

Born Accessible A BENETECH INITIATIVE



Your Guide to Building A More Accessible Classroom





In 2013–2014, 13% of students enrolled in public schools in the United States received special education services.¹



Students with disabilities

6.5 million school children have learning disabilities, speech or language impairment, autism, or emotional and physical disabilities.² Many have print disabilities and use computers and assistive devices to access their course materials. Students with visual or motor disabilities may use a keyboard or a switch device rather than a mouse. Students who are hearing impaired need captioned content.

Did you know?

13%

The Individuals with Disabilities Education Act (IDEA) requires public schools to provide a free, appropriate public education to all eligible children with disabilities.

You may be wondering how you can use educational technology—in the form of websites, videos, e-learning platforms, and tablets—in your classrooms and still meet the needs of students with disabilities.

Don't worry. You don't have to be a tech genius to improve the accessibility of your course materials. Whether you are buying or building content, you can create a more accessible classroom with a few simple best practices.

https://nces.ed.gov/programs/coe/indicator_cgg.asp

² U.S. Department of Education, Office of Special Education Programs, Individuals with Disabilities Education Act (IDEA) database, retrieved September 25, 2015, from http://www2.ed.gov/programs/osepidea/618-data/state-level-data-files/index.html#bcc. See Digest of Education Statistics 2015, table 204.30.

Adopting Courseware? Buy Accessible!

Start with guaranteed accessible courseware.

During the adoption process, leverage your school district's purchasing power to get digital courseware that is accessible to students with disabilities from the start. By demanding materials that are "born accessible," there is no need for further remediation to make materials student-ready and in conformance to the WCAG 2.0 Level A and AA guidelines for accessibility. Ask to see the publisher's Voluntary Product Accessibility Template (VPAT)—a formal document that attests to a product's conformance with Section 508 accessibility requirements, the federal regulation that forms the backbone of the WCAG guidelines.

Assign accessible books.

Are your school's printed textbooks also available in an accessible digital format? Ebooks can help students who have learning, cognitive, or visual disabilities, but only if the ebooks are truly accessible. Not all of them conform to EPUB 3 standards for accessibility. The Benetech guide to buying accessible ebooks is a great resource: <u>http://www.benetech.org/our-programs/literacy/born-accessible/accessible-ebooks-what-to-look-for/</u>

You can also find accessible ebooks in <u>Bookshare</u>, an online library of books in audio, braille, large font, and more formats. Bookshare has over 500,000 titles for students of all ages and adults and is free for U.S. students with qualifying print disabilities.

Check the keyboard navigation of websites you assign.

Can you navigate through the site, fill out forms, and complete activities using just the keyboard? Many students with visual or motor disabilities do not use a mouse. If the website is accessible, you will be able to navigate to links and form controls using the tab key and to select an element using the enter key or space bar. Look for visible focus indicators (typically, an outline around the element) that show you where you are on the page. Make sure that you can open menus, complete form fields, and choose radio buttons using only the keyboard.

Make sure all materials work with a screen reader.

Students who are blind, have low vision, or have learning disabilities may rely on a screen reader—a device that reads screen content aloud—to read online content. A screen reader–accessible website will be structured logically with appropriate use of headings. Photos and figures will have embedded image descriptions to convey all information accurately and completely. You can gauge how well a site will work with a screen reader

You can check that a website has appropriate color contrast and is visible to those with color blindness using this free color analyzer:

www.paciellogroup.com/resou rces/contrastanalyser. by tabbing through the links, using arrow keys to move through the content, and pausing the cursor over images to check for image descriptions. Want to experience what it's like to surf the Internet using only sound? Download NVDA, a free screen reader for the Firefox browser, at <u>www.nvaccess.org</u>.

Use mobile devices thoughtfully.

Are you using tablets or smartphones in class? Voice-controlled personal assistants such as SIRI and innovations in gesture control can be a boon to people with certain disabilities. However, using small, touch-enabled screens can be challenging, and many apps are not designed for accessibility. To learn more about mobile accessibility, visit www.w3.org/WAI/mobile/experiences.

Building Courseware? Make It Accessible

Whether you're a coding expert or a digital novice, you can improve the accessibility of the content you create for your students. Here are some techniques to help you reach your goals.

Design for all types of learners.

We all benefit from design that is simple, logical, and predictable. Choose a dark, fairly large font (11 points or higher) that is easy to read. Avoid using the tab and space bar keys to lay out headings, paragraphs, and lists. Instead, use your software's styles and paragraph settings to create a structure that a screen reader can identify. When creating a PDF, start with an accessibly structured Word document; that way, your PDF will be accessible as well.

Insert meaningful hyperlinks.

Screen reader users may skim a document by skipping from link to link. Make sure you tell users what's in the link. Example: <u>Hawai'i Volcanoes</u> is more descriptive than <u>Click here</u>.

Caption your videos.

Captions aid students with many learning and auditory disabilities. Making a video for YouTube? This Google site will show you how to caption it: https://support.google.com/youtube/answer/2734796?hl=en.

Minimize the amount of text on a page.

Students can become overwhelmed by too much content coming at them at once. Present homework problems and activities one or two to a page, or create multi-modal lessons—a combination of images and text on the page.

Avoid relying on a single sensory cue.

Make sure that understanding the content doesn't depend on being able to see color or hear sounds. Provide other cues as well. For example, in addition to labeling the misspelled word in a sentence in red type, put a box around the misspelled word or point to it with an arrow.

Add image descriptions to visuals.



Screen readers will only find images that are coded with image descriptions (otherwise known as alternative or alt text). Adding alt text to images is easy using tools built into Word, Adobe Acrobat, and PowerPoint. In Word and PowerPoint, for each image, click on Format Picture, and then select properties to insert in the alt text. If you're working with a PDF, open the tags panel (View, Show/Hide, Navigation Panes, Tags), right click on each figure tag, and insert the alt text under Properties. Once you've done that, all of your users will be able to access the images!

Use available tools to ensure an accessible experience.

Whatever you're creating, you can improve the content's accessibility by taking advantage of the program's built-in tools. The Tools tabs in PowerPoint, Word, and Acrobat include an accessibility checker that will scan your document (or one you plan to adopt) for any accessibility violations and help you correct the violations. Likewise, if you are designing a website, there are HTML tools and tools within content management systems that will guide you through the process of ensuring that your site is fully accessible.

For more information,

Benetech: Guide to buying accessible ebooks. <u>www.benetech.org/our-programs/literacy/born-accessible/accessible-ebooks-what-to-look-for/</u>

Bookshare: Accessible online library for people with print disabilities. www.bookshare.org

Diagram Center: Top tips for creating accessible EPUB 3 files. <u>http://diagramcenter.org/54-9-tips-for-creating-accessible-epub-3-files.html</u>

NVDA (Non-Visual Desktop Access): Free downloadable screen reader for use with the Firefox browser. <u>www.nvaccess.org</u>

Paciello Group: Free color contrast analyzer tool. www.paciellogroup.com/resources/contrastanalyser

PALM Initiative (Purchase Accessible Learning Materials) from the National Center on Accessible Educational Materials: Advice on sourcing accessible educational content as well as templates for purchase orders and contract language. <u>http://aem.cast.org/</u>

3PlayMedia: Ten tips for creating accessible course content. www.3playmedia.com/2015/10/21/10-tips-for-creating-accessible-course-content/

VitalSource and VitalSource Content Studio: VitalSource offers thousands of digital textbooks. VitalSource Content Studio is a tool that allows educators to create digital content. <u>www.vitalsource.com</u>

WebAIM: Section 508 checklist. http://webaim.org/standards/508/checklist

W3C Web Accessibility Initiative: Barriers common to mobile devices. www.w3.org/WAI/mobile/experiences

WCAG 2.0 guidelines: Official guidelines for implementing Section 508 and ensuring that web content is accessible. <u>www.w3.org/WAI/intro/wcag</u>

YouTube: Captioning guidelines. https://support.google.com/youtube/answer/2734796?hl=en

Digital Accessibility Tool Kit: What education leaders need to know.

http://www.ctdinstitute.org/sites/default/files/file_attachments/AccessibilityToolkit-508_FINAL_100616.pdf

Microsoft Applications:

https://www.microsoft.com/enable/default.aspx

Google Applications:

https://support.google.com/a/answer/1631886?hl=en#h3_docs

The BISG Quick Start Guide to Accessible Publishing: A handy overview for publishers of how – and why – to create accessible ebooks. <u>www.bisg.org</u>.

https://bisg.site-ym.com/store/ViewProduct.aspx?id=6972996