

To: Robert Van Rennes, Big Ten Academic Alliance  
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CC: Heidi Schroeder, MSU Libraries  
Subject: Sage Research Methods High-Level Accessibility Evaluation  
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MSU Usability/Accessibility Research and Consulting (MSU UARC) conducted a high-level accessibility evaluation of Sage Research Methods to evaluate its conformance with WCAG 2.0 AA Criteria. This evaluation did not include all functionality or content of the site or all WCAG 2.0 AA Success Criteria.

During this evaluation, a number of issues were found that will make the site and its content impossible to use for many individuals with disabilities, and difficult to use for many others.

Critically, a keyboard trap is present on the Search Results page, and some content cannot be used when assistive technologies are enabled. Keyboard traps prevent keyboard-only users, including individuals with dexterity impairments and screen reader users, from using any part of an affected page beyond the element that captures focus. Users that rely on assistive technologies such as screen readers, including individuals with visual and reading impairments, must be able to reach and use all content when those technologies are enabled.

In addition to the keyboard trap issues noted above, keyboard users, including screen reader users and users with dexterity impairments, will find it difficult or impossible to use a considerable portion of site content. Some content cannot be reached or operated via keyboard, making it impossible to use for those that rely on keyboard access. Focus order is incorrect in many places, increasing the difficulty of using the site with a keyboard. Many interactive elements lack a sufficiently visible focus indicator, making it difficult for many keyboard-only users to effectively use them, as they cannot determine when they have reached the correct element. Moving focus to some elements and modifying some inputs also causes page content to unexpectedly change.

Individuals with visual impairments, including those that rely on screen readers, will also have significant problems. Critical content is not read out at all, invisible and irrelevant information is frequently read out, and other content is read out incorrectly. Structural information, including headings and lists, is not appropriately conveyed to users, making it difficult or impossible to understand content and organization in places. Some form inputs are not appropriately labeled, making those inputs difficult or impossible to use for those that rely on screen readers. Custom elements do not correctly announce themselves to screen readers, making them difficult or impossible to understand and use. Some images lack appropriate alternative text, significantly impacting users with visual impairments.

Individuals with hearing impairments will not be able to use some videos, as they lack captions.

Other issues were found that will make it difficult for users with a variety of disabilities to effectively use the system, including insufficient color contrast, images of text being used in place of styled text, use of color alone to convey information and purpose, incorrect use of skip links in bypassing repeated navigation on pages, and missing page titles.

To improve access for users with disabilities, UARC recommends a full WCAG 2.0 AA evaluation and that the problems discovered be remediated.

*Note: Results for "construct validity " were used as an example of a Search Results page; the "Construct Validity" entry from the Encyclopedia of Evaluation was used as an example of an Entry page and PDF, and "How Results Can Be Misleading: Problems With Reliability and Validity" was used as an example of a Video page.*

*For reference, a screenshot of the Home Page at the time this evaluation was completed has been included at the end of this memo.*

## High-Level Findings

### Conformance

- Screen readers cannot read main navigation dropdown content (under "Browse" and "Research Tools"); arrow keys (used for screen reader operations) are captured by page and used to navigate between links instead, interfering with screen reader usage. [[WCAG 2.0 CR 4](#)]
- On the Search Results page, the Publication Date slider cannot be operated via keyboard when a screen reader is in use. [[WCAG 2.0 CR 4](#), [WCAG 2.0 SC 2.1.1](#)]
- On the Entry page, "Methods Map" or "Related Content" cannot be expanded via keyboard when a screen reader is in use. [[WCAG 2.0 CR 4](#), [WCAG 2.0 SC 2.1.1](#)]
- On the Video page, volume cannot be controlled via keyboard when a screen reader is in use. [[WCAG 2.0 CR 4](#), [WCAG 2.0 SC 2.1.1](#)]
- On the Advanced Search page, expanders cannot be expanded or collapsed via keyboard when a screen reader is in use. [[WCAG 2.0 CR 4](#), [WCAG 2.0 SC 2.1.1](#)]
- There is a keyboard trap on the Search Results page (focus loops back to page navigation buttons and footer when advancing focus from the sidebar, and from the end of the footer back to the beginning of the sidebar). [[WCAG 2.0 CR 5](#), [WCAG 2.0 SC 2.1.2](#), [WCAG 2.0 SC 2.4.3](#)]

### Document Structure

- On the Home page, "cases", "datasets", "video", and "Hot Topics" should be tagged as headings. [[WCAG 2.0 SC 1.3.1](#)]
- On the Search Results page, only one h1 should be present. [[WCAG 2.0 SC 1.3.1](#)]
- On the Entry page, "Further Reading" should be tagged as a heading. [[WCAG 2.0 SC 1.3.1](#)]
- On the Advanced Search page, "See general search tips or using advanced search options" shouldn't be part of a heading. [[WCAG 2.0 SC 1.3.1](#)]
- In the PDF, "In: Encyclopedia of Evaluation" shouldn't be tagged as a heading. [[WCAG 2.0 SC 1.3.1](#)]
- In the PDF, "Further Reading" should be tagged as a heading (h2). [[WCAG 2.0 SC 1.3.1](#)]
- On the Home and Advanced Search pages, lists that span multiple columns are incorrectly broken into separate lists. [[WCAG 2.0 SC 1.3.1](#)]
- On the Search Results page, some results have inappropriate headings, due to incorrect labels being set in the code (e.g., "1 The Straw Men of the Qualitative-Quantitative Divide and Their Influence on Mixed Methods Research<a class="ref page" href="/book/advances-in-mixed-methods-research/d3.xml#fn1n1"><span

class="hi-superscript">5</span></a>" is read out as a heading). [[WCAG 2.0 SC 2.4.6](#)]

- Page header content ("Browse", "Research Tools", search, Login, etc.) is not read out by screen readers (instead, "Application" is announced). [[WCAG 2.0 SC 1.3.2](#), [WCAG 2.0 SC 4.1.2](#)]
- On the Search Results page, only the first result is read out by screen readers (all others are skipped). [[WCAG 2.0 SC 1.3.2](#), [WCAG 2.0 SC 4.1.2](#)]
- On the Search Results page, the Publication Date slider and checkboxes/labels in expanders are not read out by screen readers. [[WCAG 2.0 SC 1.3.2](#), [WCAG 2.0 SC 4.1.2](#)]
- On the Home page, invisible "Select your discipline" dropdown is read out after "Technology". [[WCAG 2.0 SC 1.3.2](#)]
- On the Search Results page, invisible "Submit" button is read out after "Modify Search". [[WCAG 2.0 SC 1.3.2](#)]
- On the Entry page, invisible content is read out between "Related Content" and "Also from SAGE Publishing". [[WCAG 2.0 SC 1.3.2](#)]
- On the Entry page, an invisible dropdown is read out after "Subject Index" tab. [[WCAG 2.0 SC 1.3.2](#)]
- On the Entry page, an invisible dropdown is read out after "Methods Map" tab. [[WCAG 2.0 SC 1.3.2](#)]
- On the Video page, transcripts are not read out by screen readers (only timestamps are read). [[WCAG 2.0 SC 1.3.2](#), [WCAG 2.0 SC 4.1.2](#)]

## Keyboard Support

- On the Search Results page, focus loops back to page navigation buttons and footer when advancing focus from the sidebar, and from the end of the footer back to the beginning of the sidebar, creating a keyboard trap. [[WCAG 2.0 SC 2.1.2](#), [WCAG 2.0 SC 2.4.3](#), [WCAG 2.0 CR 5](#)]
- On the Search Results page, buttons to remove search filters (e.g., "Publication Date: 1986 to 2019") cannot be reached via keyboard. [[WCAG 2.0 SC 2.1.1](#)]
- On the Entry page, most buttons in the Share modal cannot be reached via keyboard. [[WCAG 2.0 SC 2.1.1](#)]
- On the Entry page, "Sandra Mathison" link cannot be reached via keyboard. [[WCAG 2.0 SC 2.1.1](#)]
- On the Entry page, "+ More information" link cannot be reached via keyboard once it has been activated (i.e., after activating the link, then activating the "- Less information" link). [[WCAG 2.0 SC 2.1.1](#)]
- On the Search Results page, the Publication Date slider cannot be operated via keyboard when a screen reader is in use. [[WCAG 2.0 SC 2.1.1](#), [WCAG 2.0 CR 4](#)]
- On the Entry page, "Methods Map" or "Related Content" cannot be expanded via keyboard when a screen reader is in use. [[WCAG 2.0 SC 2.1.1](#), [WCAG 2.0 CR 4](#)]
- On the Video page, volume cannot be controlled via keyboard when a screen reader is in use. [[WCAG 2.0 SC 2.1.1](#), [WCAG 2.0 CR 4](#)]
- On the Advanced Search page, expanders cannot be expanded or collapsed via keyboard when a screen reader is in use. [[WCAG 2.0 SC 2.1.1](#), [WCAG 2.0 CR 4](#)]
- On the Home page, focus goes to non-interactive/invisible content after the "Explore the Methods Map" button. [[WCAG 2.0 SC 2.4.3](#)]

- On the Search Results page, focus goes to inactive arrow buttons ("Go to the first page" and "Go to the previous page"). [[WCAG 2.0 SC 2.4.3](#)]
- On the Search Results page, focus incorrectly reaches "Go to the next page" arrow button after the "Go" button (instead of after the "More pages" button). [[WCAG 2.0 SC 2.4.3](#)]
- On the Search Results page, focus incorrectly reaches "Save", "Text", and sidebar ("Search within results", etc.) after page footer. [[WCAG 2.0 SC 2.4.3](#)]
- On the Entry page, focus goes to non-interactive/invisible elements after "Subject Index" tab, "Related Content" expander, and "Show page numbers". [[WCAG 2.0 SC 2.4.3](#)]
- On the Entry page, focus goes to over a dozen non-interactive/invisible elements after "Show page numbers" checkbox. No screen reader feedback is provided, resulting in the page appearing to be broken for some users of assistive technologies. [[WCAG 2.0 SC 2.4.3](#)]
- On the Entry page, focus goes to hidden/invisible elements (i.e., collapsed content) in the "Reader's Guide" tab. [[WCAG 2.0 SC 2.4.3](#)]
- On the Entry page, selecting "Subject Index" tab or "More Information"/"Less Information" link incorrectly resets focus to the top of the page. [[WCAG 2.0 SC 2.4.3](#)]
- On the Entry page, focus doesn't immediately go to the Share modal when it is opened. [[WCAG 2.0 SC 2.4.3](#)]
- On the Entry page, focus goes to an invisible dropdown after the "Subject Index" tab. [[WCAG 2.0 SC 2.4.3](#)]
- On the Video page, focus goes to links in the "Related Content" tab when it is not active/selected. [[WCAG 2.0 SC 2.4.3](#)]
- On the Video page, focus goes to multiple invisible elements after "Help". [[WCAG 2.0 SC 2.4.3](#)]
- On the Video page, focus goes to an invisible dropdown after the "Methods Map" tab. [[WCAG 2.0 SC 2.4.3](#)]
- Focus is not sufficiently visible for a variety of interactive content. [[WCAG 2.0 SC 2.4.7](#)]
  - "Profile" button in page header
  - "Advanced" link on Home page
  - Tiles under "I want to..." on Home page
  - "Explore the Methods Map" button on Home page
  - Video controls (e.g., play button) on Home page
  - Sort dropdowns (e.g., "Results per page" dropdown) on Search Results page
  - Expand/collapse bars after use (e.g., "Content Type") on Search Results page
  - "Go" button on Search Results page
  - "Publication Date" slider elements on Search Results page
  - All buttons and dropdowns in Export Citation modal on Search Results page
  - Tabs (e.g., "Entry") on Entry page
  - "Download PDF" button on Entry page
  - Tabs (e.g., "Transcript") on Video page
  - "PDF" button on Video page
  - Video controls on Video page

- Checkboxes (immediately after use) on Advanced Search page
  - "Search" and "Clear" buttons on Advanced Search page
- On the Video page, the Video Quality modal opens when the Video Settings icon receives focus. [[WCAG 2.0 SC 3.2.1](#)]
- On the Search Results page, using arrow keys to navigate sort dropdowns ("Results per page" and "Sort by") and "Publication Date" slider causes results to reload, rather than waiting for the user to make a selection. [[WCAG 2.0 SC 3.2.2](#)]

## Navigation

- PDF title is not available to screen readers (Document Properties not set to show Document Title in Initial View). [[WCAG 2.0 SC 2.4.2](#)]
- On all pages except Video, "Skip to main content" links incorrectly skip unique page content (i.e., skip more than just repeated navigation). [[WCAG 2.0 SC 2.4.1](#)]

## Forms and Data Submission

- On the Search Results page, "Go to page" text input is not programmatically labeled. [[WCAG 2.0 SC 3.3.2](#)]
- On the Advanced Search page, checkboxes are not programmatically associated with grouping label (e.g., "Content Type", "Discipline"). [[WCAG 2.0 SC 3.3.2](#)]

## Images

- On the Home page, "cases" image lacks appropriate alternative text. [[WCAG 2.0 SC 1.1.1](#)]
- On the Entry page, the Cite, List, Share, and Text icons lack appropriate alternative text (they are read out without text when page is scrolled down). [[WCAG 2.0 SC 1.1.1](#)]
- On the Home page, "cases", "datasets", and "video" are images of text, instead of styled text. [[WCAG 2.0 SC 1.1.1](#)]

## Color and Visual Characteristics

- Grey text on light grey background (e.g., "Go to page:" on Search Results page), green text on white (e.g., selected letter in "Entries A-Z" and "Subject Index" tabs on Entry page), and white text on green and light blue (e.g., buttons in Share modal on Entry page) have insufficient contrast. [[WCAG 2.0 SC 1.4.3](#)]
- On the Entry page, color alone is used to differentiate the selected letter in the "Entries A-Z" and "Subject Index" tabs. [[WCAG 2.0 SC 1.4.1](#)]

## Custom Elements and Dynamic Content

- Page header content ("Browse", "Research Tools", search, Login, etc.) is not read out by screen readers (instead, "Application" is announced). [[WCAG 2.0 SC 4.1.2](#), [WCAG 2.0 SC 1.3.2](#)]
- On the Search Results page, only the first result is read out by screen readers (all others are skipped). [[WCAG 2.0 SC 4.1.2](#), [WCAG 2.0 SC 1.3.2](#)]
- On the Search Results page, the Publication Date slider and checkboxes/labels in expanders are not read out by screen readers. [[WCAG 2.0 SC 4.1.2](#), [WCAG 2.0 SC 1.3.2](#)]
- On the Video page, transcripts are not read out by screen readers (only timestamps are read). [[WCAG 2.0 SC 4.1.2](#), [WCAG 2.0 SC 1.3.2](#)]

- On the Search Results page, incorrect values (all say "collapse link expand", regardless of current status) are provided for expanders (e.g., "Content Type"). [[WCAG 2.0 SC 4.1.2](#)]
- On the Search Results page, screen readers are not notified when expanders are opened or closed. [[WCAG 2.0 SC 4.1.2](#)]
- On the Entry and Video pages, unrelated content is read out when a tab is selected. [[WCAG 2.0 SC 4.1.2](#)]
- On the Entry page, roles and values (i.e., that they expand/collapse and whether they are expanded or collapsed) are not provided for the "Methods Map" expander or expanders in the "Subject Index" tab (e.g., "Accountability"), and screen readers are not notified when they are opened or closed. [[WCAG 2.0 SC 4.1.2](#)]
- On the Entry page, name, role, and value (i.e., labels, that they expand, and whether they are collapsed) are not provided for "Methods Map" and "Related Content" when they are collapsed. [[WCAG 2.0 SC 4.1.2](#)]
- On the Video page, h1 information is incorrectly read out instead of "Segment 5: Construct Validity". [[WCAG 2.0 SC 4.1.2](#)]
- On the Video page, screen readers are not notified when activating closed captions, full screen mode, or Increase/Decrease Playback Rate buttons in video settings. [[WCAG 2.0 SC 4.1.2](#)]
- On the Video page, incorrect values (all say "selected") are provided for inactive tabs (e.g., "Summary", "Segment Info"). [[WCAG 2.0 SC 4.1.2](#)]
- On the Video page, screen readers are not notified when "Auto-Scroll" is deselected. [[WCAG 2.0 SC 4.1.2](#)]
- On the Advanced Search page, name, role, and value (i.e., labels, that they expand, and whether they are collapsed) are not provided for expanders, and screen readers are not notified when they are opened or closed. [[WCAG 2.0 SC 4.1.2](#)]

## **Audio and Video Media**

- On the Home page, captions are not provided for the "How to Teach with SAGE Research Methods" video. [[WCAG 2.0 SC 1.2.2](#)]
- On the Home and Video pages, audio descriptions of visual content in videos are not provided. [[WCAG 2.0 SC 1.2.5](#)]

Disclaimer: This high-level evaluation was conducted for the Big Ten Academic 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. UARC 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.

# Home Page Screenshot

The screenshot shows the SAGE Research Methods website home page. At the top, there is a navigation bar with the SAGE logo, the text "researchmethods", and links for "Browse", "Research Tools", "Login", "Profile", and "Library". Below the navigation bar is a hero section with a background image of a desk with a laptop and a lamp. The main heading is "What every researcher needs" with the subtext "Find resources to answer your research methods and statistics questions". A search bar is present with the text "test" and a magnifying glass icon, and a link to "Advanced" search.

Below the hero section is a section titled "I want to..." with a grid of 13 interactive cards:

- Read classic and cutting edge books (Books icon)
- Watch methods come alive (Video icon)
- Find quick answers and definitions (Reference icon)
- Learn about quantitative methods (Little Green Books icon)
- Learn about qualitative methods (Little Blue Books icon)
- Learn from stories of real research (Cases icon)
- Practice data analysis (Datasets icon)
- Design a research project (Project Planner icon)
- Listen to research methods experts (Podcasts icon)

Below this is a section titled "My discipline is..." with a grid of discipline categories:

- Anthropology
- Business and Management
- Communication and Media Studies
- Computer Science
- Counseling and Psychotherapy
- Criminology and Criminal Justice
- Economics
- Education
- Engineering
- Geography
- Health
- History
- Marketing
- Mathematics
- Medicine
- Nursing
- Political Science and International Relations
- Psychology
- Science
- Social Policy and Public Policy
- Social Work
- Sociology
- Technology

Next is a "Methods Map" section with a description: "Use the Methods Map to browse the resources in SAGE Research Methods. Learn how methods are related and find definitions of key terms." and a button "Explore the Methods Map". To the right is a computer monitor displaying the Methods Map interface.

Below this are two video thumbnails:

- "SAGE Research Methods" showing the Methods Map interface.
- "How to Teach with SAGE Research Methods" showing a classroom setting.

Next is a row of four content cards:

- cases**: Find stories of real research to learn from and be inspired by. [Find out more](#)
- datasets**: Find practice datasets to help you master qualitative and quantitative data analysis. [Find out more](#)
- video**: Bring research methods, statistics and evaluation to life. [Find out more](#)
- Hot Topics**: SAGE editors source content from across SAGE's Research Methods. This quarter's theme: [Social Media Research](#)

Below this is a section titled "Also from SAGE Publishing" with a grid of product cards:

- CIJ Library: American political researchers
- Data Planet: A universe of data
- Learn Library: Increase the usability of your library
- SAGE Business Cases: Master your case of your fingertips
- SAGE Journals: World-class research journals
- SAGE Knowledge: The ultimate social sciences library
- SAGE Stats: Data on demand
- SAGE Video: Streamline video collections

At the bottom, there is a footer section with:

- About SAGE: About SAGE, Research Methods, What's New, Privacy Policy, Terms of Use, Contact Us, Help
- Resources for: Librarians, Faculty
- Feedback: Tell Us, Log Out
- Follow SAGE Methods: [METHODSPACE](#)

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