MSS408007A Develop problem solving capability of an organisation

Release: 1

INDUSTRY
SKILLS
COUNCILS
Creating Australia's Future

MSS408007A Develop problem solving capability of an organisation

Modification History

New unit, superseding MSACMG807A Develop problem solving capability of a manufacturing organisation - Not equivalent

Unit Descriptor

This unit of competency covers the skills and knowledge required to develop problem solving skills of individuals within an organisation and as a consequence the problem solving capability of the organisation as a whole. The unit does not supply the skills to undertake formal problem solving on individual problems.

Application of the Unit

This unit is intended for organisation leaders/managers and people with a similar sphere of influence and scope of authority and responsibility. It applies where problem solving is already routine in the organisation and improving individual and organisational problem solving capability has been accepted as part of the organisation's improvement processes. The unit applies to individuals who are already familiar with formal problem solving processes. Where this is not the case the following units may be completed to supply the necessary skills:

- *MSS402080A Undertake root cause analysis*
- *MSAPMSUP390A Use structured problem solving tools.*

For high level complex problem solving skills refer to *MSS407012A Lead a problem solving process to determine and solve root cause*.
This unit may also be applied to 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 an appropriate organisational framework	1.1	Determine or review available problem finding strategies in the organisation
		1.2	Analyse the current selection and application of problem solving tools and gauge effectiveness
		1.3	Determine preferred problem solving strategies for the organisation
		1.4	Determine or review the desired outcomes from use of selected problem solving strategies
		1.5	Review organisational structure to facilitate improvement in problem solving
		1.6	Develop a training strategy to improve problem solving ability
		1.7	Develop reporting framework and guidelines
		1.8	Develop corrective action identification and tracking systems
		1.9	Obtain support from relevant process/system owners for proposed changes
2	Improve problem solving ability	2.1	Implement training strategy
		2.2	Ensure problem solving occurs using groups or teams

		2.3	Provide resources to ensure problem solving occurs
		2.4	Confirm with teams and groups that training and resources deliver capability to solve complex problems
		2.5	Monitor problem solving to determine if improvement in developing problem solving solutions is achieved
		2.6	Provide resources to ensure solutions are implemented
		2.7	Ensure reporting and corrective action tracking occurs
3	Review problem solving effectiveness	3.1	Review corrective action tracking
		3.2	Determine benefit/cost from solutions
		3.3	Analyse interactions of multiple problems with each other and the organisation
		3.4	Review problem solving strategy
		3.5	Make improvements to problem solving strategy and approach

Manufacturing Skills Australia

Required Skills and Knowledge

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

Required skills

Required skills include:

- reviewing current operations and procedures to determine if problems are being identified as early as possible
- reviewing current operations and procedures to determine if problems are being defined appropriately
- identifying and quantifying desired outcome from improved problem solving capability, such as:
    - improved customer service and delivery
    - defect elimination
    - capacity improvement
    - cost reduction
    - safety improvement
    - improved complaint resolution
- establishing appropriate reporting arrangements for formal problem solving, including:
    - appropriate metrics (e.g. incident frequency and incident consequences)
    - trigger criteria for conducting problem solving activity
    - problem definition and quantification
    - cause and effect diagrams (or similar)
- solutions identified
- reviewing organisational structure, value stream and customer alignment in order to set performance indicators for organisation problem solving capability

Required knowledge

Required knowledge includes:

- competitive systems and practices principles
- competitive systems and practices at both a strategic and tools level, including:
    - 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 key performance indicators (KPIs)/metrics
- identification and elimination of waste (muda)
- six sigma and lean six sigma
- a range of problem solving methodologies, including:
  - cross-functional problem solving team
  - cross-functional nominal group (virtual team)
  - consulting and or brainstorming with members from outside the organisation on some basis
  - input from other members of the value stream
  - the use of known/proprietary problem solving approaches or some synthesis of methods
  - own or commissioned research either in whole or in part
- organisation strategy and vision, value stream and value as defined by the organisation's customers
- corrective action tracking methods

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:
	- analyse and improve problem finding capabilities of the organisation - improve the problem solving capability of the organisation - set KPIs for organisation problem solving - ongoing review of systems and processes relevant to problem solving - increasing problem solving capability through identification of appropriate strategies, including where required, identifying: - training needs in problem finding and solving - changes in organisational structure, decision making and processes - appropriate metrics - need for outside assistance.

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

Health, safety and environment (HSE)	All changes implemented are expected to be at least neutral, or preferably beneficial, in their impact on HSE
Organisational structure	A review of organisational structure may include: • operational and support functions and departments • links with value stream members • super-users and facilitators • roles and responsibilities with regard to problem solving • plans to broaden the users of problem solving approach • plans to improve the problem solving performance of personnel
Problem finding strategies	Problem finding strategies are the strategies used to identify: • problems before they become obvious or cause significant non-conformance or risk • situations not initially considered a problem but which may be hindering greater performance • strategies for finding opportunities for improvement
Complex problem	A complex problem may be described as one which has several of the following characteristics: • requires going into the extended value stream for data/information • is wider than just applying to a single job • applies to less common solutions or problems • requires a higher level of knowledge and skill (which may or may not be possessed directly by the person solving the problem), such as: • significant specialist knowledge • significant specialist skill • more theory/understanding of technology or process • data is not easily available and may need particular strategies to obtain, such as: • overcoming resistance from people, including employees, customers or suppliers • extracting data not regularly reported from SCADA or similar systems • the problem and/or proposed solutions require reporting or authorisations from a Board or external authorities, such as licensing or

	regulatory bodies
Effective solutions	Effective solutions will: • prevent recurrence • be within the control/ability of the organisation to implement • meet organisation goals and objectives
Required resources	Required resources may include: • plant • data processing equipment • measuring and diagnostic equipment • materials (e.g. raw materials, components, work in progress, other consumables, paper and forms in electronic or hard format) • energy (e.g. heating, cooling, fuel and power) • appropriately skilled people as employees and in the value stream • finances • feedback/visual operations resources • measuring equipment
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.