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Designing assessment tools for quality outcomes in VET

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Purpose

Designing assessment tools for quality outcomes in VET has been produced to assist trainers and assessors to design assessment tools that support candidates to demonstrate their competency and enable assessors to make sound professional judgements.

This document has been designed to accompany other Department publications on assessment. Other products in this series include:

- *A guide to continuous improvement of assessment* (2008)
- *Troubleshooting guide: Assessment in VET* (2008)
- *Guidelines for assessing competence in VET (2008)*
- *Reasonable adjustment: A practical guide to reasonable adjustment in assessment of candidates with disability in VET* (2008)
- *Recognition of Prior Learning: An assessment resource for VET practitioners* (2008)

The information in this publication has not been referenced to specific AQTF 2007 Standards, but the information provided is based on current standards, and reflects good practice.

The information applies only to Training Package qualifications and the accredited courses with a vocational outcome.

All publications are available in hard copy and can be downloaded from vetinfonet.det.wa.edu.au.

Contents

Overview

Assessment tools, also called evidence-gathering tools, contain both the instrument and the instructions for gathering and interpreting evidence in an assessment process. They form part of the bank of resources used for effective and safe assessment practice in a sector where assessment is conducted within a quality assurance framework: the Australian Quality Training Framework (AQTF).

Like all professionals, assessors need to understand the capacity of the tools they use, and be able to adapt them to meet the particular requirements of the task at hand. Rather than simply clinging to familiar and habitual practices, they should continuously strive to upgrade their tools of trade.

This publication is designed to assist trainers and assessors to design practical assessment tools that inspire confidence in the quality of the evidence that is collected and the judgements that assessors make on the basis of that evidence.

What is an assessment tool?

Assessment tools are materials that enable you to collect evidence using your chosen assessment method.

Assessment tools are the instruments and procedures used to gather and interpret evidence of competence:

- The **instrument** is the activity or specific questions used to assess competence by the assessment method selected. An assessment instrument may be supported by a profile of acceptable performance and the decision-making rules or guidelines to be used by assessors
- **Procedures** are the information or instructions given to the candidate and the assessor about how the assessment is to be conducted and recorded.

The principles of assessment

When developing assessment tools, you need to ensure that the principles of assessment are met. This is not only good practice but also a requirement of the AQTF. The assessment principles require that assessment is valid, reliable, flexible and fair.

- **Validity** refers to the extent to which the interpretation and use of an assessment outcome can be supported by evidence. An assessment is valid if the assessment methods and materials reflect the elements, performance criteria and critical aspects of evidence in the evidence guide of the unit(s) of competency, and if the assessment outcome is fully supported by the evidence gathered.
- **Reliability** refers to the degree of consistency and accuracy of the assessment outcomes. That is, the extent to which the assessment will provide similar outcomes for candidates with equal competence at different times or places, regardless of the assessor conducting the assessment.
- **Flexibility** refers to the opportunity for a candidate to negotiate certain aspects of their assessment (for example, timing) with their assessor. All candidates should be fully informed (for example, through an Assessment Plan) of the purpose of assessment, the assessment criteria, methods and tools used, and the context and timing of the assessment.

- **Fair** assessment does not disadvantage particular candidates or groups of candidates. This may mean that assessment methods are adjusted for particular candidates (such as people with disabilities or cultural differences) to ensure that the method does not disadvantage them because of their situation. An assessment should not place unnecessary demands on candidates that may prevent a candidate from demonstrating competence (for example, an assessment should not demand a higher level of English language or literacy than that which is required to perform to the workplace standard outlined in the competencies being assessed).

The rules of evidence

Well-designed assessment tools will help to ensure that the evidence collected is:

- **Valid:** there is a clear relationship between the evidence requirements of the unit of competency and the evidence on which the assessment judgement is made
- **Sufficient:** the performance criteria and evidence guide are addressed; competency over a period of time is demonstrated; all dimensions of competency are addressed; competency in different contexts is demonstrated
- **Current:** the evidence demonstrates the candidate's current knowledge and skills
- **Authentic:** it can be verified that the evidence is the candidate's own work.

Assessment strategies and tools need to be developed in consultation with industry and should be tested on an appropriate sample of candidates.

Four steps to quality assessment tools

As with the design of all products, the quality of an assessment tool will depend heavily on the time and effort that goes into the research and development phases of its construction, and the ongoing testing and refining of prototypes.

There are four simple steps in the design process:

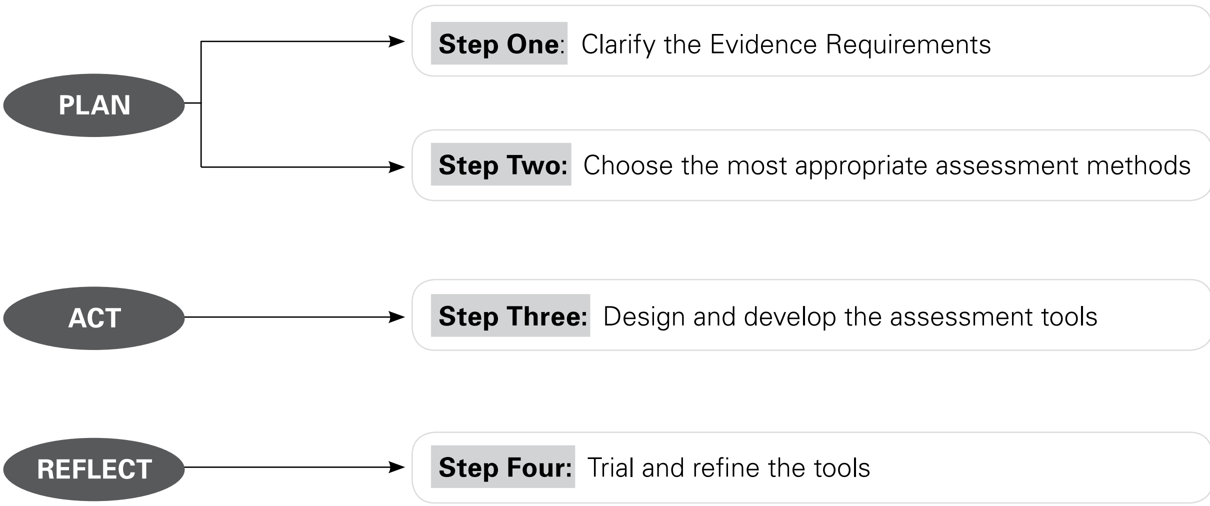
Step One – Familiarise yourself with the mandatory requirements of the assessment task/s.

Step Two – Use your understanding of the specified competencies to choose appropriate assessment method/s.

Step Three – Get down to business and devise the assessment tool/s.

Step Four – Trial and refine your tools, to help you maximise confidence that the tool/s can be used flexibly and assist you to make valid, reliable and fair judgements.

In summary, the following four-step process will assist you to design assessment tools that produce quality outcomes:



Step One: Clarify the evidence requirements

Picturing competence

Many learning guides for trainers and assessors recommend that you start by testing your own understanding of the requirements of a unit/units of competency by visualising a competent person at work.

When you are clear about the tasks that such a person will perform and manage, what contingencies might arise, and in what contexts they are likely to apply their skills, you are ready to design a training program and select an appropriate assessment methodology. Your picture may be recorded as a competency profile, written in accessible language that is familiar to a candidate and/or workplace. You will find examples of the ways in which competency profiles can be developed in *Guidelines for assessing competence in VET,* 2008, pages 34, 35.

Once your competency profile is developed, and the sum total of the activities that are undertaken by a person doing that job are examined, you will be in a better position to identify opportunities to cluster units of competency to reflect actual workplace practices.

Examining the benchmarks

To decide whether a person is competent you need a set of criteria or benchmarks against which to assess their competencies. In the VET sector, national competency standards, the smallest of which is a unit of competency, are the usual benchmarks against which a candidate is assessed. Other benchmarks might include assessment criteria or evidence requirements from accredited courses, and organisational benchmarks such as operating procedures, OHS standards and product specifications.

The following diagram broadly illustrates the relationship between:

- benchmarks
- evidence requirements
- assessment methods and tools; and the
- evidence produced.

Figure 1: From benchmark to evidence collection

Benchmarks determine evidence requirements →

Benchmarks	Evidence requirements	Assessment (evidence gathering) methods	Assessment (evidence gathering) tools	Evidence produced
Benchmarks are the standards against which a candidate is assessed.	This is the information which, when matched against the benchmarks show that a candidate is competent	These are the techniques used to gather different types of evidence.	These are instruments and instructions for gathering and interpreting evidence.	This is the information on which the assessment judgement is made
EXAMPLE Sell products to customers	EXAMPLE What is learner's product knowledge? Customer service/selling skills	EXAMPLE Real work observation Third party assessment	EXAMPLE Observation checklist Third party report Instructions for candidates and assessors	EXAMPLE Demonstration of product knowledge Demonstration of customer service and selling skills

← Evidence aligned to benchmark

Source: TAA04 Training and Assessment Training Package – Learner Guide TAASS403A – Develop assessment tools (2005).

Confirming the Evidence Requirements

Evidence is the information that, when considered against a unit of competency, enables you to confidently judge whether or not someone is competent. Unlike other forms of assessment, competency based assessment does not involve comparisons between candidates. Candidates are assessed against standards that are clearly defined and articulated.

In order to decide what evidence you need to collect, you need to be absolutely sure of the competency requirements by examining a number of sources of essential information including:

- the elements of the unit/units of competency, the performance criteria, required skills and knowledge, range statement, the evidence guide, and assessment guidelines
- the dimensions of competency – the task, task management, contingency management and job/role environment skills; An illustration of how a unit can be is analysed to show all four dimensions of competency can be found in *Guidelines for assessing competence in VET* (2008), pages 32-33
- the employability skills
- the language, literacy and numeracy skill levels
- the relevant AQF descriptor
- related workplace processes, procedures and systems that assist you to contextualise the activity you are required to assess. Be sure to include any legislative, OHS or legal requirements that may need to be considered when conducting assessment.

Identifying your candidates

The candidates that your assessment methods and tools need to cater for might be quite broadly based or may come from a clearly defined target group, such as an enterprise, an industry sector, occupants with a particular job profile, or a group defined by funding body requirements. Wherever possible, it is important that you identify your candidate group in order to design appropriate tools.

Summary

Being absolutely clear about the standards or criteria you are assessing against, the evidence requirements, and, where possible, the characteristics of your candidates, are essential requirements of the design process. The time you spend deciding what evidence is required will pay dividends when you design your learning program and your assessment plan and tools.

Having examined/revisited the available information sources, and having consulted with relevant industry or workplace personnel, you should be in a position to list the evidence requirements, using the following simple chart.

Step Two: Choose your assessment methods

When choosing your assessment methods for particular unit/s of competency, you need to use your unit of competency as your guide. With your profile of a competent worker in mind and knowing what knowledge and skills you require your candidates to demonstrate, you are now in a position to determine which methods you will use to gather that evidence in collaboration with students as well as colleagues/other assessors, and, where practical, industry/enterprise representatives.

How will you gather the evidence?

Selecting an appropriate assessment/evidence gathering method is part of the fun and challenge of professional teaching practice. It usually involves weighing up a range of assessment methods in order to decide upon 'best fit' techniques, which may include those in the following table.

Table 1: Assessment methods

Methods	Examples of methods
Direct observation	Real work/real time activities at the workplace Work activities in a simulated workplace
Structured assessment activities	Simulation exercises/role-plays, Projects Presentations Activity sheets
Questioning	Written questions Interviews Self-assessment Verbal questioning Questionnaires Oral or written examinations (may be applicable at higher AQF levels).
Evidence compiled by the candidate	Portfolios Collections of work samples Products with supporting documentation Historical evidence Journal/log books Information about life experience
Review of products	Products as a result of a project Work samples/products
Third party feedback	Testimonials/reports from employers/supervisors Evidence of training Authenticated prior achievements Interviews with employers, supervisors or peers

Considering the needs of your candidates

Your choice of assessment methods will be influenced by a number of factors, not least of which is meeting the needs of your candidates. Your selection of the methods needs to take into account their circumstances while maintaining the integrity of the unit of competency or cluster. For example, Indigenous candidates may prefer to demonstrate rather than talk about their knowledge. Candidates with a disability may require longer time to complete a task. Candidates returning to study or the workforce after a long period of unemployment may have lost confidence and find it difficult to perform in front of others.

This information is not always at hand at the planning stage and you will need to adapt your methodology and Assessment Plan to accommodate the needs of candidates as they become clearer to you. However, it is important to decide in advance how you determine candidate's needs and how you will use it to customise your assessment process.

Your choices will also be influenced by your determination of the literacy and numeracy skills and language proficiency of your candidates, and the skill levels that are required in the qualification. If you are in any doubt, you may need to draw on the expertise of specialist Language Literacy and Numeracy (LLN) professionals to make this judgement.

To the extent that it is practical, industry representatives/employers and candidates need to take an active part in the planning of your assessment process. Their involvement will be of practical value to you and may increase their ongoing commitment to and satisfaction with the quality of training and assessment that you offer.

Who will collect the evidence?

In selecting your assessment methods, you will also be making inherent judgements about who will collect the evidence. Training Package Assessment Guidelines may provide assistance with who can collect evidence. It is important, whether it is the candidate, the assessor or a third-party evidence gatherer, that the instrument and instructions of your assessment tools clarify what is expected, and provide a clear structure for them to follow.

Where will you gather the evidence?

Where you gather the evidence will be influenced by the requirements of the Training Package or course. Most will recommend the workplace as the preferred setting, where you will need to make sure that safety issues are considered, and disruptions to the workplace are minimised.

If workplace assessment is not feasible or appropriate, your alternative is to select settings and methods that enable the candidate to demonstrate their competence to the level of performance specified. Simulation is a form of evidence gathering that involves the candidate in completing or dealing with a task, activity or problem in an off-the-job situation that replicates the workplace context.

Simulations vary from recreating realistic workplace situations such as in the use of flight simulators, through the creation of role-plays based on workplace scenarios to the reconstruction of a business situation on a spreadsheet.

Before considering a simulation:

- check the requirements of the relevant Training Package and industry views on the use of simulation
- consider forming a partnership with local enterprises that may provide access to a workplace or equipment, authentic workplace documents or advice on how to create a realistic simulated environment
- review the whole qualification or units of competence to be assessed to build in opportunities for assessing whole work tasks or clusters of competencies.

When will you gather the evidence?

Remember, the timing of your evidence-gathering activities must take into account enterprise needs, and also the needs of your candidates. For example, it would be inappropriate to schedule assessment activities that involve bakers or their premises in the week prior to Easter. For candidates with religious requirements, it would be helpful not to schedule an assessment at prayer time. Or, where possible try to avoid times that clash with typical family responsibilities, such as taking children to school.

Other practical considerations

A number of practical considerations will also influence your choice of assessment methods.

Factors that will influence your capacity to manage the evidence gathering process that you select might include:

- the mix of students that you are working with
- the size of the student cohort
- the location of your students (on/off campus)
- your/their access to equipment and facilities
- costs and resource requirements
- stress placed on students and staff by your requirements.

Your obligations

Regardless of the type of evidence that you collect and examine, you are required to meet the requirements of the AQTF. Before you move to designing your assessment tools, take the time to consider whether the assessment methods you have selected enable you to meet the principles of assessment.

Will your assessment methods result in outcomes that are:

- Valid (assesses what it says it does)?
- Reliable (other assessors would make the same judgement if they reviewed the same evidence)?
- Flexible (the needs of the candidate are taken into account in terms of the methods, the time and the place)?
- Fair (the assessment allows all candidates to demonstrate their competence)?

Having selected your assessment methods, you are now in a position to design your assessment tools.

Step Three: Design and develop your assessment tools

Having clarified the evidence requirements and identified which assessment methods you will use, it is now time to design the assessment tools.

Assessment tools contain both the instrument and the instructions or procedures for gathering and interpreting evidence. They serve the evidence-gatherer's needs for objectivity and transparency and the candidate's need for clarity and structure.

Importantly, they should provide clear guidance and support for candidates so that there is no ambiguity about what is required of candidates or the basis on which assessors will make decisions. They can also, if well designed, be used for recording and reporting purposes.

Assessment tools generally make provision for the following practical requirements:

- candidate's name
- assessor(s) name
- date of assessment
- unit/cluster title
- assessment context
- procedure for assessment
- list of knowledge/skills to be assessed
- competence achieved/outcomes of the assessment
- candidate feedback
- candidate signature/date
- assessor signature/date
- instructions to candidate and assessor or other evidence gatherer
- resource requirements of the assessment.

The tools that you design must comply with the rules of evidence, ie the tool must facilitate the gathering of evidence that is:

- valid (covers all requirements of the unit of competency)
- sufficient (enables you to make a decision about competency over time and in different situations)
- current (competent performance is contemporary)
- authentic (is the candidate's own work).

Fit for purpose

Your assessment tool gives shape and form to your chosen assessment method. It must, therefore, be fit for purpose, which means you need to ask yourself which tool is needed to most effectively and efficiently support your chosen assessment method. Particular attention should be paid to the language, literacy and numeracy skill level of the candidates and the requirements of the units of competency when designing your tools.

It is a requirement of the AQTF that:

- assessment materials are consistent with the requirements of the Training Package and the RTO's training and assessment strategy
- candidates have timely access to current and accurate records of their participation and progress
- employers (and others), where relevant, are engaged in the development, delivery and monitoring of training and assessment.

Standardised tools are often a useful option, as they provide a cost-effective starting point from which assessors can develop their own tools. They are also useful for developing common understanding amongst groups of assessors. For new assessors, they are important confidence-building tools.

In the section that follows you will find simple suggestions about designing tools that will support candidates and foster consistency in your assessment processes. Don't forget how important it is to use the skills and expertise of others, especially when dealing with aspects outside your area of technical expertise, such as language, literacy and numeracy skills, or when seeking feedback on any tools that you have developed.

Instructions for candidates and assessors

Instructions for the candidate and the assessor are an integral part of all assessment tools. Your instructions should respond to questions regarding the 'what, when, where, how, and why' of assessment processes. You might include suggestions on reasonable adjustment to accommodate diversity and/or advice on your recording requirements for the assessor/observer. For specific advice on reasonable adjustment for candidates with disability, refer to the accompanying publication: *Reasonable adjustment – A practical guide to reasonable adjustment in assessment of candidates with disability in VET* (2008).

These instructions, which should be written in plain English, **can be included in the instrument, or in a separate document**. The templates that follow use both approaches. Most have been adapted from other freely available resources. It is hoped that drawing them together in this way will increase the ease with which they can be accessed. For further examples and templates see *Recognition of Prior Learning: An assessment resource for VET practitioners* (2008).

Tools for direct observation

Observation is an important method for competency-based assessment, which requires candidates to demonstrate not only what they know, but also what they can do. Observation is a method which enables you to observe directly what candidates can do. A number of tools can be developed to support this assessment method including:

- observation checklists
- questions to accompany checklists
- instructions to candidates and observers/assessors.

Observation checklists

An observation checklist is useful when observing performance in both real-work situations or in simulated environments where candidates are able to demonstrate:

- vocational skills
- employability skills
- application of workplace procedures, including OHS procedures.

An observation checklist enables the assessor or other evidence-gatherer to observe in a focussed way, to take structured notes that can be referred to when making the assessment decision, to provide informed feedback to candidates, and to enhance the objectivity of the assessment decision.

The complexity of your observation checklist will mirror the complexity of the task/tasks you are observing. In the case of clustered assessment, your checklist will need to assist you to handle the increased complexity of your task, or the sophistication of the skills you are assessing, particularly in the case of higher level qualifications. A simple list of ticks and crosses on a checklist without any other information isn't helpful and would generally be questioned by auditors.

You should also include clear instructions for the candidate and for the assessor either on the checklist or in a separate document:

- Candidates need to know exactly what is expected of them, and any materials that they are required to supply.
- Observers need to know exactly what they are looking for, what resources are needed, and any other issues that need to be taken into account. They also need to know how to use the observation checklist.

A completed simple observation checklist is provided by way of example and a template that can be adapted for a range of situations follows. In both cases, instructions for assessors and candidates would also need to be developed.

Figure 3: Observation checklist (example)

<table>
<tr><td>Candidate name:</td><td colspan="3">John Smith</td></tr>
<tr><td>Assessor name:</td><td colspan="3">David Jones</td></tr>
<tr><td>Units of competency:</td><td colspan="3">BSBCMN208A Deliver a service to customers</td></tr>
<tr><td>Name of workplace:</td><td colspan="3">ABC School</td></tr>
<tr><td>Date of assessment:</td><td colspan="3">3 March 2008</td></tr>
<tr><td>Procedure:</td><td colspan="3">Observation of candidate in their workplace dealing with a range of customers with queries, problems and complaints.</td></tr>
<tr><td colspan="2">During the demonstration of skills, did the candidate:</td><td>Yes/No</td><td>Comment</td></tr>
<tr><td colspan="2">Identify customer needs by
Prioritising urgency of customer’s needs
Offering a range of options
Asking open ended questions
Using active listening techniques
Acknowledging personal limitations and referring to another person</td><td></td><td></td></tr>
<tr><td colspan="2">Deliver service to customer by
Greeting the customer promptly and courteously
Smiling
Using appropriate body language
Maintaining eye contact with the customer
Acknowledging the complaint
Summarising the customer’s complaint
Resolving the customer’s complaint</td><td></td><td></td></tr>
<tr><td>The candidate’s performance was:</td><td>Not Satisfactory</td><td colspan="2">Satisfactory</td></tr>
<tr><td colspan="4">Feedback to candidate:</td></tr>
<tr><td>Candidate signature:</td><td colspan="3"></td></tr>
<tr><td>Assessor signature:</td><td colspan="3"></td></tr>
</table>

Adapted from Guide 1: Training Package Assessment Materials Kit, Appendix D, Page 17 © DETYA 2001

Tools for structured assessment activities

In cases where you are constructing a structured/simulated assessment activity to test competency you will need to develop a range of assessment tools, which could include:

- a scenario/outline of the situation
- scripts for people involved in the activity/simulation
- instructions for the candidate and the assessor
- an observation checklist.

The scenario

The scenario can be a simple card outlining the scenario to the candidate, any other participants, and the assessor. The scenario has been developed to assess how effectively a worker can promote flexible work-practices to an employer, as required in the Unit CHCCDP5011A: *Liaise with employers to provide flexible work practices*.

Figure 7: Scenario description (example)

The scenario **Descriptor for the career development practitioner (the candidate)**
A young woman whose career development you have been supporting over the last three months has advised that she intends to tender her resignation because she is unable to work the 9 – 5 hours that are established by company policy. She loves her work and does not wish to leave the company, but she can no longer work her 37.5 hours within those times. You have set up a meeting with the HR Director, to recommend the adoption of more flexible work place practices. You are required to persuade the director of the advantages of such a change. You have only recently joined the company yourself and the career development role is a new role.

Scripts for people involved in the scenario/role-play

You will need to provide scripts for any participants who help to create the situation. The script below has been developed for a key actor in your structured activity designed to assess how effectively a worker can promote flexible work-practices to an employer, as required in the Unit CHCCDP5011A: *Liaise with employers to provide flexible work practices*.

Figure 8: Script for scenario participant (example)

Script for the HR Director
You advocated for the appointment of a career development practitioner to the company, against the wishes of some of your fellow executive team members. The company has a long tradition of working between the hours of 9-5 and you believe there is little appetite for change. You have agreed to meet with the career development practitioner to discuss flexible working hours, but have given the matter little consideration. You have seen little evidence to date of the need for change, but are willing to listen carefully and if the arguments are compelling to take the matter forward for consideration by the Executive.

Instructions for the candidate

In addition to the information that should be provided to candidates facing any assessment task, candidates should be advised about what is being assessed through the dramatisation. If you plan to use any recording instruments, such as videos or tape recorders, your instructions should include this information, so that candidates are prepared for this so that they can be as relaxed as possible during the assessment.

A work place simulation

The following Guidelines for workplace simulation may help the assessor decide if this is an appropriate assessment method. This is followed by an example, which includes the instructions/procedures for an assessor and the assessment instrument, for an activity that simulates a hazardous situation.

Figure 9: Guidelines for workplace simulation

Before making a decision to use simulation, consider:

- Training Package requirements and industry views on the use of simulation
- the benefits and limitations of using a simulation
- learner characteristics and needs
- available workplace opportunities
- the cost of establishing and using simulated environments
- how the simulated assessment can be combined with other forms of evidence gathering such as logbooks, portfolios or work placements
- Does simulation meet the principles of assessment in this unit or cluster?

Preparing the assessment event

- if you are assessing within a VET training institution, consider forming a partnership with local enterprises that may provide access to a workplace or equipment, authentic workplace documents or advice on how to create a realistic simulated environment
- review the whole qualification or units of competence to be assessed to build in opportunities for assessing whole work tasks or clusters of competencies. Where appropriate include opportunities to assess relevant generic competencies such as teamwork, communication, occupational health and safety and leadership
- include contingencies as part of the assessment design. For example, candidates might be required to deal with the pressures of telephones, time constraints and interruptions to workflow
- focus the assessment activity on processes as much as the end product
- apply operational procedures and occupational health and safety requirements as they would be in a real work setting
- validate methods, context and concepts with industry/workplace representatives to ensure the accuracy of the assessment approach
- prepare an observation checklist that clearly outlines the critical aspects.

Preparing the physical location

- consult with workplace/industry experts on what should be included
- check real workplaces to get ideas about current practice and ways of setting up work spaces and equipment
- where practical, alter the training environment so that it reflects a real workplace
- use equipment and other facilities that are as close to those used by industry as possible.

Preparing the candidate(s)

- give candidates a pre-assessment briefing outlining the assessment method, process and tools
- discuss the criteria against which their performance is to be assessed
- give candidates adequate information about the role they are to undertake and the significance of the event.

Conducting the assessment

- where practical, involve industry experts in the assessment process and the decision making
- where appropriate, video the performance of the candidate
- use a checklist of critical aspects to focus on the observation of candidate performance
- use self-assessment, peer assessment and debriefing activities to add to the evidence gathered and help candidates develop reflective skills.

Adapted from Guide 10: Quality Assurance Guide for Assessment, Appendix N, Pages 7 – 8 © DETYA 2001.Hard copy: Guide 10, Pages 88 89

Figure 10: Assessor instructions for hazardous spill response simulation (example)

Hazardous spill response simulation

Unit of competency

This activity is based on the following elements from the Unit of Competency PRMWM11B Respond to waste emergency from the Certificate III in Waste Management

- PRMWM11B.1 Identify nature of emergency
- PRMWM11B.2 Respond to emergency
- PRMWM11B.3 Review emergency response
- PRMWM11B.4 Assist with clean-up
- PRMWM11B.5 Document and report emergency

Scenario

Working in a team situation, candidates are to demonstrate safe procedures for cleaning up a small hazardous spill.

Instructions to the assessor

Location: This exercise is to be carried out in a contained area designated for the simulation and with all safety equipment and facilities provided. This includes a shower designed for washing contaminants into a sealed drainage point.

Resources required:

1 – Spill response kit
1 – Containment device such as booms
1 – 20 litre drum about half full of water (contents labelled as a detergent)
1 – 200 litre drum (unmarked, for clean up waste container)
1 – Drain cover
1 – Absorbent material
1 – 'Hazardous waste' label
1 – MSDS for the particular detergent
1 – Marker pen
2 – Sets of appropriate personal protection equipment (PPE) (face shield, rubber boots, gloves, apron).

Procedure to follow:

1. Explain the purpose of the simulation and remind candidates of the assessment criteria.
2. Outline the scenario to the candidates.
3. Instruct the ‘clean up crew’ to put on the appropriate PPE.
4. When ready, spill the ‘detergent’ by tipping the drum on its side and removing the small screw-on lid.
5. Start with the first two steps of the procedure: ‘What to do ... ’ and ‘Initial action ... ’
6. Use the checklist for ‘Correct procedure’.

Figure 11: Checklist for simulation: hazardous spill response (example)

Candidate name:		
Assessor name:		
Elements/unit(s) of competency:	PRMWM11B Respond to waste emergency	
Name of workplace:		
Date of assessment:		
During the simulations, did the candidate:		**Yes/No**
• determine the source and stop the flow of the liquid as soon as possible?		
• check safety precautions on the relevant Material Safety Data Sheet (MSDS) for next steps?		
• contain the spill effectively and safely?		
• cover drains that could be contaminated?		
• use the correct booms to contain spill?		
• wear appropriate personal protection equipment (PPE) at all times?		
• cover the spill with absorbent and allow sufficient time to soak up the contaminant?		
• place contaminated absorbent in a fit for purpose drum or plastic bag?		
• mop area and tip liquid into the drum or bag with contaminated absorbent?		
• dispose of waste using the established procedure?		
• complete an Environmental Incident Investigation Report?		
• work effectively in a team situation with other staff?		
The candidate’s performance was:	Not Satisfactory	Satisfactory
Feedback to candidate:		
Candidate’s signature:		
Assessor’s signature:		

Adapted from Guide 1: Training Package Assessment Materials Kit, Chapter 5, Page 51 © DETYA 2001

Work-related project briefs

When assessing work-related projects such as designing a product, writing a workplace document, solving a problem, conducting a presentation, developing a proposal for management, you may find it useful to design a project brief or instruction sheet. Projects can be designed for individuals or for groups to complete.

Your project brief or instruction sheet should outline the following:

- the purpose of the project – which elements of competency should be demonstrated through the project
- resources the candidate might use
- any particular performance expectations
- who will observe the performance or assess the product
- instructions for the candidate, including the timeframe and any other pertinent information.

Figure 12: Project brief (template)

<table>
<tr><td>Candidate’s Name</td><td colspan="2"></td></tr>
<tr><td>Assessor’s Name</td><td colspan="2"></td></tr>
<tr><td>Unit/s of Competency (code and title)</td><td colspan="2"></td></tr>
<tr><td>Purpose of the Project</td><td colspan="2"></td></tr>
<tr><td>Location</td><td colspan="2"></td></tr>
<tr><td>Completion/Presentation Date</td><td colspan="2"></td></tr>
<tr><td>What you are required to prepare or do or make.</td><td colspan="2"></td></tr>
<tr><td>What you need to demonstrate</td><td colspan="2"></td></tr>
<tr><td colspan="3">Feedback to candidate:</td></tr>
<tr><td>Candidate’s Signature</td><td>Assessor’s Signature</td><td>Workplace Supervisor’s Signature</td></tr>
</table>

Tools for questioning

Asking questions is a widely used teaching, learning and assessment technique. Tools that you might develop to support this methodology include:

- verbal questioning
- written questions
- interviews
- self-assessment questionnaires
- questionnaires
- oral or written examinations (may be applicable at higher AQF levels).

Verbal questioning

Verbal questioning is a common assessment technique, which is used in a number of situations. It does not involve a large investment of time, and responses to oral questions provide useful evidence of:

- a candidate's vocational/technical knowledge
- their understanding of workplace procedures, legislation and safety requirements.

Questioning allows you to probe to obtain clarification, confirmation or supplementation when needed. For example, responses to "what would you do if…" questions are effective ways of determining whether a candidate is able to deal effectively with contingencies (an important dimension of competency) and to anticipate and pre-empt problems that may arise out of the work process.

Oral questioning may also be a reasonable way to accommodate a candidate's need for consideration of their language and literacy skill levels. Remember that the assessment should not demand higher literacy, language or communication skills than those required for the job itself.

Table 2: General guidelines for effective questioning

General guidelines for effective questioning
Keep questions short and focused on one key concept
Ensure that questions are structured
Test the questions to check that they are not ambiguous
Use `open-ended questions such as `what if...?' and `why...?' questions, rather than closed questions
Keep questions clear and straight forward and ask one at a time
Use words that the candidate is able to understand
Look at the candidate when asking questions
Check to ensure that the candidate fully understands the questions
Ask the candidate to clarify or re-phrase their answer if the assessor does not understand the initial response
Confirm the candidate's response by repeating the answer back in his/her own words
Encourage a conversational approach with the candidate when appropriate, to put him or her at ease
Use questions or statements as prompts for keeping focused on the purpose of the questions and the kind of evidence being collected
Use language at a suitable level for the candidate
Listen carefully to the answers for opportunities to find unexpected evidence
Follow up responses with further questions, if useful, to draw out more evidence or to make links between knowledge areas
Compile a list of acceptable responses to ensure reliability of assessments

Adapted from Guide 1: Training Package Assessment Materials Kit, Chapter 5, Pages 27-29
© DETYA 2001.Hard copy: Guide 1, Pages 71-73

Recording responses

When using oral questioning, you may need a tool that has exemplar responses and also enables you to record a candidate's responses. If the candidate's response is insufficient the assessor should record why on the recording sheet or checklist. This provides information that can be used later, if necessary, to explain to the candidate where he or she needs to develop their skills and/or knowledge to achieve the required competence.

Figure 13: Recording sheet for oral questioning (template)

Candidate's Name		
Assessor or Observer's Name		
Unit of Competency (code and title)		
Date of Assessment		
Location		
Task/Procedure		
Questions to be Answered by candidate	Response/Answer*	Satisfactory (Yes/No)
What would you do if		
What would you do if		
What would you do if		
How do you		
What are		
Why did you………..(clarification)		
Follow up Questions		
The candidate's knowledge was:	Satisfactory	Unsatisfactory
Feedback to candidate:		
Candidate signature:	Assessor/Observer's Signature:	

*Note: Satisfactory or exemplar responses can be recorded separately.

Written questions

Most educators and candidates themselves are very familiar with written questions in assessment situations, particularly where factual knowledge rather than its application is being tested. Written questions can be framed so that candidates are required to:

1) choose the correct answer, given multiple choices or true/false options, or to match information with another set of given information
2) construct the answer themselves, as in short-answer responses or longer reports or essays.

These two styles are sometimes used in combination to capture the benefits or minimise the risks associated with each. Clearly, the former is more time-friendly for the candidate and the person marking the responses, but the questions can be difficult to construct. Questions that require a response from the candidate are clearly easier to construct, but take a longer time to complete and to assess.

For both categories it is useful to develop a response sheet of correct answers. In the case of longer reports or essays, particularly where the candidate is asked to analyse or evaluate a situation/information, you will need to determine the criteria that will determine the sufficiency of the response. This will assist you to provide appropriate instructions for the candidate.

Self assessment tools

Many self-assessment tools use written questions to elicit responses from the candidate and a number of assessment tools can be adapted for this purpose. The following is one example.

Figure 14: Self-assessment tool (example)

<table>
<tr><th colspan="2">SELF-ASSESSMENT GUIDE</th></tr>
<tr><td colspan="2">Unit: CPCCPA3001A Prepare subgrade, base and bedding course for paving</td></tr>
<tr><td colspan="2">Instructions
• Read each of the questions in the left hand column of the chart.
• Place a tick in the box if you believe that you can perform the tasks described.
• Complete the column on the right hand side by listing any evidence you have to show that you perform these tasks.</td></tr>
<tr><td>Can I?</td><td>Evidence</td></tr>
<tr><td>Prepare subgrade for laying segmental pavers
Criteria
☐ Subgrade is excavated to meet site conditions
☐ Soils types have been identified
☐ Services and other subterranean features have been identified and measures taken to accommodate them.</td><td></td></tr>
<tr><td>Prepare base course
Criteria
☐ Appropriate base course has been identified
☐ Base course is installed a compacted</td><td></td></tr>
<tr><td>Level bedding course
Criteria
☐ Correct bedding material is used
☐ Bedding is compacted correctly using hand compactor
☐ Bedding course is screeded allowing for water runoff</td><td></td></tr>
<tr><td>Candidate’s name:</td><td>Date:</td></tr>
</table>

From Guide 1: Training Package Assessment Materials Kit, App .D Page 11, © DETYA 2001. Hard copy Guide 1, Page 179.

Knowledge based tests

The following table may help you with the process of developing questions for knowledge-based tests.

Table 3: Designing knowledge based tests

Stage	Questions to ask yourself
Before you start writing or selecting questions	Have you identified the purpose of the test? Have you identified the required knowledge in the relevant unit(s) of competency? Have you addressed the Employability Skills facets relevant to the competencies? Have you decided on the most appropriate types of questions for the purpose of the test? Does the level of difficulty of the test match the AQF alignment?
As you develop your questions	Are the questions clearly worded, concise and grammatically correct? Have you used language and terminology appropriate for the characteristics of the candidate? Have you checked that the questions are not beyond the scope of the unit(s) or competency or their AQF alignment? Have you used a variety of question formats? Have you included enough questions to cover the underpinning knowledge adequately? Have you estimated the marking time for the test? Are your questions biased? e.g. do these questions include language/terminology that will be unfamiliar or insulting to certain groups? Have you checked for possible inclusion of stereotypes in your questions? Have you assessed the level of difficulty of the test questions? Have you allocated sufficient time to do the test? Have you piloted these question types? Have you planned the resources necessary to administer the test? If your test is computer-based, will all the candidates have access to computers and suitable software when the test is being administered?

Stage	Questions to ask yourself
Test structure	Have you estimated the duration of the test accurately for the group of candidates? If you are testing required knowledge of a number of units of competency, have you weighted them appropriately? Are there clear instructions for the candidate?
Test layout	Have you used an appropriate font for the questions, which is easy to read? Is there appropriate space between questions to ensure that they are easy to read? Have you checked that the questions do not run over to the next page? Have you included sufficient space for written answers? Have you considered a separate answer booklet?
Checking results	Have you compiled a guide indicating what are acceptable answers to the test questions and any weighting of the questions for the whole test?

Adapted from Designing Tests, © WA Department of Training/VETASSESS, 2000

Tools for evidence compiled by the candidate

In some cases candidates, including those seeking recognition of their prior learning, might compile supplementary evidence, such as portfolios, collections of work samples, products with supporting documentation, historical evidence, journal/log books or information about life experiences. With each of these assessment methods, the instructions for candidates, and the criteria for evaluation are critical.

There have been examples of poor practice. Candidates, especially those seeking RPL, have been unsupported in their efforts to provide evidence, and consequently have either given up or collected voluminous evidence that failed to meet the rules of evidence.

If these methods are used, it is particularly important that the tools that accompany them provide crystal clear instructions to both assessors and candidates.

Guidelines for using journals and diaries

Students are sometimes encouraged to use reflective techniques, such as maintaining a diary or a journal. Work journals can also be used to record events and provide evidence of tasks, activities or achievements accomplished by the candidate. Many people are unfamiliar with using a journal other than for their own personal use and need clear guidance on how it can be used as evidence of what they know, understand or can do.

In preparing guidelines for candidates, you should specify what element of competency will be assessed, what should be included in the journal; whether its primary purpose is as a recording mechanism, or as reflective tool that encourages self-assessment; what form entries can take (for example, whether or not pictures and illustrations are acceptable) and how often entries should be made. It should also make clear to the candidate how this information will contribute to formal assessment of the unit/units of competency.

Tools to support the development and assessment of portfolios

A portfolio is a collection of materials prepared by a candidate to demonstrate their knowledge, skills and understanding. It has often been used as a tool for candidates seeking RPL. New streamlined approaches to RPL encourage assessment methods that reduce the previous reliance on paper-based evidence and provide opportunity for candidates to gather evidence of their competency in a range of ways that better match the requirements of the unit/units.

Increasingly, methods that are being used to gather evidence for RPL mirror assessment methods that are used in a training program. These include self-assessment, interview processes and/or direct observation either on the job in the workplace, or in a simulated environment.

If you elect to use portfolios, as part of the evidence on which you base your assessment judgement, your guidelines for candidates need to leave no doubt as to the intended purpose and expected composition of the portfolio. Portfolios can be time-consuming to compile and to assess, so if you elect to use this methodology, you need to exercise care in developing precise guidelines.
Questions of interest are likely to be:

- What is a portfolio?
- What should it include?
- What place does reflection have in the portfolio?
- What sections should it contain?

- What supporting evidence should be included?
- Who will have access to the portfolio, (ie its public use)?
- What part will it play in the formal assessment of my competence?

The following template can be adapted for tools for the assessment of journals/diaries or other such artefacts compiled by the candidate as supporting evidence of their competence.

Figure 15: Evaluation of evidence compiled by the candidate (template)

Evaluation of evidence compiled by the candidate			
Name of candidate			
Unit/s			
Workplace			
Name of assessor			
Requirements of the unit of competency The contents provided satisfactory evidence of the candidate's ability to:			**Yes/No**
Following analysis of the evidence, the following issues require clarification during interview:			
Additional evidence is required in the following area:			
Signed by the assessor:		**Date:**	

Adapted from Guide 1: Training Package Assessment Materials Kit, Page 194 © DETYA 2001

Tools for reviewing products

Products that are the output of participation in a project, or work samples or products may form part of the assessment evidence. Tools that can be developed for this method might include the product specification and a simple checklist for assessing the product.

Tools for third party feedback

Assessment involves 1) gathering evidence and 2) making professional judgements about competency on the basis of that evidence. Third party evidence is evidence gathered from workplace supervisors, peers and others to support an assessment decision. An assessor cannot always observe a candidate over a period of time and some competencies are difficult to assess by observation alone. Therefore gathering third party evidence can be an essential part of the assessment process.

Guidelines for use of third party evidence

Assessors and RTOs should put in place guidelines for the systematic collection of quality third party evidence. These may be in the form of information, advice and checklists for the relevant third parties.

Figure 16: Guidelines for use of third party evidence

Third party evidence is evidence gathered from workplace supervisors, peers and others to support an assessment decision. An assessor cannot always observe a candidate over a period of time and some competencies are difficult to assess by observation alone. Therefore gathering third party evidence can be an essential part of the assessment process.

Application

Assessors and RTOs should put in place guidelines for the systematic collection of quality third party evidence. These may be in the form of information, advice and checklists for the relevant third parties. This should assist organisations to comply with the *AQTF 2007 Essential Standards for Registration*.

Benefits

It is important to support the collection of quality third party evidence as it offers assessors a cost-effective means of gathering authentic and valid evidence in often difficult contexts. Third party reports can be used effectively in the evidence gathering process when:

- the evidence is provided by someone who is in a position to make a valid comment on the candidate's performance, for example, a line manager or direct supervisor
- the evidence is presented in written/official form, includes the name and contact details of the third party and can be easily verified
- it is difficult to gather evidence directly, for example, if a candidate is located in a remote area or is in a confidential job role
- the authenticity and currency of evidence provided by a candidate, for example, is confirmed as the candidate's own work.

Considerations

There are several things to consider when preparing guidelines for gathering third party evidence:

- a decision needs to be made about the appropriate balance between third party evidence and evidence drawn from other sources
- guidelines require a validation process prior to dissemination, and this may involve industry experts
- RTOs and individual assessors should implement version control and archive procedures.
- Qualifications and experience of the third party evidence gatherer.

Adapted from Guide 10: Quality Assurance Guide for Assessment, Part 4, Pages 32-33 © DETYA 2001

Figure 17: Third party evidence form (template)

Confidential Information
Name of Candidate:
RTO:
Unit(s) of competency:

As part of the assessment for the units of competency, we are seeking evidence to support a judgement about the candidate's competence. As part of the evidence of competence we are seeking reports from the supervisor and other people who work closely with the candidate.

Name of supervisor:
Workplace:
Address:
Phone:

Do you understand which evidence/tasks the candidate has provided/performed that you are required to comment on?	Yes	☐	No	☐
Has the assessor explained the purpose of the candidate's assessment?	Yes	☐	No	☐
Are you aware that the candidate will see a copy of this form?	Yes	☐	No	☐
Are you willing to be contacted should further verification of this statement be required?	Yes	☐	No	☐

What is your relationship to the candidate?	
How long have you worked with the person being assessed?	
How closely do you work with the candidate in the area being assessed?	
What is your technical experience and/or qualification(s) in the area being assessed? (Include any assessment or training qualifications.)	

Does the candidate:	perform job tasks to industry standards?	Yes	☐	No	☐
	manage job tasks effectively?	Yes	☐	No	☐
	implement safe working practices?	Yes	☐	No	☐
	solve problems on-the-job?	Yes	☐	No	☐
	work well with others?	Yes	☐	No	☐
	adapt to new tasks?	Yes	☐	No	☐
	cope with unusual or non-routine situations?	Yes	☐	No	☐

Overall, do you believe the candidate performs to the standard required by the units of competency on a consistent basis?	
Identify any further training needs for the candidate:	

Any other comments:

……

……

……

……

……………………………………..………

Supervisor signature: …………………………………….. Date: ……………………

From Guide 10: Training Package Assessment Materials Kit, Appendix H Page 6 – 7 © DETYA 2001

Step Four: Trial, refine and review your tools

To ensure that your assessment resources are consistent with the requirements of the Training Package and that they maintain their currency, sufficiency and effectiveness, it is important that your tools are reviewed by fellow assessors and trialled prior to use.

Inviting feedback from your peers, candidates, and industry will hopefully confirm that the tools enable effective collection of evidence, and that the level of difficulty is appropriate to the qualification level. Differences of opinions provide an opportunity to discuss and resolve any ambiguities or misunderstandings before the tools are used with candidates.

Trialling your tools before they are used formally with candidates will enable you to gauge the user-friendliness of the format, the appropriateness of the literacy and numeracy levels, the clarity of the instructions and the practicality of the format for recording assessment evidence and judgements. It will also enable you to evaluate the suitability of the times allowed for assessment tasks, and the tool's overall cost-effectiveness (ANTA, 2002).

During the trial, you should also assess the tool's degree of adaptability. This will be determined by its capacity to be adjusted in accordance with variations in context and the needs of candidates, while still ensuring valid and reliable assessment decisions.

Validation of assessment tools can be done in a number of ways, ranging from sharing with fellow assessors, through to industry-wide validation by a panel of assessors. Working with others often sheds fresh light that leads to improvements. Figure 16 provides a checklist that you might find useful when working with colleagues to review assessment tools.

Figure 18: Assessment tool review checklist (template)

<table>
<tr><td>Unit code/s</td><td colspan="3"></td></tr>
<tr><td>Unit title/s</td><td colspan="3"></td></tr>
<tr><td>Assessment activity</td><td>Yes/No</td><td colspan="2">Comment</td></tr>
<tr><td>Assessment tool instructions and assessment conditions are clearly identified.</td><td>Y/N</td><td colspan="2"></td></tr>
<tr><td>Written information is worded appropriately.</td><td>Y/N</td><td colspan="2"></td></tr>
<tr><td>The assessment activity addresses the evidence requirements for the competency or competencies being assessed.</td><td>Y/N</td><td colspan="2"></td></tr>
<tr><td>The level of difficulty of language, literacy and numeracy is appropriate to the level of the unit of competency being assessed.</td><td></td><td colspan="2"></td></tr>
<tr><td>The level of difficulty of the activity is appropriate to the competency or competencies being assessed.</td><td>Y/N</td><td colspan="2"></td></tr>
<tr><td colspan="2">Exemplars, benchmarks and/or assessment checklists are available for use in making assessment decision.</td><td>Yes</td><td>No</td></tr>
<tr><td colspan="2">Modification required (as identified under Comment):</td><td>Yes</td><td>No</td></tr>
<tr><td colspan="2">Assessment task is ready for use:</td><td>Yes</td><td>No</td></tr>
<tr><td>Reviewer’s Name</td><td colspan="3">Reviewer’s Signature

Date:</td></tr>
</table>

Adapted from a template provided in the Catholic Education Office, Diocese of Wollongong *Assessment Validation Kit for Schools*, 2003

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