MSS408003A Develop models of future state operations practice

Release: 1

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Modification History

New unit, superseding MSACMG803A Develop models of future state manufacturing practice - Equivalent

Unit Descriptor

This unit of competency covers the skills and knowledge required to establish processes for identifying future state models of best practice for operations that are then used as the template for both strategic decision-making and goal setting. It may be applied to whole organisations or significant sections of the value stream.

Application of the Unit

This unit applies in an environment where operations practices are standardised and there is a culture that accepts sustaining improvements and building on them. It is intended for managers and people with a similar sphere of influence.

This unit applies to individuals who are familiar with competitive systems and practices, value stream mapping, and culture improvement. Where this is not the case the following units can be completed to supply the necessary skills:

- *MSS405001A Develop competitive systems and practices for an organisation*
- *MSS405002A Analyse and map a value stream*
- *MSS405013A Facilitate holistic culture improvement in an organisation.*

This unit may also be applied to non-production areas and service organisations applying competitive systems and practices principles.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

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.

Elements and Performance Criteria

1	Develop a shared future state model	1.1	Establish an appropriate representative team
		1.2	Analyse a value stream map of an appropriate section of the value stream
		1.3	Determine the current state of practice across the value stream
		1.4	Identify overall organisation strategy, direction and competitive systems and practices philosophy
		1.5	Validate view with process/system owner
2	Develop and review a collaborative best practice model	2.1	Develop a future state model of practice
		2.2	Review model with process/system owners and other stakeholders across the value stream as appropriate
		2.3	Modify model to deliver better results for the customer and reduce wastes
		2.4	Develop implementation plan in consultation with stakeholders
3	Provide the resources necessary to move	3.1	Identify changes required to infrastructure
		3.2	Determine benefit/cost for required changes

	to the future state	3.3	Prioritise required changes
		3.4	Obtain required authorisations
		3.5	Facilitate the provision of resources needed to implement plan
4	Review future state model	4.1	Manage the implementation of improvements
		4.2	Identify measures of progress towards agreed future state
		4.3	Review progress towards future state
		4.4	Agree methods of improving areas which could progress better
		4.5	Agree on methods for evaluating future state
		4.6	Validate measures and methods with relevant managers

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Required Skills and Knowledge

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

Required skills

Required skills include:

- undertaking self-directed problem solving and decision-making on issues of a broad and/or highly specialised nature and in highly varied and/or highly specialised contexts
- communicating at all levels in the organisation and value stream and to audiences of different levels of literacy and numeracy
- determining current state of operations in the organisation or selected portion of the value stream across a range of key indicators, including:
  - output quantities and qualities
  - variability in quality and quantity
  - uptime
  - causes and times for the different wastes (muda)
  - investment hurdle rates and actual rates of return
  - health, safety and environment (HSE) indicators
  - reliability indicators
  - other key performance indicators (KPIs) indicators appropriate to the organisation and its technology and processes
- identifying desirable future state across a range of indicators of operations in the organisation or selected portion of the value stream, including forecasts of:
  - output quantities and qualities
  - variability in quality and quantity
  - HSE indicators
  - reliability/uptime
  - rates of return
  - other indicators appropriate to the organisation and its technology and processes
- analysing data, including indicators of progress to future state
- prioritising actions according to:
  - benefit/cost analysis
  - readiness analysis
  - tactical survival response

Required knowledge

Required knowledge includes:

- competitive systems and practices at both a strategic and tools level, including advantages and limitations of:
  - value stream mapping
  - 5S
  - Just in Time (JIT)
  - mistake proofing
  - process mapping
  - establishing customer pull
  - breakthrough improvement and continuous improvement (kaizen and kaizen blitz)
  - setting of KPIs/metrics
  - identification and elimination of waste (muda)
  - six sigma and lean six sigma
- best practice in implementation of competitive systems and practices tools
- customer benefit as used in competitive systems and practices
- formal problem solving tools, including root cause analysis (RCA)
- workplace strategy and vision
- ways of determining competency gaps that may act as restrictions in achieving best practice in operations

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.

Critical aspects for assessment and evidence required to demonstrate competency in this unit	A person who demonstrates competency in this unit must be able to provide evidence of the ability to: • review current and future state maps with stakeholders • analyse value stream maps • review progress towards future state and take corrective action • align the future state with organisation strategy.
Context of and specific resources for assessment	Assessment of performance must be undertaken in a workplace using or implementing one or more competitive systems and practices. Access may be required to: • workplace procedures and plans relevant to work area

	• specifications and documentation relating to planned, currently being implemented, or implemented changes to work processes and procedures relevant to the assessee • documentation and information in relation to production, waste, overheads and hazard control/management • reports from supervisors/managers • case studies and scenarios to assess responses to contingencies.
Method of assessment	A holistic approach should be taken to the assessment. Competence in this unit may be assessed by using a combination of the following to generate evidence: • demonstration in the workplace • workplace projects • suitable simulation • case studies/scenarios (particularly for assessment of contingencies, improvement scenarios, and so on) • targeted questioning • reports from supervisors, peers and colleagues (third-party reports) • portfolio of evidence. In all cases it is expected that practical assessment will be combined with targeted questioning to assess underpinning knowledge. Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.
Guidance information for assessment	Assessment processes and techniques must be culturally appropriate and appropriate to the language and literacy capacity of the candidate and the work being performed.

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.

Competitive systems and practices	Competitive systems and practices may include, but are not limited to:
	• lean operations
	• agile operations
	• preventative and predictive maintenance approaches
	• monitoring and data gathering systems, such as Systems Control and Data Acquisition (SCADA) software, Enterprise Resource Planning (ERP) systems, Materials Resource Planning (MRP) and proprietary systems
	• statistical process control systems, including six sigma and three sigma
	• JIT, kanban and other pull-related operations control systems
	• supply, value, and demand chain monitoring and analysis
	• 5S
	• continuous improvement (kaizen)
	• breakthrough improvement (kaizen blitz)
	• cause/effect diagrams
	• overall equipment effectiveness (OEE)
	• takt time
	• process mapping
	• problem solving
	• run charts
	• standard procedures
	• current reality tree
	Competitive systems and practices should be interpreted so as to take into account:
	• the stage of implementation of competitive systems and practices
	• the size of the enterprise
	• the work organisation, culture, regulatory environment and the industry sector
Codes of practice/standards	Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used
HSE	All changes implemented are expected to be at least neutral, or preferably beneficial, in their impact on HSE
Organisation	Organisation includes:
	• any part of a manufacturing or service organisation

	• companies, government bodies or other body of people aiming to produce a product to service a customer
Representative team	Representative team includes: • members from the value stream representing key parts of that chain and may, or may not, include members from outside the organisation
Infrastructure	Infrastructure includes: • policies and procedures • plant and equipment • materials, energy, utilities and other consumables • workforce arrangements, including employee numbers, organisation structure, competencies and competency mix
Future state model of practice	The model of practice will be an improved future state model which will: • help achieve the required organisation strategy and philosophy • give direction to improvements and actions • include forecasts of key indicators
Measures of progress	Measures of progress include: • those metrics and other indicators defined and agreed before the commencement of implementation which provide feedback on the progress towards the future state
Manager	Manager may include: • any person who may have either a permanent or an ad hoc role in facilitating the function of multiple teams in a workplace, departments or entire organisations

Unit Sector(s)

Unit sector   Competitive systems and practices

Custom Content Section

Not applicable.

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