High-Level Accessibility Evaluation (WCAG 2.1)

Simmons Insights

January 25, 2022

Prepared for:
BTAA-Library Accessibility Alliance

Prepared by:
Emily Mason, UX Researcher
User-Experience Laboratory
Center for Information and Communication Studies
University of Tennessee
uxl@utk.edu

Primary Point of Contact:
Songhee Kim, UXL Manager
skim142@vols.utk.edu
# TABLE OF CONTENTS

**SUMMARY**
- Top Findings 3

**ACCESSIBILITY FINDINGS**
1. Landing Page 4
2. Initial Interface 5
3. Cross Tab Report 6
4. Demographic Profile 6
SUMMARY

This report reflects the findings of a high-level assessment of the Simmons Insights for its conformance with the W3C Web Content Accessibility Guidelines version 2.1 level AA (WCAG 2.1).

This report shows that the Simmons Insights is mostly in compliance with the WCAG 2.1 guidelines, but does have some issues that need to be addressed, especially surrounding keyboard navigation and contrast. These findings significantly impact the accessibility of this database for people that require the use of keyboards and assistive technologies, preventing them from using the system either partially or altogether. These are the most critical issues to focus on correcting to improve access for all potential users of the system.

Top Findings

1. **Keyboard Accessibility**: The interface has some significant issues with keyboard navigation. The upper level navigation does not have any focusing element during keyboard navigation and the search bar is a keyboard trap which does not allow any further navigation using tab navigation or arrow keys. The Demographic Profile is also not navigable using only a keyboard.

2. **Contrast**: Several places on the interface have a very low color contrast ratio (4.5:1) or size contrast making some of the text and icons very difficult to see and read. This is especially an issue with the data within the crosstab report and demographic profile.

3. **Sensory Characteristics**: Several areas in the Demographic Profile are not screen readable and require vision and/or fine motor control in order to be understood.
ACCESSIBILITY FINDINGS

This report was conducted against the Simmons Insights database and covers a selection of pages and features that were to be tested as a representative sample of the database’s conformance to the WCAG 2.1 AA standards.

The resource was reviewed using a combination of manual and automatic review tools and assistive technologies, including the WAVE Accessibility Assessment tool, Axe Accessibility Assessment tool, WCAG Color Contrast Checker, and NVDA screen reader. All problems identified by automatic tools were double checked manually. This evaluation was performed using Firefox on Windows 10.

Below are the findings revealed during the accessibility evaluation of the Simmons Insights database. Some of these issues were persistent across several pages, and some were specific to each page. Details about each finding are provided along with the success criterion that is problematic.

1. Landing Page

**Test Case:** Test landing page to ensure menus, sub-menus, search box, images, icons, etc. are accessible.

**SC 1.3.1:** No page regions or ARIA landmarks.
2. Initial Interface

**Test Case:** Test initial interface to ensure menus, sub-menus, buttons, search box, images, icons, etc. are accessible

**SC 1.1.1:** MRI-Simmons logo does not have alternative text that is visible to screen readers (i.e. alternative text, ARIA label, or title attribute).

**SC 1.3.1:** Page does not have a main ARIA landmark.

**SC 1.3.1:** All page elements should be contained by ARIA landmarks.

**SC 1.4.3:** Most text on the page is small when zoomed to 100%.

**SC 1.4.3:** Contrast between icons (#337AB7) and background color (#30435D) in site header result in a low contrast ratio of 2.21:1.

**SC 1.4.3:** Low contrast (2.6:1) between colors #94A2B7 and #FFFFFF (2.6:1) in several parts of the interface.

**SC 2.1.1:** No focus on interface elements with keyboard navigation.

**SC 2.1.2:** Keyboard navigation causes the user to get stuck in the search bar.

**SC 2.4.6:** “Bases”, “Columns”, and “Rows” Icons to the right of the search bar repeat the text twice using a screen reader.

**SC 2.4.6:** Page does not contain an h1 heading.

**SC 3.1.3 (AAA):** Screen reader pronounces crosstab as “cross stab.” Might be confusing. (This is a WCAG 2.1 AAA Success Criterion and is technically outside the scope of this.
evaluation, but due to the frequency the word "crosstab" being read by the screen reader, it was important to include.)

3. Cross Tab Report

Test Case: Test Cross Tab report from the initial landing page, by creating a crosstab using “jeans” in the search box. Select a few brands of jeans as variables/columns. Search for age. Run the cross tab that compares specific jean brand sales by age.

![Cross Tab Report Image]

SC 1.3.3: Filter functions are not recognized by screen reader.
SC 1.4.3: Crosstab text is very small when zoomed to 100%.
SC 1.4.3: Low contrast (2.6:1) between colors #941A2B9 and #FFFFFF in the second row of the cross tab.
SC 2.1.1: Filter functions are not able to be selected using the keyboard.
SC 3.3.2: Crosstab row and column labels are not fully screen readable.
SC 3.3.2: Filter pop-ups are not announced by screen reader.

4. Demographic Profile

Test Case: Test initial Advanced Search page to ensure menus, sub-menus, search box, images, icons, etc. are accessible.
Test Demographic Profile via Quick Reports under the “Essentials” menu. Select Demographics and then search with term “running” and select running/jogging variable that comes up. Select Target, then Demographic Profile, then Run Analysis.
SC 1.3.1: Page should have a main ARIA landmark.
SC 1.3.1: All page content should be contained by ARIA landmarks.
SC 1.3.3: Screen reader has serious difficulty identifying several of the statistics in every chart other than the “General Statistics” chart without precisely hovering over them.
SC 1.3.3: Several statistics are presented in a popup on hover that is not screen readable.
SC 1.3.3: A layout table is used to visually present the information in the “General Statistics” table and shouldn’t be used in HTML5 as it can cause problems with screen readers.
SC 1.4.3: Low contrast (2.6:1) between colors #941A2B9 and #FFFFFF making text difficult to read.
SC 2.1.1: Demographic Profile is not navigable using only the keyboard.
SC 2.4.6: No h1 heading is present.

Disclaimer: This high-level evaluation was conducted for the Library Accessibility Alliance, and represents a good faith effort conducted within a limited time frame. It should not be assumed to be complete or free from error. No warranties or guarantees are implied. UT is not responsible for direct, indirect, or incidental damages based on this work; its use or interpretation by any individual, group, or organization; or on conditions beyond our control.