



Australian Government

Department of Education, Employment and Workplace Relations

MSACMG806A Develop and refine systems for continuous improvement in manufacturing organisations

Release: 1

MSACMG806A Develop and refine systems for continuous improvement in manufacturing organisations

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the processes and skills needed to ensure that continuous improvement systems do not stultify and continue to improve along with other systems in a manufacturing organisation. This unit is about improving the process yield/unit of effort or cost, reducing process variation and increasing process reliability, upgrading, enhancing or refining process outputs, and includes developing a culture of reviewing and sustaining change ensuring improvements are maintained and built on.
------------------------	--

Application of the Unit

Application of the unit	This unit applies to managers and people with a similar sphere of influence and scope of authority and responsibility and who are familiar with competitive manufacturing, continuous improvement and locking in improvements. Where this is not the case the following units may be completed to supply the necessary skills: • MSACMS600A Develop a competitive manufacturing system • MSACMC613A Facilitate holistic culture improvement in a manufacturing enterprise. The equivalent team leader level unit is MSACMG700A Review continuous improvement processes. This unit may also be applied to service organisations applying competitive manufacturing principles.
--------------------------------	--

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	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

ELEMENT	PERFORMANCE CRITERIA
1. Establish parameters of current internal improvement systems	1.1. Describe organisation systems that impact on continuous improvement 1.2. Identify current relevant metrics and their values 1.3. Check that metrics are collected for all improvements 1.4. Determine yield of current improvement processes 1.5. Review results of improvements
2. Distinguish breakthrough improvement processes	2.1. Identify all improvements which have occurred over an agreed period of time 2.2. Distinguish between breakthrough improvements and continuous improvements 2.3. Determine the timing of breakthrough improvement processes 2.4. Analyse factors controlling the timing and selection of breakthrough improvements 2.5. Analyse continuous improvements to identify cases where breakthrough improvements were required 2.6. Validate findings with process/system owners and obtain required approvals 2.7. Improve timing/selection of breakthrough improvements 2.8. Improve other factors limiting the gains from breakthrough improvements
3. Develop continuous improvement practice	3.1. Check that levels of delegated authority and responsibility are appropriate for continuous improvement from the shop floor 3.2. Ensure all personnel have appropriate capabilities for continuous improvement processes 3.3. Ensure personnel and systems recognise potential breakthrough improvement projects 3.4. Ensure sufficient resources are available for the operation of continuous and breakthrough improvement processes 3.5. Check that relevant information flows from improvement changes to all required areas and stakeholders 3.6. Check data collection and metrics analysis capture changes which result from improvement actions 3.7. Check that improvement changes are standardised and sustained 3.8. Check review processes for routine continuous improvements 3.9. Remove or change factors limiting gains from

ELEMENT	PERFORMANCE CRITERIA
	improvements 3.10. Modify systems to ensure appropriate possible changes are referred to other improvement processes 3.11. Institutionalise breakthrough
4. Establish parameters of current external improvement systems	4.1. Review value chain systems that impact on improvement 4.2. Review procedures for deciding improvement methodologies 4.3. Identify current relevant metrics and their values as appropriate 4.4. Determine yield of current improvement processes 4.5. Review results of improvements
5. Explore opportunities for further development of value chain improvement processes	5.1. Review mechanisms for consultation with value chain members 5.2. Develop mechanisms for further improving joint problem solving 5.3. Develop mechanisms for increased sharing of organisational knowledge 5.4. Obtain support and necessary authorisations from process/system owners 5.5. Capture and standardise improvements 5.6. Improve factors limiting gains from continuous improvements
6. Review systems for compatibility with improvement strategy	6.1. Review all systems which impact or are impacted on improvements and the improvement system 6.2. Analyse relationships between improvement systems and other relevant systems 6.3. Analyse practices caused by and results from the systems 6.4. Negotiate changes to the systems to improve the outcomes from improvement systems 6.5. Obtain necessary approvals to implement changes 6.6. Monitor the implementation of the changes

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- decision making
- prioritisation
- communication at all levels
- negotiation
- situation analysis

Required knowledge

- competitive manufacturing principles
- organisational goals and processes
- approval processes within organisation
- cost/benefit analysis methods
- methods of determining the impact of a change
- communication methods
- customer perception of benefits
- organisation systems
- reward systems
- learning systems

Evidence Guide

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.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Demonstrates skills and knowledge required to: - critically review continuous improvement processes. In particular look for evidence of: - ongoing review of processes - improvements in the practice of continuous improvement - better alignment of internal and external systems.
Context of and specific resources for assessment	Assessment may occur on the job or in an appropriately simulated environment. Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices. Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability. Access must be provided to appropriate learning and/or assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.
Method of assessment	- Assessment must satisfy the endorsed assessment guidelines of the Manufacturing Training Package. - Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge. - Assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application. - Assessment may be applied under project related conditions (real or simulated) and require evidence of process. - Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the

EVIDENCE GUIDE	
	particular circumstance, but is able to be transferred to other circumstances. • Assessment may be in conjunction with assessment of other units of competency where required.
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

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.	
Codes of practice/standards	Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used
Health, safety and environment (HSE)	All changes implemented are expected to be at least neutral, or preferably beneficial, in their impact on health, safety and environment
Organisation systems	Organisation systems may include: • problem recognition and solving • process improvement • improvement projects • product/process development • processes for making incremental improvements
Relevant metrics	Relevant metrics include all those measures which might be used to determine the performance of the improvement system and may include: • hurdle rates for new investments • key performance indicators (KPIs) for existing processes • quality statistics • delivery timing and quantity statistics • process/equipment reliability ('up time') • incident reports
Improvement process yield	Improvement process yield may be regarded as: • the benefit achieved for the effort invested
Breakthrough improvements	Breakthrough improvements include: • those which result from a kaizen blitz or other improvement project or event and are a subset of all improvements

RANGE STATEMENT	
Timing of breakthrough improvements	Timing of breakthrough improvements includes: • frequency (which should be maximised) and duration (which should be minimised) of events/projects
Continuous improvement	Whereas breakthrough improvement/kaizen blitz occurs by way of an event or project, continuous improvement is part of normal work and does not require a special event to occur (although may still require authorisations)
Resources for improvement	Resources for improvements include: • improvement budget • guidelines for trialling of possible improvements • mechanism for approvals for possible improvements • business case guidelines for proposed improvements • indicators of success of proposed improvement • mechanisms for tracking and evaluation of changes • forum for the open discussion of the results of the implementation • mechanisms for the examination of the improvement for additional improvements • organisation systems to sustain beneficial changes
Capturing value chain improvements	Capturing value chain improvements includes: • revised contractual arrangements • revised specifications • signed agreements • other documented arrangements which formalise the raised base line
Systems impacting improvements	Systems which impact/are impacted on improvements and the improvement system include: • purchasing • rewards (individual or team at all levels) • sales

RANGE STATEMENT	
	• marketing • maintenance • process/product
Problems	Problems may include: • non-conformances and other opportunities for improvement
Develop	Develop includes: • establishing and improving
Knowledge forms	Knowledge may be quantified or otherwise modified to make its outcomes measurable or observable as appropriate to the knowledge and its application
Improvements	Improvements may: • be to process, plant, procedures or practice • include changes to ensure positive benefits are maintained
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	CM Graduate
--------------------	-------------

Competency field

Competency field	
-------------------------	--

Co-requisite units

Co-requisite units		