

Domain	PLUMBING	Unit ID: 500
Title:	Develop innovative ideas for the plumbing workplace	
Level: 3		Credits: 4

Purpose

This unit standard specifies the competencies required to generate and develop ideas for workplace improvement in the plumbing workplace. It involves interpreting or observing the need for improvement and developing a detailed idea. This requires the creative generation and discussion of a number of ideas or solutions and accepting positive and negative feedback. Ideas should be tested in order to establish and present a workable outcome that meets the needs of the end user.

This unit standard is intended for those who work as plumbers.

Special Notes

1. Entry information
 - Prerequisite
 - 434 - *Apply safety rules and regulations in plumbing operations* or demonstrated equivalent knowledge and skills.
2. This unit standard is to be assessed in the context of plumbing operations and should be assessed in conjunction with other relevant technical unit standards selected from this domain.
3. Assessment evidence may be collected from a real workplace, or simulated real workplace or an appropriate simulated realistic environment in which plumbing operations are carried out.
4. Glossary of terms
 - *'innovative'* means to generate new ideas or solutions or develop new uses for old ideas and making them useful or a means of improvement
 - *'specification'* refers to any or all of the following: manufacturers' specifications and recommendations, site and workplace specific requirements.
5. Regulations and legislation relevant to this unit standard include the following:
 - Labour Act No. 6, 1992
 - Occupational Health and Safety Regulations No.18, 1997 and all subsequent amendments.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority. All approved unit standards, qualifications and national assessment arrangements are available on the Namibia Training Authority website www.nta.com.na.

Elements and Performance Criteria

Element 1: Identify the need for innovation in the workplace

Range

Innovation may include generating new ideas or solutions or developing new uses for old ideas and making them useful or a means of improvement.

Assumptions can be about any convention in the workplace and might include work process, product, materials, system, tools and working conditions.

User requirements may refer to who will be using the end product, why the product or process is needed, how it will be used, advantages it will provide and where it will be used.

Performance Criteria

- 1.1 The need for innovation within the workplace context is observed.
- 1.2 Assumptions about products or processes are challenged to identify opportunities for innovation.
- 1.3 Possible future contexts and environments for the innovation are projected.
- 1.4 End user requirements are defined.
- 1.5 Resources and constraints are identified.
- 1.6 Factors and ethical considerations that may impact on the idea are researched.
- 1.7 Relevant organisational knowledge is accessed.

Element 2: Generate ideas

Range

Creative thinking techniques may include brainstorming, visualising, making associations, building on associations, telling stories, creative writing, lateral thinking games, mind mapping, drawings, six thinking hats and using prompts.

Stimulation from alternative sources may include reading books and industry journals, talking with colleagues and friends, visiting art galleries and museums, going to industry workshops and networks.

Performance Criteria

- 2.1 Ideas are conceptualised using a range of creative thinking techniques.
- 2.2 Relevant knowledge to explore a range of approaches is applied.
- 2.3 Stimulation from alternative sources is sought.
- 2.4 Ideas are tested against brief and other factors.
- 2.5 Preferred option is selected.

Element 3: Collaborate with others

Range

Relevant people might include colleagues, team members, supervisors, managers and clients.

Maintaining a network of peers may include participating in forums, participating in industry training, attending workshops and becoming a member of a network.

Performance criteria

- 3.1 Ideas are developed in conjunction with relevant people.
- 3.2 Feedback is sought and accepted from relevant people in an appropriate fashion.
- 3.3 Ideas are modified according to feedback.
- 3.4 A network of peers is maintained and utilised to discuss ideas.

Element 4: Analyse and reflect on ideas

Performance criteria

- 4.1 Ideas are analysed from different perspectives.
- 4.2 Appropriate strategies are used to capture reflections.
- 4.3 Ideas are examined to ensure they meet context requirements, best practice and future needs.
- 4.4 Time is allowed for the development and analysis of ideas.

Element 5: Represent ideas

Range

Communication techniques refer to presenting ideas and may include writing a proposal, building a model, showing a film, presenting a talk, preparing a report or drawing a diagram.

Educating the client may include helping the client visualise and understand the idea, actively listening, asking questions, accepting others' opinions, explaining the proposal and clarifying details.

Performance criteria

- 5.1 An appropriate communication technique is selected for the target audience.
- 5.2 The presentation of ideas is developed with the audience in mind.
- 5.3 Ideas are presented to educate/inform the client.
- 5.4 Ideas are modified according to client feedback.

Element 6: Review ideas

Range

Reviewing ideas might involve checking that the ideas can be implemented, that they meet the client/end user needs, best practices and financial requirements.

Evaluation methods might include developing checklists, discussing the process with colleagues or supervisors and writing a report of the outcomes.

Performance criteria

- 6.1 Ideas are reviewed using appropriate evaluation methods to ensure it meets required needs.
- 6.2 Ideas are modified as required.

Registration Data

Subfield:	General construction
Date first registered:	15 November 2007
Date this version registered:	15 November 2007
Anticipated review:	2010
Body responsible for review:	Namibia Training Authority