



Australian Government

Department of Education, Employment and Workplace Relations

PUADEFTE002A Prepare testing and evaluation processes

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competency required to prepare for a test and evaluation process. It includes the requirement to establish the testing process, to integrate the testing processes and to develop, review and maintain 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. Establish test and evaluation processes

- 1.1 Drivers for the test and evaluation are confirmed with stakeholders
- 1.2 Test plan is developed in accordance with direction from Test and Evaluation Master Plan and/or organisational documents and procedures
- 1.3 Test methods are determined by consideration of resource constraints, environmental constraints, evidence requirements, existing capabilities and their compatibility with existing procedures
- 1.4 **Stakeholders** are briefed in accordance with **organisational policy and procedures**, to negotiate endorsement for testing process
- 1.5 **Agreements** with stakeholders and resources are obtained in accordance with organisational procedures
- 1.6 Scope and objectives are reviewed and analysed, and a strategy is developed to establish **work breakdown structures** to implement testing process
- 1.7 Testing **infrastructure** is identified and established in accordance with organisational policy and procedures
- 1.8 Safety systems and procedures are identified and established in accordance with organisational policy and procedures, and **test plan**
- 1.9 **Specialist** and technical support relevant to the testing is identified and obtained in accordance with test plan
- 1.10 Security and confidentiality of data is maintained in accordance with workplace and regulatory requirements
- 1.11 Governance structure and processes are established as detailed in test plan

ELEMENT**PERFORMANCE CRITERIA****2. Conduct start-up activities**

- 2.1 Test plans are refined in consultation with steering committee and team members, and precise details are included for schedules of activities, milestones and resources
- 2.2 **Required systems** are established and maintained throughout the process in accordance with the complexity of the testing and in line with test plan
- 2.3 Testing and evaluation team members' understanding of and commitment to, fulfilling the requirements, and their roles and responsibilities for the duration of the process are confirmed
- 2.4 **Management tools** are utilised and applied effectively to achieve outcomes

3. Manage test and evaluation preparedness

- 3.1 All aspects of testing and related processes are integrated, and links are established to ensure objectives are met in accordance with test plan
- 3.2 Consultation and reporting mechanisms are established in accordance with test plan, and staff and contractors are regularly consulted to discuss progress and to ensure effective results
- 3.3 Integration is monitored, and management plans and any related contracts are reviewed and amended as appropriate, with results reported in accordance with mechanisms identified in test plan
- 3.4 Ongoing progress monitoring processes are established against agreed milestones in accordance with test plan, to provide a measure of performance throughout the life of the testing process
- 3.5 Programmed review of objectives and achievement is planned and established in accordance with test plan

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
- communicate with stakeholders using a range of communication styles to suit different audiences and purposes
- conduct research
- detail requirements, write recommendations and implement plans requiring precision of expression
- include workplace safety issues in implementing requirements
- negotiate timelines, roles and responsibilities with stakeholders and team members
- schedule testing activities
- use management techniques related to testing and evaluation 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 implementing testing processes
- use public relations strategies to promote and gain endorsement

Required Knowledge

- approval processes
- change management
- 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 planning testing and evaluation processes
- principles relating to the planning phase of testing and evaluation processes
- resource plans
- scheduling packages
- test and evaluation planning methods 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:

- legislation, guidelines, procedures and protocols relating to planning and management
- computer and relevant software
- 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
Functional areas
General public
Industry
Organisation's senior management
Other agencies
Other test facilities
Project teams
Relevant interest groups
Sponsor/funding bodies
Steering committee members
Supplier/service
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 legislation
- public sector management acts

Government and organisational policy, guidelines and procedures relating to:

RANGE STATEMENT

	• delegation approvals • industrial agreements • procurement guidelines • resourcing • risk management • security • strategic or operational plans • technical and regulatory framework • testing and evaluation • training
Agreements may include	Contract Memorandum of understanding SLA TORs
Work breakdown structures may include	How the testing is to be performed, and how cost and schedule data are to be tracked and reported Identification of specific management responsibilities for tasks Identification of testing tasks
Infrastructure may include	Aspects such as: • accommodation • equipment and technical support • instrumentation • management infrastructure • need for recruitment action and training • resource requirements including travel, finance etc. • staffing levels and may also include: • calibration • effective test readiness reviews • inspections • testing
Test plans may include	Acquisition strategies Budget and financial management strategy Contract management Cost estimates

RANGE STATEMENT

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
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
Testing control mechanisms
Testing deliverables and their acceptance criteria

RANGE STATEMENT**Specialists may include**

Environmental
Financial
Legal
Logistics
Operators
Other functional areas
Other relevant agencies
Regulatory
Safety
Technical

Required systems may include

Data collection systems
Financial management
Planning and monitoring system
Recordkeeping for documented information such as:

- contracts
- correspondence
- outcomes
- performance reports against milestones
- progress reports
- quality data including test results, survey, needs
- samples, prototypes, models
- time allocated and spent

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
Test and evaluation management software and other tools:

- cost schedule control system
- critical path method
- Gantt and bar charts

RANGE STATEMENT

- program evaluation and review technique (PERT) charts
- spreadsheets

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil