



Australian Government

Department of Education, Employment and Workplace Relations

ICAICT603A Manage the use of appropriate development methodologies

Release: 1

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Modification History

Release	Comments
Release 1	This Unit first released with <i>ICA11 Information and Communications Technology Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to nominate the most appropriate methodology from traditional and non-traditional systems development methodologies for use by a team.

Application of the Unit

This unit applies to information and communications technology (ICT) managers employed in a range of work environments who are required to select the most appropriate development methodologies for their team.

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
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>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.</i>

Elements and Performance Criteria

1. Determine and select appropriate methodology for a given activity	1.1 Determine and define subject activity 1.2 Define criteria for selection of development methodology 1.3 Review and evaluate with project leader a range of traditional and non-traditional system-development methodologies 1.4 Select appropriate system development methodology to suit the activity 1.5 Brief project team on selected methodology
2. Direct the use of the selected development methodology	2.1 Review the initial project plan to guide developmental processes 2.2 Review the identification of appropriate task types according to development methodology 2.3 Review the description and articulation of task types 2.4 Review the definition of appropriate control structures that need to be created during task type execution 2.5 Review the identification of resources to support methodology selection 2.6 Monitor the application of appropriate methodology to solve tasks 2.7 Monitor the project flow and effectiveness of use of methodology against project plan 2.8 Review the documented opportunities for improvement, lessons learned and recommendations for future projects

Required Skills and Knowledge

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

Required skills

- communication skills to:
 - gain consensus on concepts when planning the application of the methodology to the project
 - present information
- literacy skills to:
 - prepare reports required by development methodology
 - write business reports
- planning and organisational skills to:
 - manage system development
 - review and manage project plan
- problem-solving skills to select a suitable development methodology for a client
- technical skills to:
 - apply appropriate methodology to solve tasks
 - determine unique characteristics and qualities to be used
 - evaluate development methodologies
 - review a range of traditional and non-traditional system development methodologies.

Required knowledge

- client business domain and organisational requirements
- life cycle maintenance of a live system, network or website
- role of stakeholders and the degree of stakeholder involvement in the development process
- technology involved to develop each methodology
- two or more current industry development methodologies.

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	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • manage a project team • review a project plan • supervise the application of a methodology to a project • evaluate a range of development methodologies and their application to a project or scenario • review documentation as required by the chosen methodology.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • design specifications and current methodologies • organisational standards for documentation and version control • detailed user-requirements document, including model and scope • project plan. <p>Where applicable, physical resources should include equipment modified for people with special needs.</p>
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct observation of candidate reviewing the stages of a development methodology within the scope of a project • verbal or written questioning to assess candidate's knowledge of a variety of system development methodologies and their application to a systems project • evaluation of candidate's review of supporting documentation produced by project team.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate.</p> <p>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.</p>

	<p>Indigenous people and other people from a non-English speaking background may need additional support.</p> <p>In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.</p>
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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.

Methodology may include:	<ul style="list-style-type: none"> • traditional • non-traditional.
Traditional system-development methodologies may include:	<ul style="list-style-type: none"> • design methodology • project life cycle • structured systems analysis.
Non-traditional system-development methodologies may include:	<ul style="list-style-type: none"> • object-oriented analysis and design • prototyping • soft system methodology • version control.
Task types may relate to:	<ul style="list-style-type: none"> • fixed unit • fixed duration • fixed work.
Control structures may include:	<ul style="list-style-type: none"> • a review process • acceptance criteria • inspection • test plans.

Unit Sector(s)

General ICT