



Australian Government

MSS404055 Use DMAIC techniques

Release: 1

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Modification History

Release 1. Unit code changed. Application changed. Elements changed. Performance Criteria changed. Foundation Skills populated. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to MSS404053 Use DMAIC techniques.

Application

This unit describes the skills and knowledge required to apply the Define, Measure, Analyse, Improve, and Control and standardise (DMAIC) process to improve quality, cost and delivery in operations or other processes in an organisation.

This unit applies to an individual who is required to participate in DMAIC processes to identify solutions to problem/s and to implement, measure and standardise improvements.

This unit applies to any organisation that is implementing continuous improvement or more formal competitive systems and practices.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Competency Field

Competitive systems and practices

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Define improvement project	1.1 Define project focus and boundaries 1.2 Identify customer needs and customer benefits relevant to project focus 1.3 Develop current state map that defines 'as is' process 1.4 Develop problem statement that defines problem/s within project focus 1.5 Develop goal statement that establishes project goals 1.6 Identify selection criteria for improvements based on project goals
2. Measure current state or performance	2.1 Identify key measures and/or attributes to be measured relevant to current state performance 2.2 Determine methods and schedule for collection of data on key

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	measures and/or attributes 2.3 Collect or acquire baseline data according to data collection methods and schedule
3. Analyse baseline data to identify improvements	3.1 Analyse data to identify suboptimal performance 3.2 Apply structured analysis or problem-solving tool to determine cause/s of problem 3.3 Identify process improvements that could address cause/s of problem
4. Implement and measure improvements	4.1 Apply selection criteria to choose improvement option/s for implementation 4.2 Develop future state process map that defines expected outcomes and 4.3 Develop implementation plan outlining activities and resource requirements 4.4 Contribute to implementation of improvement/s according to plan 4.5 Gather or acquire data to measure results according to data collection methods and schedule
5. Review and control improvements	5.1 Review results to determine initial effectiveness of improvements and document any benefits achieved 5.2 Recommend or initiate control mechanisms to embed improvement/s into organisational procedures, documentation and support processes 5.3 Review process data over time to determine ongoing effectiveness of improvement/s 5.4 Take or initiate action to address improvements that are not effective

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret workplace documentation
- Writing skills to document process steps, improvement results
- Oral communication skills to contribute to project planning and implementation
- Numeracy skills to analyse data on key measures.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS404053 Use DMAIC techniques.

Links

Companion Volume Implementation Guides are found in VETNet – -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

Assessment Requirements for MSS404055 Use DMAIC techniques

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- apply DMAIC process to identify, implement and review at least one improvement.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- methods of identifying customer needs and customer benefits
- methods of identifying areas requiring improvement
- analysis methods used in DMAIC including at least two of:
 - statistical analysis
 - root cause analysis
 - other structured problem solving and/or analysis tool
- application of DMAIC process steps
- key measures and sources of data and relevant to the improvement project
- methods of confirming benefits and improvements.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources
- modelling of industry operating conditions, including:
 - data relevant to the improvement project.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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