TVET STANDARD

TVETS 08:2022

ICS 03.180

First Edition

TVET Standard — Competence-based assessment (CBA) tools — Requirements and guidelines

TVETS 08:2022

REVISION OF TVET STANDARDS

In order to keep abreast of progress in industry, TVET Standards shall be regularly reviewed. Suggestions for improvements to published standards, addressed to the Director General, Technical and Vocational Education and Training Authority are welcome.

TVET STANDARD

TVET Standard — Competence-based assessment (CBA) tools — Requirements and guidelines

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Foreword

Development of the Technical and Vocational Education and Training (TVET) Standards has been necessitated by the need for establishing requirements governing quality of training services in the TVET sector. It is envisaged that through standardization, service delivery disparities that are encountered when services are rendered within the TVET sector will be removed.

Technical and Vocational Education and Training Authority (TVETA) has established a Technical Standards Committee mandated to develop standards through consultations with stakeholders and Kenya Bureau of Standards (KEBS). The Committee is composed of representatives from the TVETA Standards Development Department, public and private sector organizations in the TVET sector.

TVET Standards are developed through Technical teams comprising of key stakeholders and professional experts representing government, regulatory and professional bodies, curricula development and assessment agencies, academia, consumer groups, public and private colleges, universities and other interested parties.

Draft TVET Standards are circulated to stakeholders. The comments received are discussed and incorporated before finalization of the standards, in accordance with the principles and procedures for development of Standards. Once finalized, the standards are published and gazetted.

TVET Standards are subject to review from time to time. Users of the TVET Standards are therefore expected to ensure that they always have the latest editions of the standards they are implementing.

Attention is drawn to the possibility that some of the elements of this document may be subject to patent rights. TVETA shall not be held responsible for identifying any or all such patent rights.

Contents

Page

Introduction

This guide is designed to assist assessment body and assessors to develop assessment tools that:

a) meet the requirements of the Competency-Based Education, Training and Assessment (CBETA) requirements and guidelines; and

b) evaluate trainee competencies to ensure that they meet the industry/ workplace requirements.

It is important for assessment body to understand the capacity of the tools they use and adapt these tools to meet their requirements. This will help ensure confidence in the quality of assessment. It will also ensure that the assessment is valid, reliable, flexible and fair.

The assessment tool developer can also refer to the information in this guide when reviewing and contextualizing commercially developed assessment tools.

The purpose of this standard is to provide requirements and guidance for development methodologies, strategies, and tools for designing and conducting assessments.

TVET Standard — Competence-based assessment (CBA) tools — Requirements and guidelines

1   Scope

This TVET Standard prescribes terminologies, requirements and guidelines for development of CBA tools in Kenya.

2   Normative references

The following referenced documents referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. There are no normative references in this document.

TVETS 01, *TVET Standard — Competence-Based Education, Training and Assessment (CBETA) — Requirements and Guidelines*

Kenya National Qualification Framework

3   Terms, definitions and abbreviations

For the purposes of this document, the following terms, definitions and abbreviations apply.

3.1   Terms and definitions

3.1.1
assessment bodies
certified bodies that carries out assessment in assessment centres

3.1.2
assessment evidence
is information that has been gathered, which, when matched against the unit of competency requirements, provides proof of competence.

3.1.3
assessment methods
particular techniques used to gather different types of evidence, including methods or techniques such as questioning, direct observation, structured activities, third-party feedback, evidence compiled by the learner, and review of products.

3.1.4
assessment tool
it contains both the assessment instruments and procedures used to gather and interpret evidence of competence.

  a) **Instrument(s)** can be the specific questions or activities developed from the selected assessment method(s) to be used for the assessment, the outline of the evidence to be gathered from the candidate and the evidence criteria used to judge the quality of performance (a profile of acceptable performance and the decision-making rules for the assessor may also be included).

  b) **Procedures** can be the information/instructions given to the learner and/or assessor regarding conditions under which the assessment is to be conducted and recorded.

3.1.5
competence-based assessment
coordinated set of documented policies and procedures (including assessment materials and tools) that ensure assessments are consistent and are based on the Principles of Assessment and the Rules of Evidence

3.1.6
competency assessment
process of collecting evidence from a range of sources and making judgements against set criteria on whether competency has been achieved

3.1.7
formative assessment
an ongoing assessment during the learning/training process, and provides feedback for improving instruction. It measures the trainee's progress throughout the learning/training process and provides immediate feedback to help the trainee improve skills.

3.1.8
occupational standard
knowledge, skills and behaviors required for employment in a specific discipline or occupation to perform effectively

3.1.9
occupational training standard
specifications used to define curricula in training institutions

3.1.10
summative assessment
evaluates whether a trainee/candidate has achieved the learning outcomes or competency standards prescribed for a programme. It is characterized as a one-time event used to make a judgment or decision about a student's knowledge or skills.

3.1.11
trainee's portfolio
purposeful collection of samples of annotated and validated pieces of evidence (e.g. written documents, photographs, videos, audio tapes)

3.1.12
unit of competency
is the smallest component of a training programme that can be assessed and certified

3.1.13
validators
people who undertake an independent validation process to ensure assessment tools meet standards and are relevant to the needs of industry

NOTE   This guide should be read in conjunction with TVETS 01.

3.2   Abbreviations

CBA   Competency –Based Assessment

CBETA   Competency Based Education, Training and Assessment

RPL   Recognition for Prior Learning

TVET   Technical and Vocational Education and Training

TVETA   Technical and Vocational Education and Training Authority

4   Requirements and guidelines

4.1   Principles of Competency Based Assessment (CBA)

4.1.1   CBA shall consist of a theoretical assessment (for the knowledge part of the competency), and the practical assessment (for skills and attitudes).

4.1.2   When developing assessment tools, the assessment tools designers shall ensure that the principles of assessment are met to provide quality outcomes of an assessment process.

4.1.3   The assessment tools used in competency-based assessment shall comply with the rules of evidence. The assessment tool shall facilitate the gathering of evidence that is: valid, sufficient, current and authentic.

NOTE   The principles of assessment and rules of evidence are defined in the Competency-Based Education, Training and Assessment (CBETA) Standards.

4.1.4   Competency-Based Assessment shall comply with the following requirements:

   a)   Occupational Standards, which specify duties, tasks, skills, and performance criteria.
   b)   Occupational Levels according to the Kenya National Qualification Framework.
   c)   Methodologies, strategies, and tools for designing and conducting skills tests.

4.2   Overview for development of assessment tools

4.2.1   Development of assessment tools shall begin once the respective national occupational standard and occupational Training standard have been approved.

4.2.2   The assessment centre shall develop assessment tools for their internal assessment based on this standard.

4.2.3   The assessment body shall develop assessment tools for external summative assessment based on this standard.

4.2.4   Assessment tools for the occupation shall be developed based on Occupational Standards by assessors accredited by TVETA in consultation with technical experts from the industries.

4.2.5   Assessment tools for continuous assessment shall meet the requirements of the performance criteria in relation to learning outcomes at predetermined stages in the learning/training process.

4.2.6   Assessment tools for summative assessment leading to certification shall meet all the requirements of the evidence guide as indicated in the occupational standard. The requirements include but not limited to critical aspects, underpinning knowledge and skills.

4.2.7   The assessment body shall approve its assessment tools developers.

4.2.8   The assessment tools developers (technical experts) shall maintain confidentiality of the tools developed. This will be ensured by a legal contract signed between the assessment body and the assessment tools developer.

4.3 Qualification for assessment tools developers

4.3.1   The assessment tools developers shall:

a) have academic qualification at least one level higher than the qualification of the tool being developed;

b) be required to have a thorough knowledge of the target Occupational Standard they are working with and the relevant workplace environment; and

c) be registered by TVETA as an assessor and/or verifier.

4.3.2   Functions of assessment tools developers shall include:

a) preparing the items or questions with answer keys as specified by assessment body, and with reference to the guidance provided in the assessment requirements of the relevant occupational standard;

b) providing, where applicable, full details of source material used in order to comply with copyright permission;

c) attending, where necessary, an editing meeting at which the revised draft of the assessment material is evaluated and edited as necessary, so it is fit for purpose;

d) providing a revised version of the material to assessment body following feedback from a verifier or assessment tools validators; and

e) carrying out all these services in line with this standard and any other as applicable.

4.4 Principles of assessment methods and tools

The determined assessment methods and developed assessment tools need to:

a) be valid, reliable, fair and flexible;

b) be regularly validated and improved;

c) comply with unit of competency requirements (one or more if clustered), including employability skills, required skills and knowledge, and critical aspects of evidence;

d) comply with contextualisation requirements;

e) provide evidence gatherers with clear instructions about the application of the tools and assessment methods, including advice on reasonable adjustment;

f) provide learners with information about the context and purpose of the assessment and the assessment process;

g) provide learners with clear guidance as to the benchmarks that shall be achieved in order to be judged competent;

h) provide information and support to all trainees, including RPL candidates;

i) provide information and support for online or distance assessment;

j) reflect the four dimensions of competency (where relevant); and

k) provide information about feedback and guidance to candidates.

5   Process for development of assessment tools

The development of assessment tools shall have three steps:

a) **Step 1:** Planning: It encompasses developing assessment requirements of the occupational standards, industry requirements and most appropriate assessment methods for the candidates.

b) **Step 2:** Design and Development: It describes the components of an assessment tool and how they relate to each other.

c) **Step 3:** Quality Checks: It provides for evaluation of the assessment tool for correctness and relevance to the industry prior to implementation.

5.1 Planning

5.1.1   In planning for development for an assessment tool, the assessment bodies and/or assessment centres (training providers) shall consider how a candidate shall:

a) demonstrate the required knowledge and skills prescribed by the occupational standard.

b) know the conditions of the assessment, what they need to do to complete the assessment adequately and why; and

c) demonstrate that they have the ability to perform the tasks in different contexts and environments.

5.1.2 Developing assessment requirements

5.1.2.1   The Assessment Body shall develop assessment requirements based on the target occupational training standard and in consultation with industry.

5.1.2.2   The assessment requirements shall be validated by the stakeholders.

5.1.2.3   The assessment body shall communicate to the assessment centres and assessment tools developers the approved assessment requirements for the target occupational training standard.

5.1.2.5   The developed assessment tools shall be aligned with the approved assessment requirements   for the target national occupational standard.

5.1.3 Weighting of the performance criteria

5.1.3.1   In competency-based assessment, a candidate shall be assessed against all the performance criteria in a modularized manner and as applicable. Therefore, several   assessment   tools   should   be developed as applicable.

5.1.3.2   The Assessment Body or Centre shall develop weighting of all the elements and performance criteria in the target occupational training standard (OTS) and communicate the same to assessment centres and/or assessment tools designers.

5.1.3.3   The weighting of the elements and performance criteria shall be done according to their significance.

5.1.3.4   The significance of the elements and performance criteria should be determined by consultations with qualified practitioners from the industry.

5.1.4 Selecting suitable assessment methods for knowledge and skills test (assessment matrix)

5.1.4.1   A variety of assessment methods shall be used in the process of establishing competency to ensure assessment is not narrowly based on tasks but embraces all aspects of work performance in a holistic and integrated approach.

NOTE 1   When more than one assessment method is used to gather evidence, valid decisions are made because candidates demonstrate competence in a variety of ways. Some of the assessment methods are outlined in Annex A.

NOTE 2   Evidence gathering methods are to be appropriate to the context, the candidate and the assessor.

5.1.4.2   Selected suitable assessment methods for each performance criteria shall be documented in an Assessment Matrix. (See Annex B).

5.1.4.3   Suitable assessment method(s) shall be selected from the recommended assessment methods provided under evidence guide for each unit of competency of the target National Occupational Standard.

5.1.4.4   In determining the assessment methods, the following shall be considered:

   a) The purpose of the assessment:

   b) Nature of candidate: The most appropriate assessment methods depend on the learners in the program. When conducting an assessment, every candidate's needs and general needs of the group shall be considered.

NOTE 1   For example, it may be more appropriate to consider a portfolio of evidence for apprentice and informal sector candidates.

   c) Who will collect the evidence:

      i)   the trainer would keep the evidence for the direct observation and questioning methods,

      ii) a workplace supervisor would be responsible for collecting all third party evidence, and

      iii) the candidate would be responsible for collecting a portfolio of evidence.

NOTE 3   Considering who will collect the evidence guides what instructions are required to accompany the assessment task.

NOTE 4   The instrument and instructions of the assessment tools shall clarify what is expected and provide a clear structure for evidence gatherer to follow.

NOTE 5   Irrespective of who collects the evidence for assessment, the assessor always determines competence.

   d) Where the assessment will be conducted: This shall be either

      i)   at the workplace,

      ii) simulated work environment, and

      iii) a combination of the two

NOTE 6   There is no assessment method that is intrinsically better than another, so the choice of method shall depend on its relevance to the competencies to be assessed.

5.1.4.5   The suitable assessment methods shall be selected according to qualification levels.

5.1.6   Constructing table of specifications

5.1.6.1   Table of specifications shall be constructed with reference to the weighting of the performance criteria.

5.1.6.2   Table of specifications shall include but not limited to elements (learning outcomes) and performance criteria (knowledge, performance or attitudes) and their level, according to Bloom's taxonomy, and their degree of significance.

5.1.6.3   The table of specifications shall ensure alignment between the items or elements of an assessment and the content, skills, or constructs that the assessment intends to assess.

5.1.6.4 Knowledge test (questions/ assessment items) shall be developed following the test table of specifications and screened using criteria appropriate to the intended uses of the test.

5.1.7 Constructing an evidence matrix

5.1.7.1 The evidence matrix shall consist of, at least

   a) duties and tasks/competencies.

   b) assessment methods.

   c) the actions the candidate is required to implement under each method.

5.1.7.2 Evidence matrix shall be constructed with reference to the weighting of the performance criteria.

5.1.7.3 The evidence matrix shall ensure alignment between the tasks of an assessment and the content, skills, or constructs that the assessment intends to assess.

5.1.7.4 Skill test (practical) shall be developed following the constructed evidence matrix and screened using criteria appropriate to the intended uses of the test.

NOTE 1   Evidence matrix can enable the clustering of similar skills/learning outcomes so that tests can be conducted together.

NOTE 2   Strong involvement by qualified practitioners from the industry is needed to identify skills that can be clustered and assessed together with the appropriate assessment methods.

5.2 Design and development of assessment tool

5.2.1 Assessment tools structure

Assessment tool shall comprise both the assessment instructions/procedures and the assessment instruments for gathering and interpreting evidence.

5.2.1.1 Assessment instructions/procedures

   a) Clear and specific procedures instructing assessor and candidate on the administration and use of assessment instruments shall be defined and documented.

   b) The process of writing instructions/procedures shall be focused on the end-users of the assessment instrument.

   c) The assessment instructions/procedures shall be either included in the instrument, or in a separate document.

NOTE   Clear assessment instructions/procedures are interpreted correctly and understood by the assessor (so they can administer it appropriately) and the candidate, in order for them to have the best possible opportunity to provide evidence of competence. (See Annex B).

5.2.1.2 Assessment instruments

A range of assessment instruments shall be incorporated into an assessment strategy to meet the requirements of both occupational standard and occupational training standard, the Rules of Evidence and the Principles of Assessment. Assessment instruments shall include:

   a) Direct observation checklists with instructions for demonstration;

   b) Simulation exercises or role-plays;

   c) Projects;

d) Products with supporting documentation;

e) Case studies;

f) Written and / or verbal questions;

g) Presentations;

h) Portfolios (for example, collections of work samples by the candidate);

i) Journal/log book entries detailing the process of development;

j) Mentoring tools;

k) Workplace samples/products; and

l) Industry/workplace evidence reports.

5.2.2 Assessment tools details

In general, assessment tools shall make provision for the following details and practical requirements to ensure assessment is conducted in a manner that is fair, flexible, valid and reliable:

a) the title of the unit/cluster;

b) the list of tasks (knowledge/skills and attributes) to be assessed;

c) an outline of the evidence (demonstrative; documentary; testimonial to be gathered from the candidate);

d) the evidence criteria/requirements used to judge the quality of performance (i.e., the assessment decision-making rules);

e) the resource requirements of the assessment;

f) the context of the assessment:

i) Purpose of the assessment

ii) A profile of the candidates – This is to identify whether the candidate has any issues or a situation that needs to be taken into account when administering the assessment instrument.

iii) The assessment system - for example, where the assessment will take place; who carries out the assessment; the period of time during which it takes place; and opportunities for gathering evidence in a number of situations.

g) the conditions under which evidence for assessment must be gathered such as:

i) equipment or material requirements

ii) contingencies

iii) specifications

iv) physical conditions

v) relationships with team members and supervisors

vi) relationships with clients/customers

vii) timeframes for completion.

h) the procedure for the assessment;

i)   the instructions to the candidate, the assessor or other evidence gatherer;

j)   the candidate's name;

k)   the assessor's name;

l)   the date of assessment;

m) the competence achieved/outcomes of the assessment;

n)   feedback by the candidate;

o)   feedback for the candidate from assessor;

p)   the candidate's signature and the date;

q)   the assessor's signature and the date; and

r)   the verifier's signature and the date.

NOTE: 5.2.2.1 to 5.2.2.5 clarifies some of the above details of the assessment tools.

5.2.2.1   Context and conditions of assessment

The context and conditions of assessment shall:

a)   explain the candidate target group and purpose of the tool;

b)   provide instructions for the assessor, the candidate and any contributing third party;

c)   be appropriate for the reader;

d)   be included with the assessment instrument or attached as a separate document;

e)   take into account assessments already completed, and the competencies demonstrated in these assessments; and

f)   consider those characteristics of the candidate that may impact on performance.

NOTE 1   An assessment tool could be developed to cater for particular language, literacy and numeracy requirements, a candidate's workplace experience, or other candidate needs that require adjustment.

NOTE 2   Context gives guidelines of the conditions under which evidence for assessment shall be gathered. Occupational standards requirements and industry consultation shall identify conditions to be considered when conducting assessment including but not limited to:

i)   equipment or material requirements.

ii)   contingencies.

iii) specifications.

iv) physical conditions.

v)   relationships with team members and supervisors.

vi) relationships with clients/customers.

vii) timeframes for completion.

5.2.2.2   Instructions on tasks to be performed by the candidate

a)   The instructions provided to the candidate shall outline the task(s) through which a candidate demonstrates competency.

b)   These instructions shall prompt the candidate to say, do, write or create something.

c) The candidate shall clearly need to understand the tasks. If the candidate reviews the tasks and seeks clarification on the instructions or ask further questions, then the instructions provided shall not be valid or reliable. Well-designed assessment instructions minimize the variation between assessors.

5.2.2.3 Outline of the evidence to be gathered from the candidate

a) Outline of the evidence shall inform the candidate on what is expected of them during assessment.

b) If a candidate is required to submit evidence, the instructions shall include guidance on:

i) evidence to be included,

ii) method(s) of submitting the evidence, and

iii) forms presentation.

c) If a candidate is observed by an assessor, the outline of the evidence shall explain what the assessor will be seeking during the observation. An observation checklist shall be appropriate in such instance and shall be communicated to the candidate whether the observation shall be recorded, either by audio or video.

5.2.2.4 Evidence criteria used to judge the quality of performance

a) These are the rules used to make judgements about whether competency has been achieved. The evidence criteria are also referred to as the assessment decision-making rules.

b) Evidence criteria shall be used by an assessor to ensure consistent outcomes when:

i) checking evidence quality (i.e. the rules of evidence).

ii) judging how well the learner performed according to the standard expected, and

iii) collating evidence from multiple sources to make an overall judgement.

c) The evidence criteria shall ensure that the intent of the assessment tool is met.

d) It shall also ensure that the candidate is able to demonstrate that he/she has acquired valid, sufficient, authentic and current skills and knowledge relevant to the unit.

e) The criteria shall confirm that the evidence provided by a candidate:

i) directly relates to the competency being assessed,

ii) is enough to allow the assessor to make a valid judgement,

iii) is the candidate's own work, and

iv) shows currency of the skills and knowledge required.

NOTE   The evidence criteria should not be open to interpretation. The criteria shall provide sufficient clarity for assessment judgements to be consistent across a range of assessors and points in time. If your assessment body has only one assessor, you shall still develop evidence criteria to ensure consistency in that assessor's judgements.

5.2.2.5 Administration, recording and reporting requirements

a) The Assessment Body shall communicate to assessment centres and assessment tools developers its requirements for administration, recording and reporting in assessments.

b) The assessment tools shall be designed to comply with the requirements of the Assessment Body.

c) Assessment tool shall include but not limited to:

   i) Candidate's personal information

   ii) Assessor's personal information

   iii) Candidate's feedback

   iv) Assessor's feedback to candidate

   v) Recording grades and assessment decision (competent or not yet competent)

d) Assessment tool shall include mechanism for reporting assessment outcomes to relevant parties.

5.2.3 Assessment tools criteria

5.1.5.1 Trainee's portfolio

The assessment tool referring to a portfolio shall contain:

a) The context of the assessment for the respective training program/course.

b) Competency mapping - Requirements of the portfolio shall be mapped directly against the learning outcomes of the unit.

c) Instructions for the candidate on the tasks of assessment.

d) The evidence criteria that will be used to assess the portfolio.

e) Procedures for checking the appropriateness and trustworthiness of the portfolio.

f) Materials/resources required.

g) Recording requirements - How and how long portfolios shall be stored and maintained.

h) Reporting requirements for all responsible assessors.

5.1.5.2 Direct observation (workplace observation, simulation exercise)

The assessment tool referring to an observation of the candidate shall contain:

a) The context of the assessment for the respective training programme/course.

b) Competency mapping - requirements of the portfolio shall be mapped directly against the learning outcomes of the unit.

c) Information to the candidate on the task to be observed, the purpose and the time of the observation.

d) Information on the evidence to be produced by the candidate.

e) The rules to be used to check evidence quality.

f) Range and conditions of the observation (e. g. how many occasions and by whom).

g) Materials/resources required.

h) Assessor intervention.

i) Recording requirements of observation documents.

j) Reporting requirements for all assessors.

5.1.5.3   Review of product (work samples, reports)

The assessment tool referring to a work sample or a report should contain:

a) The context of the assessment, respective training programme/course.

b) Competency mapping: Each key component of the activity should be mapped to the relevant sections within the learning unit.

c) Clear instructions to the candidate for the task.

d) Information on the evidence to be produced by the candidate.

e) The rules to be used to check evidence quality.

f) Range and conditions of the work sample/report.

g) Materials/resources required.

h) Assistance provided/assessor intervention.

i) Recording requirements of observation documents.

j) Reporting requirements for all assessors.

5.1.5.4   Questioning methods (Written questions (Multiple Choice Questions (MCQs), short answer questions or extended answer questions), interviews, verbal questioning, or oral questions)

The assessment tool referring to a questioning method should contain:

a) The context of the assessment, respective training programme/course.

b) Competency mapping: Each question of the interview should be mapped to the relevant learning outcome.

c) Information to candidate on the purpose, form (oral or written), content and timeframe of the questioning.

d) The assessors present at the questioning.

e) Information on the evidence to be produced by the candidate.

f) The rules to be used to check evidence quality.

g) Range and conditions of the questioning (e. g. how many attempts allowed for answering and in what time).

h) Materials/resources required/allowed during the questioning.

i) Assessor intervention e. g. extent to which the assessor may assist the candidate to understand the question.

j) Recording requirements of interview documents.

k) Reporting requirements for all assessors.

5.1.5.5   Structured assessment activities (simulation exercises/role-plays, projects, presentations, or activity sheets)

The assessment tool referring to structured assessment activities shall be as in 5.2.5.2 and 5.2.5.3.

5.1.5.6   Third party feedback

This method of assessment includes testimonials/reports from employers/supervisors, evidence of training, authenticated prior achievements, interviews with employers, supervisors or peers as applicable.

5.2.4 Developing assessment tool for knowledge test

5.2.4.1 Assessment for knowledge shall be conducted separately from skills ones.

5.2.4.2 Knowledge test (questions/ assessment items) shall be developed according to the test's table of specifications and screened using criteria appropriate to the intended uses of the test.

5.2.4.3 Theoretical test questions / assessment items shall be specific, accurate, and clear.

5.2.4.4 Model/suggested answers to a set of questions to be used for the knowledge-based assessment shall be accurate.

NOTE   The nature of the unit of competency will dictate how prescriptive model answers are i.e., for lower-level qualifications it will tend to be more prescriptive with correct answers, while those at higher levels may have broader guidelines.

5.2.5 Developing assessment tool for practical test

5.2.5.1 A practical test shall be developed with reference to evidence matrix.

5.2.5.2 The practical tasks provided in assessment shall be based on real workplace issues. Therefore, Industry practitioners shall be involved in developing workplace problem solving tasks or work application project to be used in competency assessment.

5.2.5.3 A practical test shall include, but not limited to:

a) Skills specified in the Occupational Training Standards that are being assessed.

b) An outline of the problem/s to be solved or project/s to be completed.

c) A description of the task/s they need to perform.

d) Any associated specifications.

e) A scenario in which they will need to demonstrate their understating of the task/s performed.

f) A list of the areas about which they will be asked questions.

g) A list of tools, equipment, materials and supplies needed.

h) A set of questions to be used for the knowledge-based assessment.

5.2.5.4 The observation instruments/checklists shall include an assessment of trainee's knowledge. The assessor is required to ask the candidate why they are doing something to ensure they are not just copying what has been shown to them.

5.3 Quality Checks

The assessment body and/or assessment center shall undertake several checks before implementing a new assessment tool to ensure it is consistent with the requirements of the occupational standards.

The assessment tools shall be checked for the following characteristics:

a) Reliability

b) Validity

c) Fairness

d) Relevance to the workplace context

e) Content accuracy

f) Ease of use

g) Cost effectiveness

h) Avoidance of bias

i) Testing the required scope of the competencies

Quality checks shall include:

a) Validation of assessment tools by subject matter experts including industry representatives

b) Piloting/Trialling

5.3.1 Validation of assessment tools

This can be done in either of the following two ways

5.3.1.1 Reviewing the tool with peer assessors to check whether:

i) The tool will address all assessment requirements of the unit of competency

ii) The content is appropriate to the unit of competency

iii) The tool will enable effective and efficient collection of evidence

iv) Clear instructions are provided

5.3.1.2 Industry representatives

Should critique the tool for clarity, reliability, validity, content accuracy, relevance and appropriateness of language for the candidate.

NOTE   Validation checklist/report shall be retained and produced in full at all times as may be required.

5.3.2 Piloting

Piloting is also referred to as 'trialing'. The findings of the pilot will help the assessor to predict whether the assessment tool:

i) would produce valid and reliable evidence.

ii) has user friendly format.

iii) literacy and numeracy levels are appropriate.

iv) has the clarity of the instructions and the practicality of the format for recording assessment evidence and judgements.

v) Time allowed for assessment tasks is suitable.

vi) degree of adaptability with variations in context and the needs of candidates, while still ensuring valid and reliable assessment decisions.

vii) would be cost effective to implement.

See Annex B.9 - Sample checklist for validation of assessment tools – Rules of Evidence.

See Annex B.10 - Sample checklist for validation of assessment tools – Principles of Assessment.

See Annex B.11 - Sample checklist for validation of assessment tools – Dimensions of Competency.

Annex A
(informative)

Assessment tools

Table 1 — Some of the assessment methods

Method	Description
Direct observation	Assessed in real time in the workplace
	Assessed in a simulated off-the-job situation that reflects the workplace
Product based methods	Structured assessment activities such as reports, displays, work samples, role plays, and presentations
Portfolio	A purposeful collection of work samples of annotated and validated pieces of evidence, compiled by the learner
	Evidence could include written documents, photographs, videos or logbooks
Questioning	Generally, more applicable to the assessment of knowledge evidence.
	Assessment could be by written or oral questioning, conducting interviews and questionnaires
Third party evidence	Evidences of performance from past supervisors

Annex B
(informative)

Example for ensuring your assessment tool includes required assessment conditions

B.1 Provision of care for babies and toddlers

The following assessment conditions shall follow:

i)   Skills shall be demonstrated in a regulated education and care service (physical condition).

ii) Simulations and scenarios shall be used where the full range of contexts and situations cannot be provided in the workplace or may occur only rarely. These are situations relating to emergency or unplanned procedures where assessment in these circumstances would be unsafe or is impractical (contingencies).

iii) Simulated assessment environments shall simulate the real-life working environment where these skills and knowledge would be performed, with all the relevant equipment and resources of that working environment. (Equipment requirements, relationship requirements, and timeframes).

B.2 Criteria for assessment

The criteria for assessment shall:

i)   Be based on National Early Childhood Development Policy Framework (specifications).

ii) Involve the interactions with actual babies and toddlers under the age of 24 months under the supervision of an early childhood educator (equipment requirements, physical conditions, relationships).

iii) satisfy the Trainers Qualification Framework (TQF) mandatory competency requirements for trainers/assessors (specifications).

NOTE   Assessment tools developed for this unit shall reflect these assessment conditions. All skills shall be demonstrated in a regulated education and care service, where the learner will demonstrate those skills either in a real-time working environment or in a simulated off-the-job situation that reflects the workplace. Regardless of whether the assessment is conducted in real time or in simulation, the tasks shall reflect framework requirements and the resources for assessment shall include actual babies and toddlers (not a simulated doll). The assessment tool shall ensure that the person making the determination of competence is a trainer/assessor who meets the requirements of the Trainers Qualification Framework (TQF).

B.3 Performance criteria weighting

UNIT CODE: ENG/OS/AME/CC/01/4/A

UNIT TITLE: TECHNICAL DRAWING

Elements	Performance Criteria	Weighting of PCs	
		Theory	**Practical**
1. Use and maintain drawing equipment and materials	Identification and care of drawing equipment	1	1
	Identification and care of drawing materials	1	1
	Reference to manufacturer's instructions and, workplace procedures on use and maintenance of drawing equipment and materials	1	5
	Reference to relevant environmental legislations	1	3
Sub Total 1		**4**	**10**
2. Produce plane geometry drawings	Types of lines in drawings	6	3
	Construction of geometric forms	0	6
	Construction of different angles	0	6
	Measurement of different angles	0	4
	Bisection of different angles and lines	0	6
	Standard drawing conventions	6	3
Sub Total 2		**12**	**28**
3. Produce solid geometry drawings	Interpretation of sketches and drawings of patterns	4	8
	Sectioning of solids	6	10
	Development and interpenetrations of solids	6	20
Sub Total 3		**16**	**38**
4. Produce solid pictorial drawings	Free hand sketching	2	4

	Isometric Drawing	3	7
	Oblique drawing	3	7
Sub Totals 4		**8**	**18**
5. Produce orthographic drawings	Meaning of pictorial and orthographic drawings	3	0
	Meaning of sectioning	3	0
	Meaning of symbols and abbreviations	3	0
	Drawing and interpretation of orthographic elevations	4	20
	Dimensioning of orthographic elevations	3	10
	Sectioning of views	4	16
Sub Total 5		**20**	**46**
TOTAL		**60**	**140**
	Ratio for Level 4 **30% Theory; 70% Practical**	**3**	**7**

B.4 Special considerations for this unit of competency

Each Performance Criteria shall be assessed at least once.

A candidate should score at least 50% in each performance criteria.

Assessment Matrix

Unit Code: ENG/OS/AME/CC/01/4/A
Unit Title: Technical Drawing

Elements	Performance Criteria	Method of Assessment			
		Questioning	Direct Observation	Third-party observation report of skills at the workplace	Portfolio of documents used and created
1. Use and maintain drawing equipment and materials	Identification and care of drawing equipment	√	√	-	-
	Identification and care of drawing materials				

	Reference to manufacturer's instructions and, workplace procedures on use and maintenance of drawing equipment and materials				
	Reference to relevant environmental legislations				
2. Produce plane geometry drawings	Types of lines in drawings				
	Construction of geometric forms				
	Construction of different angles				
	Measurement of different angles				
	Bisection of different angles and lines				
	Standard drawing conventions				
3. Produce solid geometry drawings	Interpretation of sketches and drawings of patterns				
	Sectioning of solids				
	Development and interpenetrations of solids				
4. Produce solid pictorial drawings	Free hand sketching				
	Isometric drawing				
	Oblique drawing				
5. Produce orthographic drawings	Meaning of pictorial and orthographic drawings				
	Meaning of sectioning				
	Meaning of symbols and abbreviations				
	Drawing and interpretation of orthographic elevations				
	Dimensioning of orthographic elevations				
	Sectioning of views				

B.5 Some of the assessment methods

Method	Description
Direct observation	Assessed in real time in the workplace
	Assessed in a simulated off-the-job situation that reflects the workplace
Product based methods	Structured assessment activities such as reports, displays, work samples, role plays, and presentations
Portfolio	A purposeful collection of work samples of annotated and validated pieces of evidence, compiled by the learner
	Evidence could include written documents, photographs, videos or logbooks
Questioning	Generally, more applicable to the assessment of knowledge evidence.
	Assessment could be by written or oral questioning, conducting interviews and questionnaires
Third party evidence	Evidences of performance from past supervisors

B.6 Table of specifications

Qualification: Agriculture Machinery and Equipment

Unit of Competency: Technical Drawing

Unit Code: ENG/OS/AME/CC/01/4/A

Elements	Performance Criteria	Knowledge						Understanding						Application						Skills	Attitude	Totals
		MCQ		SA		Oral		MCQ		SA		Oral		MCQ		SA		Oral				
		No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks			
1. Use and maintain drawing equipment and materials	1.1 Identification and care of drawing equipment					1	1															1
	1.2 Identification and care of drawing materials					1	1															1
	1.3 Reference to manufacturer's instructions and , workplace procedures on use and maintenance of drawing equipment and			1	1																	1

Elements	Performance Criteria	Knowledge MCQ No. of Questions	Marks	SA No. of Questions	Marks	Oral No. of Questions	Marks	Understanding MCQ No. of Questions	Marks	SA No. of Questions	Marks	Oral No. of Questions	Marks	Application MCQ No. of Questions	Marks	SA No. of Questions	Marks	Oral No. of Questions	Marks	Skills	Attitude
	materials																				
	1.4 Reference to relevant environmental legislations	1	1																		
2. Produce plane geometry drawings	2.1 Types of lines in drawings	2	2	1	2	2	2														
	2.2 Construction of geometric forms																				
	2.3 Construction of different angles																				
	2.4 Measurement of different angles																				
	2.5 Bisection of different angles and lines																				
	2.6 Standard drawing conventions			2	4	1	2														
3. Produ	3.1 Inte	1	2	1	2																

Elements	Performance Criteria	Knowledge						Understanding						Application						Skills	Attitude	Totals
		MCQ		SA		Oral		MCQ		SA		Oral		MCQ		SA		Oral				
		No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks			
ce solid geometry drawings	rpretation of sketches and drawings of patterns																					
	3.2 Sectioning of solids	1	2	1	4																	6
	3.3 Development and interpenetrations of solids	1	2	1	4																	6
4. Produce solid pictorial drawings	4.1 Free hand sketching					1	2															2
	4.2 Isometric Drawing			1	3																	3
	4.3 Oblique drawing			1	3																	3
5. Produce orthographic drawings	5.1 Meaning of pictorial and orthographic drawings	1	1	1	2																	3
	5.2 Meaning of sectioning	1	1	1	2																	3
	5.3 Meanin	1	1	1	2																	3

Elements	Performance Criteria	Knowledge						Understanding						Application						Skills	Attitude
		MCQ		SA		Oral		MCQ		SA		Oral		MCQ		SA		Oral			
		No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks	No. of Questions	Marks		
g of symbols and abbreviations																					
5.4 Drawing and interpretation of orthographic elevations		1	1	1	1	1	2														
5.5 Dimensioning of orthographic elevations				1	3																
5.6 Sectioning of views				1	3	1	1														
Sub Totals																					
Totals		No. of Questions = Total Marks =						No. of Questions = Total Marks =						No. of Questions = Total Marks =							

Key:

MCQs: Multiple Choice Questions

SA: Short Answer Questions

B.7 Evidence matrix

Qualification:

Unit of Competency:

Unit Code:

Duties and Tasks	Actions required by test applicant for each assessment method**		
	Direct observation	**Interview/oral questioning**	**End product**
Duty: Diagnose and repair of fuel system	The candidate is required to conduct one or more of the following activities:		
Task 1: Diagnosing fuel system failures, defining causes and repairing	Tuning engine by using the analyser.	The candidate is asked to mention the most common reasons behind the engine's failure to start on cold conditions	The candidate is given a car engine that needs carburettor cleaning and tuning, and applicant is assessed on the basis of stabilization of engine operation after cleaning and tuning by using the exhaust analyser
Task 2: Dissembling fuel tank from vehicle, defining failure and reassembling it; Checking fuel pipes and carrying out necessary repairs	Disassemble fuel tank and check dents and leaking and reassemble		
Task 3: Checking pressure and emptying of fuel pump; Removing fuel pump (mechanical, electrical) from engine and reinstalling	Check electrical/mechanical fuel pump by using special apparatus		
Task 4 Removing carburettor from engine and reinstalling; Dissembling carburettor into parts and reassembling; Conducting maintenance for carburettor; Dissembling air and fuel filters, cleaning and reinstalling	Dissemble carburettor and carry out necessary maintenance and reassemble it	Applicant is asked to mention the main circuits inside the carburettor	
**Other assessment methods could also be added to the matrix (simulation, project, etc.).			

B.8 Considerations for instructions to candidate

Area to address	Explanation	Example
Why they are being assessed?	Explain the reason for the assessment	For a qualification; RCC; recruitment; registration or licensing; to identify LLN proficiency
The steps involved in the assessment	Confirm what will happen during the assessment Describe the assessment method/s and instrument/s being used	Explanation of assessment – what they are required to do and when Completion of assessment activities Submission of assessment evidence Assessment decision Feedback and reporting
The conditions under which the assessment will be conducted	Explain where and when assessment will take place	In the workplace; in a group learning environment; online; in a simulation
How their competence will be judged	Describe the performance measures that will be used to judge competence	Provide a copy of, or describe, the assessment criteria The method that will be used to give feedback How the decision will be reported
Candidate responsibilities	Describe what they need to do and when they need to do it	Understand and follow the instructions Submit evidence on time Ask the assessor if in doubt about anything Format that they shall use to submit evidence (Word document submitted by email, for example) Evidence shall be authentic (original, referenced, not plagiarised)
Materials and resources required for assessment	Describe the materials they need access to for the assessment	Equipment, computer, blank templates, checklists, self-assessment tools, a copy of policies and procedures

B.9 Sample checklist for validation of assessment tools – Rules of Evidence

S/No.	Rules of evidence	Rules of evidence covered – assessment tool	Q	DO	3P	PF	Additional assessment required
1.	Valid – evidence related directly to the competency	Observes and facilitates a range of groups over a period of time. All criteria are met more than once.	√	√	√	√	
2.	Sufficient – enough evidence to be sure that the student can perform the task/activity correctly on a consistent basis under a range of conditions	Facilitates a range of groups over a period of time. All criteria are met more than once	√	√	√	√	

| 3. | Current – recent enough evidence to be sure that the student can perform competency at the time of assessment | Direct observation and third-party reports ensure currency in facilitation skills, questions and portfolio checklist given out during training | √ | √ | √ | √ | |
| 4. | Authentic – the assessor can be sure that the evidence is the student's own work | Direct observation by qualified assessor and declarations of authenticity for third party, questions and portfolio evidence | √ | √ | √ | √ | |

Key:

1. Questioning = Q
2. Direct Observation = DO
3. Third-party observation report of skills at the workplace = 3P
4. Portfolio of documents used and created = PF

B.10 Sample checklist for validation of assessment tools – Principles of Assessment

S/No.	Rules of evidence	Principles of assessment covered – Assessment tool	Q	DO	3P	PF	Additional assessment required
1.	Valid – evidence relates directly to the competency and is based on realistic workplace practices	All assessment tasks relate directly to all the criteria in the unit of competency and assessment guidelines. A variety of groups are facilitated and qualified workplace assessors and third-party supervisors used	√	√	√	√	
2.	Fair – all students are provided with an equal opportunity to be assessed as competent	Clear and timely information about the assessments is given. The process is open and transparent, free from discrimination and bias. All students have the right to appeal and be reassessed	√	√	√	√	
3.	Flexible – the assessment process is able to be changed to accommodate the needs and characteristics of the students	A range of assessment methods is used appropriate to the context and students' characteristics. RCC and RPL are provided for. Assessment timing, readiness and venue are up to the student	√	√	√	√	
4.	Reliable – the same assessment outcome is achieved regardless of the assessor	Clear assessment checklists and instructions are provided. Processes and tools are trialed and moderated. Regular professional development is undertaken	√	√	√	√	

Key:

1. Questioning = Q
2. Direct Observation = DO
3. Third-party observation report of skills at the workplace = 3P
4. Portfolio of documents used and created = PF

B.11 Sample checklist for validation of assessment tools – Dimensions of Competency

S/No.	Rules of evidence	Dimensions of competency covered – assessment tool	Q	DO	3P	PF	Additional assessment required
1.	Task skills	Plan and support a variety of group activities. Demonstrate effective communication skills	√	√	√	√	
2.	Task management skills	Manage group processes. Identify and demonstrate group models and their purpose. Analyse and report on group outcomes	√	√	√	√	
3.	Contingency skills	Research and use organisation's booking and referral procedures for new resources. Explain how to and/or manage conflict as it arises	√	√	√	√	
	Job/role environment skills	Demonstrate application of organisation's policies and procedures. Develop and maintain positive relationships	√	√	√	√	

Key:

1. Questioning = Q
2. Direct Observation = DO
3. Third-party observation report of skills at the workplace = 3P
4. Portfolio of documents used and created = PF

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