Designing assessment tools for quality outcomes in VET

4th Edition 2013

Government of **Western Australia**
Department of **Training**
and Workforce Development

First published 2008
2nd edition 2010
3rd edition 2012
4th edition 2013

DISCLAIMER as at March 2014: A number of changes are underway within the National Training Framework, including a transition to the new Standards for Training Packages to be implemented by the end of 2015. See http://www.nssc.natese.gov.au/training_packages.

As the transition to the new standards will vary according to each Industry Skills Council's timeline, these publications will continue to address the content of the previous Training Package model. It is anticipated that content related to the new standards will be incorporated into the publications as they become more widely adopted.

While every effort is made to maintain their accuracy, currency and usefulness, the publications are edited only once a year and may not remain current with changes implemented at state and federal level. The publications are accurate as at the date of publication shown on this page. If in doubt, please check the many websites referenced within each publication.

TITLE: Designing assessment tools for quality outcomes in VET (4th edn) 2013

ISBN 978-1-74205-693-7

For further information please contact:

Training Sector Services
1 Prospect Place West Perth WA 6005
Telephone: +61 8 9319 5512
Facsimile: +61 8 9229 5486
Email: pd.sector.capability@dtwd.wa.gov.au
Website: www.vetinfonet.dtwd.wa.gov.au

Designing assessment tools for quality outcomes in VET

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) or the VET Quality Framework.

Like all professionals, lecturers 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 lecturers to design practical assessment tools that inspire confidence in the quality of the evidence that is collected and the judgements that lecturers make on the basis of that evidence.

What is an assessment tool?

An assessment tool is made up of the following components:

- the context and conditions for the assessment;
- the tasks to be administered to the student;
- an outline of the evidence to be gathered from the student;
- the evidence criteria used to judge the quality of performance, for instance, the decision-making rules; and
- the administration, recording and reporting requirements.

The tasks to be administered to the student, the outline of the evidence to be gathered from the student and the evidence criteria used to judge the quality of performance are often referred to as the **assessment instrument**.

The principles of assessment

When developing assessment tools, lecturers need to ensure that the principles of assessment are met. This is not only good practice but also a requirement of the regulatory standards. The principles of assessment 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 students with equal competence at different times or places, regardless of the lecturer conducting the assessment.

- **Flexibility** refers to the opportunity for students to negotiate certain aspects of their assessment (for example, timing) with their lecturer. All students should be fully informed (for example, through an assessment plan) of the purpose of assessment, the assessment criteria, the methods and tools used, and the context and timing of the assessment.
- **Fair assessment** does not advantage or disadvantage particular students or groups of students. This may mean that assessment methods are adjusted for particular students (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 students that may prevent them from demonstrating competence (for example, an assessment should not demand a higher level of English language or literacy than that 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; competence over a period of time is demonstrated; all dimensions of competency are addressed; competence in different contexts is demonstrated;
- **current** – the evidence demonstrates the student's current knowledge and skills; and
- **authentic** – it can be verified that the evidence is the student's own work.

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

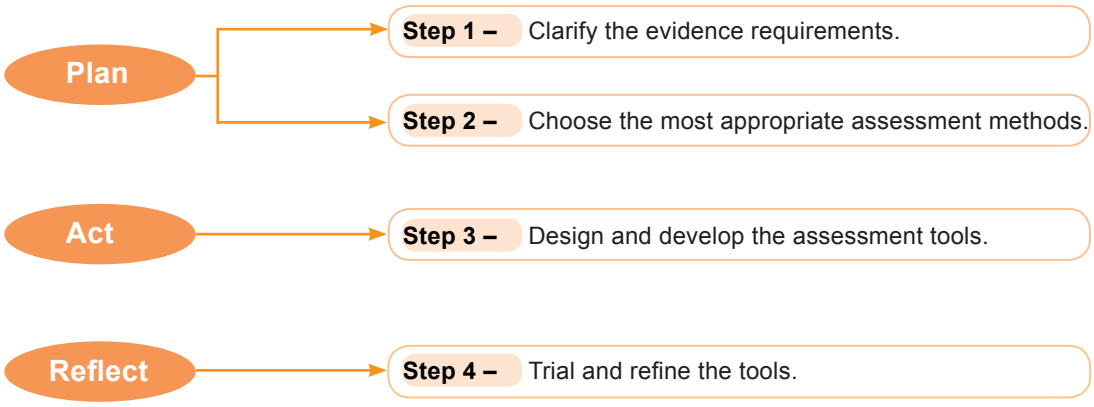
Four steps to quality assessment tools

As with the design of all products, the quality of an assessment tool will depend heavily on the time and effort that go 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 1 – Familiarising yourself with the mandatory requirements of the assessment task(s);
- Step 2 – Using your understanding of the specified competencies to choose appropriate assessment method/s;
- Step 3 – Getting down to business and devising the assessment tool(s); and
- Step 4 – Trialling and refining your tools to help you maximise confidence that the tool(s) can be used flexibly and help you to make valid, reliable and fair judgements.

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



Step 1 – Clarify the evidence requirements

Picturing competence

Many learning guides for trainers and lecturers recommend that you start by testing your own understanding of the requirements of the 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, the contingencies that 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 student and/or workplace. You will find examples of the ways in which competency profiles can be developed in the Department's 2013 publication *Guidelines for assessing competence in VET*.

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

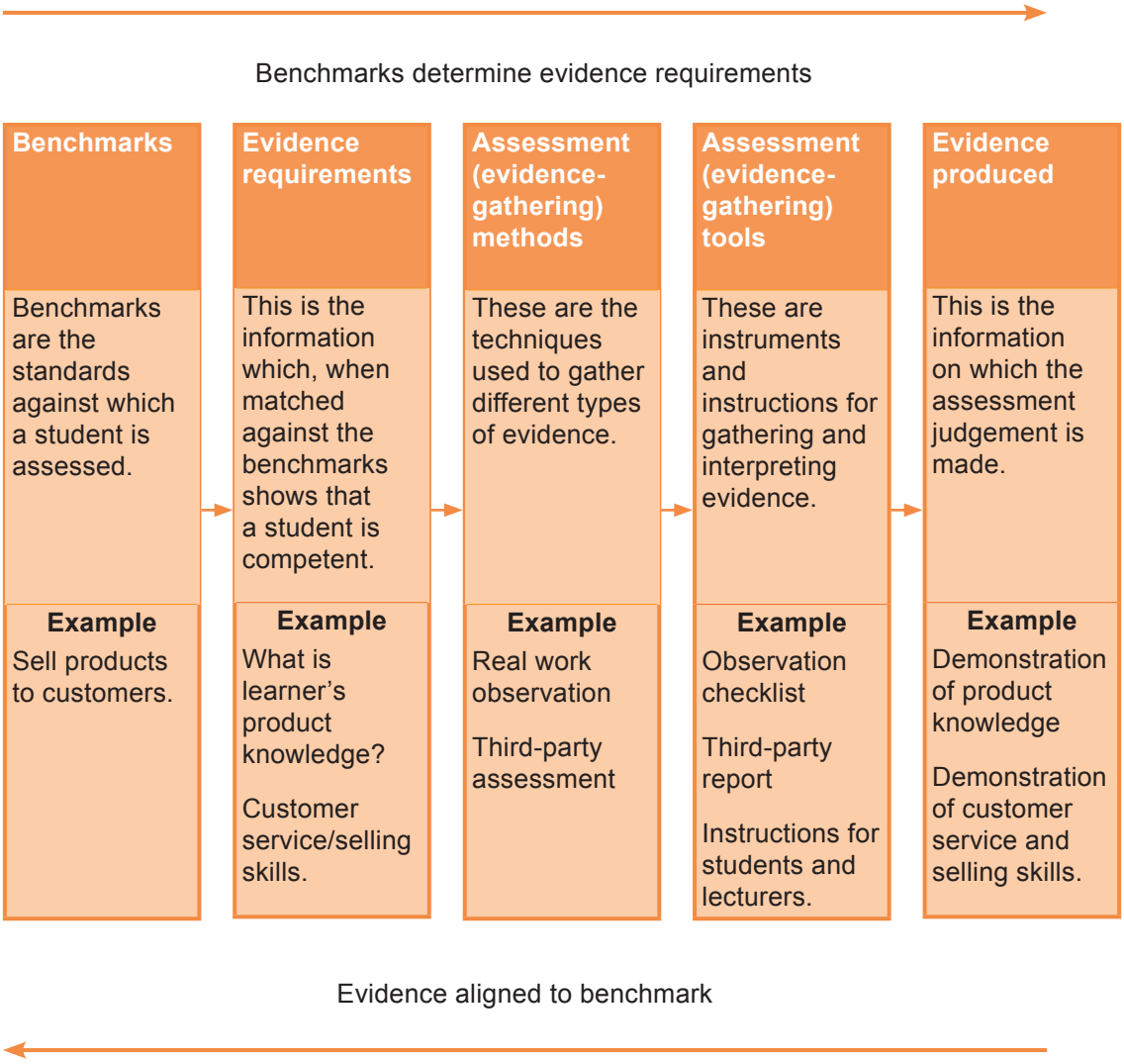
Examining the benchmarks

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 student is assessed. Other benchmarks might include assessment criteria or evidence requirements from accredited courses, the requirements of international or Australian standards and organisational benchmarks such as operating procedures, WHS 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



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 students. Students are assessed against standards that are clearly defined and articulated.

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

- the elements of the unit(s) of competency, the performance criteria, required skills and knowledge, the 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 analysed to show all four dimensions of competency can be found in the Department's 2013 publication *Guidelines for assessing competence in VET*;
- the employability skills;
- the language, literacy and numeracy skill levels;
- the relevant Australian Qualifications Framework (AQF) descriptor; and
- related workplace processes, procedures and systems that help you to contextualise the activity you are required to assess. Be sure to include any legislative, WHS or legal requirements that may need to be considered when conducting assessment.

Identifying your students

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

Summary

Being absolutely clear about the standards or criteria against which you are assessing, the evidence requirements, and, where possible, the characteristics of your students, 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.

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

Figure 2 – Evidence requirements (checklist)

Unit of competency	
Evidence needed	**As specified in/by:**

Step 2 – Choose your assessment methods

When choosing the assessment methods you are going to use for particular unit(s) of competency, you need to refer to the specific unit(s) of competency and use them as a guide. With your profile of a competent worker in mind and knowing what knowledge and skills you require your students 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 lecturers and 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 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-evaluation Verbal questioning Questionnaires Oral or written examinations (may be applicable at higher AQF levels)
Evidence compiled by the student	Portfolios Collections of work samples Products with supporting documentation Historical evidence Journals/logbooks 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 your students' needs

The choice of assessment method will be influenced by a number of factors, not least of which is meeting your students' needs. Your selection of methods needs to take into account their circumstances while maintaining the integrity of the unit(s) of competency or cluster. For example, Indigenous students may prefer to demonstrate rather than talk about

what they know. Students with a disability may need a bit more time to complete a task. Students 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. Whatever adjustments you make to the assessment method, you must ensure that evidence collected still addresses all the requirements of the unit(s) of competency.

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

The choices you make will also be influenced by your determination of the literacy and numeracy skills and language proficiency of your students, and the skill levels 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 students need to take an active part in the planning of the 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 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 you with some help as to who can collect evidence. It is important—whether it is the student, the lecturer or a third-party evidence gatherer—that the instrument and instructions of your assessment tools clarify what is expected and that they provide a clear structure for the evidence gatherers 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 minimised.

If workplace assessment is not feasible or appropriate, your alternative is to select settings and methods that enable students to demonstrate their competence to the level of performance specified. Simulation is a form of evidence gathering that involves students 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 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; and
- review the whole qualification or units of competency to be assessed to build in opportunities for assessing whole work tasks or clusters of competencies.

When will you gather the evidence?

The timing of your evidence-gathering activities must take into account enterprise needs, as well as your students' needs. For example, it would be inappropriate to schedule assessment activities that involve bakers or their premises in the week before Easter. For students with religious obligations, it would be helpful not to schedule an assessment at prayer time. 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 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; and
- stress placed on students and staff by your requirements.

Your obligations

Regardless of the type of evidence you collect and examine, you are required to meet the requirements of the regulatory standards. Before you design your assessment tools, take time to consider whether the assessment methods you have selected meet the principles of assessment.

Your assessment methods must be:

- valid (assess what they say they do);
- reliable (other lecturers would make the same judgement with the same evidence);
- flexible (students' needs are taken into account in terms of the methods, the time and the place); and
- fair (allow all students to demonstrate their competence).

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

Step 3 – Design and develop your assessment tools

Now that you have clarified the evidence requirements and identified which assessment methods you will use, it is 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 student's need for clarity and structure.

Assessment tools should provide clear guidance and support for students so that there is no ambiguity about what is required of them or the basis on which lecturers 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:

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

The tools that you design must comply with the rules of evidence, for instance, 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 competence over time and in different situations);
- current (competent performance is contemporaneous); and
- authentic (is the student'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. You should pay particular attention to the language, literacy and numeracy skill level of the students and the requirements of the units of competency when you design your tool.

It is a requirement of the regulatory standards that:

- assessment materials are consistent with the requirements of the training package and the RTO's training and assessment strategy;
- students have timely access to current and accurate records of their participation and progress; and
- 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 you can develop your own tools. They are also useful for developing common understanding amongst groups of lecturers. For new lecturers, they are important confidence-building tools.

In the following section you will find simple suggestions about designing tools that will support students and foster consistency in your assessment processes. Do not 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 students and lecturers

Instructions for the student and the lecturer are an integral part of all assessment tools.

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 lecturer/observer. For specific advice on reasonable adjustment for students with disability, refer to the Department's forthcoming publication *Reasonable adjustment: A guide to working with students with a disability*.

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 the Department's 2013 publication *Recognition of prior learning: An assessment resource for VET practitioners*.

Tools for direct observation

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

- observation checklists;
- questions to accompany checklists; and
- instructions to students and lecturers/observers.

Observation checklists

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

- vocational skills;
- employability skills; and
- application of workplace procedures, including WHS procedures.

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

The complexity of your observation checklist will mirror the complexity of the task(s) you are observing. In the case of clustered assessment, your checklist will need to help you to handle the increased complexity of the 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 is not helpful and would generally be questioned by auditors.

You should also include clear instructions for the student and for the lecturer either on the checklist or in a separate document.

- Students need to know exactly what is expected of them and what materials 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 lecturers and students also need to be developed.

Figure 3 – Observation checklist (example)

Student's name	John Smith		
Lecturer's name	David Jones		
Unit of competency	Deliver a service to customers		
Name of workplace	ABC School		
Date of assessment	3 March 2011		
Procedure	Observation of student in his/her workplace dealing with a range of customers with queries, problems and complaints.		
During the demonstration of skills, did the student do the following?		**Yes/No**	**Comment**
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.			
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.			
The student's performance was:	not yet satisfactory		satisfactory
Feedback to student			
Student's signature			
Lecturer's signature			

Figure 4 – Observation checklist (template)

Student's name		**Student ID**	
Lecturer's name		**Mobile no**	
Course		**Home no**	
Unit of competency (code and title)			
Assessment date			
Location			
Demonstration tasks			
Materials and equipment			
Tasks to be observed		**Yes/No**	**Comment**
The student's performance was:	not yet satisfactory	satisfactory	
Feedback to student			
Student's signature		**Date**	
Lecturer's signature		**Date**	

Performance questions to accompany checklists

Observation checklists may be supported by a list of performance questions, which are derived from the evidence guides in the unit(s) of competency. These questions include dimensions of competency, such as contingency management skills (for example – What would you do if … ?), job/role environment skills (for example – What are the procedures and policies for … ?) and task management skills (for example – What are your functions and how do you manage them when you … ?).

Figure 5 – Questions to support an observation checklist (Correctional Services)

Student's name	Meredith Truscott	**Student ID**	
Lecturer's name	Mervyn Smoker	**Mobile no**	
Course	Correctional Service Training Package	**Home no**	
Units of competency	• Communicate effectively • Prepare reports • Maintain security • Contribute to workplace safety • Conduct interviews • Supervise offenders • Respond to medical emergencies		
Name of workplace	Sandy Bay Facility		
Assessment date	March 20XX		

Questions to be answered by the student		**Satisfactory response**	
		Yes ✓	**No ×**
Q1	What would you do if you lost contact with other officers during a critical search situation? (contingency management skills)		
Response: Immediately radio to other search team officers and supervisor informing them of my location, current situation and requesting assistance.		✓	
Q2	What are the procedures and policies for responding to a medical emergency with an offender? (job/role environment skills)		
Response: Check the offender's vital signs, assess the nature of the medical condition, attempt resuscitation if necessary then call for assistance.		×	
Q3	What are your functions and how do you manage them when you assist with interviews and also have to report on the outcomes? (task management skills)		
Response: My primary functions are recording interview responses, cooperating with and assisting the interviewing officer with details about the interviewee as required. I simultaneously draft interview outcomes for reporting to supervisors for further action.		✓	

The student's knowledge was:	not yet satisfactory	satisfactory

Feedback to student
Task skills are satisfactory and student is able to identify how to manage most unusual circumstances that may arise. However, the student has insufficient knowledge of the correct procedures for responding to a medical emergency with an offender and this could jeopardise her safety and wellbeing.

Student's signature		**Date**	
Lecturer's signature		**Date**	

Figure 6 – Questions to support an observation (template)

Student's name		**Student ID**	
Lecturer's name		**Mobile no**	
Course		**Home no**	
Units of competency			
Name of workplace			
Assessment date			

Questions to be answered by the student		**Satisfactory response**	
		Yes ✓	**No ×**
Q1			
Response:			
Q2			
Response:			
Q3			
Response:			

The student's knowledge was:	not yet satisfactory	satisfactory
Feedback to student		

Student's signature		**Date**	
Lecturer's signature		**Date**	

Tools for structured assessment activities

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

- a scenario/outline of the situation;
- instructions for people involved in the activity/simulation;
- instructions for the student and the lecturer; and
- an observation checklist.

The scenario

The scenario can be a simple card which outlines the scenario to the student, any other participants and the lecturer. The following scenario/role-play has been developed to assess how effectively a worker can promote flexible work practices to an employer, as required in a unit of competency such as Liaise with employers to provide flexible work arrangements.

Figure 7 – Scenario description (example)

The scenario – Descriptor for the career development practitioner (the student)

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 to 5 hours 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 workplace 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.

Instructions for those involved in the scenario/role-play

You will need to provide instructions to participants in the scenario/role-play. The instructions below have been developed for the key actor in your structured activity.

Figure 8 – Instructions for scenario participant (example)

Instructions 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 to 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 students

Students should also be told what is going to be assessed during the scenario/role-play, along with any other necessary information. If you plan to use a video camera or make an audio recording, you should let students know so that they come prepared.

A workplace simulation

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

Figure 9 – Guidelines for workplace simulation

Before you decide to use workplace simulation, consider the following:

- the training package requirements and industry views on the use of simulation;
- the benefits and limitations of using a simulation;
- students' 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; and
- whether simulation meets the principles of assessment in the 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 competency 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, students might be required to deal with the pressures of telephones, time constraints and interruptions to workflow.
- Focus 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 as possible to those used by industry.

Preparing students

- Give students a pre-assessment briefing where you outline the assessment method, process and tools.
- Discuss the criteria against which their performance is to be assessed.
- Give students 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 student's performance.
- Use a checklist of critical aspects to focus on the observation of the student's performance.
- Use self-evaluation, peer assessment and debriefing activities to add to the evidence gathered and help students to develop reflective skills.

Figure 10 – Lecturer's 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 Respond to waste emergency from the Certificate III in Waste Management:

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

Scenario

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

Instructions to the lecturer

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: for example, face shield, rubber boots, gloves, apron).

Procedure

1. Explain the purpose of the simulation and remind students of the assessment criteria.
2. Outline the scenario to the students.
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. Starting with the first two steps of the procedure – 'What to do ... ' and 'Initial action ... ', use the checklist below for the correct procedure.

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

Student's name			
Lecturer's name			
Elements/unit(s) of competency	Respond to waste emergency		
Name of workplace			
Date of assessment			
During the simulation, did the student:			**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 the 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 material and allow sufficient time to soak up the contaminant?			
• place contaminated absorbent material in a fit-for-purpose drum or plastic bag?			
• mop area and tip liquid into the drum or bag with contaminated absorbent material?			
• dispose of waste using the established procedure?			
• complete an environmental incident investigation report?			
• work effectively in a team situation with other staff?			
The student's performance was:	not yet satisfactory	satisfactory	
Feedback to student			
Student's signature			
Lecturer's signature			

Work-related project briefs

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

Your project brief or instruction sheet should outline the following:

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

Figure 12 – Project brief (template)

Student's name		
Lecturer's name		
Unit(s) of competency (code and title)		
Purpose of the project		
Location		
Completion/presentation date		
What you are required to prepare, do or make		
What you need to demonstrate		
Feedback to student		
Student's signature	**Lecturer's signature**	**Workplace supervisor's signature**

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-evaluation tools;
- knowledge-based tests;
- questionnaires; and
- oral or written examinations (may be applicable at higher AQF levels).

Verbal questioning

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

- students' vocational/technical knowledge; and
- their understanding of workplace procedures, legislation and safety requirements.

Verbal 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 student 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.

Verbal questioning may also be a reasonable way to accommodate a student's need for consideration of his/her language and literacy skill levels. Assessment should not demand higher literacy, language or communication skills than those required for the job itself.

Table 2 – 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 ... ?’ rather than closed questions.
Keep questions clear and straightforward, and ask one question at a time.
Use words that the student is able to understand.
Look at the student when asking questions.
Check to ensure that the student fully understands the question.
Ask the student to clarify or rephrase his/her answer if you do not understand the initial response.
Confirm the student’s response by repeating the answer back in his/her own words.
Encourage a conversational approach with the student when appropriate, to put him/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 a level of language that is suitable for the student.
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.

Recording responses

When using verbal questioning, it is useful to have a tool that has exemplar responses and also enables you to record a student’s answers. If the student’s response is insufficient, you should record why on the recording sheet or checklist. This provides information that can be used later, if necessary, to explain to the student where he/she needs to develop his/her skills and/or knowledge to achieve the required competence.

Figure 13 – Recording sheet for verbal questioning (template)

Student's name			
Lecturer/observer's name			
Unit of competency (code and title)			
Date of assessment			
Location			
Task/procedure			
Questions to be answered by student	**Response***		**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 student's knowledge was:	not yet satisfactory	satisfactory	
Feedback to student			
Student's signature			
Lecturer's/observer's signature			

*Note: Exemplar responses can be recorded separately.

Written questions

Most educators and students are 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 students are required to:

- choose the correct answer (given multiple choices or true/false options) or to match information with another set of given information; and
- construct answers 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 students and the people marking the responses, but the questions can be difficult to construct. Questions that require a response from students 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 students are asked to analyse or evaluate a situation or some information, you will need to determine the criteria that will determine the sufficiency of the response. This will help you to provide students with appropriate instructions.

Self-evaluation tools

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

Figure 14 – Self-evaluation guide (example)

Self-evaluation guide			
Unit: Prepare subgrade, base and bedding course for segmental paving			
Instructions • Read each of the questions in the left-hand column. • 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.			
Can I do the following?	**Evidence**		
Prepare subgrade for laying segmental pavers **Criteria** ☐ Excavate subgrade to meet site conditions. ☐ Identify soil types. ☐ Identify services and other subterranean features and take measures to accommodate them.			
Prepare base course **Criteria** ☐ Identify appropriate base course. ☐ Install and compact base course.			
Level bedding course **Criteria** ☐ Use correct bedding material. ☐ Compact bedding correctly using hand compactor. ☐ Screed bedding course allowing for water run-off.			
Student's name		**Date**	

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 foundation skills 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 outcome descriptors for the level?
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 student? Have you checked that the questions are not beyond the scope of the unit(s) of competency or their AQF outcome descriptors? Have you used a variety of question formats? Have you included enough questions to adequately cover the underpinning knowledge? Have you estimated the marking time for the test? Are your questions biased? (For example, do your questions include language/terminology that will be unfamiliar or offensive 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 types of questions? Have you planned the resources necessary to administer the test?

Stage	Questions to ask yourself
	If your test is computer-based, will all students have access to computers and suitable software when the test is being administered?
Test structure	Have you estimated the duration of the test accurately for the group of students? Are there clear instructions for the student?
Test layout	Have you used an appropriate, easy-to-read font for the written questions? 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 creating a separate answer booklet?
Checking results	Have you compiled a guide containing acceptable answers to the test questions?

Tools for evidence compiled by the students

In some cases students, including those seeking recognition of prior learning (RPL), might compile supplementary evidence such as portfolios, collections of work samples, products with supporting documentation, historical evidence, journals/logbooks or information about life experiences. When any of these assessment methods are used, students need to be given explicit instructions and detailed criteria for evaluation.

There have been examples of poor practice in the past. Students, especially those seeking RPL, have not been properly supported in their efforts to provide evidence, and as a result, have either given up or collected huge amounts of evidence that have failed to meet the rules of evidence.

If these methods are used, it is particularly important that the tools that accompany them provide clear, unambiguous instructions for both lecturers and students.

Guidelines for using journals and diaries

Students are sometimes encouraged to use reflective techniques, such as keeping a diary or a journal. Work journals can also be used to record events and provide evidence of tasks, activities or achievements students have accomplished. You may find that students are unfamiliar with how to keep a journal other than for their own personal use. They will need clear guidance on how journals/diaries can be used as evidence of what they know, understand or can do.

In preparing guidelines for students, you should specify the following:

- the element of competency being assessed;
- the kinds of entries students are to put in their journals (for example: Is it a recording mechanism or is it a reflective tool to encourage self-evaluation?);
- the form entries can take (for example: Are pictures and illustrations acceptable?); and
- how often entries should be made.

It should also make clear to students how this information will contribute to formal assessment of the unit(s) of competency.

Tools to support the development and assessment of portfolios

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

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

If you choose to use portfolios as part of the evidence on which you base your assessment judgement, your guidelines for students need to be absolutely clear as to the intended purpose and expected composition of the portfolio. Portfolios can be time-consuming to compile and to assess, so if you decide 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, for instance, is it for public use?
- What part will it play in the formal assessment of my competence?

The following template can be adapted for the assessment of journals/diaries or other items compiled by students as supporting evidence of their competence.

Figure 15 – Evaluation of evidence compiled by the student (template)

Name of student			
Unit(s)			
Workplace			
Name of lecturer			
Requirements of the unit of competency The contents provided satisfactory evidence of the student'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:			
Lecturer's signature		**Date**	

Tools for reviewing products

Products that are the output of participation in a project, or work samples or products created by the student 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. When using projects and work samples, you need to pay particular attention to establishing what the student's role in the project or product was; that is, establishing the authenticity of the evidence.

Tools for third-party feedback

Assessment involves gathering evidence and making professional judgements about competence on the basis of that evidence. Third-party evidence is evidence gathered from workplace supervisors, peers and others to support an assessment decision. A lecturer cannot always observe a student 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

Lecturers 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. A lecturer cannot always observe a student 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

Lecturers and RTOs should put guidelines in place 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.

Benefits

It is important to support the collection of quality third-party evidence as it offers lecturers 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 student'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 student is located in a remote area or is in a confidential job role; and
- the authenticity and currency of evidence provided by a student, for example, are confirmed as the student'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 before dissemination, and this may involve industry experts;
- RTOs and individual lecturers should implement version control and archive procedures; and
- the qualifications and experience of the third-party evidence gatherer.

The third party is not making a decision about the student's competence. As the lecturer, you have that responsibility when you consider the body of evidence collected for a unit of competency.

Figure 17 – Third-party evidence form (template)

Student's name	**Confidential**
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 student's competence. As part of the evidence of competence, we are seeking reports from the supervisor and other people who work closely with the student.

Supervisor's name	
Workplace	
Address	
Phone	

Do you understand which evidence/tasks the student has provided/performed you are required to comment on? Yes ☐ No ☐

Has the lecturer explained the purpose of the student's assessment? Yes ☐ No ☐

Are you aware that the student 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 student?	
How long have you worked with the student?	
How closely do you work with the student in the area being assessed?	
What is your technical experience and/or qualification in the area being assessed? (Include any assessment or training qualifications.)	

Does the student:

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 that the student performs to the standard required by the units of competency on a consistent basis?	
Identify any further training needs for the student.	
Any other comments:	

Supervisor's signature		**Date**	

Step 4 – 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 lecturers and trialled before you use them.

Inviting feedback from your peers, students and industry will 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 students.

Trialling your tools before they are used formally with students 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.

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 students' needs, while still ensuring valid and reliable assessment decisions.

Reviewing of assessment tools can be done in a number of ways, ranging from sharing with fellow lecturers, through to industry-wide validation by a panel of lecturers. Working with others often sheds fresh light that leads to improvements. Figure 18 provides a checklist that you might find useful when working with colleagues to review assessment tools.

Figure 18 – Assessment tool review checklist (template)

Unit code(s)			
Unit title(s)			
Assessment activity	**Yes/No**	**Comment**	
Assessment tool instructions and assessment conditions are clearly identified.			
Written information is worded appropriately.			
The assessment activity addresses the evidence requirements for the competency or competencies being assessed.			
The level of difficulty of language, literacy and numeracy is appropriate for the level of the unit of competency being assessed.			
The level of difficulty of the activity is appropriate for the competency or competencies being assessed.			
Exemplars, benchmarks and/or assessment checklists are available for use in making assessment decision.		Yes	No
Modification required (as identified under **Comment**):		Yes	No
Assessment task is ready for use:		Yes	No
Reviewer's name		**Reviewer's signature**	
		Date	

Useful links and resources

Useful links

Australian Qualifications Framework (AQF)

www.aqf.edu.au

See the section entitled 'Recognition of Prior Learning: National Principles and Operational Guidelines for Recognition of Prior Learning (RPL)' in the fourth edition of the *AQF Implementation Handbook* at http://www.aqf.edu.au/Portals/0/Documents/Handbook/AQF_Handbook_07.pdf

Australian Quality Training Framework (AQTF)

www.nssc.natese.gov.au/vet_standards contains information and publications, including the following:

AQTF Essential Conditions and Standards for Continuing Registration

AQTF Essential Conditions and Standards for Initial Registration

AQTF Users' Guide to the Essential Conditions and Standards for Continuing Registration

AQTF Users' Guide to the Essential Conditions and Standards for Initial Registration

Employability Skills: From Framework to Practice – An Introductory Guide for Trainers and Assessors

Australian Skills Quality Authority (ASQA)

www.asqa.gov.au

The national regulator for Australia's vocational education and training sector, this government authority regulates courses and training providers to ensure that nationally approved quality standards are met.

Western Australian RTOs which deliver courses interstate or overseas are required to register with ASQA.

Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE)

www.innovation.gov.au

Responsible for policy, national strategies and Commonwealth funding for all education and training sectors.

National Centre for Vocational Education Research (NCVER)

Australia's principal provider of VET research and statistics which informs policy and practice in Australia's training system, including the following:

- How to become AVETMISS compliant
  http://www.ncver.edu.au/content/compliancefaq.htm
- AVETMISS 6.1 for VET providers: what's new and why?
  www.ncver.edu.au/publications/2401.html
- Booth, R et al 2002, *Maximising confidence in assessment decision-making: Resource kit for assessors* http://www.ncver.edu.au/publications/780.html

training.gov.au

http://training.gov.au
is the database on Vocational Education and Training (VET) in Australia. It is the official national register of information on training packages, qualifications, courses, units of competency and registered training organisations (RTOs) and has been developed for experienced training sector users.

Western Australian Department of Training and Workforce Development

www.dtwd.wa.gov.au
This site contains information about training and workforce development as it applies to Western Australia, and links to training courses available in Western Australia as well as to ApprentiCentre and the Careers Centre.

Useful resources

Department of Training and Workforce Development publications

A guide to continuous improvement of assessment in VET

Apprenticeships and traineeships: Good practice guide for registered training organisations

Clustering units of competency: A guide on how to cluster for delivery and assessment

Guidelines for assessing competence in VET

Professional development framework for vocational skills in VET

Reasonable adjustment: A guide to working with students with a disability (forthcoming)

Recognition of prior learning: An assessment resource for VET practitioners

Staying the course: A guide to working with students with mental illness

Troubleshooting guide: Assessment in VET

For electronic (PDF and Word) copies go to www.vetinfonet.dtwd.wa.gov.au

Department of Training and Workforce Development
1 Prospect Place, WEST PERTH WA 6005
T: (08) 9319 5512
www.vetinfonet.dtwd.wa.gov.au

DTWD1972
DESIGNING ASSESSMENT TOOLS FOR QUALITY OUTCOMES IN VET
ISBN 978-1-74205-693-7