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: **Social & Personality Development in Childhood**
Format of Textbook: **HTML**

Assistive Technology (AT) Evaluation Score: Overall	**7.6 (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	**7.0 (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:	**Did not find any information about the formal accessibility policy of NOBA.**
B. The organization providing the online materials has an accessibility statement.	**Fail**
Additional Information:	**Did not find any information about NOBA's accessibility statement.**
C. An Accessibility Evaluation Report is available from an external organization.	**Fail**
Additional Information:	**Did not find any information about NOBA'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.	**Pass**
Additional Information:	**2/2 chapters (Social Understanding, Social and Emotional Competence) were read properly by the NVDA assistive technology without any text or figures skipped.**

3. Text Adjustment

A. Text is compatible with assistive technology.	**Pass**

Additional Information:	**2/2 chapters (Relationships, Social and Emotional Competence) were able to zoom in and out properly without horizontal scrolling.**
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).	**Pass**
Additional Information:	**All of the normal text and the background of the textbook was able to change colors. However, the figures did not change color with the Care your Eyes program and two figures disappeared, one of which was the photo of the author. The reference links and table did not change color as well.**

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:	**Since the textbook was not sectioned into separate webpages, I counted the whole textbook as one webpage. The whole textbook had good reflow of all the text while in normal viewing and when zoomed in or out.**
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	**Pass**

the page when rendered by assistive technology.	
Additional Information:	**Since the textbook was not sectioned into separate webpages, I counted the whole textbook as one webpage. Whenever there were figures, it was difficult to tell where the NVDA reader was reading from because the figures were not labeled as figures. You also did not know that the figure being read was a picture until the end of the caption that was read aloud. These parts were the only parts that I felt were not read in a logical order, especially since the NVDA assistive technology went from the text directly into the caption of the figures.**

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:	**2/2 chapters were good for navigating through the text. A person would be able to use just their hotkeys to navigate through the whole textbook.**
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).	**Pass**
Additional Information:	**6/6 lists are navigable using only NVDA hotkeys. The lists could be read item by item.**
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	**N/A**

content that is compatible with assistive technology.	
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).	**Fail**
Additional Information:	**The only table that was in the textbook was not found by the NVDA program. Therefore, the NVDA program was not able to read through the table in a logical order and just skipped through reading the components of the table.**

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:	
B. Live hyperlinks take you to any website or webpages external to the book.	**Pass**
Additional Information:	**43/50 hyperlinks worked. 7 of the hyperlinks that did not work were located in the Sections Menu on the right-hand side of the textbook website. While navigating through the hyperlinks with the keyboard and the mouse, I was not able to navigate through the textbook by clicking on the links. It just kept going back to the abstract at the top of the textbook webpage. The side menu also does not match where you are at when you are navigating through the headings in the textbook.**

C. Live links take you to the correct webpage that is functioning properly.	**Pass**
Additional Information:	**43/50 hyperlinks worked. 7 of the hyperlinks that did not work were located in the Sections Menu on the right-hand side of the textbook website. While navigating through the hyperlinks with the keyboard and the mouse, I was not able to navigate through the textbook by clicking on the links. It just kept going back to the abstract at the top of the textbook webpage. The side menu also does not match where you are at when you are navigating through the headings in the textbook.**
D. Live links are descriptive enough for the users to know where it should take them.	**Pass**
Additional Information:	**50/50 hyperlinks had good description of the hyperlinks rather than just describing it as a URL.**

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:	**2/2 chapters (Relationships, Personality) have consistent color redundancy in the color of links, text, reference citings, and headings.**
B. Information is conveyed from the sub-categories for contrast.	**Pass**
Additional Information:	**2/2 chapters (Relationships, Personality) had good contrast. All text passed the contrast evaluation with the color contrast analyzer, but one table did not. However, since the table was just a very small section of the textbook, I still rated this evaluation as a 10.**
C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1).	**Pass**

Additional Information:	**All headers throughout the book passed the color contrast analysis because the headings were black and the background was white.**
D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1).	**Pass**
Additional Information:	**All text throughout the book passed the color contrast analysis because they were in black and white.**
E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1).	**Fail**
Additional Information:	**The only simple image was the table and it did not pass the color contrast analysis because of the red and gray font.**

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:	**The markup language is in English.**
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:	**0/5 figures that I found in the whole textbook were labeled as figures, just labeled as a photo but it was not distinguished as a photo until the end of the captions. When read aloud, the person reading the textbook may get lost because the NVDA readers just jumps from the text directly into the caption of the photos. 0/5 figures were also read in more detail other than just the caption beneath the figure.**
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:	**0/5 figures that I found in the whole textbook were labeled as figures, just labeled as a photo but it was not distinguished as a photo until the end of the captions. When read aloud, the person reading the textbook may get lost because the NVDA readers just jumps from the text directly into the caption of the photos. 0/5 figures were also read in more detail other than just the caption beneath the figure.**

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	**N/A**

technology. This includes support for all criteria listed in Section 15 below.	
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.	**N/A**
Additional Information:	
B. STEM graphs have appropriate markup that indicates that the image is a graph.	**N/A**
Additional Information:	
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.	**N/A**
Additional Information:	
E. STEM figures have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	**N/A**
Additional Information:	
F. STEM graphs have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	**N/A**

Additional Information:	
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.	**N/A**
Additional Information:	

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.	**Pass**
Additional Information:	**10/10 interactive elements worked with just navigating through the textbook with a keyboard.**
B. Each interactive element conveys information to assistive technology regarding the element's name, type, and status (e.g. "Play, button, selected").	**Pass**
Additional Information:	**10/10 interactive elements were marked up as links, however, I was expecting the link to take me somewhere rather than just having a pop-up menu about the link. I was expecting to be taken to another website.**
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:	**Not Included.**
B. The organization providing the online materials has an accessibility statement.	**Fail**
Additional Information:	**Not Included.**
C. An Accessibility Evaluation Report is available from an external organization.	**Fail**
Additional Information:	**Not Included.**

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:	**Text was converted to speech without a problem.**

3. Text Adjustment

A. Text is compatible with assistive technology.	**Pass**
Additional Information:	**It is possible to increase font size by percentages.**
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).	**Pass**
Additional Information:	**Colors can be changed but font styles are restricted.**

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:	**It is possible to increase font size by percentages.**
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 page numbers available.**

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:	**Text is read in a logical order.**

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).	**N/A**
Additional Information:	
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,	**N/A**

media player, or reader that offers this functionality).	
Additional Information:	
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).	**Fail**
Additional Information:	**Tables are images that lack the appropriate mark up, see under Realtionships.**

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:	
B. Live hyperlinks take you to any website or webpages external to the book.	**Pass**
Additional Information:	
C. Live links take you to the correct webpage that is functioning properly.	**Pass**

Additional Information:	**The navigation links do not anchor down, creative commons links at bottom of page work.**
D. Live links are descriptive enough for the users to know where it should take them.	**Pass**
Additional Information:	**Links and nav links provide description.**

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:	**Headers and links are emphasized using boldface, italics, and capitalization. In the text they use the color read to make words stand and they use use the bold feature as redundant coding.**
B. Information is conveyed from the sub-categories for contrast.	**N/A**
Additional Information:	
C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1).	**Pass**
Additional Information:	**Ratio: 12.63:1.**
D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1).	**Pass**
Additional Information:	**Ratio: 12.63:1.**
E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1).	**N/A**
Additional Information:	

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:	**Language was declared in html.**
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).	**Pass**
Additional Information:	**More complex images do not have an alt but smaller icons do.**
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:	**Images fail to appropriately describe photo contents.**

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:	**None found.**

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:	
B. STEM graphs have appropriate markup that indicates that the image is a graph.	**N/A**
Additional Information:	
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.	**N/A**
Additional Information:	
E. STEM figures have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	**N/A**
Additional Information:	

F. STEM graphs have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	**N/A**
Additional Information:	
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.	**N/A**
Additional Information:	

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 element's name, type, and status (e.g. "Play, button, selected").	**N/A**
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: