and NVDA, are typically not used or available by the general public into the accessibility evaluation process.

1. Accessibility Documentation

| | |
|---|---|
| A. The organization providing the online materials has a formal accessibility policy. | Fail |
| Additional Information: | Could not find this information. |
| B. The organization providing the online materials has an accessibility statement. | Fail |
| Additional Information: | Could not find this information. |
| C. An Accessibility Evaluation Report is available from an external organization. | Fail |
| Additional Information: | Could not find this information. |

2. Text Access

| | |
|---|---|
| A. The text of the digital resource is available to assistive technology that allows the user to enable text-to-speech (TTS) functionality. | Pass |
| Additional Information: | NVDA read all the text on pages 4-8. However, the pace was very fast and NVDA always reads the page footer which disrupts the flow of reading. |

3. Text Adjustment

| | |
|--|--|
| A. Text is compatible with assistive technology. | Pass |
| Additional Information: | Used Adobe Reader XI and the text size was adjustable on pages 4-8. |
| 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, | Fail |



| | |
|---|--|
| media player, or reader) that offers this functionality). | |
| Additional Information: | Used Adobe Reader XI to adjust the font and background colors. The colors were not adjustable on pages 4-8. The background color changed but the font always always remained black, resulting in the whole page turning black so that none of the text could be seen. |

4. Reading Layout

| | |
|--|---|
| A. Text of the digital resource is compatible with assistive technology that allows the user to reflow the text by specifying the margins and line spacing (or is rendered by an application such as a browser, media player, or reader that offers this functionality). | Pass |
| Additional Information: | Used Adobe Reader XI and the text reflowed on pages 4-8. |
| B. If the digital resource is an electronic alternative to printed materials, the page numbers correspond to the printed material. | N/A |
| Additional Information: | No printed version. |

5. Reading Order

| | |
|---|--|
| A. The reading order for digital resource content logically corresponds to the visual layout of the page when rendered by assistive technology. | Pass |
| Additional Information: | Used NVDA and checked the digital resource layout on pages 4, 7, 8, 12, and 14. The reading order logically corresponds to the page layout. |

6. Structural Markup/Navigation

| | |
|---|-------------|
| A. The text of the digital resource includes markup (e.g. tags or styles) that allows for | Fail |
|---|-------------|



| | |
|--|---|
| <p>navigation by key structural elements (chapters, headings, pages) using assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality).</p> | |
| <p>Additional Information:</p> | <p>Used NVDA and checked pages 4-53. No headings were found. "No next heading."</p> |
| <p>B. The text of the digital resource includes markup for bullets and numbered lists that is compatible with assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality).</p> | <p>Fail</p> |
| <p>Additional Information:</p> | <p>Used NVDA and checked lists on pages 8, 9, 11, 12, 13, 15, 20, 21, 36, and 45. No lists were found. "No next list."</p> |
| <p>C. If the text of the digital resource is delivered within an ebook reader application, a method is provided that allows users to bypass the reader interface and move directly to the text content that is compatible with assistive technology.</p> | <p>N/A</p> |
| <p>Additional Information:</p> | <p>Not using reader application.</p> |

7. Tables

| | |
|---|--|
| <p>A. Data tables include markup (e.g. tags or styles) that identifies row and column headers in a manner that is compatible with assistive technology (or are rendered by an application such as a browser, media player, or reader that offers this functionality).</p> | <p>Pass</p> |
| <p>Additional Information:</p> | <p>Used NVDA to check table markup. 10/10 tables were detected and rows and columns were correct. Checked tables on pages 4, 7, 18, 30, 34, 41, 45, 52, 53, and 64.</p> |



8. Hyperlinks

| | |
|---|---|
| <p>A. In-book links take you to a location within the textbook. For example, the table of contents would be considered in-book links and embedded links take you to the correct location in the book.</p> | <p>N/A</p> |
| <p>Additional Information:</p> | <p>No in book links found.</p> |
| <p>B. Live hyperlinks take you to any website or webpages external to the book.</p> | <p>Fail</p> |
| <p>Additional Information:</p> | <p>20/20 live links function and 1/20 live links have an acceptable description. Checked live links on pages 1, 11, 20, 21, 32, 465, 487, 489, 537, 628, 629, 917, 925, 929, 930, and 934.</p> |
| <p>C. Live links take you to the correct webpage that is functioning properly.</p> | <p>Pass</p> |
| <p>Additional Information:</p> | <p>20/20 live links function. Checked live links on pages 1, 11, 20, 21, 32, 465, 487, 489, 537, 628, 629, 917, 925, 929, 930, and 934.</p> |
| <p>D. Live links are descriptive enough for the users to know where it should take them.</p> | <p>Fail</p> |
| <p>Additional Information:</p> | <p>1/20 live links have an acceptable description. Checked live links on pages 1, 11, 20, 21, 32, 465, 487, 489, 537, 628, 629, 917, 925, 929, 930, and 934.</p> |

9. Color and Contrast

| | |
|--|--|
| <p>A. All information within the material that is conveyed using color is also available in a manner that is compatible with those that do not perceive color, and information conveyed by color is also conveyed in other ways.</p> | <p>Pass</p> |
| <p>Additional Information:</p> | <p>When color was used to indicate that something was a link it was also underlined showing color redundancy. Checked pages 4-52.</p> |
| <p>B. Information is conveyed from the sub-categories for contrast.</p> | <p>Pass</p> |



| | |
|--|---|
| Additional Information: | Used Adobe Acrobat XI and Colour Contrast Analyzer to check the headers, text, and simple images on pages 4-53. Headers on pages 8, 12, 17, 21, 27, 36, 44, 53 for the "key takeaways" do not pass. Text on page 7 (orange text in table), 9 (blue text), 10 (blue text), 14 (blue text), 17 (blue text), 19 (gray figure caption text), 33 (gray figure caption text), 34 (orange text in table), 41 (orange text in table), 42 (gray figure caption text), 48 (gray figure caption text), 49 (blue text), and 52 (gray figure caption text) do not pass. Simple image on page 14 does not pass. |
| C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1). | Pass |
| Additional Information: | Used Adobe Acrobat XI and Colour Contrast Analyzer to check the headers on pages 4-53. Headers on pages 8, 12, 17, 21, 27, 36, 44, 53 for the "key takeaways" do not pass. |
| D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1). | Pass |
| Additional Information: | Used Adobe Acrobat XI and Colour Contrast Analyzer to check the text on pages 4-53. Text on page 7 (orange text in table), 9 (blue text), 10 (blue text), 14 (blue text), 17 (blue text), 19 (gray figure caption text), 33 (gray figure caption text), 34 (orange text in table), 41 (orange text in table), 42 (gray figure caption text), 48 (gray figure caption text), 49 (blue text), and 52 (gray figure caption text) do not pass. |
| E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1). | Pass |
| Additional Information: | Used Adobe Acrobat XI and Colour Contrast Analyzer to check the simple images on pages 4-53. Simple image on page 14 does not pass. |

10. Language

| | |
|---|-----|
| A. The text of the digital resource includes markup that declares the language of the | N/A |
|---|-----|



| | |
|--|---|
| content in a manner that is compatible with assistive technology. | |
| Additional Information: | Cannot check this because do not have Adobe Acrobat Pro. |
| B. 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. | N/A |
| Additional Information: | Cannot check this because do not have Adobe Acrobat Pro. |

11.Images

| | |
|---|--|
| A. 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). | Fail |
| Additional Information: | NVDA did not detect non-decorative images, there was no alternative text and the descriptions were not descriptive enough. Checked pages 4-102. |
| B. Decorative images are marked with null alternate text or contain markup that allows them to be ignored by assistive technology. | N/A |
| Additional Information: | No decorative images found. |
| C. Complex images, charts, and graphs have longer text descriptions that are compatible with assistive technology (or are rendered by an application such as a browser, media player, or reader) that offers this functionality). | Fail |
| Additional Information: | NVDA did not detect complex images, there was no alternative text and the descriptions were not descriptive enough. Checked pages 4-102. |



12. Multimedia

| | |
|---|-----------------------------|
| A. A synchronized text track (e.g. open or closed captions) is provided with all video content. | N/A |
| Additional Information: | No multimedia found. |
| B. A transcript is provided with all audio content. | N/A |
| Additional Information: | No multimedia found. |
| C. Audio/video content is delivered via a media player that is compatible with assistive technology. This includes support for all criteria listed in Section 15 below. | N/A |
| Additional Information: | No multimedia found. |

13. Flickering

| | |
|--|-----------------------------|
| A. The digital resource content does not contain anything that flashes more than three times in any one-second period. | Pass |
| Additional Information: | No flickering found. |

14. Science, Technology, Engineering, and Math (STEM)

| | |
|---|---|
| A. STEM figures have appropriate markup that indicates that the image is a figure. | Fail |
| Additional Information: | 6/10 figures were labelled. Checked figures on pages 14, 19, 26, 31, 33, 35, 42, 43, 44, and 48. |
| B. STEM graphs have appropriate markup that indicates that the image is a graph. | Pass |
| Additional Information: | 8/10 graphs were labelled. Checked graphs on pages 248, 250, 254, 264, 269, 270, 273, 286, 287, and 323. |
| C. STEM equations have appropriate markup that indicates that the image is an equation. | Fail |
| Additional Information: | 0/10 equations were labelled. Checked equations on pages 46, 87, 218, 219, 234, 277, 314, 318, 319, and 320. |



| | |
|---|---|
| D. STEM tables have appropriate markup that indicates the image is a table. | Fail |
| Additional Information: | 6/10 tables were labelled. Checked tables on pages 4, 7, 18, 30, 34, 41, 45, 52, 53, and 64. |
| E. STEM figures have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content. | Fail |
| Additional Information: | 0/10 figures had acceptable descriptions and the reader skips over the images. Checked figures on pages 14, 19, 26, 31, 33, 35, 42, 43, 44, and 48. |
| F. STEM graphs have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content. | Fail |
| Additional Information: | 0/10 graphs had acceptable descriptions and the reader skips over the graph. Checked graphs on pages 248, 250, 254, 264, 269, 270, 273, 286, 287, and 323. |
| G. STEM equations have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content. | Fail |
| Additional Information: | 0/10 equations had descriptions. Checked equations on pages 46, 87, 218, 219, 234, 277, 314, 318, 319, and 320. |
| H. Assistive technology used can access the content from the STEM tables. | Pass |
| Additional Information: | 10/10 tables were detected and rows and columns were correct. Checked tables on pages 4, 7, 18, 30, 34, 41, 45, 52, 53, and 64. |

15. Interactive Elements

| | |
|---|------------|
| A. Each interactive element (e.g. menu, hyperlink, button) and function (e.g. | N/A |
|---|------------|



| | |
|--|---------------------------------------|
| annotations) allows keyboard-only operation both with and without assistive technology. | |
| Additional Information: | No interactive elements found. |
| B. Each interactive element conveys information to assistive technology regarding the element’s name, type, and status (e.g. “Play, button, selected”). | N/A |
| Additional Information: | No interactive elements found. |
| C. All instructions, prompts, and error messages necessary to complete forms are conveyed as text to assistive technology (or are rendered by an application such as a browser, media player, or reader that offers this functionality). | N/A |
| Additional Information: | No interactive elements found. |

DETAILED ACCESSIBILITY EVALUATION REPORT using Non-Assistive Technologies

Non-Assistive Technologies (NAT) Evaluations applies only native or basic tools and software such as the keyboard and Narrator in the accessibility evaluation process. These non-assistive technologies are readily available and used by the general public.

1. Accessibility Documentation

| | |
|---|--------------------------|
| A. The organization providing the online materials has a formal accessibility policy. | Fail |
| Additional Information: | No Content Found. |
| B. The organization providing the online materials has an accessibility statement. | Fail |
| Additional Information: | No Content Found. |



| | |
|---|--------------------------|
| C. An Accessibility Evaluation Report is available from an external organization. | Fail |
| Additional Information: | No Content Found. |

2. Text Access

| | |
|---|---|
| A. The text of the digital resource is available to assistive technology that allows the user to enable text-to-speech (TTS) functionality. | Pass |
| Additional Information: | Pgs 4-9 were checked. The text is available to assistive technology that allows user to enable text-to-speech functionality. |

3. Text Adjustment

| | |
|--|---|
| A. Text is compatible with assistive technology. | Pass |
| Additional Information: | Pgs 5-10 were checked. When the window page chaged in size, no horizontal bar appeared. The font size of all pages checked could be adjusted. |
| 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). | Fail |
| Additional Information: | Pgs 5-10 were checked. When changing the font/background color to green text on black, the background color changed to black, but the font color stayed black and did not change to green. |

4. Reading Layout

| | |
|--|-------------|
| A. Text of the digital resource is compatible with assistive technology that allows the user to reflow the text by specifying the margins and line spacing (or is rendered by an application such as a browser, media player, or reader that offers this functionality). | Fail |
|--|-------------|



| | |
|--|--|
| Additional Information: | Pgs 5-10 were checked. I was able to reflow the text, however, when reflowing the text, the text to speech function said "warning empty page". This was consistent on all pages checked. In addition, when the text was set to reflow, the text seemed to lose its spacing. In other words, the spaces between words seemed to disappear. |
| B. If the digital resource is an electronic alternative to printed materials, the page numbers correspond to the printed material. | N/A |
| Additional Information: | Need additional information. We do not have printed material to compare it too. |

5. Reading Order

| | |
|---|--|
| A. The reading order for digital resource content logically corresponds to the visual layout of the page when rendered by assistive technology. | Pass |
| Additional Information: | Pgs 7-12 were checked. The reading order was logical on all five pages. |

6. Structural Markup/Navigation

| | |
|--|---|
| A. 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 (or is rendered by an application such as a browser, media player, or reader that offers this functionality). | Fail |
| Additional Information: | No method provided that allows user to bypass sections of text. The tagged PDF, Title, Bookmarks, and Headings all failed using the accessibility checker. |
| B. The text of the digital resource includes markup for bullets and numbered lists that is compatible with assistive technology (or is | Fail |



| | |
|---|---|
| rendered by an application such as a browser, media player, or reader that offers this functionality). | |
| Additional Information: | No markups found. The Tagged PDF, Title, Bookmarks, and Headings all failed. |
| C. If the text of the digital resource is delivered within an ebook reader application, a method is provided that allows users to bypass the reader interface and move directly to the text content that is compatible with assistive technology. | N/A |
| Additional Information: | No additional eReader used. |

7. Tables

| | |
|--|--|
| A. Data tables include markup (e.g. tags or styles) that identifies row and column headers in a manner that is compatible with assistive technology (or are rendered by an application such as a browser, media player, or reader that offers this functionality). | Fail |
| Additional Information: | Tables on pages 7, 18, 30, 34, and 41 were checked manually. The text to speech function seperated and read the tables by row. Using the accessibility checker, the rows, TH and TD, headers and regularity all failed. |

8. Hyperlinks

| | |
|--|--|
| A. In-book links take you to a location within the textbook. For example, the table of contents would be considered in-book links and embedded links take you to the correct location in the book. | Fail |
| Additional Information: | No within book links were found--> Using the accessibility checker, navigation links required manual check (the accessibility checker said "Navigation links - Needs Manual Check"). |



| | |
|---|---|
| B. Live hyperlinks take you to any website or webpages external to the book. | Fail |
| Additional Information: | 20/20 live links worked. Pgs 1-202 were checked. However the links did not have a description. |
| C. Live links take you to the correct webpage that is functioning properly. | Pass |
| Additional Information: | 20/20 live links worked. Pgs 1-202 were checked. |
| D. Live links are descriptive enough for the users to know where it should take them. | Fail |
| Additional Information: | 1/20 live links had a description. Pgs 1-202 were checked. 19 out of the 20 links were in html (URL) form and did not have a description on where the link would take you. |

9. Color and Contrast

| | |
|---|---|
| A. All information within the material that is conveyed using color is also available in a manner that is compatible with those that do not perceive color, and information conveyed by color is also conveyed in other ways. | Pass |
| Additional Information: | Pgs 4-53 were checked. Information not conveyed by color alone. Size of font, and type of font (Bold versus Non-Bold font) were used. The chapter headings were in black font, bold font, and the size was larger than the rest of the text. Learning objective headings were in black and capatiized, however, they were smaller than chapter headings. Key takeaway headings were in white with green background. They were capatiized and were smaller in size than the chapter headings, but larger in size than the rest of the text. Table markup and Figure markups were black in color and bold. |
| B. Information is conveyed from the sub-categories for contrast. | Fail |
| Additional Information: | Pgs 4-53 were checked. Most pages had the contrast ratio of 4.51:1 and above (12.07:1). Chapter headings |

| | |
|--|--|
| | <p>passed with a ratio of 12.12:1. Headings in white with green background had a ratio of 4.38:1 which failed for small text. Headings in white with blue background had a ratio of 6.51:1 which passed. Headings in black with gray background had a ratio of 7.14:1 which passed. Headings in orange with white background had a ratio of 2.51:1 which failed for both small text and large text.</p> |
| C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1). | Fail |
| Additional Information: | <p>Pgs 4-53 were checked. There were different types of headers found throughout the pages checked. Chapter headings passed with a ratio of 12.12:1. Headings in white with green background had a ratio of 4.38:1 which failed for small text. Headings in white with blue background had a ratio of 6.51:1 which passed. Headings in black with gray background had a ratio of 7.14:1 which passed. Headings in orange with white background had a ratio of 2.51:1 which failed for both small text and large text.</p> |
| D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1). | Fail |
| Additional Information: | <p>Pgs 4-53 were checked. Most of the text was above the ratio 4.51:1 (12.07:1). The orange text found failed with a ratio of 2.51:1. White text on green color background failed with 4.38:1. White text on blue background passed with 6.51:1.</p> |
| E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1). | Pass |
| Additional Information: | <p>Pgs 14-63 were checked. Simple images passed with a ratio of 4.51:1 and above.</p> |

10. Language

| | |
|---|-------------|
| A. The text of the digital resource includes markup that declares the language of the | Pass |
|---|-------------|



| | |
|--|---|
| content in a manner that is compatible with assistive technology. | |
| Additional Information: | Using the accessibility checker the primary language passed. |
| B. 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. | Pass |
| Additional Information: | Using the accessibility checker the primary language passed. |

11.Images

| | |
|---|---|
| A. 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). | Fail |
| Additional Information: | 0/10 images did not include descriptions. Pgs 14, 19, 26, 33, 133, 136, 170, 171, 201, and 396 all had images and were checked manually. Overall images did not include descriptions--> Using the accessibility checker, figures alternate text failed. |
| B. Decorative images are marked with null alternate text or contain markup that allows them to be ignored by assistive technology. | Fail |
| Additional Information: | 10/10 decorative images included descriptions but not markups. Pgs 31, 35, 42, 94, 202, 208, 251, 284, 392, and 404 all had images and were checked manually. Overall images included descriptions, however, they did not contain markups that allowed them to be ignored by assistive technology. |
| C. Complex images, charts, and graphs have longer text descriptions that are compatible with assistive technology (or are rendered by an application such as a browser, media | Fail |



| | |
|---|---|
| player, or reader) that offers this functionality). | |
| Additional Information: | 0/10 image descriptions did not convey meaning (descriptions were not present on any of the images). Pgs 7, 18, 30, 34, 41, 45, 52, 53, 54, and 64 had images and were checked. All images did not contain descriptions. Using the accessibility checker, figures alternate text failed. |

12. Multimedia

| | |
|---|--------------------------|
| A. A synchronized text track (e.g. open or closed captions) is provided with all video content. | N/A |
| Additional Information: | No content found. |
| B. A transcript is provided with all audio content. | N/A |
| Additional Information: | No content found. |
| C. Audio/video content is delivered via a media player that is compatible with assistive technology. This includes support for all criteria listed in Section 15 below. | N/A |
| Additional Information: | No content found. |

13. Flickering

| | |
|--|---|
| A. The digital resource content does not contain anything that flashes more than three times in any one-second period. | Pass |
| Additional Information: | Pgs 1-10 were checked. No flickering content was observed. Using the accessibility checker, screen flicker passed. |

14. Science, Technology, Engineering, and Math (STEM)

| | |
|--|-------------|
| A. STEM figures have appropriate markup that indicates that the image is a figure. | Fail |
|--|-------------|



| | |
|--|---|
| <p>Additional Information:</p> | <p>0/10 figure markups did not convey meaning. Pgs 14, 19, 26, 33, 133, 136, 170, 171, 201, 396 all had images and were checked. Overall the (labels/tags) did not convey meaning. --> Graphs were labeled as figures. Pg's 150, 248, 254, 264, 269, 270, 273 (2 graphs), 286, 287 all had graphs and were checked. Overall the figure labels/tags did not convey meaning.</p> |
| <p>B. STEM graphs have appropriate markup that indicates that the image is a graph.</p> | <p>N/A</p> |
| <p>Additional Information:</p> | <p>All graphs are named as figures.</p> |
| <p>C. STEM equations have appropriate markup that indicates that the image is an equation.</p> | <p>Pass</p> |
| <p>Additional Information:</p> | <p>10/10 equation markup conveyed meaning. Pgs 254, 314, 318, 319, 320 (2 equations), 323 (2 equations), 326 all had equations and were checked. Markups conveyed meaning for equations.</p> |
| <p>D. STEM tables have appropriate markup that indicates the image is a table.</p> | <p>Fail</p> |
| <p>Additional Information:</p> | <p>0/10 table markups did not provide enough information to convey meaning. Pgs 7, 18, 30, 34, 41, 45, 52, 53, 54, 64 all had tables and were checked. Overall markups did not convey meaning.</p> |
| <p>E. STEM figures have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.</p> | <p>Fail</p> |
| <p>Additional Information:</p> | <p>0/10 notation markups were sufficient to convey meaning. The descriptions of the figures were minimal and did not help to describe the figures. Pgs 14, 19, 26, 33, 133, 136, 170, 171, 201, 396 all had figures and were checked. The notation markups were not sufficient enough to convey presentation. --> 0/10 notation markups were sufficient to convey meaning. The graphs were labeled under figures. The descriptions of the graphs (figures) were minimal and did not help to describe the figures.</p> |



| | |
|---|--|
| F. STEM graphs have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content. | N/A |
| Additional Information: | All graphs are named as figures. |
| G. STEM equations have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content. | Pass |
| Additional Information: | 10/10 equation markups of equations were descriptive enough to be understood. Pgs 254, 314, 318, 319, 320 (2 equations), 323 (2 equations), 326 all had equations and were checked. All equations notation markups were sufficient enough to convey presentation. |
| H. Assistive technology used can access the content from the STEM tables. | Fail |
| Additional Information: | 0/10 notation markups provided good descriptions sufficient enough to convey meaning. Pgs 7, 18, 30, 34, 41, 45, 52, 53, 54, and 64 all had tables and were checked. Notation markups were minimal and did not help to convey presentation. |

15. Interactive Elements

| | |
|---|---|
| A. Each interactive element (e.g. menu, hyperlink, button) and function (e.g. annotations) allows keyboard-only operation both with and without assistive technology. | N/A |
| Additional Information: | No Interactive Elements Present. |
| B. Each interactive element conveys information to assistive technology regarding the element's name, type, and status (e.g. "Play, button, selected"). | N/A |
| Additional Information: | No Interactive Elements Present. |
| C. All instructions, prompts, and error messages necessary to complete forms are conveyed as | N/A |



| | |
|---|---|
| text to assistive technology (or are rendered by an application such as a browser, media player, or reader that offers this functionality). | |
| Additional Information: | No Interactive Elements Present. |

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