

BSBDES201A

Unit Descriptor

Follow a design process

This unit describes the performance outcomes, skills and knowledge required to follow a design process at a basic level.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Employability Skills

This unit contains employability skills.

Application of the Unit

This unit applies to any individual who follows a design process to respond to specific issues or challenges, including product and service requirements arising from particular business or community needs.

The unit acknowledges the need to encourage the development of skills, which are sometimes called 'design thinking' or 'design consciousness'. In essence, the unit is about purposeful problem solving - defining the challenge, coming up with ideas, working with others to develop ideas, reflecting on progress, presenting an idea so it can be implemented and, of course, evaluating whether an idea has met the original challenge.

Designers use the processes described in this unit but at a much more sophisticated and complex level. This unit is not about being a designer.

Unit Sector

No sector assigned

ELEMENT

PERFORMANCE CRITERIA

- | | |
|--|---|
| 1. Clarify the challenge | 1.1 Confirm the <i>nature and scope of the challenge</i> with <i>stakeholders</i>
1.2 Agree on specific objectives with <i>stakeholders</i>
1.3 Identify any <i>constraints</i> that may impact on the design process
1.4 Identify and source <i>relevant supporting information and assistance</i> |
| 2. Explore different ideas and solutions | 2.1 Generate a range of ideas to respond to the challenge
2.2 Explore <i>different options and ideas</i> for meeting objectives
2.3 Involve others in the process of developing ideas and solutions |
| 3. Select and present a solution | 3.1 Reflect on different ideas and feedback, and select a preferred solution
3.2 Summarise the key ideas in the solution and present to stakeholders in <i>appropriate format</i>
3.3 Obtain any required approvals to take the solution to the next stage |

- | | | | |
|----|------------------------|-----|--|
| 4. | Implement the solution | 4.1 | Schedule key tasks and organise <i>resources to support implementation</i> |
| | | 4.2 | Carry out <i>testing, prototyping or trialling</i> of the proposed solution |
| | | 4.3 | Maintain any required <i>documentation</i> |
| | | 4.4 | Identify problems and seek <i>advice and guidance</i> from others |
| 5. | Evaluate the solution | 5.1 | Check the success of the solution based on original objectives |
| | | 5.2 | Seek feedback from appropriate stakeholders |
| | | 5.3 | Review both the solution and the process undertaken to develop the solution as part of an ongoing learning process |

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required skills

- communication skills to liaise with others, to share ideas, and to present information and ideas clearly and concisely
- creative thinking skills to generate ideas in response to a defined problem or need in a familiar context
- literacy skills to analyse and interpret information dealing with concepts and ideas from own area of work
- problem-solving skills to identify problems and to work with others to develop solutions
- self-management skills to take responsibility for own work as part of an overall collaborative process.

Required knowledge

- context for the challenge, including any specific factors that impact on work
- creative thinking techniques that can be used to generate ideas in any context
- key features and steps in the design process as a way of thinking and solving problems
- legal framework that impacts on activities in a particular context
- potential sources of information for new ideas, relevant to the specific context.

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.

Nature and scope of the challenge could be very varied, and may relate to new or improved:

- applications of materials or equipment
- processes
- products or services
- systems
- uses of technology

- Stakeholders may include:
- client
 - end users
 - friends and family
 - supervisor or manager
 - work colleagues (working in the same or different areas)
- Constraints may relate to:
- availability of materials, equipment or tools
 - boundaries about what can and cannot be changed
 - legal restrictions
 - time and budget
- Relevant supporting information and assistance may include:
- drawings, specifications or other technical data
 - ideas from colleagues
 - industry associations or organisations
 - personal experience
 - policy and procedures manuals
 - print or electronic media (including internet)
 - reference manuals
 - technical experts
- Different options and ideas may be generated by:
- brainstorming:
 - stop and go
 - sequencing
 - buzz session
 - bulletin board
 - computer-aided
 - daydreaming and mental wandering
 - Edward de Bono's six thinking hats
 - ego alter or heroes
 - graphic organisers:
 - visual maps
 - webbing
 - concept fans
 - lateral thinking games
 - making associations
 - mind mapping
 - morphological analysis
 - storytelling
 - sub-culture surfing
 - trigger words
 - use of metaphors and analogies
 - vision circles
 - visualisation
 - wishful thinking
 - word salads

Appropriate format may be:

- checklists
- digital presentation
- drawings/sketches
- models
- plans
- verbal presentation

Resources to support implementation may include:

- equipment
- financial resources
- human resources
- information technology support
- materials
- tools

Testing, prototyping or trialling may involve:

- creating a physical model or sample
- testing the solution against different scenarios
- using a small group to test the solution

Documentation may include:

- diary showing progress of work
- progress reports
- records of communication (e.g. emails)
- working drawings

Advice and guidance may involve:

- facilitating access to networks or contacts
- facilitating access to resources
- providing technical expertise

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

Evidence of the following is essential:

- active participation in a project which uses the design process to develop solutions to a given challenge
- effective communication skills to be a member of a collaborative team
- knowledge of the design process, and how it can be used in developing solutions to different issues and challenges.

Context of and specific resources for assessment

Assessment must ensure:

- access to materials, tools and equipment required to implement solutions in the given work context
- interaction with others to reflect the collaborative nature of the design process.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate
- direct observation of the candidate participating in collaborative processes
- evaluation of documentation maintained by the candidate to support different ideas
- evaluation of a presentation made by the candidate outlining proposed solutions and processes used to develop those solutions
- oral or written questioning to assess knowledge of parameters and context for work in a given industry context.

Guidance information for assessment

The design process does not occur in isolation. Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- other technical or specialist units from particular areas of work.