TAADES504B Develop and evaluate e-learning resources
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Modification History
Not applicable.

Unit Descriptor
This unit specifies the competency required to develop and evaluate e-learning resources based on an agreed design concept.
Application of the Unit

Learning resources are designed to enhance and support the effectiveness of the learning process. They provide guidance, materials, learning and assessment activities, and relevant information that address the competencies/learning outcomes to be achieved by the learner. An e-learning resource is any learning resource that is assisted by electronic technology. This includes but is not limited to web-based and computer-based resources, virtual classrooms, digital collaboration, Internet, Intranet, Extranet, interactive CD-ROM, hand-held computers and satellite broadcast.

In the TAA04 Training and Assessment Training Package, learning resources are defined as learning products that have been specifically developed to address a substantive area of learning such as a Training Package, a qualification or a learning program. E-learning resources are used to support e-based learning or blended delivery and may be used in conjunction with print-based or other learning resources. The complexity of the e-resource will vary depending on its focus, type and audience. The emphasis is on the clarity and structure of the learning resource and how the technology supports this, not the technology itself.

This unit focuses on developing an e-learning resource following a design concept. It involves working with others to develop and evaluate a prototype, improving the e-learning resource based on the evaluation and then working with others to develop the finished resource. It addresses this competency from the perspective of contributing to the development of content, not the technical specifications. However, technological literacy to work with technical experts is necessary.

The competency of creating the design concept is separately addressed in TAADES503B Research and design e-learning resources. Separate competency standards have been developed because these two functions are often undertaken separately and by different team members. Where competency is required across both the design and development phase co-learning and co-assessment is recommended.

This unit has some content overlap with TAADES502B Design and develop learning resources which focuses on print-based learning resources but it is differentiated by the technological skills, knowledge and application required to perform this work. It is recommended that individuals undertake TAADES502B Design and develop learning resources before commencing TAADES503B Research and design e-learning resources or this unit of competency.

This competency would normally be achieved in a collaborative working environment involving a project team that develops the complete e-learning resource. The prototype developed for evaluation may not be a fully functional e-learning resource. Parts of it may be in detailed draft or presentation form, such as a storyboard, with supporting information yet to be built into an e-learning resource.

The competency specified in this unit is typically required by instructional designers, learning product developers, trainers/facilitators, training consultants.

Licensing/Regulatory Information

Not applicable.
Pre-Requisites
Not applicable.

Employability Skills Information
This unit contains employability skills.

Elements and Performance Criteria Pre-Content
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.

Elements and Performance Criteria

Elements and Performance Criteria

<table>
<thead>
<tr>
<th>Element</th>
<th>Performance Criteria</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>Participate in the development process</strong></td>
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<td></td>
<td>1.1 Individuals who can contribute expertise to the e-learning resource development are identified and proposed to the <em>project manager</em></td>
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<td>1.2 Own role in developing the e-learning resource is identified and agreed with the project manager including responsibilities for client liaison, where relevant</td>
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<td>1.3 <strong>Roles of each team member</strong> and their contribution to developing the e-learning resource are clarified through team discussions</td>
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<td>1.4 A collaborative work ethic with team members is demonstrated throughout the development process</td>
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<td></td>
<td>1.5 Appropriate <em>documentation</em> is maintained throughout the development process</td>
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<td>2</td>
<td><strong>Develop the e-learning resource prototype in conjunction with others</strong></td>
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<td></td>
<td>2.1 The <em>design concept</em> and any relevant <em>standards or guidelines</em> are read, interpreted and clarified</td>
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<td></td>
<td>2.2 The identified <em>target audience</em> and their <em>learning needs</em> and <em>characteristics</em> are identified or confirmed using information from the design phase</td>
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</table>
2.3 The technical parameters and technological requirements are discussed with team members throughout development phase.

2.4 Learning expertise is applied to write or present the learning content for the prototype in accordance with the quality requirements of the design concept.

2.5 Technical and/or content issues are raised with relevant persons immediately they arise and collaborative approaches are used to resolve them.

3 Trial and evaluate the e-learning resource prototype

3.1 Tools which specify relevant criteria for trialling and evaluation are developed in collaboration with others.

3.2 Trial sites/audiences/users are identified, confirmed and the trialling/evaluation process is undertaken in collaboration with others.

3.3 Feedback and results from the evaluation are documented and analysed to determine any changes or improvements relating to own areas/s of development responsibility.

3.4 Identified modifications are made and the prototype is finalised in collaboration with others.

4 Collaborate in developing the full e-learning resource

4.1 Designated responsibilities in developing the e-learning resource are carried out and any milestones, budgets and timelines are met.

4.2 Other members of the project team are supported in fully developing and completing their designated components of the resource.

4.3 The completed e-learning resource is evaluated through a collaborative process with team members against criteria, standards and guidelines.

Required Skills and Knowledge

Not applicable.
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

To demonstrate competency against this unit candidates must be able to provide evidence that they can develop and evaluate a prototype e-learning resource by following the design brief, and ensure that learning outcomes/competency standards are addressed.

The e-learning resource must meet the principles of instructional design, be well structured and organised, and provide variety for the learner and clear pathways for learning. The designer will work with a project team (which may include a range of experts from various technical fields) on the development of the e-learning prototype resource and final product to ensure the learning components are addressed.

The prototype developed for evaluation may not be a fully functional e-learning resource. It may include information that will be built into an e-learning resource by team members who have the expertise required to complete the resource.

Evidence Requirements

Required knowledge includes:

- knowledge of IT principles, for example:
  - Internet
  - technology capabilities
  - e-learning methodologies and vocabulary
- project management, for example:
  - time management
  - work flow
  - team management
  - meeting budgets
  - administration
- effective learning using technology, e.g. using:
  - multiple perspectives
  - opportunities for reflection
  - opportunities for collaborative learning
authentic assessment
incremental learning
variety
organisation

language, literacy and numeracy appropriate for the learner group
resources available to support learning, for example:
books
articles
documents
manuals
web links
lectures

differences in e-learning versus face-to-face mode, for example:
ways of communicating electronically versus face-to-face for the learner and deliverer
electronic terms and new language that makes reference to specific functions of e-learning
ways of sharing information and collaborating that differ electronically from face-to-face learning

instructional design for electronic materials, for example:
systematic instructional strategies
learning design principles
criterion-referenced test items
order of increasing difficulty
opportunities for review of material and repetition
the need for interactivity
inclusion of a variety of approaches and
techniques for presenting information and activities

structure of the information

what happens if the person makes a mistake

how to get help

 techniques to hold the user's attention

relevant policy, legislation, codes of practice and national standards including Commonwealth and state/territory legislation, for example:

copyright and privacy laws relating to electronic technology

security of information

plagiarism

competency standards

licensing

industry/workplace requirements

duty of care under common law

anti-discrimination including equal opportunity, racial vilification and disability discrimination

workplace relations

industrial awards/enterprise agreements

relevant occupational health and safety (OHS) knowledge relating to the work role, and OHS considerations to be included in the content of the e-learning resource

OHS obligations of the training and/or assessment organisation, the trainer/facilitator and learner

**Required skills and attributes include:**

overcoming barriers to e-learning, for example:

using graphics and pathways which are appealing and engaging

identifying and addressing lack of technical knowledge in potential users
learning, using and applying electronic technology

collaboration skills to:

work with vendors and consultants

share ideas and information

seek feedback on the e-learning design

communication skills to:

negotiate

problem solve

listen to others

adjust personal use of technical language to meet level of understanding of other collaborators/likely users

**Products that could be used as evidence**

include:

final or prototype e-learning resource

parts of the e-learning resource under development

plans, diagrams or notes taken during development

evaluation tools developed

results of prototype trials

**Processes that could be used as evidence**

include:

how team roles were allocated and why

how learning outcomes/competency standards were related to technical parameters

how trial sites/audiences were selected and why

**Resource implications for assessment**

include:

technology required for development

support personnel

**The collection of quality evidence requires that:**

assessment must address the scope of this unit and reflect all components of the unit i.e. the Elements, Performance Criteria, Range Statement, Evidence Guide, Employability Skills

a range of appropriate assessment
methods/evidence gathering techniques is used to determine competency
evidence must be gathered in the workplace whenever possible. Where no workplace is available, a simulated workplace must be provided
the evidence collected must relate to a number of performances assessed at different points in time and in a learning and assessment pathway these must be separated by further learning and practice
assessment meets the rules of evidence
a judgement of competency should only be made when the assessor is confident that the required outcomes of the unit have been achieved and that consistent performance has been demonstrated

Specific evidence requirements must include:

evidence of supporting and contributing to the development for an e-learning resource through collaborative working relationships with colleagues
contributing to the development of the prototype
developing the specific components/areas of content
conducting the trial and evaluation
responding to feedback, modifying the prototype and finalising the resource in association with team members

Integrated assessment means that:
this unit can be assessed alone or as part of an integrated assessment activity involving relevant units in the TAA04 Training and Assessment Training Package. Suggested units include but are not limited to:

TAADES503B Research and design e-learning resources
TAATAS503B Manage contracted work.
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.

**Project manager may include:**
- self
- supervisor

**Roles of each team member may include:**
- project management
- communication
- graphic design
- multimedia
- software design
- computer programming
- audio-visual expertise
- research
- instructional design
- content writer/developer
- editing
- proofreading

**Documentation may include:**
- draft materials/content
- draft e-learning activities
- technical specifications
- tools for evaluation
- feedback/results of trial/evaluation process
- comments/feedback from client

**Design concept includes:**
- the basis for the proposed design including sample design construct or representation for the e-learning resource

**Standards or guidelines may refer to:**
- Guidelines for Toolbox Learning Materials
- Guidelines for Training Package support materials
- competency standards
- Web Content Accessibility Guidelines from the World Wide Web Consortium
(interoperability)

Preferred Standards to Support National Cooperation in Applying Technology to Vocational Education and Training

requirements under the Australian Quality Training Framework (AQTF) for access and equity

legislative requirements relating to:

disability discrimination

equal opportunity

racial discrimination

sex discrimination
Target audience and their learning needs must include:

- who the learning resource is for
- what the learning resource is designed to do
- why an e-learning medium is being considered
- how the learning resource will be used
- where learning resource will be used

Characteristics may include:

- level and breadth of work experience
- level and previous experiences of formal education
- skill/competency profile
- socio-economic background, age, gender, range of abilities (disabilities)
- cultural background and needs
- specific needs - physical or psychological
- motivation for learning
- language, literacy and numeracy needs of learners
- learning style and preferences

Technical parameters and technological requirements may include:

- type of electronic media
- required technical software and hardware
- learner management interfaces
- technical navigation tools
- integration of media

A prototype may include:

- CD-ROM
- web pages
- storyboards
- audiovisual resource
- virtual classroom
- simulation via Internet/Intranet/Extranet
- satellite broadcast
- computer-based resource
- a skeleton of a resource
- a representation of colour, look and feel of the resource
written information yet to be built into the resource

**Quality requirements include:**
- design is relevant to targeted learners
- design is easy to navigate/use
- design encourages participation and engagement
- design motivates and provides effective learning resources
- design provides opportunities for learner reflection and collaboration
- design meets needs of client

**Tools may include:**
- surveys
- interviews
- trial applications

**Relevant criteria may include:**
- navigation/ease of use
- quality instructional design
- application of relevant standards

**Unit Sector(s)**
Not applicable.

**Competency Field**
Learning Design