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: **Sociology**
Format of Textbook: **PDF**

Assistive Technology (AT) Evaluation Score: Overall	5.4 (Maximum score = 10)
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. • 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	8.3 (Maximum score =10)
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.	

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:	**I did not find any information about College of the Canyons's Formal Accessibility Policy, even though they had a mission statement and philosophy stated for disabled students.**
B. The organization providing the online materials has an accessibility statement.	**Fail**
Additional Information:	**I did not find any information about College of the Canyons's Accessibility Statement.**
C. An Accessibility Evaluation Report is available from an external organization.	**Fail**
Additional Information:	**I did not find any information about College of the Canyons's Accessibility Evaluation Report.**

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.	**Fail**
Additional Information:	**0/5 pages were read aloud (Love and Intimacy, Remarriage and Step Families, Sexuality, Introduction, Studying Families). These pages/chapters were read as "blank" pages when read aloud by NVDA reader.**

3. Text Adjustment

A. Text is compatible with assistive technology.	**Fail**
Additional Information:	**4/5 pages were able to adjust in size when zooming in and out (Crime and Social Control, Aging,Families and Aging, Love and Intimacy, Sexuality). However, the remaining fifth page was unable to zoom in and out without disturbing the format of the textbook (Family Conflict and Crises). This page had words that blended together with no spaces between the words. Some lines also overlapped and affected the reflow of the text since it would stop in the middle of the last word and continue into the next line. These events occurred at 100% zoom.**
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:	**0/5 pages were able to fully adjust the font and colors of the text (Sociological Beginnings pg. 6-7,14, 18, 19, 20, 21). About 2/3 or more of these pages were not able to adjust font colors. They would either stay black or change to gray against the black background. Links would also remain blue instead of turning green and the titles at the bottom of each page would turn gray against the black background.**

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:	**4/5 pages were able to have proper reflow of text even when adjusting the size of the font (Crime and Social Control, Aging, Families and Aging, Love and Intimacy, Sexuality). However, the remaining fifth**

	page's format was not correct. The words blended together with no space in between and words would get cut off at the end of each line, making it difficult to follow for someone reading the textbook.
B. If the digital resource is an electronic alternative to printed materials, the page numbers correspond to the printed material.	**N/A**
Additional Information:	

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.	**Fail**
Additional Information:	**0/5 pages/chapters were read aloud (Love and Intimacy, Remarriage and Step Families, Sexuality, Introduction, Studying Families). These pages/chapters were read as "blank" pages when read aloud by the NVDA reader.**

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).	**Pass**
Additional Information:	**Able to navigate to the headings, lists, and tables of the textbook with no problems by using the NVDA hotkeys.**
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,	**Pass**

media player, or reader that offers this functionality).	
Additional Information:	**8/10 lists were navigable to using the NVDA hotkeys. However, the remaining 2, were read as blank pages or "No next list" (Families and Aging Pg. 1, Family Conflict and Crises Pg. 1).**
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:	

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).	**Pass**
Additional Information:	**10/10 tables had proper markup and was navigable to using the NVDA hotkeys (Aging, Crime and Social Control, Families and Aging).**

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.	**N/A**
Additional Information:	**Footnote links look like within book hyperlinks, but they were not.**
B. Live hyperlinks take you to any website or webpages external to the book.	**Fail**

Additional Information:	**11/20 live hyperlinks functioned properly. However, the remaining 9 were links to pages that were not found on the internet (Aging Pg. 10, 11(4), Crime and Social Control Pg. 8(4)). 0/20 live hyperlinks were properly described in the textbook. They were listed in the textbook as URLs instead of providing a description of where the links would direct the reader to (Aging Pg. 10(3), 11(12), Crime and Social Control Pg. 8(5)).**
C. Live links take you to the correct webpage that is functioning properly.	**Pass**
Additional Information:	**11/20 live hyperlinks functioned properly. However, the remaining 9 were links to pages that were not found on the internet (Aging Pg. 10, 11(4), Crime and Social Control Pg. 8(4)).**
D. Live links are descriptive enough for the users to know where it should take them.	**Fail**
Additional Information:	**0/20 live hyperlinks were properly described in the textbook. They were listed in the textbook as URLs instead of providing a description of where the links would direct the reader to (Aging Pg. 10(3), 11(12), Crime and Social Control Pg. 8(5)).**

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.	**Fail**
Additional Information:	**Normal text and headings were consistent in color redundancy, however there was inconsistency in the color of links. Links would be blue or black and the only way that you could tell that black links were links was if you were hovering over the links.**
B. Information is conveyed from the sub-categories for contrast.	**Pass**

Additional Information:	**Headers and text were black against a white background.**
C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1).	**Pass**
Additional Information:	**Headers were black against a white background.**
D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1).	**Pass**
Additional Information:	**Text was black against a white background.**
E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1).	**N/A**
Additional Information:	**Simple images had multiple colors.**

10. Language

A. The text of the digital resource includes markup that declares the language of the content in a manner that is compatible with assistive technology.	**N/A**
Additional Information:	
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:	

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 non-decorative images were labeled correctly and were read aloud by the NVDA reader (Aging,**

	Popular Culture and Media, Religion, Sociological Imagination, Sociological Beginnings, Race and Ethnicity). These images were either not labeled as figures and were therefore skipped by the NVDA reader or were blank when read aloud or was skipped entirely even if it was labeled.
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:	
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:	**0/10 complex images were labeled correctly and were read aloud by the NVDA reader (Families and Aging, Popular Culture and Media, Social Policy, Sociological Beginnings, Race and Ethnicity, Sex and Gender). These images were either read aloud by the NVDA reader as blank images or were skipped and they were not labeled as figures.**

12.Multimedia

A. A synchronized text track (e.g. open or closed captions) is provided with all video content.	**N/A**
Additional Information:	
B. A transcript is provided with all audio content.	**N/A**
Additional Information:	
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:	

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 content.**

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

A. STEM figures have appropriate markup that indicates that the image is a figure.	**Fail**
Additional Information:	**5/10 figures were marked up as figures correctly. However, the other half were not labeled correctly as figures. There were three instances when there would be labels for figures but there would no figure found (Aging Pg. 7,8, Family Conflict and CrisesFig. 4). The remaining two figures were not labeled at all and the caption was cut off and was covered by the figure (Family Conflict and Crises, Populat Culture and Media).**
B. STEM graphs have appropriate markup that indicates that the image is a graph.	**Pass**
Additional Information:	**10/10 graphs were properly marked up as figures (Aging, Crime an Social Control, Families and Aging, FamilyConflict and Crises, Getting through school).**
C. STEM equations have appropriate markup that indicates that the image is an equation.	**N/A**
Additional Information:	
D. STEM tables have appropriate markup that indicates the image is a table.	**Pass**
Additional Information:	**10/10 tables had proper markup and was navigable to using the NVDA hotkeys (Aging, Crime and Social Control, Families and Aging).**
E. STEM figures have appropriate notation markup that conveys both the notation	**Fail**

(presentation) and meaning (semantics) of the STEM content.	
Additional Information:	**0/10 figures had proper notation markup (Aging, Families and Aging, Family Conflict and Crises, Popular Culture and Media). Figures would be read as blank images, there would be no image found, or only the captions would be read and did not provide enough information to describe the figures.**
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 proper notation markup (Aging, Crime an Social Control, Families and Aging, FamilyConflict and Crises, Getting through school). These graphs were read aloud as blank images.**
G. STEM equations have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	**N/A**
Additional Information:	
H. Assistive technology used can access the content from the STEM tables.	**Pass**
Additional Information:	**7/10 tables had proper notation markup (Aging, Crime and Social Control, Families and Aging) . The remaining 3 tables were not found by the NVDA reader when reading the textbook aloud.**

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:	
B. Each interactive element conveys information to assistive technology regarding the	**N/A**

element's name, type, and status (e.g. "Play, button, selected").	
Additional Information:	
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:	

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 1-5 were checked. The text is available to assisstive technology that allows user to enable text-to-speech functionality.**

3. Text Adjustment

A. Text is compatible with assistive technology.	**Fail**
Additional Information:	**Pgs 1-5 were checked. When the window page chaged in size, a horizontal scrolling 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 1-5 were checked. When changing the font/background color to green text on black, the background color changed to black, and the font color did change to green. However, page one had text before I changed the color of the background and text. The text dissappeared for page 1.**

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:	**Pgs 1-5 were checked. When reflowing the text, the text to speech function was able to read the text. The text was compatible with assistive technology.**

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 1-5 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:	**The tagged PDF, and Headings bookmarks all passed using the accessibility checker. The title failed.**
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).	Fail
Additional Information:	**There were no list structural markups. The tagged PDF, Headings, Bookmarks all failed using the accessibility checker. The title 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	N/A

reader interface and move directly to the text content that is compatible with assistive technology.	
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).	**Pass**
Additional Information:	**Tables on pages 2 (2 tables), 3 (2 tables), and 6 were checked manually. There were only a total of 5 tables. 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 passed.**

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.	**N/A**
Additional Information:	**No within book hyperlinks found.**
B. Live hyperlinks take you to any website or webpages external to the book.	**Fail**
Additional Information:	**7/20 live links worked. Pg 12 (20 live links) was checked. All of the links were in URL form, therfore not descriptive enough on where the link would take you.**
C. Live links take you to the correct webpage that is functioning properly.	**Fail**

Additional Information:	**7/20 live links worked. Pg 12 was checked. Three of the links did not work. The page was not found.**
D. Live links are descriptive enough for the users to know where it should take them.	**Fail**
Additional Information:	**0/20 live links had a description. Pg 12 was checked. All 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 1-2 were checked. Information not conveyed by color alone. Size of font, style of font, and type of font (Bold versus Non-Bold font) were used. The chapter titles larger is size compared to the rest of the text.**
B. Information is conveyed from the sub-categories for contrast.	**Pass**
Additional Information:	**Pgs 1-2 were checked. Most pages had the contrast ratio of 4.51:1 and above (19.49:1). The chapter titles larger in size and were bold compared to the rest of the text. The chapter titles passed with 21.0:1. There was bold small text throughout the chapter. The bold small text passed with a ratio of 21.0:1.**
C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1).	**Pass**
Additional Information:	**Pgs 1-2 were checked. Large chapter headings passed with a ratio of 21.0:1.**
D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1).	**Pass**
Additional Information:	**Pgs 1-2 were checked. Most of the text was above the ratio 4.51:1 (19.49:1). Large text, which in this case were chapter titles, passed with a 21.0:1. Bold**

	small text found throughout the chapter passed with a ratio of 21.0:1.
E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1).	**Fail**
Additional Information:	**Pgs 4 and 5 were checked. There were only two images found for this chapter of the book. Simple images did not pass with a ratio of 4.51:1 and above (2.67:1 page 4).**

10.Language

A. The text of the digital resource includes markup that declares the language of the content in a manner that is compatible with assistive technology.	**Pass**
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:	**0/2 non decorative images had descriptions that did convey meaning (descriptions were sufficient to convey meaning). Pgs 4 and 5 had images and were checked. Only 2 images were found throughout the book. The images did not have descriptions directly**

	around them. No alternative text present. Using the accessibility checker, figures alternate text passed.
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 were 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).	**Pass**
Additional Information:	**5/5 image descriptions did convey meaning (descriptions were sufficient to convey meaning). Only 5 images were found throughout the chapter. Pgs 2 (2 images), 3 (2 images), and 6 had images and were checked. All images did contain descriptions. Using the accessibility checker, figures alternate text passed.**

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.	**N/A**
Additional Information:	**No figures were found throughout the book.**
B. STEM graphs have appropriate markup that indicates that the image is a graph.	**N/A**
Additional Information:	**No graphs were found throughout the book.**
C. STEM equations have appropriate markup that indicates that the image is an equation.	**N/A**
Additional Information:	**No equations were found throughout the book.**
D. STEM tables have appropriate markup that indicates the image is a table.	**N/A**
Additional Information:	**No tables were found throughout the book.**
E. STEM figures have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	**N/A**
Additional Information:	**No figures were found throughout the book.**
F. STEM graphs have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	**N/A**
Additional Information:	**No graphs were found throughout the book.**
G. STEM equations have appropriate notation markup that conveys both the notation	**N/A**

(presentation) and meaning (semantics) of the STEM content.	
Additional Information:	**No equations were found throughout the book.**
H. Assistive technology used can access the content from the STEM tables.	**N/A**
Additional Information:	**No tables were found throughout the book**

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 Element 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 Element Present.**
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 Element Present.**