

Timing: 1 to 2 hours

Level: Ages 15 and up

Analyzing websites

Activity Overview

Analyzing websites to inform design decisions is a common practice among professional designers. In the real world designer's look to one another's work to assess what works, what doesn't, and to keep tabs on new industry standards and trends. Use this activity to teach your students how to analyze websites to determine their audience, purpose, validity, usability, and accessibility in order to help inform their future design decisions.

Note: Portions of this activity align to the Adobe Certified Associate objectives. Within the instruction steps and technical guides, the specific learning objectives for the exam(s) are referenced with the following format: ^{1.1}

Activity Objectives

Project management skills

- Designing for a specific audience and purpose

Design skills

- Designing for usability and accessibility

Research and communication skills

- Evaluating and analyzing content validity
- Evaluating and analyzing website navigation
- Analyzing and critiquing websites
- Understanding copyright issues and fair-use guidelines
- Advocating and practicing legal use of images
- Collecting and analyzing audience needs and purpose to inform design

Technical skills

Dreamweaver

- Understanding accessibility

Project Assets

- *Worksheet:* Analyzing websites
- *Guide:* How to design for usability ^{2.3, 2.4}
- *Dreamweaver guide:* How to make websites accessible ^{1.4}
- *Worksheet:* Usability and accessibility ^{1.4, 2.1, 2.2, 2.3, 2.4}

Background preparation resources

[Technical and content information](#)

[ISTE NETS*S Standards for Students](#)

[Adobe Certified Associate objectives](#)

Activity Steps

1. Introduce student to the goals of the activity:
 - Analyze websites for purpose, audience, validity, usability, and accessibility.
 - Learn how to design for usability and accessibility.

Website analysis

2. Discuss why analyzing and critiquing websites for design and content are an important part of the design process and informing the design decisions. Discuss how assessing what works and what doesn't work online can help them as they develop their own web projects. Discuss the important of evaluating the content validity of a website.
3. Conduct a class discussion about the purpose and audience of a website.^{1.1} Identify the kind of information that determines purpose, audience, and audience needs. Focus the discussion on websites that have sections targeted to a variety of audiences. For example, you might contrast the PBS site for adults, www.pbs.org, with their site for kids, www.pbskids.org, discussing the following:
 - Purpose of the site
 - Audience for the site
 - How the site uses design principles to emphasize purpose and audience
4. Using the information from the *Analyzing websites* worksheet, demonstrate website analysis techniques.^{1.2, 1.4, 2.1, 2.2} Criteria for evaluating sites might include the following:
 - Design
 - Visual layout
 - Consistency structures
 - Color scheme
 - Visual hierarchy elements
 - Content
 - Bias
 - Currency
 - Source
 - Ability to corroborate information
 - Operating system and browser compatibility
 - Compatibility with multiple device screen sizes and form factors
5. Divide the class into small groups and ask each group to evaluate your school's website for design and content and complete the *Analyzing websites* worksheet.
Note: If your school does not have a website or the website is not conducive to this activity, you can use another website that is relevant to your students.

Usability and accessibility

6. Explain they will now look at websites to determine their purpose, usability, and accessibility. Good web usability is defined as: easy to use, quick to learn, and providing an overall satisfying experience. A well-designed, usable site aims to enhance the user experience by elevating a website's perceived efficiency, elegance, and clarity.

7. Show students a variety of websites and help them identify how each serves a specific purpose and functionality.^{1.1, 1.2, 2.2, 2.3} Discuss the following:

- What is the purpose of the website?
- What is its functionality?
- Who is the audience?
- Who created the website?
- How will the audience view the website? On desktop or laptop computers? On mobile devices (tablet computers or smartphones)?

Note: You may want to review the *Design principles* activity prior to introducing usability.

8. Distribute the *How to design for usability* guide^{2.3, 2.4} and explain that in addition to the importance of using industry standard design principles, user-friendly websites also employ appropriate navigation and usability standards. Show students some websites and discuss some of these questions:

- What categories of information do you find in the websites?
- Where are these categories located?
- What can you say about the amount of information you can find in any particular area? On the entire website?
- What type of navigation appears on the pages? Is it consistent?
- What navigation choices are provided?
- How does the design create consistency?
- Is the appearance consistent?
- Are design elements common among the pages?
- What page elements identify the site?
- Name some benefits of consistency, such as improved usability.

Note: You can use the information from the www.usability.gov and www.w3.org/WAI/intro/usable sites to guide your discussion on usability.

9. Discuss how creating accessible web pages has never been more important than today. With the adoption of accessibility standards in the United States, Canada, the European Union, Australia, Japan, and other countries, designers and developers need to ensure that people with disabilities can access the contents of websites and web applications, as well as the authoring tools used to create them.

10. Distribute the *How to make websites accessible* guide^{1.4} and discuss accessibility and why it matters to website visitors as well as website sponsors. Discuss assistive technologies such as screen readers, text and media alternatives, and accessible navigation. Describe the Web Content Accessibility Guidelines (WCAG) 2.0 by using the W3C's Before and After Demonstrations (BAD) showing how inaccessible websites were turned into accessible websites: www.w3.org/WAI/demos/bad/.

Note: You can also use the information from the Adobe Accessibility Resource Center and the World Wide Web Consortium (W3C) to guide your discussion: www.adobe.com/accessibility/, www.w3.org/WAI/eval/Overview.html, www.w3.org/TR/WCAG10/full-checklist.html, www.webaim.org/articles/pour/, and www.w3.org/WAI/intro/aria.

11. Put students into pairs and assign each pair two websites that address the same topic and have the same purpose so students can compare ease of use and accessibility. Choose topics of interest to your students, such as the following examples:
 - Sports: www.fifa.com, www.ussoccer.com and www.wnba.com
 - News/media: www.cnn.com and www.nytimes.com/
 - Entertainment: www.ew.com/ew/ and www.etonline.com/
12. Using the *Usability and accessibility* worksheet ^{1.4, 2.1, 2.2, 2.3, 2.4}, ask students to compare their two sites for usability and rank the sites, ranging from easy to difficult. Questions for guiding student inquiry might include the following:
 - What types of navigation elements are used: menus, hyperlinks, images, something else?
 - As you navigate, how many clicks does it generally take to get to information you are seeking?
 - As you navigate, do you get to the information you are expecting?
 - Is the site structure apparent?
 - How long does it take for pages to load? (Typical visitors will wait three to five seconds for a page to load before moving on.)
 - Does the website look the same in different browsers, on different operating systems, and on different devices? Is the website responsive to different screen sizes and form factors?
 - Is the text readable? Is the text uniquely styled? If so, does the styling add value to the purpose?
 - How does the use of text, navigation, and site structure make the site easier or more difficult for visitors?
 - Are there clear titles, headings, or other visual elements that specifically help organize the information?
 - Does the site contain interactive media? If so, does the interactive media add to the purpose and usability of the site or is it unnecessary?
 - Is the color contrast and brightness between the foreground and the background appropriate for users with impaired vision?
13. Using the *Usability and accessibility* worksheet ^{1.4, 2.1, 2.2, 2.3, 2.4}, ask students to return to their two sites and rank the sites for accessibility, just as they did for usability, ranging from easy to difficult. Questions for guiding student inquiry might include the following:
 - Do the images have alternative text (Alt text) so the text descriptions can be read by screen readers?
 - Are all the links, including embedded links, labeled so they can stand alone?
 - If there is tabular data, do tables have header rows?
 - Are there clear titles and headings that help organize the information for someone using a screen reader?
 - Is the navigation scheme positioned conveniently for someone using a screen reader?
 - Can a site visitor use the tab button to access all elements on the page/site?
 - Is color the only element used to convey emphasis?
14. Once the students have completed and handed in their worksheets, conduct a discussion asking students to share what they learned about website analysis, usability, and accessibility. Ask students to share how what they learned will inform how they approach future web design projects.

Assessment:

	0 – Does not meet expectations	3 – Meets expectations	5 – Exceeds expectations
Website evaluation	Absent or incomplete.	Website evaluation includes visual representation with copyright documentation, analysis of design features, and content validity.	Website evaluation includes visual representation with copyright documentation. Evaluations include a complete analysis of design features and content validity as they relate to effectiveness of site for its audience and purpose.
Usability and accessibility evaluation	Absent or incomplete.	Usability and accessibility evaluation includes navigation, site structure, readability, alternative text, and use of color.	Usability and accessibility evaluation includes complete analysis of navigation, site structure, readability, visual elements, rich media, alternative text, tabbing, and use of color.

Background preparation resources:

- For more teaching and learning resources on the other topics in this project, search for resources from the community on the Adobe Education Exchange: <http://edex.adobe.com/>

Copyright

- If needed, review this site with more information on copyright: <http://fairuse.stanford.edu>

Usability and Accessibility

- Adobe Accessibility Resource Center: www.adobe.com/accessibility/
- World Wide Web Consortium (W3C): www.w3.org/WAI/eval/Overview.html
- W3C Priority 1 Checkpoints for website accessibility: www.w3.org/TR/WCAG10/full-checklist.html
- W3C Priority 2 POUR principles for website accessibility: www.webaim.org/articles/pour/
- The primary government source for information on usability and user-centered design: www.usability.gov

ISTE NETS*S Standards for Students

This project is aligned to the ISTE NETS*S Technology Standards. Depending on the subject and content area the student selects you may research your own state content standards to see how this project aligns to your state requirements.

ISTE NETS*S: Curriculum and Content Area Standards – NETS for Students

3. Research and Information Retrieval
Students apply digital tools to gather, evaluate, and use information. Students:
 - a. plan strategies to guide inquiry.
 - b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
 - c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks
4. Critical Thinking and Problem Solving
Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:
 - d. use multiple processes and diverse perspectives to explore alternative solutions
5. Digital Citizenship
Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:
 - a. advocate and practice safe, legal, and responsible use of information and technology.

Adobe Certified Associate Exam Objectives

Adobe Certified Associate, Web Authoring objectives

- 1.1 Identify the purpose, audience, and audience needs for a website.
- 1.2 Identify web page content that is relevant to the website purpose and appropriate for the target audience.
- 1.4 Demonstrate knowledge of website accessibility standards that address the needs of people with visual and motor impairments.
- 2.1 Demonstrate general and Dreamweaver-specific knowledge of best practices for designing a website, such as maintaining consistency, separating content from design, using standard fonts, and utilizing visual hierarchy.
- 2.2 Produce website designs that work equally well on various operating systems, browser versions/configurations, and devices.
- 2.3 Demonstrate knowledge of page layout design concepts and principles.
- 2.4 Identify basic principles of website usability, readability, and accessibility.

For more information

Find more teaching materials for using Adobe software in your classroom on the Adobe Education Exchange: <http://edex.adobe.com/>.



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