

Appendix 3

Source: *Electrotechnology Training Package (UEE07), Volume 1 – Part 3*

Assessment methods

Assessment methods must be appropriate to the situation. Learners can be encouraged to use these methods for self-assessment. Combinations of these methods will be required for most situations, eg observations and oral questioning.

The recommended assessment methods for collecting evidence required to determine the candidate's competency are:

- oral questioning
- structured observation of work
- indirect supporting evidence (supervisor's reports).

It is recommended that assessors use open questions in conjunction with direct observations to assess the candidate's ability to:

- apply relevant knowledge to the particular task
- perform the required tasks safely and efficiently
- handle unforeseen contingencies and circumstances
- recognise and solve problems associated with the whole job (which may not necessarily occur during the assessment).

Supervisor's reports or verified calculations should be used to confirm that workplace job activities have been completed on time and meet the required specifications. This is particularly relevant when the assessor may not be present for the total duration of the workplace job activity and/or the learner/candidate works as part of a team.

Direct observation

Observe the learner carrying out their usual practical tasks in the workplace. This may be accompanied by questions. Direct observation is probably the easiest and most convenient method of assessment.

Third party reports

Information is provided by the immediate supervisor or other appropriate person(s). An external assessor may not have the opportunity to make multiple observations of a candidate over a period of time, unlike an internal (in-house) assessor. The external assessor may obtain third party reports to supplement an assessment.

Demonstration and questioning

If there is no opportunity to observe this competency in the standard work environment, the assessor may ask the candidate to provide a practical demonstration. The assessor can see both the process and the finished product.

Pen and paper tests and essays

These are used to measure the extent of knowledge or may test problem-solving capability. They can complement practical demonstration.

Oral tests

These can be an adjunct to practical demonstration and pen and paper tests.

Projects

These are usually unsupervised. The assessor uses the final product and supervisor reports as a basis for judgement.

Simulation

This may involve an off-site practical test. The actual tasks and conditions are similar to real life situations and are in accord with prevailing industry policy enunciated by the Industry Skills Council. A simulation policy has been developed and can be obtained at www.ee-oz.com.

Portfolios

These are used for assessing skills achieved in the past. They can include work samples.

Profiling

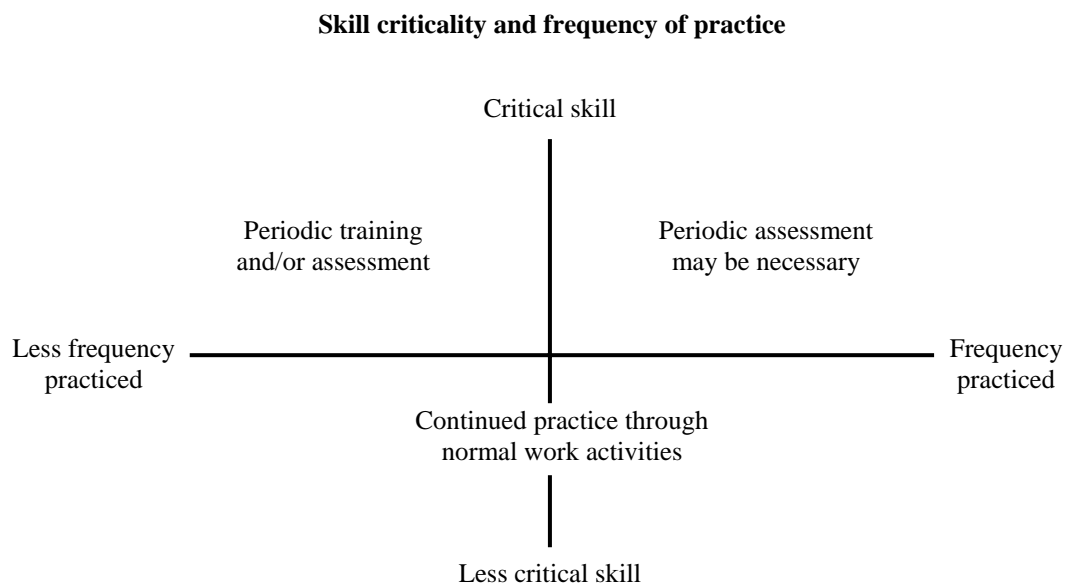
Information is gathered over time from a structured profiled data entry card and resultant report.

Selecting assessment methods is influenced by factors such as:

- the extent of the assessment
- the most effective locations
- access to physical resources
- safety measures required.

When choosing an assessment method and developing assessment instruments, assessors must take into consideration that some skills are more critical to safety and operational requirements than others and some skills are practised more/less frequently.

These considerations can be summarised as follows:



Assessment methods and instruments used should satisfy the conditions associated with sufficiency, currency, authenticity, validity, reliability and be holistic in nature.

The following table, *Guide to Assessment Methods and Items*, provides a summary of assessment methods in common use and the situations in which they may apply.

Table – Guide to Assessment Methods and Instruments

Assessment method	Appropriate instruments	Valid purposes or use	Conditions and numbers	Time constraints	Repeat assessments possible
Written objective tests	True/false Multiple choice Matching Completion	Confirming essential factual knowledge, principles Assessing deduction, transfer of knowledge Complementing other methods	Controlled classroom High level supervision Large numbers	Moderate	Many
Written responses, short and extended answers	Calculations Definitions, explanations Essays	Assessing use of information Application of knowledge General ideas and solutions Research, organisation and expression of concepts or ideas	Test condition as above or Minimal supervision, and assistance	Moderate	Many
Oral test/technical interview	Set question Scenarios	Assessing depth and breadth of knowledge Application of knowledge Relative to experience	Interview condition One to one	Moderate	Many
On job or workplace assessment	Observation, checklist Product assessment Questioning to complement observations	Identifying mastery or competence of practical task, technical skill or interpersonal skill in real or simulated setting Identifying gaps in education and training	Normal working conditions Moderate level supervision One to one Avoid expensive or hazardous situations	High	Nil to many depending on assessment of product or process
Practical/Exercises	Stimulated work exercises Structured practical exercises Fault finding exercises	Checking mastery or competence of a practical task, technical skill, or subset of performance in a simulated work setting	Controlled laboratory or field setting High level supervision	Low	Several
Practical projects	Research task or investigation Product or process development Individual learning contract	Assessing integration and application of a number of work related skills to solve a given problem Assessing individual approaches, innovation, creativity Assessing interaction with others	Access to laboratory, workshop or workplace Little supervision	Low	Several
Assignments	Resource life Case studies Poster presentation Reports of video or speaker presentations Reports of laboratory/field work, excursions	Confirming competence to research, analyse and synthesise information Assessment of application of knowledge, skills and attitudes where practical testing is not feasible Assessment of communication skills	Moderate of level control Non-test conditions Little supervision	Low	Several

Assessment method	Appropriate instruments	Valid purposes or use	Conditions and numbers	Time constraints	Repeat assessments possible
	Individual learning contracts Writing simple manuals or procedures				
Personal appraisal	Checklists or criteria which enable peer or self assessment	Establishing readiness for summative assessments Assessment of an individual's performance within a team effort	Non-test conditions Little supervision Small numbers	Low	Many
Verbal assessment	Oral exposition or lecture Seminar, presentation and group discussion Oral/aural tests Interviews	Confirming understanding of principles underpinning performance Supplement to other assessment methods Verification of learner's submitted work	Moderate level of control High level of supervision One to one	Low	Several
Profiling ¹	Structure manual or computer-based log.	Tracks competency development against the industry standard profile specified by competency standard units Identifies when remedial action is required during development period	Real work conditions under workplace supervision ² Off-job assessment events Any number	Low / Medium	On going

¹ A valid profile is based on periodic collection of relevant data over the duration of a competency development training program.

² A complete profile is constructed from all required evidence of competency, however where a profile of only workplace performance is used it must be supplemented with other methods such as those outlined in this table.