



Australian Government

Department of Education, Employment and Workplace Relations

PUADEFTE003A Conduct testing processes

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competency required to conduct a testing process. It includes managing the testing process, capturing data and adhering to the test plan.

Application of the Unit

Application of the Unit

This unit was developed for Defence test and evaluation workers but is applicable to individuals who work in this field.

Typically these individuals must work independently or as part of a team under direct and indirect supervision, use discretion and judgement, and take responsibility for the quality of their output. All activities are carried out in accordance with relevant organisational policy and procedures.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability Skills	This unit contains employability skills.
Pre-requisite Unit/s	Nil

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Initiate testing processes

- 1.1 *Stakeholders* and test participants are briefed in accordance with *organisational policy and procedures*, and *test plan*
- 1.2 *Safety systems* and procedures are checked and initiated in accordance with organisational policy and procedures, and test plan
- 1.3 Test and evaluation activities are commenced in accordance with the approved test plan
- 1.4 Qualitative tests to observe relevant critical parameters are performed in accordance with organisational policy and procedures, and test plan
- 1.5 Quantitative tests to measure relevant critical parameters are performed in accordance with organisational policy and procedures, and test plan
- 1.6 Test data is collected and recorded in accordance with organisational procedures

ELEMENT**2. Monitor testing processes****PERFORMANCE CRITERIA**

- 2.1 Test plans are monitored and amended based on changing circumstances in consultation with team members, and precise details are included for schedules of activities, milestones and resources
- 2.2 **Required systems** are monitored throughout the process in accordance with test plan
- 2.3 Risks are identified and the **risk management** process is applied in accordance with test plan
- 2.4 **Management tools** are applied throughout the process to achieve outcomes, in accordance with test plan
- 2.5 **Data** is compared with standards, charts and tables in order to meet compliance with required specification or test specific requirements
- 2.6 Initial analyses are checked in accordance with test plan procedures when non-standard results are obtained
- 2.7 Contingencies are recognised and managed in accordance with organisational policy and procedures

ELEMENT**PERFORMANCE CRITERIA****3. Finalise testing processes**

- 3.1 Evaluation of testing process, equipment performance and achievement against objectives is undertaken and initial results are reported in accordance with organisational policy and procedures, and test plan
- 3.2 Security and confidentiality of data is maintained in accordance with workplace and regulatory requirements
- 3.3 Stakeholders and test participants are debriefed in accordance with organisational policy and procedures, and test plan
- 3.4 Test data is forwarded for analysis in accordance with organisational policy and procedures, and test plan
- 3.5 Management plans and any related contracts are reviewed and amended as appropriate in accordance with test plan
- 3.6 Review of objectives and achievement is conducted and outcomes are prepared for test report in accordance with organisational policy and procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- access/prepare information electronically or in hard copy
- apply risk management techniques
- apply timelines, roles and responsibilities in consultation with stakeholders and team members
- communicate with stakeholders using a range of communication styles to suit different audiences and purposes
- detail requirements, write recommendations and monitor plans requiring precision of expression
- monitor workplace safety issues
- schedule testing activities
- use management techniques related to testing that may be reasonably complex in terms of scope; degree of risk; environmental, political, cultural and social factors that apply; consequences of failure; degree of control
- use management tools suited to the conduct of testing processes
- use public relations strategies to promote and gain endorsement

Required Knowledge

- approval processes
- change management
- contingency planning and management processes
- cost schedule control systems
- integrated logistics support
- legislation, organisational policy and procedures that may impact on the test and evaluation process
- management tools suited to the conduct of testing processes
- principles relating to the conduct phase of testing processes
- resource management
- scheduling packages
- test and evaluation processes which may be reasonably complex in terms of scope; degree of risk; environmental, political, cultural and social factors that apply; consequences of failure; degree of control
- work breakdown structure (WBS)

Evidence Guide

EVIDENCE GUIDE

Critical aspects for assessment and evidence required to demonstrate competency in this unit

- Nil

Consistency in performance

Competency should be demonstrated over time and should be observed in a range of actual or simulated work contexts.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or in a simulated workplace environment.

Specific resources for assessment

Access is required to:

- computer and relevant software
- legislation, guidelines, procedures and protocols relating to planning and management
- workplace documentation.

EVIDENCE GUIDE

Guidance information for assessment

In all cases, assessment should be supported by questions to assess required knowledge and those aspects of competency which are difficult to assess directly. Questioning techniques should suit the language and literacy levels of the candidate.

Assessment methods should reflect workplace demands such as literacy and the needs of particular groups.

Assessment methods suitable for valid and reliable assessment of this unit may include, but are not limited to, a combination of:

- authenticated evidence from the workplace and/or training programs
- case studies
- demonstration
- feedback from supervisors and peers regarding the candidate's ability
- observation
- portfolios
- projects
- questioning
- reviews or reports prepared by the candidate
- scenarios
- simulation or role plays.

Range Statement

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 in the Performance Criteria is detailed below.

Stakeholders may include

Clients or customers (internal and external)
 End user/s
 General public
 Industry
 Landowner/s
 Organisation's senior management
 Other agencies
 Other functional areas within the organisation
 Project teams
 Relevant interest groups
 Sponsor/funding bodies
 Steering committee members
 Supplier/service provider
 Unions

Organisations may include

Defence
 Defence contractors and sub-contractors
 Defence Materiel Organisation
 Defence Science and Technology Organisation
 International test agencies
 Universities

Policy and procedures may include

Relevant commonwealth, state/territory and local legislation affecting organisation's administration such as:

- financial management and accounting legislation and regulations
- occupational health and safety (OH&S) legislation
- public sector management acts

Government and organisational policy, guidelines and procedures relating to:

RANGE STATEMENT

Test plans may include

- delegation approvals
 - industrial agreements
 - procurement guidelines
 - resourcing
 - risk management
 - security
 - strategic or operational plans
 - technical and regulatory framework
 - testing and evaluation
 - training
- Acquisition strategies
- Budget and financial management strategy
- Contract management
- Cost estimates
- Evaluation criteria
- Expected/measurable outcomes
- Facilities
- Functional performance specifications
- Governance strategy
- Implementation strategy
- Inclusions and exclusions
- Information/communication strategy
- Intellectual property strategies
- Milestones
- Objectives
- Occupational concept document
- People plan including human resource management and human resource development
- Performance criteria/indicators
- Purpose
- Quality assurance
- Quality control
- Quality standards
- Rationale

RANGE STATEMENT

	Required resources
	Resource management
	Risk management
	Roles and responsibilities
	Safety criteria
	Schedule/timeline
	Specific equipment, instrumentation, and/or specialised facilities and required conditions
	Task/WBS
	Test and evaluation master plan (TEMP) criteria
	Test Concept Document (TCD)
	Testing control mechanisms
	Testing deliverables and their acceptance criteria
Safety systems may include	Checklists
	Hazard analysis
	NOTAMS
	OH&S
	Physical constraints
	Risk analysis
	Systems safety management plans
Required systems may include	Data collection systems
	Financial management
	Planning and monitoring system
	Recordkeeping for documented information such as:
	<ul style="list-style-type: none"> • contracts • correspondence • outcomes • performance reports against milestones • progress reports • quality data including test results, survey, needs • samples, prototypes, models • time allocated and spent
Risk management may	Acceptance

RANGE STATEMENT**include**

Avoidance

Minimisation

Transfer

Management tools may include

Communications plan

Life cycle cost analysis

Logistics support analysis

Organisational testing governance framework

Recording systems - electronic and manual

Reporting framework

Risk analysis

Spreadsheets

Test and evaluation management software and other tools:

- cost schedule control system
- critical path method
- Gantt and bar charts
- program evaluation and review technique (PERT) charts

Data may include

Audio

Electronic (digital or analogue) recordings/logs

Imagery including satellite

Observations

Physical components

Physical evidence

Qualitative statements

Statistical results

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil

co-requisite unit/s

Not applicable.