surveygizmo

A Step-by-Step Guide to Creating More Accessible Surveys

In order to be considered **"accessible,"** surveys and forms must be designed to assist hearing- or sight-impaired users.

If you're planning on sharing your survey with respondents who may require the use of assistive devices to complete your survey, you'll definitely want to follow the most current best practices for ensuring accessibility. Similarly, if you're planning on surveying a large audience and you're not sure whether or not there will be respondents who require the help of a screen reader, you'll typically get a better response rate by making sure your survey is as accessible as possible.

This guide covers general survey design principles and will offer advice on creating more accessible surveys, with a particular focus on how SurveyGizmo's online software can help achieve that goal. We've also compiled a few of our favorite checklists from web accessibility groups to streamline your review process as much as possible.

Before we dive into the best practices themselves, a disclaimer: we're survey experts, not accessibility experts. We've done a significant amount of research (and put together quite a lot of surveys) to compile this guide, but we aren't a regulatory agency. For highly specific details on what constitutes complete accessibility, please see the references and resources at the end of this guide.

508 Compliance and SurveyGizmo

Section 508 is an amendment to the Workforce Rehabilitation Act of 1973 that requires Federal agencies to ensure that their software, hardware, and information technology are accessible to people with disabilities. While the law only applies to Federal agencies, it has become a benchmark for private companies that want to ensure their products and services meet the needs of as many users as possible.

Since 2007 SurveyGizmo has been recognized as a leader in providing 508 compliant surveys, and we're proud to continue that tradition today.

Please remember that not every survey created in SurveyGizmo's application will automatically be 508 compliant. Only by adhering to the best practices outlined in this guide (and in the external references provided) will your project be fully accessible.

We provide the necessary features and functionality, but it's up to you as a survey designer to create an accessible survey project.

Best Practices for 508 Compliance

There are two parallel pieces of your survey that need to be considered when you're designing a compliant survey:

1. **The content of the survey questions themselves.** Any question types that may be difficult for impaired users to navigate, or that screen readers cannot interpret, should be excluded.

2. **The instructions and interactions that govern the survey's behavior.** Necessary messaging should be included to ensure that impaired users will fully understand how to navigate the survey or form.

We'll cover both of these components in the following sections, so you can collect data from the full population of your target audience and provide a pleasant survey taking experience for everyone.

Choosing Compliant Survey Questions

Some questions just don't work well with screen readers and other assistive technology. Consequently, you should avoid using these question types altogether if 508 compliance is your goal.

Question types to avoid include:

✖ **Likert Scale Questions**

1. I am happy with my purchase.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
○	○	○	○	○

Screen readers interpret these questions as a table with the answer option labels as one row and the buttons as a separate row. This layout is confusing to respondents. The better option is to choose a radio button question type with a horizontal display to gather this type of data.

✖ **JavaScript-based Questions**

Although they can create some visual interest in an otherwise dull survey, question types powered by JavaScript are extremely incompatible with screen readers. SurveyGizmo uses JavaScript to power seven question types, so leave them out of your 508-compliant projects:

- Slider and Slider List
- Star Ranking
- Image Choice
- Drag and Drop Ranking
- Cascading Dropdown
- Signature
- Custom Tables

✖ Hidden Questions

Most hidden questions use JavaScript-powered logic to keep out of sight, so it's best not to use them with surveys that need to be accessible. Even when logic might dictate that they show, those using assistive technology wouldn't be able to distinguish live questions from hidden ones.

✖ Grid Questions

This question type isn't completely off limits, but it does require a little bit of extra setup to make it work with screen readers. SurveyGizmo offers a Screen Reader Table Summary field at the bottom of the Layout tab for each grid question; use it to describe the structure of the table so users can navigate it effectively.

Creating a Compliant Survey Layout

Once you've made a survey full of 508 compliant questions, take a close look at the layout of the survey too. Check out the handy checklist that we've appended to the end of this guide to go the extra mile, but as a baseline you can change your survey to display a single question on each page.

This type of layout is common for mobile devices, and it works great for assistive technology, too. Screen readers will read the entire page, and then, once the survey respondent tabs to the first field to answer the question, the screen reader will enter form mode.

In form mode, screen readers focus on inputs and labels and won't re-read the question text. Thus, surveys with a single question per page will be the easiest to navigate using a screen reader.

Validation and Warning Messages

If a respondent fails to complete a required question or otherwise encounters an error while taking your survey, you need to ensure that these messages are visible to screen readers.

For surveys using required questions or regex patterns, we recommend that you use SurveyGizmo's Text and Translations options to keep your warning and error messages up to date. These should clearly indicate what the error is to anyone using a screen reader.

Be sure to test all your required questions to make sure the error messages display correctly to screen readers.

Visually Accessible Survey Design

Assistive technology works best with simple, clean survey themes that use high color contrast. WebAIM.org even offers a contrast checker that you can use to ensure you're providing enough differentiation between your colors.

When adding visual interest to your survey with images, remember to include the "alt" attribute within the HTML to convey the images' content to visually impaired respondents. Alt text or captions will ensure that there's no confusion about the survey for those who aren't able to see the images themselves.

Using Inclusive Language in Your Survey

Accessibility experts recommend that you are mindful of the language you use when distributing your survey to people with disabilities.

People-First Language is a linguistic practice that ensures that the language and sentence structure used emphasizes that your respondents are people with a disability, and not "disabled people."
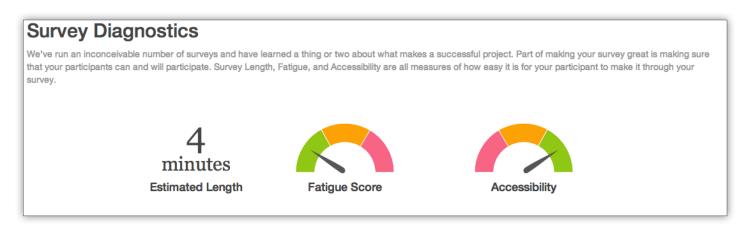
This type of language strives to avoid using words and phrases that would potentially cause a person with a disability to feel dehumanized or solely defined by their limitations. In sentence structure, for example, name the person first and their condition second. This helps to emphasize that they are people first and foremost, not the condition they experience.

Options for Checking Your Survey's Accessibility

There are many online options for checking your final project before you distribute it to respondents, including:

- Wave accessibility evaluation tool *(Firefox plugin)*
- World Wide Web Consortium validation tool *(validator.w3.org)*
- TAWS accessibility analyzer *(www.tawdis.net)*

When using SurveyGizmo, we'll also give you a rating for your survey's accessibility under our Test tab. It shows you how your survey rates for both accessibility and fatigue:

Survey Diagnostics

We've run an inconceivable number of surveys and have learned a thing or two about what makes a successful project. Part of making your survey great is making sure that your participants can and will participate. Survey Length, Fatigue, and Accessibility are all measures of how easy it is for your participant to make it through your survey.

4 minutes Estimated Length   Fatigue Score   Accessibility

WebAIM (Web Accessibility in Mind) Checklist:

Guideline 1.1

Text Alternatives: Provide text alternatives for any non-text content

✔ All images, form image buttons, and image map hot spots have appropriate, equivalent alternative text.

✔ Images that do not convey content, are decorative, or contain content that is already conveyed in text are given null alt text (alt="") or implemented as CSS backgrounds. All linked images have descriptive alternative text.

✔ Equivalent alternatives to complex images are provided in context or on a separate (linked and/or referenced via longdesc) page.

✔ Form buttons have a descriptive value.

✔ Form inputs have associated text labels.

✔ Embedded multimedia is identified via accessible text.

✔ Frames are appropriately titled.

Guideline 1.2

Time-based Media: Provide alternatives for time-based media

NOTE: If the audio or video is designated as an alternative to web content (e.g., an audio or sign language version of a web page, for example), then the web content itself serves as the alternative.

✔ A descriptive text transcript (including all relevant visual and auditory clues and indicators) is provided for non-live, web-based audio (audio podcasts, MP3 files, etc.).

✔ A text or audio description is provided for non-live, web-based video-only (e.g., video that has no audio track).

✔ Synchronized captions are provided for non-live, web-based video (YouTube videos, etc.)

✔ A descriptive text transcript OR audio description audio track is provided for non-live, web-based video

✔ Synchronized captions are provided for all live multimedia that contains audio (audio-only broadcasts, web casts, video conferences, Flash animations, etc.)

✔ Audio descriptions are provided for all video content

NOTE: Only required if the video conveys content visually that is not available in the default audio track.

✔ A sign language video is provided for all media content that contains audio.

✔ When an audio description track cannot be added to video due to audio timing (e.g., no pauses in the audio), an alternative version of the video with pauses that allow audio descriptions is provided.

✔ A descriptive text transcript is provided for all pre-recorded media that has a video track.

✔ A descriptive text transcript (e.g., the script of the live audio) is provided for all live content that has audio.

Guideline 1.3

Adaptable: Create content that can be presented in different ways (for example simpler layout) without losing information or structure

✔ Semantic markup is used to designate headings (<h1>), lists (<ul>, <ol>, and <dl>), emphasized or special text (<strong>, <code>, <abbr>, <blockquote>, for example), etc.
Semantic markup is used appropriately.

✔ Tables are used for tabular data. Where necessary, data cells are associated with their headers.
Data table captions and summaries are used where appropriate.

✔ Text labels are associated with form input elements. Related form elements
are grouped with fieldset/legend.

✔ The reading and navigation order (determined by code order) is logical and intuitive.

✔ Instructions do not rely upon shape, size, or visual location
(e.g., "Click the square icon to continue" or "Instructions are in the right-hand column").

✔ Instructions do not rely upon sound (e.g., "A beeping sound indicates you may continue.").

Guideline 1.4

Distinguishable: Make it easier for users to see and hear content including
separating foreground from background

✔ Color is not used as the sole method of conveying content or distinguishing visual elements.

✔ Color alone is not used to distinguish links from surrounding text unless the luminance contrast between the link and the surrounding text is at least 3:1 and an additional differentiation (e.g., it becomes underlined) is provided when the link is hovered over or receives focus.

✔ A mechanism is provided to stop, pause, mute, or adjust volume for audio that automatically plays on a page for more than 3 seconds.

✔ Minimum contrast text and images of this text have a contrast ratio of at least 4.5:1.

✔ Large text (over 18 point or 14 point bold) has a contrast ratio of at least 3:1

✔ The page is readable and functional when the text size is doubled.

✔ If the same visual presentation can be made using text alone, an image is not used to present that text.

✔ Contrast enhanced text and images of this text have a contrast ratio of at least 7:1.

✔ Large text (over 18 point or 14 point bold) has a contrast ratio of at least 4.5:1

✔ Audio of speech has no or very low background noise so the speech is easily distinguished.

✔ Blocks of text over one sentence in length:

- Are no more than 80 characters wide.
- Are NOT fully justified (aligned to both the left and the right margins).
- Have adequate line spacing (at least 1/2 the height of the text) and paragraph spacing (1.5 times line spacing).
- Have a specified foreground and background color. These can be applied to specific elements or to the page as a whole using CSS (and thus inherited by all other elements).
- Do NOT require horizontal scrolling when the text size is doubled.

✔ Text is used within an image only for decoration (image does not convey content) OR when the information cannot be presented with text alone.

Operable

Interface forms, controls, and navigation are operable

Guideline 2.1

Keyboard Accessible: Make all functionality available from a keyboard

✔ All page functionality is available using the keyboard, unless the functionality cannot be accomplished in any known way using a keyboard (e.g., free hand drawing).

✔ Page-specified short cut keys and accesskeys (accesskey should typically be avoided) do not conflict with existing browser and screen reader shortcuts.

✔ Keyboard focus is never locked or trapped at one particular page element. The user can navigate to and from all navigable page elements using only a keyboard.

✔ All page functionality is available using the keyboard.

Guideline 2.2

Enough Time: Provide users enough time to read and use content

✔ If a page or application has a time limit, the user is given options to turn off, adjust, or extend that time limit. This is not a requirement for real-time events (e.g., an auction), where the time limit is absolutely required, or if the time limit is longer than 20 hours.

✔ Automatically moving, blinking, or scrolling content that lasts longer than 5 seconds can be paused, stopped, or hidden by the user. Moving, blinking, or scrolling can be used to draw attention to or highlight content as long as it lasts less than 5 seconds.

✔ Automatically updating content (e.g., automatically redirecting or refreshing a page, a news ticker, AJAX updated field, a notification alert, etc.) can be paused, stopped, or hidden by the user or the user can manually control the timing of the updates.

✔ The content and functionality has no time limits or constraints.

✔ Interruptions (alerts, page updates, etc.) can be postponed or suppressed by the user.

✔ If an authentication session expires, the user can re-authenticate and continue the activity without losing any data from the current page.

Guideline 2.3

Seizures: Do not design content in a way that is known to cause seizures

✔ No page content flashes more than 3 times per second unless that flashing content is sufficiently small and the flashes are of low contrast and do not contain too much red.

✔ No page content flashes more than 3 times per second.

Guideline 2.4

Navigable: Provide ways to help users navigate, find content, and determine where they are

✔ A link is provided to skip navigation and other page elements that are repeated across web pages.

✔ If a page has a proper heading structure, this may be considered a sufficient technique instead of a "Skip to main content" link. **Note** that navigating by headings is not yet supported in all browsers.

✔ If a page uses frames and the frames are appropriately titled, this is a sufficient technique for bypassing individual frames.

✔ The web page has a descriptive and informative page title.

✔ The navigation order of links, form elements, etc. is logical and intuitive.

✔ The purpose of each link (or form image button or image map hotspot) can be determined from the link text alone, or from the link text and its context (e.g., surrounding paragraph, list item, table cell, or table headers).

✔ Links (or form image buttons) with the same text that go to different locations are readily distinguishable.

✔ Multiple ways are available to find other web pages on the site - at least two of: a list of related pages, table of contents, site map, site search, or list of all available web pages.

✔ Page headings and labels for form and interactive controls are informative. Avoid duplicating heading (e.g., "More Details") or label text (e.g., "First Name") unless the structure provides adequate differentiation between them.

✔ It is visually apparent which page element has the current keyboard focus (i.e., as you tab through the page, you can see where you are).

✔ If a web page is part of a sequence of pages or within a complex site structure, an indication of the current page location is provided, for example, through breadcrumbs or specifying the current step in a sequence (e.g., "Step 2 of 5 - Shipping Address").

✔ The purpose of each link (or form image button or image map hotspot) can be determined from the link text alone.

✔ There are no links (or form image buttons) with the same text that go to different locations.
✔ Beyond providing an overall document structure, individual sections of content are designated using headings where appropriate.

Understandable

Content and interface are understandable

Guideline 3.1

Readable: Make text content readable and understandable

✔ The language of the page is identified using the HTML lang attribute (<html lang="en">, for example).

✔ The language of page content that is in a different language is identified using the lang attribute (e.g., <blockquote lang="es">).

✔ Words that may be ambiguous, unknown, or used in a very specific way are defined through adjacent text, a definition list, a glossary, or other suitable method.

✔ Expansions for abbreviations are provided by expanding or explaining the definition the first time it is used, using the <abbr> element, or linking to a definition or glossary. NOTE: WCAG 2.0 gives no exception for regularly understood abbreviations (e.g., "HTML" on a web design site must always be expanded).

✔ A more understandable alternative is provided for content that is more advanced than can be reasonably read by a person with roughly 9 years of primary education.

✔ If the pronunciation of a word is vital to understanding that word, its pronunciation is provided immediately following the word or via a link or glossary.

Guideline 3.2

Predictable: Make Web pages appear and operate in predictable ways

✔ When a page element receives focus, it does not result in a substantial change to the page, the spawning of a pop-up window, an additional change of keyboard focus, or any other change that could confuse or disorient the user.

✔ When a user inputs information or interacts with a control, it does not result in a substantial change to the page, the spawning of a pop-up window, an additional change of keyboard focus, or any other change that could confuse or disorient the user unless the user is informed of the change ahead of time.

✔ Navigation links that are repeated on web pages do not change order when navigating through the site.

✔ Elements that have the same functionality across multiple web pages are consistently identified. For example, a search box at the top of the site should always be labeled the same way.

✔ Substantial changes to the page, the spawning of pop-up windows, uncontrolled changes of keyboard focus, or any other change that could confuse or disorient the user must be initiated by the user. Alternatively, the user is provided an option to disable such changes.

Guideline 3.3

Input Assistance: Help users avoid and correct mistakes

✔ Required form elements or form elements that require a specific format, value, or length provide this information within the element's label.

✔ If utilized, form validation errors are presented in an efficient, intuitive, and accessible manner. The error is clearly identified, quick access to the problematic element is provided, and user is allowed to easily fix the error and resubmit the form.

✔ Sufficient labels, cues, and instructions for required interactive elements are provided via instructions, examples, properly positioned form labels, and/or fieldsets/legends.

✔ If an input error is detected (via client-side or server-side validation), provide suggestions for fixing the input in a timely and accessible manner.

✔ If the user can change or delete legal, financial, or test data, the changes/deletions can be reversed, verified, or confirmed.

✔ Provide instructions and cues in context to help in form completion and submission.

✔ If the user can submit information, the submission is reversible, verified, or confirmed.

Robust

Content can be used reliably by a wide variety of user agents, including assistive technologies

Guideline 4.1

Compatible: Maximize compatibility with current and future user agents, including assistive technologies

✔ Significant HTML/XHTML validation/parsing errors are avoided. Check at http://validator.w3.org/

✔ Markup is used in a way that facilitates accessibility. This includes following the HTML/XHTML specifications and using forms, form labels, frame titles, etc. appropriately.

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