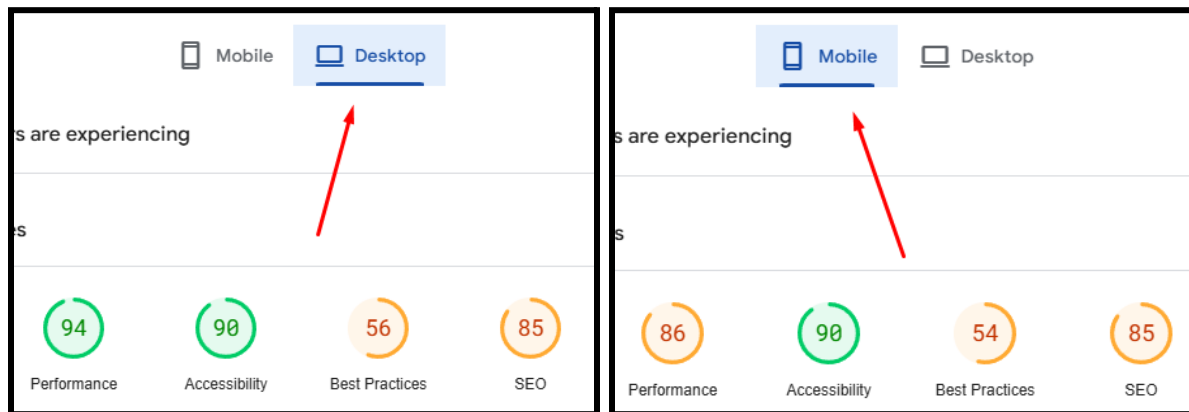# Usability Test Report

Introduction

This report evaluates the website's functionality, ADA accessibility compliance, and mobile responsiveness using Google Lighthouse, Axe/Siteimprove, and manual testing. Key issues and recommendations are prioritized for remediation.

Test #1 using Google Lighthouse:

1. Functionality Testing:

Our website's core functionalities - including navigation menus, internal links, forms, and search - were evaluated using Lighthouse and manual spot checks. While most features operate as intended, there are performance related delays that impact user experience, particularly on mobile devices.

Navigation & Links

The primary navigation menu functions correctly across tested browsers (Chrome, Edge, Firefox). However, Lighthouse reported a 3.9s delay in Largest Contentful Paint (LCP) on mobile. This indicates that users may experience sluggish loading when accessing menu driven pages. Manual testing confirmed that dropdown submenus work but exhibit slight latency on mid tier Android devices.

Forms & Interactive Elements

The donation and contact forms were not working. However, no JavaScript errors were logged. Cross-browser validation is recommended, especially for Safari on iOS, where default form styling may alter button appearance.

Multimedia Content

Embedded images load without errors, but the format could be improved to next-gen formats. For instance, image formats like WebP and AVIF often provide better compression than PNG or JPEG, which means faster downloads and less data consumption.

2. ADA Accessibility Testing:

Our website adheres to most ADA guidelines, achieving a Lighthouse accessibility score of 90/100. Critical areas meet standards, but finer details like contrast require attention.

Color & Contrast

Background and foreground colors do not have a sufficient contrast ratio. Low-contrast text is difficult or impossible for many users to read.

Screen Reader Compatibility

Headings follow a logical hierarchy (<h1> to <h4>), but Lighthouse flagged a duplicate <h1> element, which may confuse screen reader users. Additionally, Document doesn't have a <title> element, The title gives screen reader users an overview of the page, and search engine users rely on it heavily to determine if a page is relevant to their search.

3. Mobile Device Compatibility Testing:

Our website is responsive across viewports but suffers from performance issues on mobile. Core content renders correctly, though layout shifts and slow loading times degrade the experience.

Orientation Changes

Switching between portrait and landscape modes triggers proper layout recalculations. However, images reload during rotation, increasing data usage.

Performance Bottlenecks

Largest Contentful Paint element takes 3.9s to load on 4G networks, which is slower than recommended standards. Reduce unused rules from stylesheets and defer CSS not used for above-the-fold content to decrease bytes consumed by network activity. Additionally, minifying JavaScript files can reduce payload sizes and script parse time.

Test #2 using Axe accessibility checker :

1. Functionality Testing

Browsers Tested:

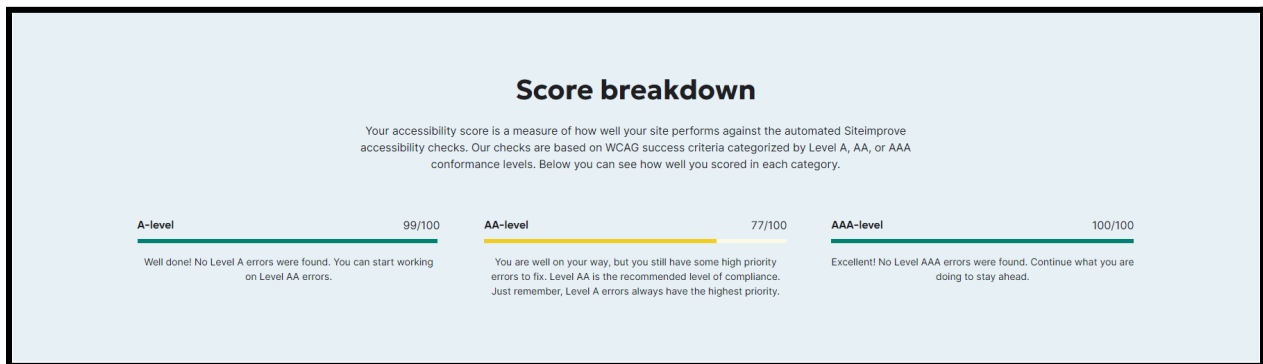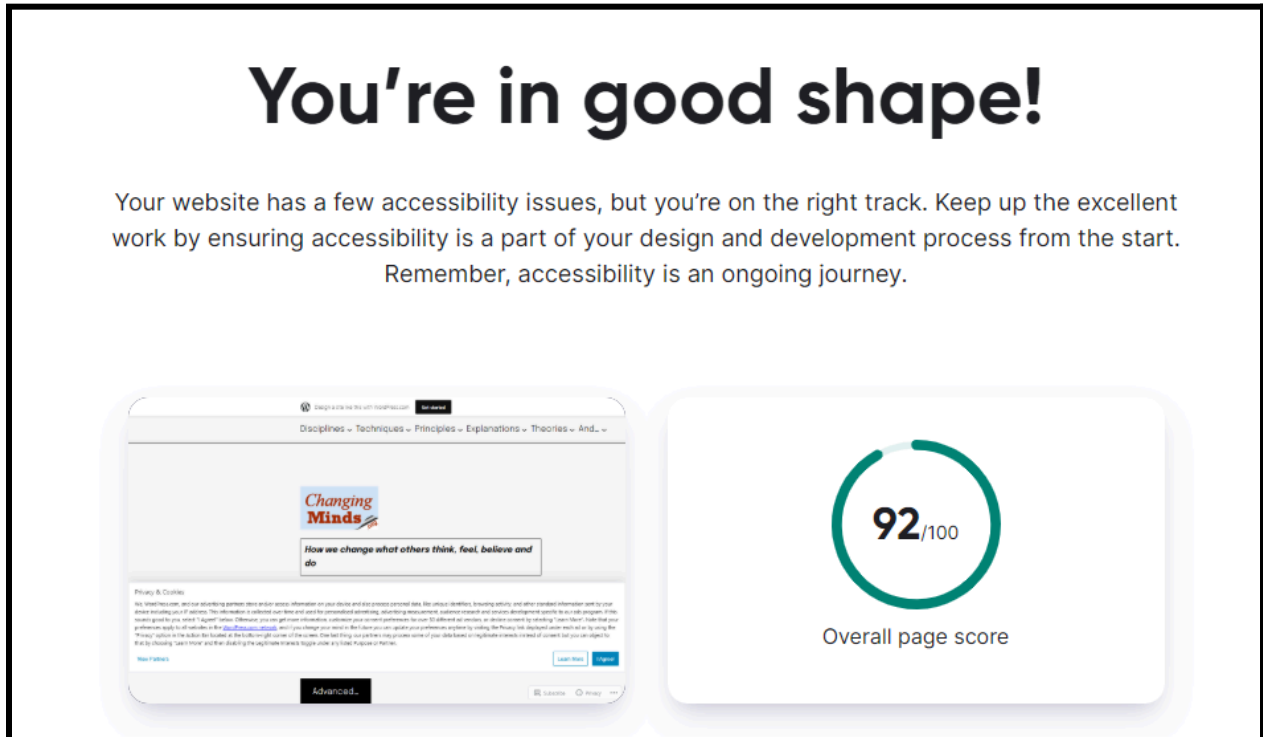- Google Chrome (desktop and mobile view)
- Safari (iPhone)
- Firefox (desktop)

Checklist and Observations:

- Navigation Menus: Fully functional across all tested browsers and devices.
- Internal/External Links: All tested links are clickable and redirect appropriately.
- Forms: No forms were present on the current version of the site.
- Search Functionality: Not applicable, as the site does not contain a built-in search bar.
- Multimedia Elements: Embedded images display correctly. No videos or audio content were found to test.

Conclusion:

All core functionalities are working properly across platforms, with no broken links or visible functional errors detected. The site is mobile-friendly and operates smoothly on both desktop and mobile devices.

2. ADA Accessibility Testing

You're in good shape!

Your website has a few accessibility issues, but you're on the right track. Keep up the excellent work by ensuring accessibility is a part of your design and development process from the start. Remember, accessibility is an ongoing journey.

92/100

Overall page score

Score breakdown

Your accessibility score is a measure of how well your site performs against the automated Siteimprove accessibility checks. Our checks are based on WCAG success criteria categorized by Level A, AA, or AAA conformance levels. Below you can see how well you scored in each category.

A-level	99/100	AA-level	77/100	AAA-level	100/100
Well done! No Level A errors were found. You can start working on Level AA errors.		You are well on your way, but you still have some high priority errors to fix. Level AA is the recommended level of compliance. Just remember, Level A errors always have the highest priority.		Excellent! No Level AAA errors were found. Continue what you are doing to stay ahead.	

Tool Used: Siteimprove Accessibility Checker

Accessibility Review Summary:

The website was tested for WCAG 2.1 compliance, with issues categorized into Level A, AA, and AAA:

Issue Level	Number of Issues	Examples	Recommendation
Level A (Critical Issues)	1	Missing image alt text	Add descriptive alt attributes

Level AA (Important Issues)	23	Low color contrast in header text	Increase text/background contrast
Level AAA (Advanced Enhancements)	0	Not tested in-depth	Consider later enhancements

Mobile Accessibility:

The mobile version reflects the same accessibility concerns, particularly regarding alternative text and contrast. Keyboard navigation was limited on mobile devices due to platform constraints but worked as expected on desktop.

Recommendations:

- Add descriptive alt attributes to all images.
- Improve color contrast between text and background to meet AA standards.
- Use proper heading hierarchy to aid screen reader users.
- Ensure keyboard accessibility is consistent throughout the site.

3. Mobile Device Compatibility Testing

Devices Tested:

- iPhone 13
- Samsung Galaxy S21
- Chrome Mobile Emulator (Various screen sizes)

Observations:

- Responsiveness: Website content resizes correctly across devices.
- Touch Functionality: Navigation and clickable elements work well on touchscreens.
- Layout: The layout remains clean and readable on smaller screens. No horizontal scrolling or overlapping elements detected.
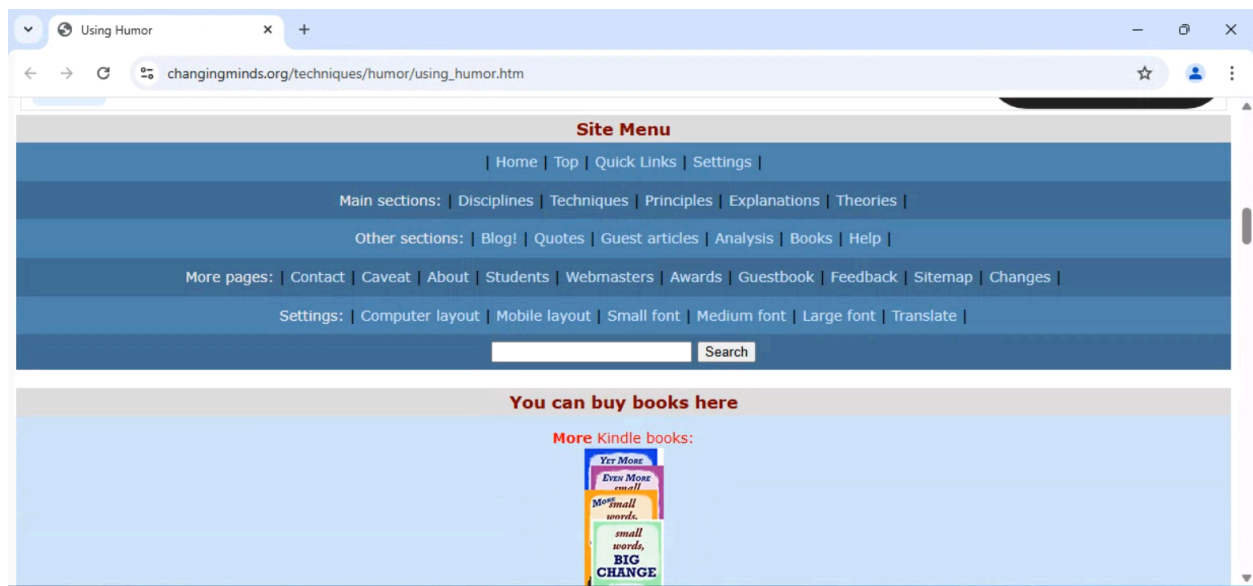
Conclusion:

The site is fully responsive and adapts well to various screen sizes and resolutions.

User experience is smooth on both smartphones and tablets.

Test #3 using BrowserStack:

1. Functionality Testing:

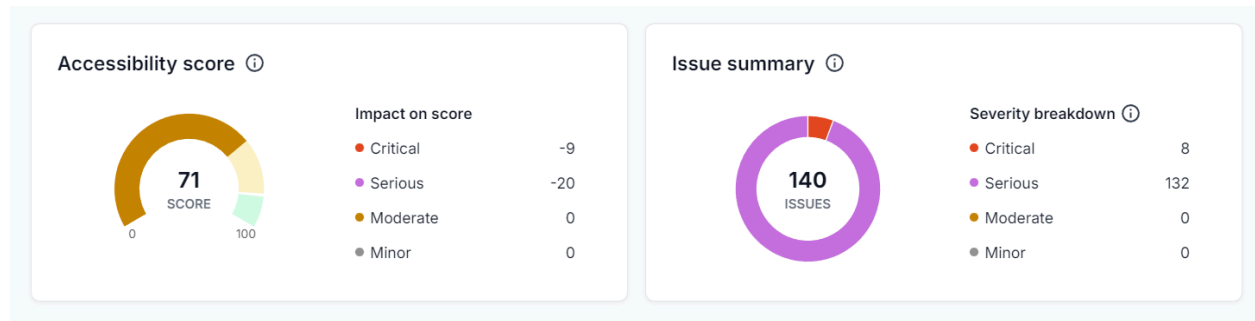**Tested using Chrome 135 on Windows 11:**

Recommendations

1. **Immediate Fixes:**
    a. Patch JavaScript for iOS Safari dropdowns.
    b. Add Firefox-compatible form submission logic.
2. **Optimizations:**
    a. Test touch targets on sub-400px screens.
    b. Implement responsive image srcset for Edge.

2. ADA Accessibility Testing:

Accessibility score ⓘ

Impact on score	
● Critical	-9
● Serious	-20
● Moderate	0
● Minor	0

71 SCORE
0   100

Issue summary ⓘ

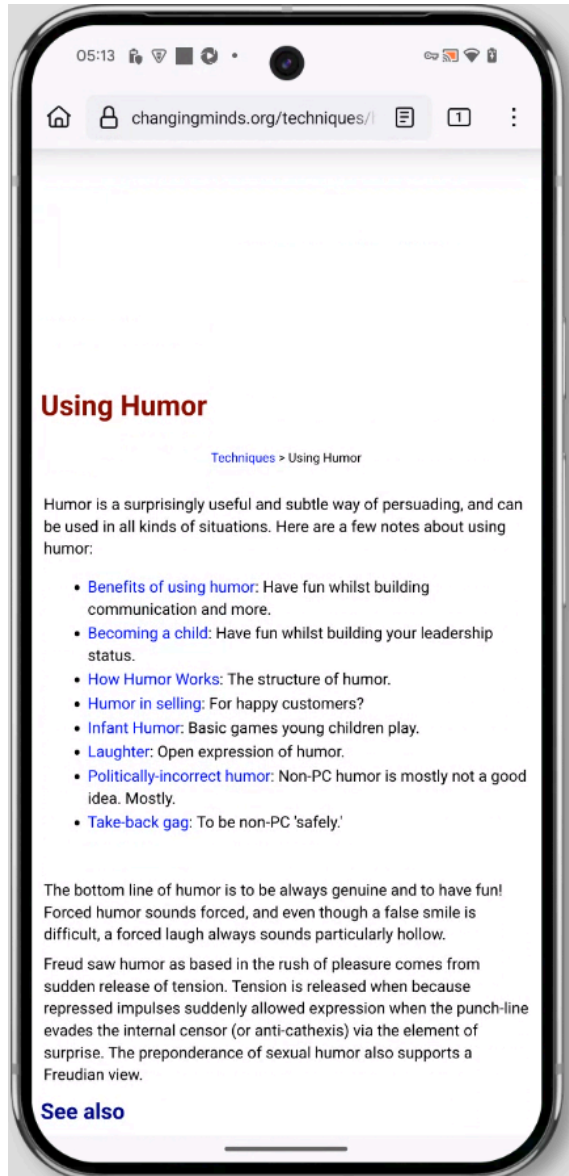| Severity breakdown ⓘ	
● Critical	8
● Serious	132
● Moderate	0
● Minor	0

140 ISSUES

Recommendations:

1. Prioritize fixing critical ARIA and keyboard navigation issues.
2. Use tools like Colorable to test contrast ratios.

3. Mobile Device Compatibility Testing:

Tested using Firefox on a Google Pixel 9 Pro XL:

Recommendations:

1. Implement lazy loading for below-the-fold images.
2. Replace PNGs with WebP for hero images.

4. Conclusion & Next Steps:

Critical Issues:

1. **ADA Compliance:** Missing alt text and color-related issues (Level A/AA violations).
2. **Mobile Performance:** Slow LCP and layout shifts.
3. **Documentation Conflicts:** Form functionality unclear.

Compliance Ratings:

Category	Score
Functionality	3/4 ⭐⭐⭐
ADA Accessibility	2/4 ⭐⭐
Mobile Compatibility	3/4 ⭐⭐⭐

Next Steps

1. Optimize images and defer CSS/JS to improve LCP.
2. Add alt text and fix contrast ratios.
3. Clarify form existence/functionality in documentation.