

A photograph of two students in a laboratory setting. In the foreground, a young woman with dark hair tied back, wearing glasses and a white lab coat, is looking through a microscope. In the background, a young man in a white lab coat is looking on. They are both focused on their work.

# A Guide to Developing and Implementing Qualifications that Meet Industry Needs

Implementing Agency

This document has been developed as part of the VET Toolbox project.

The VET Toolbox was created in 2017 and provides partner countries with know-how, tools and advice to improve the effectiveness and inclusiveness of VET reforms supported by the European Union.

It focuses on supporting VET systems to:

- become more demand-driven, with more effective private sector engagement.
- become more responsive to labour market needs.
- provide increased access to (self-) employment, including for disadvantaged groups.

The VET Toolbox is co-funded by the European Commission and the German Government.

The VET Toolbox partnership is composed by GIZ, British Council, Enabel, LuxDev and AFD.



The intended beneficiaries of the VET Toolbox are:

- National vocational authorities and regulatory bodies, including training funds;
- National and international enterprises involved in VET partnerships;
- Quality assurance organisations responsible for learner assessments and examinations;
- Public, private or mixed VET training institutes and VET pre-service and in-service instructor training institutes;
- National, regional and sectorial business and professional associations and civil society organisations.

Website: [www.vettoolbox.eu](http://www.vettoolbox.eu)

Youtube: [https://www.youtube.com/channel/UCbygn0xKnJa\\_2586DOXEmeg/videos](https://www.youtube.com/channel/UCbygn0xKnJa_2586DOXEmeg/videos)

Linkedin: <https://www.linkedin.com/company/18825159>

Publisher:

VET Toolbox Coordination Hub | c/o Belgian Development Agency Enabel

Rue Haute, 147 - 1000 Brussels - Belgium

Tel: +32 2 505 37 00 | Email: [info@vettoolbox.eu](mailto:info@vettoolbox.eu) | [www.vettoolbox.eu](http://www.vettoolbox.eu)

Author: British Council | Photo credit: British Council

Copyright: © VET Toolbox partnership. All rights reserved. August 2019.

This document cannot be sold.



## INTRODUCTION

Welcome to this Guide to developing and implementing qualifications. In it you will find suggestions for working with industry and training providers, as well as selecting and working with an appropriate awarding body through which to develop and deliver the qualification. In reading the booklet there are three key things to keep in mind:

- Firstly, it is essential to have the support of a suitable group of employers and training providers throughout the process. They will need to define the standards set in the qualification, develop and implement training that underpins the qualification as well as the assessment strategy that will enable certification of candidates, and above all make sure there are suitable groups of learners to take the qualification. There is little more frustrating than developing a great qualification and training package only to find that no-one wants to use it!
- Secondly, it is also essential to follow the procedures of the specific awarding body chosen to award the qualification throughout the development and implementation processes. This guide uses generalised examples based on real life experiences to explain typical processes. However, each awarding body, including where government agencies award qualifications, will have specific processes and requirements which may differ from these examples and only the actual awarding body processes must be used in practice.
- Finally, remember that training, the process of delivering learning to candidates to enable them to achieve the qualification standards, is separate from the assessment of candidates to confirm that they have met those standards. Assessment is normally carried out by assessors who have not been involved in the training to ensure they remain independent and are able to make objective decisions.



## CONTEXT

This booklet has been developed as part of a VET Toolbox project in Uganda. VET Toolbox is an EU-funded project delivered by a partnership consisting of Enabel (Belgium), British Council, Deutsche Gesellschaft für Internationale Zusammenarbeit GIZ (GIZ, Germany), Lux Development (Lux-Dev, Luxembourg) and Agence Française de Développement (AFD, France).

VET Toolbox provides partner countries with know-how, tools and advice to improve the effectiveness of TVET reforms supported by the EU (EC and EU Member States). It focuses on supporting VET systems to:

- become more demand-led, with more effective private sector engagement.
- become more responsive to labour market needs.
- provide increased access to (self-) employment, including for disadvantaged groups.

The project's interventions are demand-driven, initiated by support requests from partnerships, and include support missions, intermittent support missions, and both the application of existing tools and the development of new tools. Interventions are targeted and relatively short, providing countries with fast and flexible assistance to complement broader reform.

VET Toolbox operates in countries in receipt of Official Development Assistance, excluding EU Neighbouring States and EU Accession States and is particularly active in Sub-Saharan Africa and South Asia.

In Uganda, the discovery of commercial resources of petroleum and the planned infrastructure developments for its commercialisation have exacerbated the need for specialised training in petroleum related courses, and this provided an excellent opportunity for a VET Toolbox project to provide support.

The overall objective of this project, implemented by the British Council and delivered by the UK's Engineering Construction Industry Training Board (ECITB), was to assist a local training provider to deliver internationally recognised accreditation and certification in occupational health and safety and level 2 and 3 trades related to the engineering construction of the oil and gas facilities.

This was carried out by:

- Supporting the provider to receive international accreditation to deliver internationally recognised qualifications in engineering construction in line with the recommendations of the Government of Uganda Workforce Skills Development Strategy and Plan. The accreditation comes from international bodies in the relevant areas of competence.
- Integrating occupational health and safety issues combined with level 2/3 qualifications in engineering construction.
- Providing access to qualifications to workers in the informal sector who may already be part or fully competent but lack formal recognition of their skills.

The VET Toolbox project in Uganda was completed in 2019, and the provider can now continue to deliver relevant international qualifications in engineering construction and health and safety on an ongoing basis.



CONDITIONS REQUIRED FOR  
INDUSTRY-LED QUALIFICATIONS

There are three conditions which need to be satisfied to successfully develop and implement industry-led qualifications.

1. Is a qualification appropriate?

The first condition is that a qualification is actually needed. For example, if an employer wants to recognise achievement in their own employees, they could issue their own certificate rather than develop a qualification. A qualification has specific characteristics in that it will:

- Define competence through clearly describing the Knowledge, Skills and Behaviour standards individuals must achieve through learning outcomes and assessment criteria, such as:

Unit 5: Support the assembly of components			
this unit applies to all pathways			
Learning outcome:			
The candidate understands and is able to support the assembly of components.			
Knowledge assessment criteria:		Skills assessment criteria:	
The candidate must demonstrate an understanding of the following in order to satisfy the skills assessment criteria:		The candidate must demonstrate the ability to:	
K5.1	The uses of engineering drawings and specifications.	S5.1	Follow relevant instructions, assembly drawings and specifications.
K5.2	The methods and techniques used to assemble components.	S5.2	Assist in the assembly of components in the correct positions using approved methods and techniques.
K5.3	Handling equipment and procedures.	S5.3	Secure the components under supervision using ths securing devices, if appropriate using temporary support.
K5.4	Methods of providing temporary support.	S5.4	Seek confirmation that the assembly is completed to the required specification.
K5.5	Checking methods and techniques.		
K5.6	How to identify defects in products and assets.		

- Define the level and size of the qualification:

The level of a qualification shows how it relates to other qualifications that individuals can obtain. In the UK, for example, a Level 3 qualification would be equivalent to an A Level achieved in education, usually at the age of 18, and Level 6 equivalent to a Bachelors degree.

The size of the qualification is based on the number of hours of training it will take a typical candidate to achieve the standards stated in the qualification. These could be Guided Learning Hours (GLH), the time spent with a tutor teaching the individuals, or Total Qualification Time (TQT), the time spent both teaching and in practicing/self-learning as an individual. Continuing the example from above:

Unit	Guided Learning (hours)	Total Qualification Time (hours)
Unit SIPS05 Support the assembly of components	140	157

- Break down the qualification into manageable-sized units commonly referred to as “Units of Assessment (UoA)”.
- Define how standards achieved are to be assessed.

Assessment tools need to be appropriate to the assessment criteria and are covered in more detail in the next section.

2. Is there enough support from industry?

Having decided that developing a qualification is an appropriate course of action then the second condition is to ensure that this is supported across a range of similar employers and training providers. Appropriate working groups may be formed by working through topic-specific groups such as:

- Industry specialist groups, set up to share good practice in an industry.
- Professional organisations, both local and international.
- National/Government bodies promoting development in a sector.
- Education and Training providers, who can often see the wider need.

The working group will need to be composed of subject matter experts, usually drawn from both employers and training providers, who can explain the details required to develop the

qualification and support the ongoing implementation of the qualification. It is good practice to align the working group to a commonly agreed set of Terms of Reference (ToRs) that will include but not necessarily be limited to:

- The objectives, roles and responsibilities of the group.
- Format and frequency of meetings.
- The processes for dealing with confidentiality issues such as ownership of Intellectual Property (IP) rights and areas of commercial sensitivity.

### 3. Is there an appropriate Awarding Body?

The third condition that must be satisfied is that there is an appropriate awarding body to issue and award the qualification. There are many awarding bodies available including those in the country/ies where the qualification is being developed as well as many awarding bodies based elsewhere and working in the international environment. It is worth checking funding requirements before proceeding – for example some countries will only provide public funds towards qualifications their government awards.

The choice of an awarding body may be quite simple. Unless the qualification is in a completely new occupational discipline, there will probably already be at least one awarding

body working in that area. One of the first checks should be to verify that there is not already an existing qualification that can be used.

An awarding body should have:

- National or international recognition.
- A systematic procedure for qualification development and approval.
- A systematic procedure for approving and monitoring centres delivering the qualification.

An awarding body will probably want to understand the predicted demand for a qualification before agreeing to work with the industry group on it. Awarding body income is typically based on the operation of their qualifications, including approved centre licensing and monitoring fees, and candidate registration and certification fees, so there is little incentive for an awarding body to take on a qualification with a very low predicted demand.



## BUILDING AN ENABLING ENVIRONMENT

The main aim of an enabling environment is to ensure that the industry experts work effectively with the awarding body during the development and implementation of the qualification. They need to work together, following the procedures required by the awarding body, and these will cover the processes to be followed along with the results (outputs) of the development process.

Typically, there are three types of documents that will need to be submitted to an awarding body in order for it to approve a qualification:

1. Public documents which are freely available to all to encourage take-up of the qualification by employers, providers and individuals. These will include information such as:
  - Who the qualification is for (job roles).
  - Entry requirements, if any.
  - Title and level of the qualification, and size (hours).
  - Unit breakdown and Rules of Combination (if any).
  - Statements of learning outcomes (LOs) to be achieved (by unit).
  - Assessment Criteria (Knowledge, Skills, Behaviours) for each LO (by unit).
2. Restricted documents provided only to approved centres and assessors, such as:
  - Assessment methodology and requirements.
  - Any mandatory knowledge and skills assessment specifications and content.

Note: these documents are restricted so that candidates cannot prepare for the specific assessment in advance. They should be kept confidential throughout the development and implementation of the qualification.

3. Process documents providing evidence of the processes followed in development, such as:
  - Consultation records: e-mails, meeting minutes, letters of support etc. to show that the proposed qualification represents an industry requirement.
  - Calculation of the hours expected to be taken learning to achieve the qualification.





Having understood the awarding body requirements, the industry working group will need to follow those processes to create the qualification, including assessments. The working group of subject matter experts is likely to need at least three meetings during the development process, with further documented detail and work carried out between those meetings.

The working group will need to select a Chair, usually from employer representatives, to lead the work and control the meetings, along with a suitable facilitator familiar with the awarding body requirements to manage the process and write up the meeting notes and outputs.

A typical meetings process is:

**First meeting:**

- Ensure all have a good understanding of the awarding body requirements.
- Develop Terms of Reference for the group (see section 2).
- Develop a plan/timescales for development.
- Identify existing standards that could be used as a basis for the qualification.
- Top level scoping of the qualification, unit structure and main Learning Outcome drafts.
- Ideas for assessment activities.

Before the next meeting the facilitator, aided by technical experts, should write the first draft of the qualification including the units, learning outcomes and assessment information.

**Second meeting:**

- Review, amend and finalise qualification and unit content details and check they are achievable.
- Establish Rules of Combination if any units are optional.
- Establish Guided Learning Hours and other measures if required by the awarding body (usually expert best estimates) for units and the qualification total.
- Finalise assessment requirements and details.

Before the next meeting the actual method of assessment details needs to be created. There are a variety of methods through which evidence of the candidate's competence can be gathered. There are also different methods by which to collect performance and knowledge evidence. In relation to performance evidence there are five main assessment methods:

1. Direct observation of the candidate's performance by the assessor and/or Expert Witness Advisor.
2. Testimony from a witness such as a candidate's colleague. This is also observation of the candidate.
3. Documentary evidence (such as permits to work, work specifications etc.) that relate to work successfully completed by the candidate on a past occasion.
4. Demonstration of a task by the candidate at the assessor's request.  
This is known as 'Simulation'.
5. Questioning of the candidate to establish knowledge and understanding requirements.

These options give an assessor and the candidate some flexibility in how they are able to prove competence. However, some of these assessment methods are less reliable and as such their use may be limited within the qualification. Direct observation of the candidate by the assessor is the most reliable and often the most straightforward method of gathering evidence.

In relation to evidence of knowledge and understanding there are two main assessment methods:

1. Performance evidence gathered in the course of working towards the unit.
2. Questioning of the candidate, either verbally or through written or computer-based testing.

In some instances, it will be self-evident from the candidate's performance that they have acquired the necessary knowledge and understanding e.g. where the unit requires knowledge of how to carry out a specific task and by carrying it out effectively the candidate demonstrates that they know what to do. However, knowledge of why something is done in a certain way cannot be demonstrated through performance alone and questioning of the candidate is another assessment method that could be used.

**Third meeting:**

- Final sign-off by the Working Group for awarding body submission of the qualification including the assessment tools.
- Ensuring support for training providers to develop appropriate programmes and/or become approved centres to deliver the qualification.

The sequence above assumes all parties agree throughout the development process. In practice this rarely happens, and group members should be prepared for additional meetings and consultation between meetings by telephone, e-mail and similar. Online groups and file-sharing may be considered, but it is important to ensure that these can generate appropriate records to evidence the process where this is required by the awarding body as well as ensure any information can be shared securely in accordance with pre agreed working group conventions (ToRs).

Once the qualification is approved and issued by the awarding body the focus of the enabling environment will change. During development, industry and employers lead the process. During implementation, however, the focus moves to training and assessment. This will be led by training providers and/or approved centres, with industry providing ongoing support and advice.

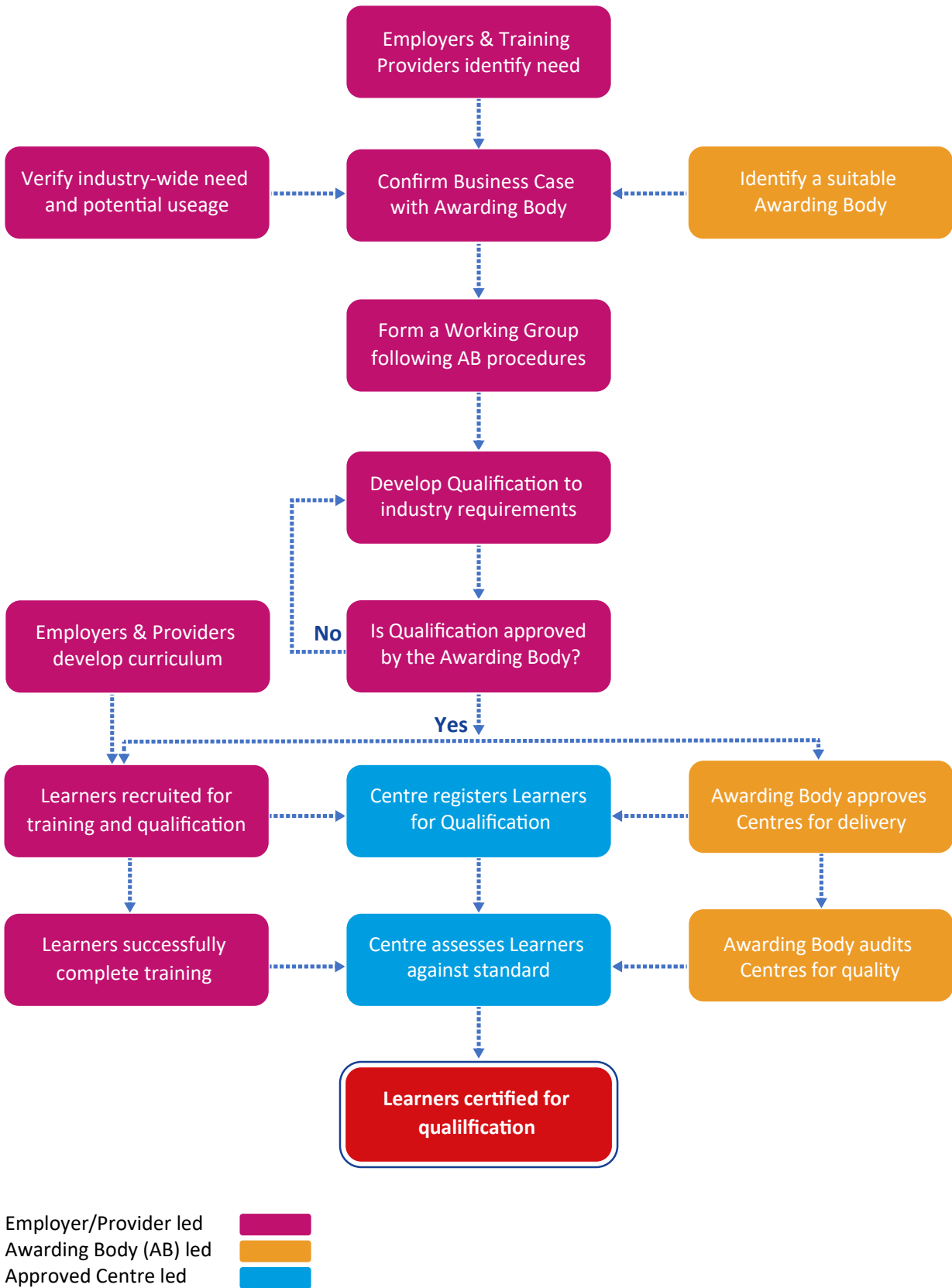
Training providers will need to develop training curricula to meet the qualification standards, and then recruiting and developing individuals to deliver the training. They will need to consider where learners will come from, whether they will be sent for training by employers or whether they will come from the wider population, and have appropriate recruitment and selection processes in place.

Approved centres will need to understand the assessment requirements and ensure they have appropriate arrangements in place to carry out those assessments. They will need to ensure all relevant staff understand the awarding body requirements; not just the assessors involved in delivering the qualification, but the administrators, support staff and Managers who will have to manage the processes agreed with the awarding body.

Industry will still need to be involved with the qualification on an ongoing basis. The qualification will need regular reviews under awarding body procedures (probably a three- to five-year cycle). Any changes within industry relevant to the qualification will need to be incorporated in a timely manner to ensure the qualification remains relevant to users.



## SIMPLIFIED ROADMAP TO IMPLEMENTING INDUSTRY-LED



## PRINCIPLES OF DEVELOPING APPROVED CENTRES

The responsibility for approving and developing approved centres lies with the awarding body and will follow their procedures. Typically, these will include:

### Approval of centres by the awarding body

There will be at least three steps for a centre to be approved to deliver a qualification by an awarding body. If a centre is already approved to deliver other qualifications by the same awarding body, then only the last step will normally be needed.

#### 1. Finance and Legal due diligence (for safety and longevity):

##### Finance:

- Are they a viable organisation?
- Do their accounts over (say) 3 years show growth or decline?
- Are they financially 'big enough' to be able to deliver the new qualification?
- Do they comply with any tax requirements?

##### Legal:

- Are they operating legally?
- Do they comply with equal opportunities, health, safety and environmental requirements?

##### Insurance:

- Do they have all necessary liability insurances with appropriate levels of insurance?

#### 2. Centre procedures and administration

- Do they have, or can they put in place the necessary administration and assessment processes and procedures that would be required such as candidate registration, support, progress monitoring and feedback, assessment, certification and appeals procedures?

#### 3. Centre staffing and resources

- Do they have staff with the necessary experience, qualifications and occupational competence to carry out the assessments?
- Do they have, or have access to, the practical facilities required?

### Monitoring of approved centres by the awarding body

An awarding body will have procedures to monitor and, if necessary, improve approved centres. These will be carried out through regular systematic audits of activities, and will cover two areas:

#### 1. Audit of delivery and administration processes

This will verify that the centre is operating according to its approved processes such as candidate registration, record keeping and data protection, and certification.

#### 2. Verification of achievers to confirm standard and process

A sample of individual learners who complete the qualification will be checked, to see that they have followed the correct learner process and documentation such as logbook/portfolio entries, witness statements, test results and evidence records.

Centres will receive feedback after audit visits, with a note on any improvement points discovered. They may be graded – for example, from 'Outstanding' to 'Needs Improvement'. Should a Centre fail to improve in identified areas, an awarding body may consider sanctions, such as not allowing a Centre to register new candidates on the qualification until improvements are made.





## DEVELOPING CURRICULA TO MEET THE QUALIFICATION STANDARDS

This last section looks at the development of training programme curricula to enable candidates to achieve the standards set in the qualification. This may start in parallel with the qualification development, once the standards are known, or it may commence following the approval of the qualification.

It is to be expected that there will be more than one training programme leading to the same qualification. Employers may choose to develop their own training programmes, with learning that may be contextualised to their own environment/business needs, and several training providers may choose to get involved. In all cases the training delivered needs to prepare individuals and equip them with the same knowledge, skills and behaviours in order to be ready for the qualification assessments, which can only be carried out by an approved centre.

There are two questions that need to be answered:

1. Does the training programme cover the content of the qualification specification at the right level?
2. Will the training programme be delivered consistently by all trainers?

Looking first at the content and level, either during the development of training or when the first draft programme is developed, the content can be mapped against the learning outcomes in the qualification, to verify that they are covered satisfactorily.

This usually takes the form of a spreadsheet, as in the example below:

Learning Outcomes	Identify where in the course materials the learning outcome is to be delivered. E.g. Specific Lesson Plan/ Session reference	Identify where in the course materials the learning outcome is to be verified, observed or tested, eg a specific practical exercise or theory test, please use a reference number or code.
LO01	LP1 Session 1 + 2	Instructor will monitor students, a theory test is also delivered with a pass mark of 80%
LO02	LP1 Session 2 + 5	Instructor will monitor students, a theory test is also delivered with a pass mark of 80%
LO03	LP1 Session 3 + 5	Practical Exercise PE01 consists of a period of teaching followed by an assessment against an Observation Sheets OS01

The other part of verifying the content of a training programme is to ensure that the level of curriculum meets the standards set out in the qualification.

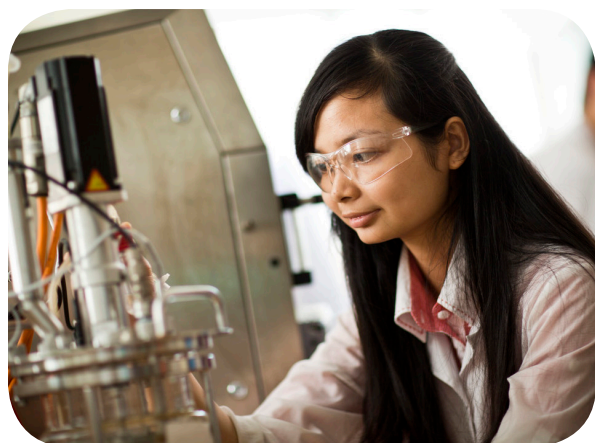
The knowledge or skill based verbs/descriptors used in the learning outcomes and assessment criteria must be appropriate to the level of the qualification, for example at a lower level: Describe the working of a food processor might result in an answer along the lines of 'turn the switch to turn it on and turn it more to go faster' whereas at a higher level: Analyse and explain the workings of a food processor might result in an answer describing how power is regulated and transmitted through gears to the applicator head.

This is largely a judgement call by those with the experience in the occupation – will those who complete this training programme be at the right level required by the qualification standards? It is also one reason why on-programme 'formative' testing is included in training programmes separately from the qualification assessment, to ensure the right level is being achieved.

Once there is a good training programme that meets the standards the second question is whether the programme documentation is sufficiently robust to ensure consistency of delivery so that all trainers deliver the same materials in the same way each time the programme is run.

A training programme needs to be structured and documented, to ensure that it is delivered consistently by all qualified trainers. Typical course documentation includes:

- Scheme of Work: this high-level document can be a simple overview of the course highlighting the main session titles and course timings.
- Lesson Plans: lesson and session plans to encompass all subject matter as detailed in those standards upon which the training is based.
- Presentations/activities: slides should contain key points relevant to the topic and any further information should be inserted into an additional notes section hidden from the learner.
- Learner Handouts: any course handouts that will be issued to the learners as these may contain additional information that you have referenced against the standard.
- Testing Methods and Criteria: to establish whether learning outcomes have been achieved there should be a plan for testing the candidates' progress. This testing must demonstrate that an acceptable level of learning or development has been achieved against agreed criteria. These tests measure learning and are completely separate from the assessment required for the qualification.



Some or all of these may already have been developed, but it is important to ensure that there is sufficient content in them to facilitate consistent delivery – for example, in a slide presentation, what discussions are held about the slide content, and at what point?

And finally, of course, the training provider needs to have the right...

- ...trainers – experienced and where relevant qualified individuals to teach the materials who have themselves been trained as trainers.
- ...facilities – rooms, workshops, refreshments, break-out areas etc.
- ...equipment – specialist equipment where required for learners to use.
- ...materials – consumables and other materials that will be used on the training programme.

## GLOSSARY OF TERMS

The following list includes some of the key terms used in this document. Rather than provide specific links to internet sites which may change, an internet search will provide a range of additional information.

**Assessment Criteria** – specify the standard a learner is expected to meet to demonstrate that the learning outcomes of that unit have been achieved. A useful guide to appropriate descriptive verbs can be found in Bloom's Taxonomy.

**Assessor** – a skilled, experienced and trained individual who uses a particular set of criteria to make judgements as to the level of attainment that an individual has demonstrated in an assessment. Assessors will have been trained to assess, and may hold an Assessor qualification.

**Assessor Guidance** – special guidance, available only to approved centres, specifying in detail what should be assessed – for example different types of equipment and tools that must be used in the assessment.

**Awarding Body** – a body issuing qualifications which formally recognise the learning outcomes (knowledge, skills and/or competences) of an individual, following an assessment and validation procedure.

**Bloom's Taxonomy** – a set of hierarchical models used to classify educational learning objectives into levels of complexity and specificity.

**Industry Working Group** – a group of subject matter experts from employers, training providers and other stakeholders working together to develop and implement qualifications.

**Qualification Unit** – units break down a qualification into a series of manageable sized areas also known as Units of Assessment.

**Learning Outcome** – set out what a learner is expected to know, understand or be able to do as the result of a process of learning. Learning outcomes should be SMART – Specific, Measurable, Achievable, Realistic and Timebound (Timebound is the qualification duration)

**Knowledge Test** – a structured test of an individual's knowledge and understanding which may be paper-based, computer-based or verbal.

#### Additional Resources:

- Recommended reading: Teaching, Training and Learning: A Practical Guide by Ian Reece and Stephen Walker
- Many existing standards are available at the UK National Occupational Standards website: [www.ukstandards.org.uk](http://www.ukstandards.org.uk)



The VET Toolbox partnership is composed by GIZ, British Council, Enabel, LuxDev and AFD.



Co-funded by the European Union

