![Australian Government - Department of Education, Employment and Workplace Relations]

ICAWEB402A Confirm accessibility of websites for people with special needs

Release: 1

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Modification History

Release	Comments
Release 1	This Unit first released with *ICA11 Information and Communications Technology Training Package version 1.0*

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to ensure that a website is accessible to users with special needs, including people with auditory, visual, mobility, and cognitive impairments and those people who use assistive technology.

Application of the Unit

This unit applies to frontline technical support personnel responsible for designing, building and testing websites.

Accessibility means that a website can be navigated and read by everyone, regardless of location, experience, or the type of computer technology used.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
Elements describe the essential outcomes of a unit of competency.	*Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.*

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Elements and Performance Criteria

1. Identify accessibility standards	1.1 Research and identify specific *user groups* with particular accessibility *requirements*
	1.2 Identify general legislated and industry accessibility *standards* and requirements to understand the wider context of accessibility
	1.3 Identify *web development standards* and prioritise application
	1.4 Consolidate specific and general standards and requirements into an accessibility checklist for application to website-related work
2. Test for website accessibility	2.1 Select and prepare appropriate automatic *testing tools* and *software*
	2.2 Run automatic testing tools and make document changes based on results
	2.3 Ensure that the text equivalent for every *non-text element* is present in the website where feasible
	2.4 Verify that information conveyed with colour is also available without colour
	2.5 Identify changes in the natural language of a document text
	2.6 Check and ensure that document can be read without style sheets
	2.7 Check and ensure that priorities identified in the analysis of web development standards are met and completed
	2.8 Test site with different user groups to ensure that the site transforms successfully and maintains accessibility
3. Test pages	3.1 Check and ensure that pages are not dependent on colour and can operate in a monochrome environment
	3.2 Check and ensure that pages are logical and accessible in a text-only environment
	3.3 Verify that pages operate on text-to-speech *browser*
	3.4 Ensure that accessibility of website is signed off by appropriate person as meeting web-development standards

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to liaise with advocacy groups, business and government
- literacy skills to:
    - document test results
    - interpret standards
- problem-solving skills to accommodate user groups with special needs
- research skills to:
    - develop an accessibility checklist for application to website-related work
    - identify user groups with special needs
- technical skills to:
    - analyse a website
    - analyse the evaluation
    - design and implement technical tests, including accessibility tests
    - develop a website
    - evaluate tests and give feedback on the evaluation.

Required knowledge

- access and equity legislation and principles
- Australian Computer Society Code of Ethics
- business process design
- applicability of copyright and intellectual property to website development
- customer and business liaison
- electronic commerce modelling language
- government, advocacy group and special needs group liaison
- application of privacy principles to website development, user access and user usage
- technical performance measurement
- web accessibility initiative (WAI)
- website accessibility, security and equity legislation
- website design methods and standard website structures
- website security
- workload metrics
- World Wide Web Consortium (W3C) standards.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: • test a website for accessibility • demonstrate theoretical knowledge of website content creation • communicate and negotiate with user groups, government and industry • undertake website design.
Context of and specific resources for assessment	Assessment must ensure access to: • live website • requirements documentation • customer-relationship model • automatic-accessibility measuring tools • organisational requirements and relevant standards • appropriate learning and assessment support when required. Where applicable, physical resources should include equipment modified for people with special needs.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • direct observation of candidate designing and testing accessibility tools • review of candidate's accessibility checklist based on standards and requirements • review of candidate's design of valid accessibility tests • verbal or written questioning to assess candidate's knowledge of accessibility requirements and how to provide them.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate. Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed. Indigenous people and other people from a non-English speaking background may need additional support.

	In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.

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Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

User groups may include:	• auditory impairment • cognitive impairment • mobility impairment • visual impairment.
Requirements may refer to:	• application • business • network • people in the organisation • system.
Standards may include:	• International Organization for Standardization (ISO), International Electrotechnical Commission (IEC) and Australian Standards (AS) • organisational • project.
Web development standards may include:	• Authoring Tool Accessibility Guidelines (ATAG) • best practice vendor-specific accessibility standards • User Agent Accessibility Guidelines (UAAG) • WAI • Web Content Accessibility Guidelines (WCAG).
Testing tools may include:	• Bobby • General Magic's Web-On-Call • Lynx • Opera • PwWebSpeak.
Software may include:	• commercial software applications • in-house or customised software • organisation-specific software • packaged software.
Non-text element may include:	• American Standard Code for Information Interchange (ASCII) art • animations, such as animated graphic interchange formats (GIFs) • applets and programmatic objects • audio tracks of video, and video

	• frames • graphical buttons • image map regions • images used as list bullets • images, graphical representations of text (including symbols) • scripts • sounds (played with or without user interaction) • spacers • stand-alone audio files.
Browser may include:	• Galleon • Google Chrome • Internet Explorer • Konqueror • Lynx • Mozilla Firefox • Netscape Navigator • Opera • Phoenix.

Unit Sector(s)

Web