



Australian Government

MSS407023 Quantitatively analyse impact of process changes

Release: 1

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Modification History

Release 1. Unit code changes. Unit title changed. Application changed. Elements changed. Performance Criteria changed. Foundation Skills populated. Range of Conditions removed. Assessment Requirements changed. Workplace outcome changed. Supersedes and is not equivalent to MSS407003 Analyse process changes.

Application

This unit describes the skills and knowledge required to quantitatively analyse changes made in an organisation's operations systems, processes or environment to determine whether the quantum of expected change has been achieved and to determine action to be taken.

This unit applies to technical experts, managers or other roles with influence, authority and responsibility over change processes who will capture quantitative and qualitative data, undertake quantitative analysis of process data to produce useful information and consult with stakeholders for data validation and consensus decision making for future action.

The individual will already have some knowledge of the application of statistics to manage operations and process capability improvement, factorial design, selection and analysis of appropriate metrics and determination of valid and invalid interpretations of data.

This unit is not intended to be applied to a technical or engineering review of a major capital expenditure or similar.

This unit applies to any organisation that is implementing 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. Analyse impact of change	1.1 Examine changes made to operations systems, processes or environment to determine change or group of related changes to analyse 1.2 Determine initiation of selected change/s 1.3 Identify relevant metrics and predicted values for these metrics 1.4 Gather data for these metrics prior to change/s

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	1.5 Gather data and information on implementation of change/s 1.6 Gather data for these metrics after change/s 1.7 Survey all key metrics and identify where variations may correlate with change/s being analysed 1.8 Consult with key stakeholders to identify qualitative and quantitative data on any other intended and unintended results of change/s 1.9 Analyse and interpret data to determine impact of change/s
2. Validate impact of change	2.1 Identify trends over time in all relevant metrics 2.2 Analyse correlated metrics to determine causal relationships 2.3 Audit health, safety and environment (HSE) impacts resulting from change/s 2.4 Present analysed information using communication styles, methods and media to suit stakeholders 2.5 Facilitate discussion of analysed information with relevant stakeholders 2.6 Modify information based on stakeholder input 2.7 Develop consensus view of impact of change/s which is supported by information available 2.8 Validate consensus view with stakeholders
3. Identify future improvements	3.1 Consult with stakeholders to identify lessons learned from change/s 3.2 Capture key knowledge in accordance with systems and procedures 3.3 Identify future improvement options in collaboration with team members 3.4 Validate and select future improvements with input from stakeholders 3.5 Liaise with process or system owner to generate engagement with and obtain sign-off for future improvements 3.6 Initiate processes for implementing future improvements 3.7 Take or initiate action to sustain successful improvements through standardisation

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 complex workplace documentation, qualitative and quantitative data
- Oral and written communication skills to review results with stakeholders, interpret and present information and capture key knowledge
- Numeracy skills to interpret metrics, analyse and interpret data, predict values and quantify change.

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

Unit Mapping Information

Release 1. No equivalent unit.

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 MSS407023 Quantitatively analyse impact of process changes

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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:

- quantitatively analyse at least one competitive systems and practices related change made to operations systems, processes or environment.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- underpinning values relevant to competitive systems and practices including:
 - respect for people
 - respect for process
 - empowered teams and devolved decision making and/or strategy deployment
 - transparency and culture of learning
 - go and see and/or go to the source decision making (eg Gemba, Genchi Genbutsu)
 - creation of value and customer perceived value
 - rapid cycle or iterative development
 - empirical development
- techniques to facilitate communications and agreement across levels and areas of the organisation
- methods of determining the impact of a change using quantitative analysis of process data, including advanced statistical, mathematical analysis and basic qualitative techniques
- metrics relevant to organisation's competitive systems and practices approach and area of change
- sources of data (actual and possible) within the organisation and the value stream
- range of typical metrics, their applications and limitations
- trends, correlation and causation
- identification of intended and unintended consequences of change.
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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:
 - functioning competitive systems and practices environment.

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

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