TAADES502A Design and develop learning resources

Unit Descriptor
This unit specifies the competency required to design and develop resources to support learning.

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.

- In the TAA04 Training and Assessment Training Package, learning resources are defined as learning materials that have been specifically developed to address a substantive area of teaching/learning and/or assessment guidance and support.
- Learning resources may address a whole Training Package, a Training Package or course qualification or a learning program. Learning resources may also take the form of existing equipment, physical materials and physical resources within the learning environment.
- Learning resources can take a variety of forms such as facilitation guides, learning guides/participant resources, assessment materials, workplace resources and text books, and may be self-paced or instructor-led. While primarily text and print-based, other mediums such as audio or video learning resources could be developed using this unit. The complexity of the resource will vary depending on its focus, type, audience and technological medium.
- Although the range of learning resources may vary, the skills and knowledge required to design and develop them is the same, with instructional design being a critical aspect.
- Where a learning resource product is built around an electronic medium, other critical skills, knowledge and outcomes are required. These are addressed through separate units of competency, TAADES503A Research and design e-learning resources and TAADES504A Develop and evaluate e-learning resources. Co-learning and co-assessment is suggested where competency across all media is required.
- Design and development are combined in this unit. In some circumstances the design phase and content development are separated, especially in a large project. However, it is important that competency reflects the whole process.
- Depending on the complexity of the resource, extensive consultation and working with others may be required.
- This unit can provide a specific application for undertaking the generic unit TAATAS503A Manage contracted work.
- The competency specified in this unit is typically required by trainers/facilitators, instructional designers, assessors and consultants.

Unit Sector
Learning Design
<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>PERFORMANCE CRITERIA</th>
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</table>
| 1. Research and interpret the learning resource requirements | 1.1 The brief, focus and type of learning resource is clarified with the client  
1.2 The likely target audience/s, their learning needs and the learning environment for the resource are researched  
1.3 The characteristics of the learners/end users of the learning resource are identified  
1.4 Existing information which may be relevant is gathered, collated and analysed  
1.5 Ethical and legal considerations are identified and acted upon  
1.6 A development work plan is written and documented |
| 2. Design the learning resource and plan the content | 2.1 A range of design options is generated using a variety of principles and techniques  
2.2 Time is taken to reflect on the designs, identifying the implications of each  
2.3 The diversity of learners/end users and their learning styles are researched and embedded into the design specifications  
2.4 An outline or prototype for the learning resource is developed and confirmed with the client  
2.5 The content specifications of the learning product are analysed and the proposed content is mapped out  
2.6 The breadth and depth of the proposed content is determined, in accordance with the design prototype, content specifications and financial constraints  
2.7 Relevant personnel are identified to support the development phase, if needed |
| 3. Develop the learning resource content | 3.1 Content and content specification is developed in accordance with the agreed design  
3.2 Modifications are made to the design and/or content, where necessary, to address changes in project parameters  
3.3 Mechanisms for reviewing work in progress are established  
3.4 Text is clear, concise, grammatically correct and appropriate for the intended audience/s  
3.5 Visuals are relevant, instructive and appropriate for the intended audience/s  
3.6 The resource is formatted using an appropriate style guide |
| 4. Review learning resource prior to implementation | 4.1 Content of the resource is checked to ensure the accuracy and relevance of information against content specifications  
4.2 Text, format and visual design are checked for clarity and focus  
4.3 An external review is conducted using appropriate methods, and feedback is incorporated where relevant  
4.4 Final draft is reviewed against the brief and other relevant criteria to ensure it meets all requirements prior to delivery to the client |
5. Evaluate the design and development process

5.1 The design and development process is reviewed against appropriate evaluation criteria
5.2 Time is taken to reflect and identify areas for improvement
5.3 Identified improvements are documented for future projects

KEY COMPETENCIES

<table>
<thead>
<tr>
<th>Key Competency</th>
<th>Example of Application</th>
<th>Performance Level</th>
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</thead>
<tbody>
<tr>
<td>Communicating ideas and information</td>
<td>seeking feedback from others, discussing ideas for resources with colleagues, discussing resource specifications with client</td>
<td>3</td>
</tr>
<tr>
<td>Collecting analysing and organising information</td>
<td>researching needs of target audience, determining relevant information, establishing a structure for the resource</td>
<td>3</td>
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<tr>
<td>Planning and organising activities</td>
<td>determining timeframe for resource development, establishing review/feedback mechanisms</td>
<td>3</td>
</tr>
<tr>
<td>Working with others and in teams</td>
<td>discussing ideas for resource with colleagues, seeking guidance and advice from others</td>
<td>2</td>
</tr>
<tr>
<td>Using mathematical ideas and techniques</td>
<td>working within budgetary requirements, seeking guidance and advice from others</td>
<td>1</td>
</tr>
<tr>
<td>Solving problems</td>
<td>ensuring resource meets end user needs, dealing with technological problems</td>
<td>2</td>
</tr>
<tr>
<td>Using technology</td>
<td>using a range of computer programs, researching using the Internet</td>
<td>3</td>
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RANGE STATEMENT

The Range Statement adds definition to the unit by elaborating critical or significant aspects of the performance requirements of the unit. The Range Statement establishes the range of indicative meanings or applications of these requirements in different operating contexts and conditions. The specific aspects which require elaboration are identified by the use of italics in the Performance Criteria.

The brief of the learning resource may include:

- a client proposal
- identified gap in the learning product market
- a tender
- an organisational need
Focus of the learning resource may include:

• a whole Training Package
• a Training Package qualification/qualifications
• a traineeship/apprenticeship
• an accredited course
• individual competency standards/modules/subjects
• a non-accredited course
• a learning program
• a learning resource to support the introduction/implementation of new technology/equipment

Type of learning resource may include:

• Training Package noted support materials, such as:
  • learner/user guides
  • trainer/facilitator guides
  • training guides
  • example training programs
  • specific case studies
  • professional development materials
  • assessment materials
• other published, commercially available support materials for Training Packages/courses
• organisational learning resources
• competency standards as a learning resource
• videos
• CDs and audio tapes
• references and texts
• manuals
• record/log books
• learning resources and learning materials developed under the Workplace English Language and Literacy (WELL) program
• learning resources produced in languages other than English as appropriate to target group learners and workplace

The learning resource is:

• designed to enhance and support the effectiveness of the learning process. It provides guidance, materials, learning and assessment activities, and relevant information that addresses the competencies/learning outcomes to be achieved by the learner

Likely target audience/s and learning environment must include:

• who the learning resource is for
• what the learning resource is designed to do
• how the learning resource will be used
• where the learning resource will be used
• possible mediums to be used
Research may include:

- interviews
- focus groups
- informal discussions
- literature reviews
- Internet research
- evaluations of existing products
- questionnaires
- workshops

Characteristics of the learners/end users may include:

- level of prior experience/knowledge of content area
- skill/competency profile
- range and response to previous learning experiences
- level of education
- socio-economic background, age, gender
- current work
- work culture
- cultural and ethnic background
- disability or learning support needs
- preferred learning styles
- motivation for learning
- English language, literacy and numeracy needs

Existing information may include:

- industry/end user needs
- industry best practice and culture
- existing learning resources and learning materials
- relevant Training Packages/competency standards
- relevant courses, curriculums, modules
- workplace procedures, documentation, and requirements
- industry coverage
- roles and responsibilities of groups and individuals
- information from industry experts and advisers

Ethical and legal considerations may include:

- contract preparation
- meeting contractual requirements
- intellectual property
- regulatory requirements including occupational health and safety (OHS)
- organisational requirements
- equity issues and needs
- potential legal consequences of false, misleading or incorrect information
Development work plan may include:

- timelines and milestones to be achieved
- scheduled meetings and focus groups
- consultative processes
- handover requirements
- equipment, learning resources and learning materials needed
- industry information/practices
- budget
- identification of risks/risk management strategies
- organisation/industrial politics
- access to experts/advisers

Design options may include:

- use and extent of practical activity-based content and passive content (reading, interpreting and absorbing information)
- use and extent of text-based information and graphical information
- level of depth of text-based information and sophistication of language
- level of completeness in addressing the focus
- options for presenting text-based information e.g. straight text, question and answer, case studies
- visual design
- sequencing of material
- sources of further information/further reading
- style guides
- visual look
Principles and techniques may include:

- instructional design, for example:
  - presenting material in a logical order and sequence
  - opportunities for collaborative learning between learners
  - navigation tools
  - presenting material in order of increasing difficulty
  - opportunities for review of material and repetition
  - the need for learner activity and interactivity
  - inclusion of a variety of approaches and techniques for presenting information and activities and for encouraging participation by learning
  - structure of the information
  - ensuring learning is embedded in a realistic and relevant context
  - techniques to engage the learner in learning
- creative thinking, for example:
  - brainstorming
  - mind mapping
  - scenario setting
  - lateral thinking
- visual/graphic design, for example:
  - format
  - composition
  - balance
  - typography
  - images/graphics
  - charts/diagrams
- research and evaluation, for example:
  - of other learning resources
  - up-to-date research on learning

Reflect may include:

- asking key questions
- discussing details with others, for example:
  - colleagues
  - team members
  - other learning product developers/instructional designers
  - the client
  - supervisor/manager
- standing back from work
- setting specified times for reflection
- reviewing personal skills

Learning styles may include:

- theoretical
- pragmatic
- active
- reflective
- kinaesthetic
- auditory
- visual
Outline or prototype may include:

- mock-up
- framework
- model
- format specifications

Content specifications may include:

- requirements of relevant Training Packages, competency standards/benchmarks
- OHS requirements
- work practices and procedures
- culture and ethics of the learner/end user environment
- organisational requirements
- copyright/intellectual property agreements/acknowledgements

Relevant personnel may include:

- subject matter/technical experts
- industry experts
- colleagues
- learners or users
- industry stakeholders
- specialist consultants, e.g. language, literacy and numeracy specialists

Mechanisms may include:

- verbal or written communication with relevant personnel
- verbal or written communication with content experts
- project updates
- internal/external reviews of drafts

Style guide may include:

- fonts - types and sizes
- line spacing
- white space
- icons
- use of visuals - icons, photographs, pictures, diagrams
- signposting
- logos
- ANTA Style Guide
- client style guide

Methods may include:

- evaluation by experts
- pilot
- focus groups
- questionnaires
- checklists
- workshops
- telephone interviews
Evaluation criteria may include:

- meeting the brief
- satisfaction of the client
- timeliness
- cost
- design issues/modifications required
- blockages and responses
- team effectiveness/cohesion
- level of expertise required/available
EVIDENCE GUIDE

The Evidence Guide provides advice to inform and support appropriate assessment of this unit. It contains an overview of assessment followed by identification of specific aspects of evidence that will need to be addressed in determining competency. The Evidence Guide is an integral part of the unit and should be read and interpreted in conjunction with the other components of competency.

Assessment must reflect the endorsed Assessment Guidelines of the TAA04 Training and Assessment Training Package.

To demonstrate competency against this unit candidates must be able to provide evidence that they have designed and developed learning resources.

The learning resources provided as evidence must: clearly identify the target audience; be appropriate to the target group; and be well structured, clear, interesting, appropriate, easy to use, and accessible.

Competency also requires demonstrated ability to research learning resource requirements and content, seek and accept feedback, work effectively with a project team or other experts as required, and critically evaluate own work.

Required knowledge includes:

- sound knowledge of the vocational education and training system, including:
  - relevant terminology
  - training and assessment processes
  - Training Packages and competency standards
  - the Australian Quality Training Framework (AQTF) requirements
  - the Australian Qualifications Framework (AQF)
- instructional design, for example:
  - planning, analysis, development, synthesis, evaluation
  - presenting material in a logical order and sequence
  - opportunities for collaborative learning between learners
  - navigation tools
  - presenting material in order of increasing difficulty
  - opportunities for review of material and repetition
  - the need for learner activity and interactivity
  - inclusion of a variety of approaches and techniques for presenting information and activities and for encouraging participation by learning
  - structure of the information
  - ensure learning is embedded in a realistic and relevant context
  - techniques to engage the learner in learning
- visual design principles/techniques, for example:
  - format
  - composition
  - balance
  - typography
  - images/graphics
  - charts/diagrams
- research and evaluation techniques, including:
  - interviews
  - focus groups
  - workshops
  - questionnaires
  - literature reviews
• web research
• pilot processes
• a general knowledge of the main branches of learning theory, for example:
  • behavioural learning theory
  • information processing theory
  • cognitive learning theory
  • andragogy
  • vocational education and training pedagogy
• learning principles, including:
  • adults are autonomous and self-directed
  • adults have life experience to draw on
  • adults are goal-oriented
  • adults need relevance
  • adults are practical
  • adults need to be shown respect
  • cultural awareness
• a range of learning approaches and styles of learning resources
• different learning styles, including:
  • activist
  • reflector
  • theorist
  • pragmatist
  • kinaesthetic
  • auditory
  • visual
• language, literacy and numeracy (LLN) issues, for example:
  • principles and definitions
  • how to work out the LLN level of likely users, and LLN requirements of the resource
• 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 OHS knowledge relating to the work role, and OHS procedures which need to be included in the content of the learning resource
• OHS obligations of the training and/or assessment organisation, the trainer/facilitator and learner
Required skills and attributes include:

- review and analysis skills to:
  - identify areas for improvement
  - recognise personal limitations
- communication and interpersonal skills to:
  - collaborate with a range of people
  - seek feedback from others
  - be open to feedback and suggestions
  - maintain a network
  - listen
  - negotiate
- computer/technical skills, for example:
  - using a range of software programs
  - using a range of office equipment
- literacy/writing skills, including:
  - writing from the learner's perspective
  - writing for different audiences
  - using plain English and correct grammar
  - pitching writing to the appropriate level
  - using an appropriate style
  - having an eye for detail
- time management skills, including keeping to appropriate timelines
- analytical skills to:
  - identify critical learning points
  - structure and weight the contents appropriately
  - determine appropriateness of feedback
- ability to develop a range of learning activities
- research skills to:
  - find content and relevant information
  - interview relevant people
  - solve problems
  - ask questions

Products that could be used as evidence include:

- learning resources developed
- letters to relevant personnel seeking comments and feedback
- evaluation forms
- minutes of meetings
- drafts of resources
- feedback received from others

Processes that could be used as evidence include:

- how research was undertaken and why
- how consultative process was set up
- how industry or end user requirements were established
- how resource was evaluated and reviewed
- what methods were used to evaluate the process used for resource development and why
- ways in which personal skills and efficiency were developed and monitored and why
- how personal workload was managed
Resource implications for assessment include:

- research for content of resources
- access to experts for review and consultation

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 Requirements and Key Competencies
- 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:

- a complete print-based learning resource product that demonstrates competency in accordance with the specifications of this unit or
- evidence of contributions to a range of learning resources and learning materials that in combination demonstrate competency in accordance with the specifications of this unit
- evidence of transferable application to the development of other learning resources
- designed under the guidelines for Training Package support materials
- print-based

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:
  - TAADES401A Use Training Packages to meet client needs
  - TAADES402A Design and develop learning programs
  - TAADES501A Design and develop learning strategies
  - TAADEL405A Coordinate and facilitate distance-based learning
  - TAATAS503A Manage contracted work
  - TAADES503A Research and design e-learning resources
  - TAADES504A Develop and evaluate e-learning resources.