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Skills and Technical Education Programme

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STEP Manual Series

- No. 1 -

PROCESS FOR THE DEVELOPMENT OF TEVET COURSES

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Process for the Development of TEVET Courses

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This publication was produced with the financial support of the European Union under the Skills and Technical Education Programme (STEP). Its contents are the sole responsibility of the consultant and do not necessarily reflect the views of the European Union or UNESCO.

Production record

Developed	Revision

Developer: S. Coetzee
Version No: 01: May 2017

Table of Contents

Acknowledgement

This manual was developed through consultation and combined effort of individuals, organisations and collaborating partners too many to list. The following individuals are acknowledged for their effort and special contributions to the development of the manual.

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The European Union funded the Skills and Technical Education Programme(STEP) under which this manual was developed. UNESCO managed this part of STEP.

Foreword

The Government is committed to providing opportunities for the people of Malawi to develop their skills and obtain gainful and decent work.

The Technical, Entrepreneurial and Vocational Education and Training (TEVET) Act of 1999 and the revised TEVET Policy of 2013 promotes a Competence Based Education and Training (CBET) approach to provision of technical, entrepreneurial and vocational education and training in Malawi. The approach is standards based, modular and has a system of continuous and summative assessment. The competence standards are developed by industry. TEVET institutions are expected to deliver training according to the expected level of performance set by the industry.

As occupations develop and change, new standards and new training approaches are required to ensure students continue to be well prepared for employment with competencies and expectations that meet employer needs. This manual sets out the process by which new training is developed, including assessment of need, review of existing materials and the development, testing and approval of new curricula and training approaches.

Users of this manual will be TEVET instructors, curriculum development staff from various agencies, as well as private sector representatives who may wish to develop training internally or partner more effectively with national organizations.

The manual builds on and reflects the efforts made to date to update Malawi's TEVET system. It will ensure that we can continue to update and improve our approach to technical, entrepreneurial and vocational education and training for the betterment of all.

Honourable Grace Chiumia, M.P.
Minister of Labour, Youth, Sports and Manpower Development

Definition of Terms And Acronyms

The section has been included to enable users to get acquainted with common terms and definitions they may come across and will guide in developing training. Some of the terms may not appear in this booklet but, the list presents those that are commonly used in the TEVET system and may not be exhaustive.

- ***Accreditation:*** is the act of granting credit or recognition, especially to an educational institution, a person, a body or a program that maintains suitable standards or having the capacity to fulfil a particular function in the quality assurance system set up by an Authority, usually for a particular period of time.
- ***Assessment:*** is a process of gathering evidence of a learner performance.
- ***Assessor:*** is an individual, registered by an Awarding Body in accordance with criteria established for this purpose to measure the achievement of specified standards and qualifications.
- ***Certification:*** is the process of issuing a certificate as evidence of a learner's achievement of competencies.
- ***Competence Standard:*** is a benchmark against which all learners are assessed to measure their competences. It describes the skills, knowledge and values, necessary for standard performance required in the workplace and is the smallest unit that can be registered on the TQF.
- ***Competence:*** is the ability to do or perform a task or work activity well i.e. skills, knowledge and values according to the minimum acceptable standards.
- ***Competence Based Education and Training (CBET):*** is an approach to education and training programmes designed to allow a learner to demonstrate satisfactorily the skills, knowledge and values required at the work place.
- ***Continuous Assessment:*** is a rigorous, on-going process of gathering evidence of a learner performance throughout their course.
- ***Curriculum Development Coordinating Committee (CDCC):*** A body established by STEP to help guide development of new curricula.
- ***Credit:*** a nationally recognised value of competence in a specific standard acquired in 10 notional hours of learning time based on average learner.
- ***DACUM Chart:*** is an illustration of duties and tasks performed in a particular occupation.
- ***DACUM:*** is an acronym for Developing A Curriculum. It is a method of occupational/job analysis during which experts describe an occupation/job in terms of the duties and tasks workers in that occupation/job perform at the workplace.
- ***Fundamental Competences:*** are applied/associated subjects that form the grounding basis needed to undertake the education and training or further learning required in obtaining a qualification.
- ***Gender:***[1] refers to the social attributes and opportunities associated with being male and female and the relationships between women and men and girls and boys, as well as the relations between

1 Gender definitions are from UN Women. The definition of inclusion is from UNESCO.

women and those between men. Gender is part of the broader socio-cultural context. Other important criteria for socio-cultural analysis include class, race, poverty level, ethnic group and age.

- ***Gender equality:*** refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men will become the same but that women's and men's rights, responsibilities and opportunities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. Gender equality is not a women's issue but should concern and fully engage men as well as women. Equality between women and men is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-centered development.

- ***Gender analysis:*** Gender analysis is a critical examination of how differences in gender roles, activities, needs, opportunities and rights/entitlements affect men, women, girls and boys in certain situation or contexts. Gender analysis examines the relationships between females and males and their access to and control of resources and the constraints they face relative to each other. A gender analysis should be integrated into all sector assessments or situational analyses to ensure that gender-based injustices and inequalities are not exacerbated by interventions, and that where possible, greater equality and justice in gender relations are promoted.

- ***Inclusion:*** Inclusion means providing appropriate responses to the broad spectrum of learning needs in formal and non-formal educational settings. Inclusive education is an approach that seeks to transform education systems and other learning environments in order to respond to the diversity of learners. It aims towards enabling teachers and learners both to feel comfortable with diversity and to see it as a challenge and enrichment of the learning environment, rather than a problem. Inclusion emphasizes providing opportunities for equal participation of persons with disabilities (physical, social and/or emotional) whenever possible into general education but leaves open the possibility of personal choice and options for special assistance and facilities for those who need it.

- ***Module:*** is a smallest unit that can form an independent training course. It describes delivery methodologies and strategies for teaching and learning, and assessment.

- ***Moderator:*** Moderators quality assure practical and written tests used in final assessments according to a set criteria for quality and consistency.

- ***Occupational Working Group (OWG):*** is a group of occupational experts from industry, training institutions and other organizations who develop standards and qualifications on behalf of the industry.

- ***Qualification:*** is a formal recognition of the learner's achievements of the required number, type and proportion of credits at specific levels of the Qualification Framework as may be determined by the Technical Qualifications Committee.

- ***Recognition of Prior Learning (RPL):*** is the process of assessing and formally recognizing what people have learned on the job and through life experience regardless of where or how the learning took place.

- ***Systematic Curriculum and Instructional Development (SCID)***

- ***Summative Assessment:*** is a process of gathering evidence of a learner performance at the end of their course.

- ***Technical Qualifications Committee (TQC):*** is a sub-committee of the TEVETA Board which is responsible for overseeing the development, implementation and quality assurance of the TQF.

- ***TEVET Qualifications Framework (TQF):*** is a framework that guides the curriculum development, implementation and certification of the TEVET Sector. It is characterised by a 4 tier qualification levels illustrated using problem solving level descriptors.

- ***TEVET Stakeholders:*** are the people, organisations and institutions supporting the TEVET system or benefiting from it.

- ***TEVET:*** means Technical, Entrepreneurial and Vocational Education and Training system for skills acquisition which contributes to the development of human resources, economic development and poverty eradication.

- ***TEVETA:*** is the Technical, Entrepreneurial and Vocational Education and Training Authority of Malawi which is an independent and autonomous body mandated to regulate the provisions of the reformed TEVET Act No. 6 of 1999.

- ***Trade Advisory Committee (TAC):*** is a body representing industries within a specific Trade/ Occupation on all matters pertaining to the development and implementation of TEVET standards and qualifications.

- ***Sector Advisory Committee (SAC):*** is a body representing business in a particular industry / business sector that performs advocacy on behalf of the specific sector.

- ***Verification:*** is a process of monitoring assessment practice to ensure that assessment decisions are consistent and accurate.

- ***Verifiers:*** are individuals who are registered to conduct verifications.

- ***CEDEFOP:*** Centre Européen pour le Développement de la Formation Professionnelle (French: European Centre for the Development of Vocational Training)

- ***Learning Outcomes:*** Learning outcomes are statements that describe significant and essential learning that learners have achieved, and can reliably demonstrate at the end of a course or program. In other words, learning outcomes identify what the learner will know and be able to do by the end of a course or program.

- ***OER:*** Open Educational Resources

The Tevet Qualifications Framework (TQF)

The TEVET Qualification Framework (TQF) is a framework that guides the development of curriculum, delivery and certification of training programs in the TEVET system. The system is demand–driven, flexible and takes the form of Competence Based Modular approach to delivery of skills training.

Components of Qualifications

A qualification to be registered on the TQF shall be made up of Occupational and Fundamental Competences. Occupational Competences specify the skills, knowledge and attitudes necessary for efficient performance at the workplace.

Fundamental Competences: are applied/associated subjects that form the grounding basis needed to undertake the education and training or further learning required in obtaining a qualification: These may include Communication, Numeracy, Science, Entrepreneurship and Occupational Safety and Health and others depending on the occupational demands.

Currently, there are four levels of qualifications on the TQF, thus; Foundation, Intermediate, Advanced and Diploma Levels. The levels are illustrated in the table below:

Table 1. ***TEVET Qualification Framework***

1	2	3	4	5
Level	**Occupation Type**	**Protected Qualification Title**	**Problem Solving Level Descriptors**	**Credit Requirements**
4	Technician	Diploma	Wide ranging competence requiring analysis and interpretation of information that has to be sought to produce innovative responses to concrete and unfamiliar problems	(480)120+
3	Artisan	Advanced Certificate	Well-developed range of competence requiring interpretation of available information to produce a range of responses to concrete but unfamiliar problems	(360)120+
2	Operative	Intermediate Certificate	Moderate range of competence requiring some processing of easily available data to choose from a range of known responses to familiar problems	(240)120+
1	Assistant Operative	Foundation Certificate	Narrow range of competence requiring mostly recall of known solutions to familiar problems	120
Entry Levels				

The training development process described in this Manual is an enhanced version of the process which has been used by TEVETA for some years. There is a strong link to Benjamin Bloom's Taxonomy of Learning Objectives, but readers should also be aware that there are other taxonomies such as Dreyfus and Dreyfus (novice to expert model) and others in the field of education and training.

https://en.wikipedia.org/wiki/Dreyfus_model_of_skill_acquisition

Readers might also refer to new developments in writing Learning Outcomes as described in a new publication available from CEDEFOP.

http://www.cedefop.europa.eu/en/publications-and-resources/publications/4156

It is also acknowledged that reference to media in the learning style section of this manual describes it only in terms of videos, images and slides whereas now there are many other resources available such as Open Educational Resources (OERs). We now also have wider availability of Information and Communication Technology (ICT); however, a majority of instructors particularly working in the smaller communities may not have ready access to these innovations at this time.

Another important point is this manual deals with training needs at micro-level, that is, it deals with questions such as: what are training needs in a company? what topics should be covered in a training programme? The manual does not look at skills demand at the macro-level, i.e. labour market analysis, or sector skills analysis. Such analyses should be studied because they can lead to a better understanding of labour demand and skills demand in economic sectors but they are not the subject of this manual.

New sets of DACUM charts, occupational standards, curricula maps, and Facilitator and Learner Guides have been prepared using the procedures and templates described in this Manual. These new materials will be piloted in Malawi which in turn may led to future adjustments in this Manual.

A new manual on the topic of assessment in competency based education and training is under development and will be available to expand the rather brief description on the subject provided in this manual.

Introduction

This manual has been developed as a guide for individuals and organisations who identify training needs, and for TEVETA staff and others who develop curricula, teaching/training and assessment materials. It is intended to ensure a uniform approach to the development of new training interventions in line with Malawi's TVET system.

The Manual consists of four sections, corresponding to major stages in the development of training. It is introduced with and anchored by a process flow chart illustrating the steps and decision points. A final section provides detailed templates and guides for each of the major steps, along with additional relevant material.

Use of this manual will enable training developers to produce Training Module Packages that meet the requirements of the TVET Qualifications Framework (TQF). Most importantly, training should develop competencies that meet the needs of industry. Users should consult existing, approved Training Module Packages for additional guidance and models for training materials.

Training design is a complex and iterative process that is best done in stages to ensure that there is time to check and consult during development to ensure the best possible result. Four key principles should be reflected in the design process:

- Clarity: ensuring that all those working on the development of a new training module understand its purpose, the parameters and the requirements.
- Capacity: ensuring that the team has the required skills and experience to complete the tasks and has adequate time and resources.
- Consistency: Ensuring that the training approaches and materials are appropriate for the intended purpose.
- Commitment: ensuring that all stakeholders stay engaged with the process and the result.

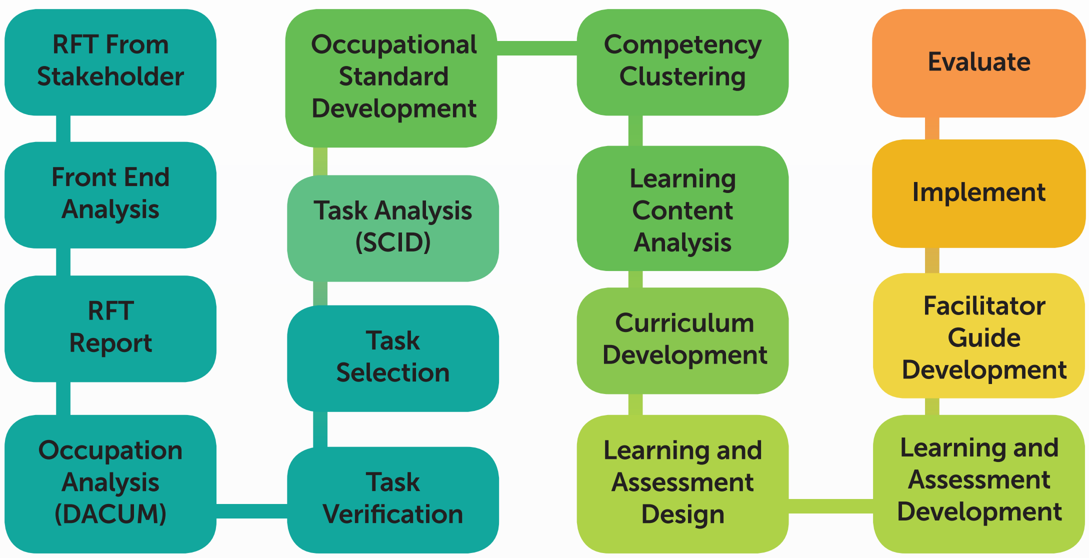
This guide was originally drafted by Mr. Simon Coetzee, UNESCO consultant on STEP in consultation with TEVETA and other stakeholders and is aligned with the earlier course development process used at TEVETA. This revised process is more comprehensive and detailed. The guide was finalized by Anne Richmond.

Training Development Process Overview

TEVETA has identified the DACUM (Developing a Curriculum) and SCID (Systematic Curriculum and Instructional Development) processes as the best methodology to ensure that training curricula and materials are developed to reflect the needs of the private sector and result in effective skills transfer to learners. This document is intended to be the guideline for this and the framework for a training course in DACUM and SCID facilitation.

The process flow below indicates the main steps in the identification and development of industry linked training programs and curricula.

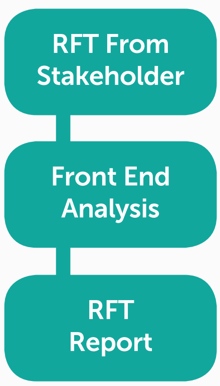
Figure 1: ***Training development process***



These steps are presented in the following major groups to facilitate use. A detailed flowchart is provided in Annex 1.

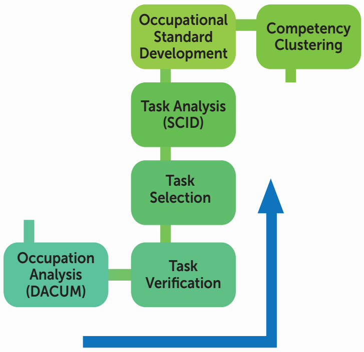
1. Identification of Training Need

These are processes designed to determine a need, describe it accurately in terms of potential trainees and employment, and define the training requirement. This process may lead to a determination that training is not the best response to an identified need.



- Request for training is the initial request from a stakeholder
- Front end analysis identifies the performance gap
- The RFT report identifies the training need (if any)

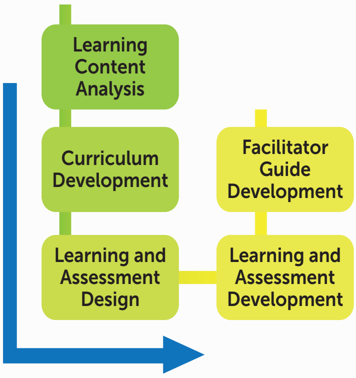
2. Analysis



Once a training need has been identified, the process of developing a training response is initiated. This includes detailed analysis of the occupation, tasks, standards and competencies to be addressed in training.

- The DACUM process uses practitioners in an occupation to identify duties and tasks.
- Task verification verifies the DACUM work.
- After the DACUM chart is completed, a task selection is conducted to identify those tasks for which improved performance is most critical.
- Task analysis of each task is performed (task analysis) to identify the skills, knowledge, attitudes/values, tools, material and equipment required to perform the task.
- Occupational Standards document the above description.
- Knowledge and skills that exist across a number of tasks are clustered based on common elements.

3. Development of learning materials and curriculum



Once the competencies have been identified, learning materials and curriculum can be developed.

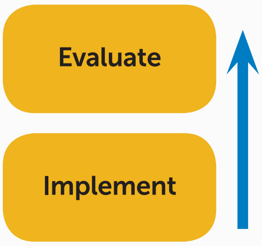
- Competence clusters are analyzed to identify learning outcomes, learning steps and assessment criteria.
- Curriculum modules are developed following a common template.
- A design for the learning and assessment delivery is determined.
- Trainee learning materials are developed being mindful of gender neutral language and relevant images.
- Guides for facilitators are developed with similar gender considerations.

4. Implementation and evaluation

A new learning module should be thoroughly tested, and corrections made before it is fully implemented. Plans for dissemination include training of trainers and logistical planning. Training must be evaluated on a regular basis to ensure it remains relevant and effective.

- Implementation includes two phases: pilot testing and rollout.
- Evaluation occurs during pilot testing, at the conclusion of each delivery of training, and on a regular basis to ensure ongoing effectiveness.

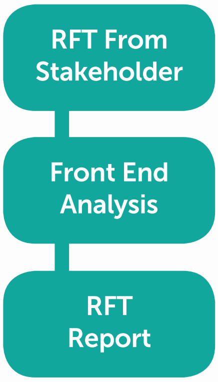
Gender Equality and Inclusion



These themes form an integral part of every stage of the process, from who is involved in needs assessment, how analysis is conducted, to the materials and strategies developed for training and learning.

1. Identification of Training Need

Overview



The decision to develop training is in response to an identified gap or deficiency: a "need". Through analysis, it can be determined if this need can or should be addressed through a training intervention. Definition of a training need starts from a clear understanding of the desired end state, the present state, and the gap between the two. Defining the desired end state is one of the most important tasks as this is the basis for defining the desired learning outcome.

There are three stages in identification of a training need for training providers working with TEVETA:

1. Request for training
2. Analysis of the training need, including gender and inclusion analysis
3. Final determination of the training requirement

Request for Training (RFT)

A training provider, employer or group may identify a need. Using the Request for Training (Annex No. 2) form, they will define the initial basis for the request by describing a 'perceived training need' This is described in terms of gaps or deficiencies in knowledge and/or skill and/or attitude within a specific target population. The target population may be trainees, graduates, current employees, unemployed individuals, etc. The impact of this gap/deficiency must also be defined: for example, are graduates of a programme unable to find employment because their skills do not meet employer needs? Or is there a cost to the industry in terms of poor quality of work in a specific area? The Request for Training should also specify who is seeking to provide the training. It should identify all stakeholders for this request. Stakeholders include training providers, employers, potential trainees and others who have responsibilities related to the training or need.

The Request for Training is submitted to the TEVET Authority (TEVETA). TEVETA checks the form for completeness and registers completed forms for action by TEVETA. TEVETA will assign one of its curriculum development staff to complete the next stage: analysis of the training need.

It is important to note that the originator of the Request for Training is responsible for defining the need in terms of gaps and deficiencies, and in clearly describing these.

Example

Skill and knowledge required: Solar PV Installers are able to install a circuit in a way that complies with specified standards and regulations

Skill and knowledge reality: Installers are not aware of standards and regulations related to circuit installation, their practice may or may not conform.

Gaps:

- Installers need to know the required standards and be aware of updates.
- Installer practice needs to match current standard requirements.

Analysis of the Training Need

After receiving a Request for Training, it is the responsibility of TEVETA to assign an officer to prepare a **Request for Training Report (Annex No. 5)**, a detailed needs analysis which is the basis for determining whether a training intervention will be developed.

The analysis has two parts:

- Needs analysis, which explores the need in greater detail, and is documented in the **Front-End Analysis** template, and
- Target population analysis, which looks at the people for whom the need exists, in terms of their personal characteristics, current activities, learning styles and their own understanding of the need. This is reported in the **Target Population Analysis** template.

These two reports form part of the final Request for Training report.

Preparing a needs analysis will require identifying and analyzing both expressed and unexpressed needs, and strategies that address such needs. Expressed needs are those that are apparent to the target population, for example, they may know there are standards for circuit installation, and want to understand and apply them. Unexpressed needs are those that the target population are not aware of. In the same example, the need to keep updated as standards change may not be apparent to an individual.

Needs may also be defined at different levels: deficiencies observed at the level of individual workers may be in part the result of gaps in the skill or knowledge of their supervisor, or constraints in the general context of their work (poor quality equipment or materials).

Example

Training outcome expectation: Male and female graduates have the same rate of hire.

Training outcome reality: Women graduates are hired at only half the rate of men.

Needs:

- Ensure that male and female graduates achieve the same level of competency.
- Provide career guidance in the college to support transition to decent work opportunities
- Provide support programs for women in college that build their skills in public speaking, negotiation, and increased understanding of women's rights and labour laws.
- Address systemic gender bias of employers

In this example, the initial problem (low employment rates for women) may be the result of issues in training (are women graduating with lower levels of skill or experience?) but may also relate to employer bias. In this case the training need may be for employers rather than for the trainees.

Front End Analysis

The training need analysis explores the perceived need from a number of perspectives: The business, individual performance, existing training and the broader environment and context. The need analysis will normally involve data collection from a variety of sources; meetings and individual consultations with stakeholders and experts, and review of literature. The **Front-End Analysis template (Annex No. 3)** guides the researcher through the process and supports documentation. When complete, this part of the analysis helps define the need in terms of its expected impact in terms of the capacity of individuals.

Gap analysis tools are used to determine the nature of a performance gap. These include:

- Cause and Effect (Fishbone)
- 6 Sigma (5 Whys)
- Pareto Chart (Pareto Principle 80/20)
- Scatter Diagrams

Links to examples are provided in the annex.

The other element of the analysis is the target population. This means the people who have a gap or deficiency for which training may be an appropriate response. As noted above, the initially identified target population may be expanded or shifted as the need is more fully understood.

Analyzing the target population means first, identifying them, then understanding their characteristics in terms of what strategies will best address the gaps. The **Target Population Analysis template (Annex No. 4)** includes questions for all or a sample of the target population to complete that include how they perceive pressures/ gaps; and their own learning style and preferences. This information will inform both the needs assessment and the potential strategies in response. It is important to conduct the Target Population Analysis separately for women and men to get a true understanding of their needs.

Gender in needs assessment

Needs analysis is not a gender-neutral activity. Who is collecting information, how it is collected, and the assumptions that are made in designing questions and analyzing data will have gender implications. Gender implications should be, to the extent possible, made visible and conscious. This means, for example, ensuring that women as well as men participate in the needs analysis process at all levels; that the impact on women and on men is considered for all elements; and that the analysis and recommendations made are aimed at increasing gender equality. As women are often silenced when they are around men, the needs assessment should be conducted separately allowing women to voice their needs more openly and not to be silenced or spoken for. It would be beneficial to have a female facilitate this needs assessment for women. Take into consideration that women often have had less experience in the technical sectors and therefore may be unfamiliar with certain terms, tasks related to the job, or the work environment. Depending on the individuals' literacy rates, it may not be appropriate to request written responses.

Determining the Training Requirement

RFT
Report

The **Request for Training Report template (Annex No. 5)** is a consolidation of the data collection and analysis of the needs assessment process, and concludes with a summary describing the actual need, the target population, and a proposed course of action to take to address the need. This action may not be training. Training actions are defined in terms of Learning Outcomes: concrete descriptions of the skill, knowledge and values that make up a distinct unit of competence.

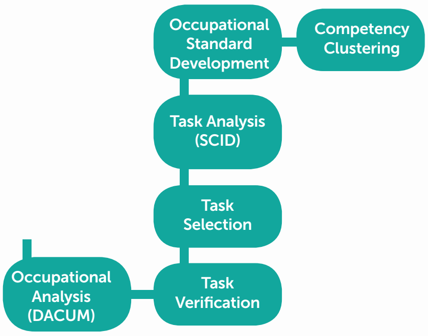
The report is sent to the TEVET Authority (TEVETA) Research, Planning and Monitoring Department for action. Recommended actions which are not training are communicated back to the original requestor.

Where training has been identified as an action, TEVETA will take the steps required to define this as a Learning Module, register it and assign a number.

TEVETA then assigns the task to an accredited curriculum development committee which is responsible for activities up to and including development of the Learning Module according to TEVETA standards.

2. Analysis of Training Requirements

Overview



Where a training need exists to address a performance gap, a detailed understanding of the occupation, tasks, standards and competencies to be addressed in training is required.

The six steps in analysis are described below. Together, this work will produce the information required to create CURRICULUM, training materials and guides.

Occupation Analysis (DACUM)

Occupation Analysis (DACUM)

DACUM is an acronym for **D**eveloping **A Cu**rriculu**m**. DACUM is a process used for:

- Job analysis – one job
- Occupational analysis – multiple related jobs
- Process analysis – performed by different workers
- Functional analysis – function covering several jobs
- Conceptual analysis – emerging job

The DACUM process is used to identify the roles and responsibilities of workers within a particular occupation through brainstorming with a group of expert workers. This process identifies duty and task statements and important knowledge and skills, tools and equipment, worker behaviors, and future job/occupational trends for an occupation.

A DACUM is normally facilitated by an individual experienced in the process and knowledgeable in the area to be analyzed. The working group for the DACUM should:

1. Comprise at least 6 to 8 practicing experts in the occupation to be analyzed,
2. Contain 2 to 4 individuals from training providers,
3. Have one to 2 individuals from senior management in the private/public sector related to the occupation,
4. Incorporate one or two individuals from a level below and above the occupation being analyzed for a different perspective on the occupation.

The work group will produce, over a period of 2 to 3 days, a list of duties (normally 5 to 12 per occupation) and related tasks (normally 4 to 12 per duty).

These are then aligned to the Malawi's Technical Qualification Framework (TQF)[2] at the correct level and presented in the form of a DACUM CHART.

2 The TQF is expected to be incorporated into a broader Malawi Qualifications Framework (MQF) in the near future. The new MQF will likely have Levels 1 to 10.

The DACUM chart forms the basis for occupational standard development. **DACUM Chart template (Annex No. 6)**

Task verification

The DACUM chart once developed should be verified by the end users in both the private and public sector. This should include a sign-off process. **DACUM Chart Sign Off template (Annex No. 7).**

Task Verification

Task Selection

The public and private sector should then indicate which task(s) are most critical to have the biggest impact (e.g. by Pareto 80/20) or those with the most critical need.

Task Selection

Task Analysis (Systematic Curriculum and Instructional Development (SCID))

Like the DACUM process, a group similarly constructed examines the skills, knowledge, attitudes/values, tools, materials and equipment needed to perform a task and defines the steps required to complete the task.

Task Analysis (SCID)

At each critical point in the process, safety, quality and environmental issues are highlighted and incorporated into the steps required to perform the task.

Occupational Standard development

From the above process, occupational standards are developed. A template for occupational standards is found at **Occupational Standards Template (Annex No. 8).** A quality checklist for occupational standards is found at **Criteria for the Quality Check of Occupational Standards (Annex No. 9).** Final sign off of an occupational standard can be collected on a **Sign off sheet (Annex No. 10).**

Occupational Standard Development

Competency Clustering

Once the knowledge, skills, etc. have been identified for the tasks, commonalities are clustered to form competence clusters.

Task Analysis (SCID)

Gender and the Analysis process

As with needs assessment, analyzing tasks, knowledge and skill requirements, attitudes and values can be affected by gender bias and assumptions unless a conscious effort is made to ensure a gender-inclusive approach is taken. There are a number of possible strategies to ensure gender inclusiveness:

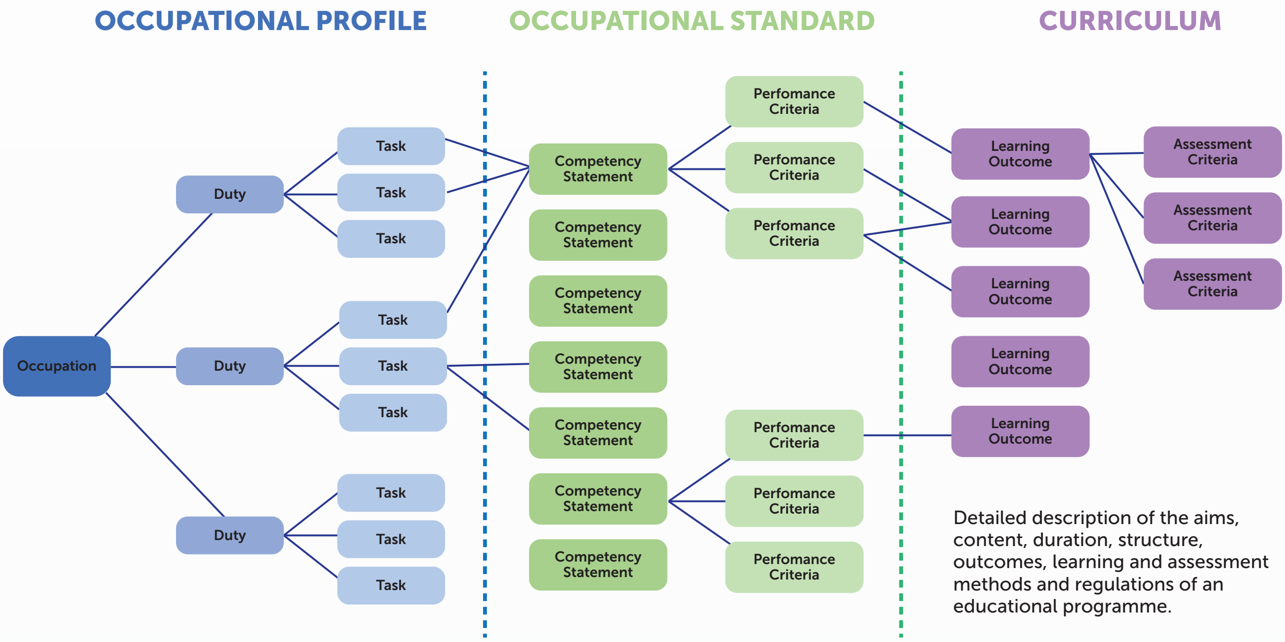
- When forming working groups of experts, ensure that both women and men are included, especially for occupations which are dominated by one or the other. Ensure the groups have equal representation; having only 1 or 2 of one gender is not acceptable and is not representative. The Malawi Gender Act calls for a 40/60 gender split – i.e. 60 % females and 40 % males or 60% males and 40% female.
- Ensure that validation and review processes include both women and men from different aspects of the industry/occupation and that both groups are given space and opportunities to participate.
- When identifying tasks and skills, take particular care to identify skills which may be culturally assigned to one gender. These skills may not be identified as critical for an occupation, if it is assumed they are 'naturally' part of the character of the gender most commonly doing the occupation. For example, keeping the work area tidy might be assumed to be a function of a (female) sewing machine operator's gender rather than a specific task for the occupation. Similarly, some attributes of a supervisory role might be associated with the gender roles of men, rather than identified as specific skills.
- Determining the attitudes / values for a specific occupation can be another area where gender assumptions can create problems. Work teams should describe these for each of men and women performing the task and create a combination that is inclusive of both genders.

3. Development of Learning Materials and Curriculum

Overview

This stage moves from the work done to analyze the tasks, identify competencies and cluster them to developing the actual learning materials. As the figure below illustrates, the curriculum will address only some of the competency statements found in the Occupational Standard, which in turn articulate only a sub-set of the most important duties and tasks of an occupation.

Figure 2: ***Developing a curriculum from an occupational profile***



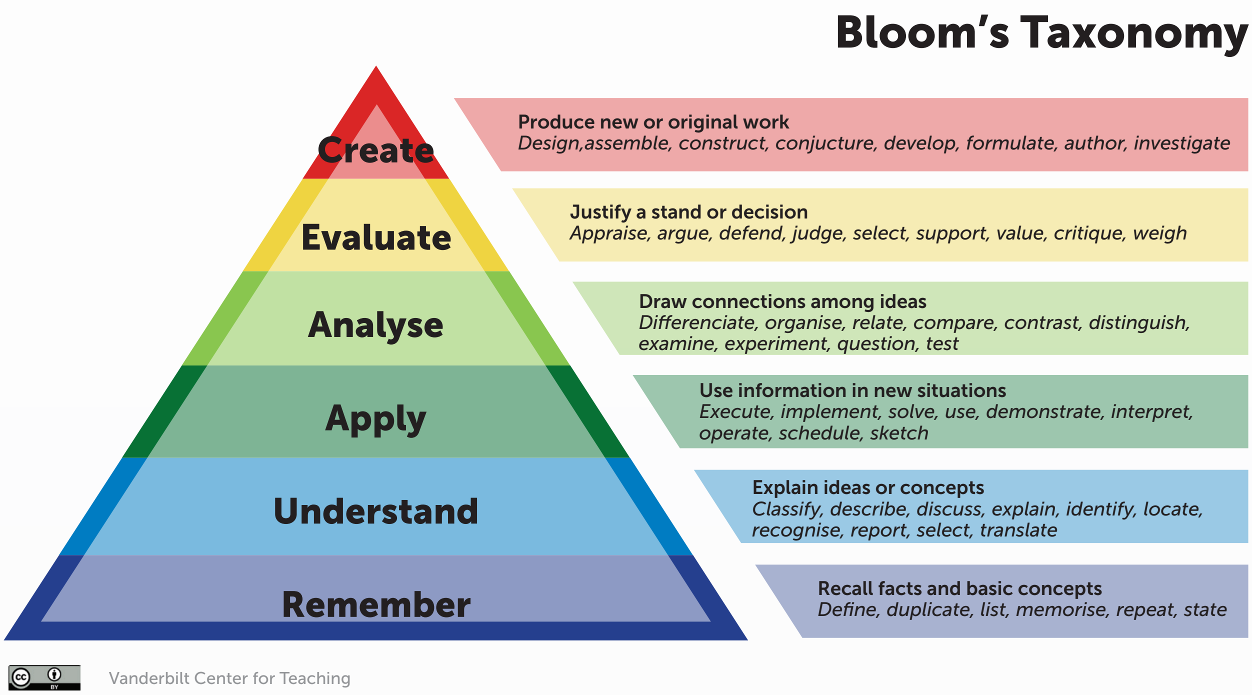
Learning Content Analysis

Learning Content Analysis

Using the competence clusters developed above, learning steps and assessment criteria are developed. The **Learning Content Analysis template (Annex No. 11)** sets out a systematic process for classifying the competences and creating learning outcomes.

The template uses the Taxonomy of Educational Objectives (known as Bloom's Taxonomy) which helps to describe learning objectives both in terms of subject matter and depth of learning to be achieved. **Annex 22** provides a short introduction to Bloom's taxonomy and examples of its use in practice. In summary, the taxonomy sets out a hierarchy of levels of learning, with the simplest at the bottom and the most complex at the top.[3]

Figure 3: *Bloom's taxonomy for cognitive learning*



The template also distinguishes between three types of competence:

- Foundational
- Practical
- Reflective

These are also hierarchical in nature, with foundational competences being at the base.

Curriculum Development

Curriculum modules are then developed based on the learning content analysis document. The TEVETA standard for a learning module (described in the TQF Handbook, with examples) requires it to include the following elements:

3 Most tasks at the trade level (TQF 1 to 3) would be at the lower level of Bloom's Taxonomy; i.e. knowing what to do and how to do it.

Heading	Content
Number	Assigned by TEVETA, example "EPS-01-02" for Entrepreneurship
Sector	The industrial sector within which the module is placed – for example, Engineering
Occupation	The occupation for which the skill is relevant
Module Title	A title for the module – example "Communicating Verbally and in Writing"
Credits	The number of credits towards certification from successful completion
Module purpose	What the training will accomplish in terms of the skills the trainee will have
Pre/Co requisites	Other modules that must be taken in conjunction
Related Standards	The competence standards the module addresses
Summary of learning outcome	Describes what the trainee will be able to do on successful completion of the module
Assessment Strategy	Describes how the achievement of competency will be determined
Assessment Method	Defines the methods that will be used to measure achievement. Both **Practical** and **Theoretical** elements should be included.
Assessment Conditions	Describes the conditions and locations where assessment may take place.

Each Module will include one or more Learning Outcomes. These include the following elements:

Heading	Content
Number	May be assigned as a sub-set of the overall module number, or as a number (1,2,3) within the module
Title	Descriptive title
Credits	The number of credits towards certification from successful completion
Purpose	What the training will accomplish in terms of the skills the trainee will have. Written as *"The (title) who achieves this Standard will be able to (accomplish task). This will be achieved in such a way that (description of expected standard of achievement).*
Skills	Written as *"The (title) assessed as competent against this standard will demonstrate competence by:* 1.(list of actions e.g. "Joining cables")
Knowledge	Written as *"The (title) will demonstrate an understanding of:* 1.(list of knowledge factors e.g. "Procedures for business registration")
Values	Written as *"The (title) will demonstrate the following values:* 1.(list of behaviours e.g." Willingness to follow instruction")
Core	A number of core abilities (transferrable/generic skills) may be included, such as literacy, numeracy, communication skills. These may be pre-requisites for some modules.

Heading	Content
Range	Written as *"The outcome should be achieved within the following range of variables:* (list of conditions or variables that the learner should be able to perform in)"
Assessment Criteria	Written as *"Registered assessors will assess evidence of the following:* *Skills* 1.(list of skills to be demonstrated) Knowledge and Values Oral and written evidence of understanding of knowledge and values are demonstrated"
Date	Date the Learning Outcome was approved
References	List of resources to be used by instructors and trainees – generally textbooks, technical manuals, etc.
Resource Requirements	Brief description of the resources required for instruction. This may include: Facilities and equipment required Print and non-print learning materials Additional expertise of knowledge an instructor would need beyond that described in the module
Support Notes	Additional information for the instructor / training provider
Progression	Suggested (or required) next steps for trainees

In developing the curriculum many additional resources will be useful. These may include:

- Legislative and regulatory requirements where relevant
- Occupational profiles and breakdowns
- Curricula and learning program materials
- Good practice models from other jurisdictions or industry[4]

These are assessed for their appropriateness using the **Tool for the Evaluation of Learning Materials template (Annex No. 12).**

Materials to be used should be current, sufficient and relevant. As the learning outcomes and design are further refined, materials should be re-assessed.

The Competency (Outcome) Based Methodology for TVET in Malawi is characterised by the following features:[5]

- The training programmes are based on precisely stated outcomes or competences which are derived from the world of work. This improves the relevance of what is learnt.
- The training is learner-centred, individualised and self-paced.

4 Many countries have experience in developing occupational profiles, occupational standards and even curriculum. It is often worthwhile to check if such resources are available, and if so, to consider adopting and adapting them for local use.
5 From the TEVET Qualifications Framework Handbook, 2008.

- A learner only progresses to the next task after fully mastering and demonstrating competence on the previous task.
- The performance of the learner is measured against the pre-set outcomes.
- In the CBET system a learner will be continuously assessed and provided with feedback at each stage.
- The training is conducted in modules. Each module stands alone and a learner is credited with completed modules and will not repeat these modules if they rejoin the training at a later date.

Strategies for the promotion of gender equality must be incorporated in all learning units. This may require the development of additional materials addressing gender bias in access to training or subsequent employment.

Learning and Assessment Design

Learning and Assessment Design

Learning and Assessment Design refers to the development of delivery and assessment methods.
The **Design Document Template (Annex No. 13)** includes materials from the initial **Training Request Report** but goes into much greater depth on the learning process so that training can be delivered effectively. A detailed **Learning Process (Annex No. 14)** is created for each Learning Outcome. This documents the

- Instructional Strategy and activities (the methods and materials to be used)
- Transfer of learning activities (meaning, how the learning will be used in practice)
- Assessment strategy

Figure 4: ***Learning Process template***

The Learning Process for (Learning Unit Title)

Target Population: (Occupation)
Pre-Requisites: (Entry Level Requirements)
Occupational Standard(s):
Acknowledge Experience: RPL Assessment based on assessment criteria and methods

Learning Outcomes	**Instructional Strategy and Activities**			**Transfer of Learning Strategy**		**Assessment Strategy**	
	Method & Mode	**Medium**	**Feedback**	**Workplace Activities**	**Feedback**	**Assessment Criteria**	**Assessment Method**
	Delivery method Eg: Workshop • Group Facilitation • Individual activities • Workplace activities	Learner Resources Eg: Workbook	Eg: Feedback by facilitator and group members	Where workplace activities are indicated linked to log book, list here	Where feedback from coach/ mentor is required (can be in the form of a logbook or report)	List assessment criteria per outcome from analysis	List assessment method eg: Observation: Integrated assessment

Normally for competency-based training (CBT)[6], the delivery mechanism is facilitated training sessions which include about 20% theory and 80% practical simulated application. This is often coupled with workplace exposure over a period of time linked to a logbook of evidence. A **Sign-off sheet for curriculum** is found at **Annex No.15.**

Qualifications based on a selection of modules can then be created as per the needs of the public and private sector.

Gender and inclusion issues in learning and assessment design

If the work on needs analysis has included a gender lens, a number of issues to be addressed in designing the learning module will have been identified. These may include differences in confidence in acquiring the skills, perception of the skills, knowledge of the different tasks associated with a job. The analysis should also have revealed commonly held assumptions by women and men about necessary characteristics or pre-requisites for a task and job. These assumptions are often shaped by gender biases and negative gender stereotypes.

In developing a learning module, efforts should be taken to ensure that a positive emphasis towards inclusion and gender equality is fully mainstreamed. This will mean, for example, that efforts are made to include women and men in all aspects of the development work, especially in DACUM and related workshops. Strategies to ensure participation of women in all learning activities and to have women's as well as men's input heard may be required, particularly for occupations which are strongly dominated by one gender.

Gender Inclusive Language

Tasks, competency statements, competencies, performance criteria and learning outcomes should be written in gender-inclusive language. For example, use inclusive terms for occupations ("Technician" instead of "Repairman"), and do not use masculine pronouns ("he", "his") when referring to groups that include both women and men. For example: "Trainees will be able to correctly install a circuit. They will demonstrate familiarity with safety equipment." See the gender inclusive language guideline at the end of this manual for more information and examples.

Representative photos and illustrations

Illustrations used in the learning and assessment materials should be representative of the students and include positive images of women as well as men. Photos and diagrams should accurately represent the Malawian context.

Learning and Assessment Development

Learning and Assessment Development

Learning guides are then developed at the appropriate level for the target population following the CBT methodology and design document guidelines for delivery and assessment. The **Learner Guide template (Annex No. 16)** provides a model for the development of materials for the learner. In developing this and the facilitator's guide, it is important to keep in mind both gender equality, inclusion of persons with disabilities, and the needs of adult learners.

6 In Malawi, CBET is often used instead of CBT. CBET stands for competency based education and training.

The learning module: design and delivery

Design means planning and structuring activities to achieve learning objectives. This includes:

- Identifying goals
- Choosing content that meets those goals
- Selecting ways to achieve the goals
- Assessing trainee learning in relation to the goals.

Individual instructors should consider:

- Their own teaching styles
- Trainee learning styles
- How this program fits into the overall context (e.g. one learning module within a broader certification program)

Delivery is about the actual process of teaching and learning. Many decisions are made at the design stage, including:

- Content
- Delivery methods
- Time allocated to each element
- Tools for assessment

During training delivery instructors will consider adjusting the design to better serve the needs of the trainees: changing allocation of time, using different learning strategies, etc. This is also a point where issues of gender may arise: if male and female trainees are having different experiences with the learning process, the instructor may make adjustments to ensure that both have equal opportunities to learn and succeed.

Adult Learners

The majority of learners in Technical and Vocational Training are adults. As such, a number of principles should be followed when designing training. The following points are drawn from The Adult Learner[7].

1. Adults learning in groups may be concerned that they may appear weak. Therefore:

    - Design group activities that encourage all to participate and ensure they will feel safe and respected.
    - Don't ask people to take risks (role plays, speaking out) until the groups knows each other better.
    - Allow time for the group to get to know each other.

7 Malcolm S. Knowles, Elwood E. Holton III, & Richard A. Swanson, (2005) The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development, Burlington, MA: Elsevier.

2. Adults bring knowledge and experience to their learning. Therefore:

    - Show respect for trainee experience by asking them to share their knowledge or ideas.

3. Adults are self-directed learners. Therefore:

    - Listen to what and how they are interested in learning and adapt the design.
    - Act as a support to their learning process rather than directing it.

4. Adults are motivated by information or tasks they find meaningful. Therefore:

    - Find out what is important/interesting to their trainees and link it to the learning process.
    - Help the learners make the connection between the immediate learning objective and their own goals.

5. Adults have multiple responsibilities and do not appreciate wasting time. Therefore:

    - Begin and end sessions on time, be courteous and respectful.
    - Adapt training delivery to focus on areas they need help on and recognize areas where they do not need further instruction.

Facilitator Guide Development

Facilitator Guide Development

After the content of training, as well as learning objectives and assessment criteria, have been determined a guide for delivering the training must be prepared. The **Facilitator Guide Template (Annex No. 17)** sets out detailed steps to be completed to prepare a complete lesson plan for each element of a module.

The training approach will be informed by the material to be taught (and competencies achieved), and the needs of the learners. For example, trainees may have preferences in learning style. A good training method will ensure that information is conveyed in multiple ways to reach all learners.

Learning Style	Useful Approaches
Learn best with abstract concepts and lectures	Case studies and discussions about theories and research
Learn best while observing others	Demonstrations and videos
Learn best from exercises	Practical exercises and experiential activities
Learn best through visual means	Videos, images, and slides

The trainer must also allocate time to each element and determine the resources required. The following checklist is a helpful reminder of the logistical questions

- Training schedule/structure: Number of days, days/times, over how many weeks, how long per session

- Training Location: Access, comfort, accommodation, supplies, food and drink.
- Promotion and Enrollment: When, where, for how long. Criteria for admission, registration process.

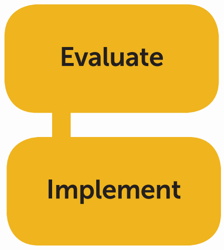
Completed Facilitator and Learner Guides should be reviewed by competent stakeholders. For example, in the case of recent development of construction teaching and learning materials in Malawi, members of the respective trade advisory committees reviewed the materials under the guidance of TEVETA. The Learner Guides should be reviewed by current and former students (women and men equally) to assess clarity of the materials. Similarly, the Facilitator Guide should be reviewed by a selection of Facilitators working in the TEVET system.

A Gender Impact review of the materials should be completed as part of stakeholder review. This review will assess the degree to which gender equality objectives are incorporated into the module and its learning materials. If the review finds that there are gaps or omissions, these should be addressed before the module is approved. In the case of the development of the above materials, the STEP gender specialist reviewed the draft materials and made suggestions for adjustments which were made. The agency developing such teaching / learning materials should have an internal capacity for gender review or be able to bring in outside expertise to fulfill this role.

Once the guides are approved, the training modules can be delivered as a pilot.

For TEVETA developed materials, the instructor and learner guides must be approved by the TEVETA Board of Governors. Approved Guides are then shared with the Department of Technical Education and Vocational Training (DTVT) for distribution to its training institutions to run pilots. TEVETA can also share them for pilot use in the training centers it is managing.

4. Implementation and Evaluation of Learning Materials and Training Process



Overview

Finalizing the material through pilot testing, rolling out the finished product, and evaluation at all stages are the final steps in the training development process.

Implementation

The implementation normally takes place in two phases: pilot and rollout.

- The pilot is normally done to "test" the material and make any small changes or corrections required before the rollout[8]. This pilot is evaluated to determine if the module is effective, and recommendations are made for improvements. The module and all associated materials are then updated, and final approval is sought. In the case of recently developed construction trade materials in Malawi, the TACs which reviewed the original materials will receive feedback on the result of the pilots and ensure any necessary revisions are made. These revised materials will then be cleared for use by the respective users such as the DTVT and TEVETA. The **Course Evaluation Form (Annex No. 18)** may be used for this first level of evaluation. The pilot may also be an opportunity to monitor the facilitator's adherence to the lesson plan, to gender equality and to adult learning principles.

- Rollout of the training requires logistical planning and the training of trainers. Depending on the background of the trainers, they may need professional development in pedagogy and/or in the trade itself. Some of the tools and techniques as well as the practical exercise suggested may be new to the instructor.

Evaluation

Evaluation should be done after each training session to get feedback of learners which can be incorporated into the training. A common standard for evaluation of training is the Kirkpatrick model which takes place at 4 levels:

Level 1: Reaction

The degree to which participants find the training favourable, engaging and relevant to their jobs. It can include the degree to which trainees felt engaged in the training sessions and the degree to which they feel they will be able to apply what they have learnt when they are back in the workplace. It also includes their reflection on the competence of the facilitator and the venue/arrangements/logistics of the course.

8 The pilot target population may include those involved in the DACUM process, former students, instructors, etc.

Level 2: Learning

The degree to which learners acquired the intended knowledge, skills and attitudes from the course they attended.

Knowledge	"I know it."
Skill	"I can do it right now."
Attitude	"I believe this will be worthwhile to do on the job."
Confidence	"I think I can do it on the job."
Commitment	"I intend to do it on the job."

Level 3: Behaviour

The extent to which the training leads to changes in behaviour when the learner is back in the workplace (applies what s/he learnt in the workplace). This can be measured by surveying supervisors or co-workers or by direct observation.

Level 4 Results

The degree to which the application of the skills learnt impact on the business and the original identified need (did the gap in performance close). Also known as return on investment.

Information is used in two ways: to improve teaching methods and delivery of subsequent courses; and as input to the formal review of the module. The module as a whole should be reviewed on a regular basis to ensure it continues to meet requirements. Depending on the findings of the review, the module may require minor or substantial redevelopment, using many of the steps and processes laid out here.

A Note on Assessment and Evaluation of Trainee Competencies

Instructors will be constantly monitoring the performance of trainees as they progress through each module. They will be conducting continuous assessment which is defined below.

Continuous assessment that takes place at regular intervals during a training course, with feedback provided along the way to help improve the student's performance.

Well-designed training materials as described in this manual, will have a number of trainee self-assessments on theory and methods included in the modules as well a practical test. In competency-based training, instructors must update trainee records of progress against the required competencies as part of the continuous assessment process.

In Malawi, trainees must also have a final assessment comprising both a theory test and practical test at the end of the programme and is usually conducted at an assessment center. This type of assessment is called summative assessment and is defined here:

Assessment conducted at the end of sections of learning, at the end of a whole learning programme, or at any point in the learning programme, to evaluate learning related to a particular qualification, part qualification, or professional designation.

The summative assessment for TEVET trainees is conducted by an external assessor usually from industry. These final assessments are monitored by an external moderator who helps ensure consistency and validity of the assessments.

A code of conduct for assessors and for moderators are provided in the **Appendices (Annex No. 19 and 20).**

Appendices and Templates

References and further reading

I-TECH Training Resource Toolkit
https://www.go2itech.org/HTML/TT06/toolkit/about/about.html
An online resource with resources and information for every stage of the resource development process.

How to Create Effective Training Manuals
Mary L. Lanigan, Third House Publishing
www.hpandt.com/howtocreateeffectivetrainingmanuals.pdf
A simple guide to writing manuals , including tips for writing style and layout.

Training Material Development Guide
Dr. Mo Hamza for Swedish Civil Contingencies Agency (MSB)
https://www.msb.se/RibData/Filer/pdf/26433.pdf
Comprehensive staged guide to developing training resources.

Gender in Technical and Vocational Education and Training
Model Lesson Plan and Learning Activities CARICOM Education for Employment Program, 2013.
https://www.collegesinstitutes.ca/wp-content/uploads/2014/05/Gender_Lesson_Plan_Sept2013.pdf Two complete learning modules on gender in TVET, including examples and references.

Gender Equality in TVET – The Jamaican Experience
Presentation to UNESCO-UNEVOC.
http://www.unevoc.unesco.org/wysd/ppt/WYSD16-Gender-Equity-in-TVET_Henry-Gray.pdf
A useful overview of the main issues and themes and the results of Jamaica's work to address equality.

Analytical tools
Some examples:

- Cause and Effect (Fishbone):
  https://www.mindtools.com/pages/article/newTMC_03.htm
- 6 Sigma (5 Whys):
  https://www.isixsigma.com/tools-templates/cause-effect/determine-root-cause-5-whys/
- Pareto Chart (Pareto Principle 80/20):
  http://blog.minitab.com/blog/understanding-statistics/when-to-use-a-pareto-chart
- Scatter Diagrams:
  http://asq.org/learn-about-quality/cause-analysis-tools/overview/scatter.html

1. Training Development Process Flow

Training Development Process Flow	
1. Responsibilities: **Individuals and Organizations Identifying Training Needs:** Completion of the "Request for Training - (RFT)" Form. **TEVETA Staff**: Registration of the RFT form, Front End Analysis, Request for Training Report, Development of curricula and teaching/training materials, development of assessment materials.	
2. Purpose: To ensure a uniform approach to the process for the development of new training interventions.	
3. Definitions & Abbreviations: RTF - Request For Training - form completed by any stakeholder to highlight a perceived training need RFTR - Request for training report - Completed by TEVETA staff after front end analysis and Target Population Analysis have been completed	**4. References:** • Request for Training Form • Request for Training Report Form • Procedure for Front End Analysis • Front End Analysis Form • Procedure for Target Population Analysis • Target Population Analysis Form • Analysis documents • Design documents • Facilitator guide template • Learner Guide template • Assessment templates

Continued on Next Page ....

	Page No:	**2 of 12**
Activity/Actions	**Critical/Safety Issues**	**References**
Performance problem identified		
Complete RFT form	Ensure that all relevant fields are completed and that contact details are accurate and clear	• Procedure for RFT • Request for Training Form
Submit RFT form to TEVETA		
All relevant fields on RFT form completed? No	TEVETA staff to check completeness of details. If insufficient detail, return to originator with comments on outstanding fields required.	
Yes		
RFT registered	By TEVETA staff and allocated a serial number	• Procedure for RFT registration • RFT Register
RFT forwarded to relevant TEVETA Stakeholder	For further investigation. Details to be registered in the RFT register.	

To page 3 of 12

Continued on Next Page ....

	Page No:	3 of 12
Activity/Actions	**Critical/Safety Issues**	**References**
From Page 2 of 12		
Originator Notified of Receipt of request	Originator e-mailed with details of TEVETA staff member, contact details and RFT Reference number for tracking purposes	
Stakeholder conducts front end analysis	To determine the actual need	Procedure for Front End Analysis
Stakeholder conducts Target population Analysis	To determine Demographics	Procedure for Target Population Analysis
Stakeholder completes Request for Training Report (RFTR) with Findings	Must be completed in full as this is a summary of the front end and gap analysis. This document will also determine the next steps in the process	Procedure for RFT Report
Request for Training Report Submitted	To TEVETA	
fields on RFT form completed? No / Yes	If the report is not completed in full, forward back to Stakeholder until completed satisfactorily	

To page 4 of 12

Continued on Next Page ....

	Page No:	4 of 12
Activity/Actions	**Critical/Safety Issues**	**References**
From Page 3 of 12		
Is it a training Need?	The need will either be identified in the report as a training related or non-training related need.	
No: Feedback to Originator	Feedback must be given to the originator to allow him/her to decide on the next steps for non-training related problems.	
Yes: Allocate Learning Unit Number	Allocate number according to numbering system and next available Learning Unit number for that area/field	Procedure for Registering a Learning Unit
Allocate development of Learning Unit to Developer	Develop according to the policy for learning analysis and all relevant procedures	Policy for Learning Analysis
Feedback to Originator	Feedback to originator with learning unit number and Stakeholder responsible for development of learning unit	

To page 5 of 12

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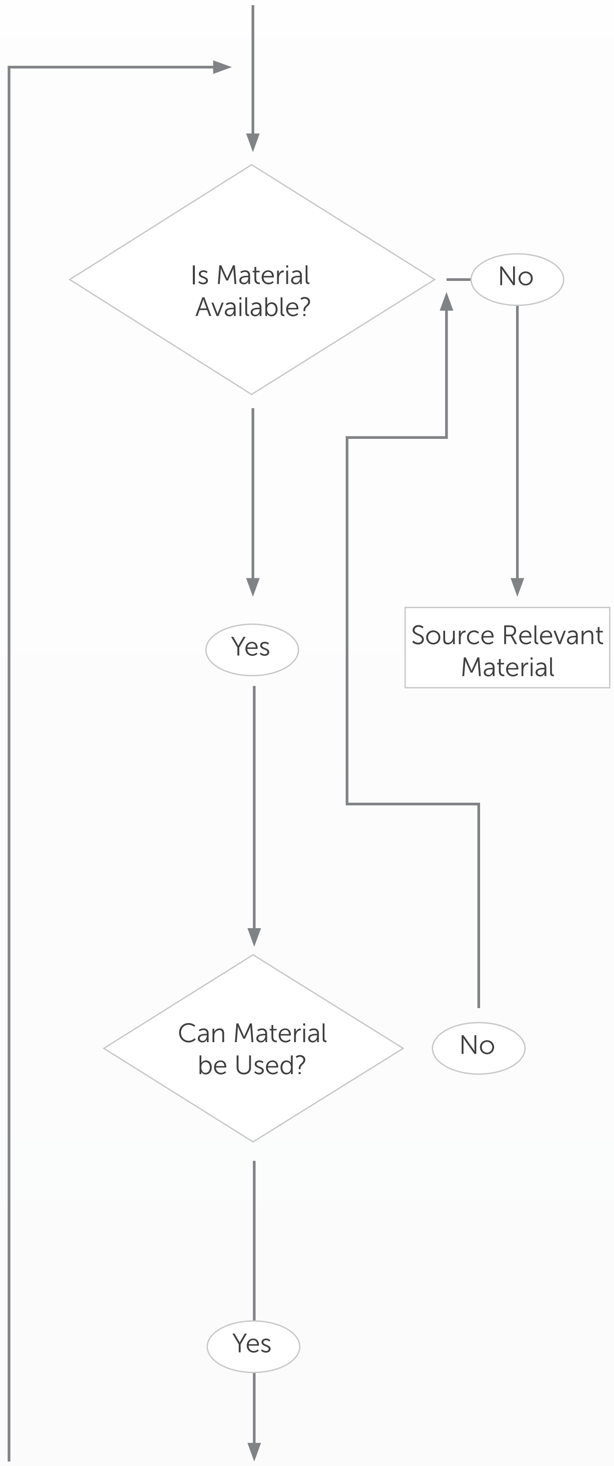
	Page No:	**5 of 12**
Activity/Actions	**Critical/Safety Issues**	**References**
From Page 4 of 12		
	Dacum, Use of SME's, Historical Info, World Best Practice, Legislative Requirements, Business Requirements and any other relevant requirements Material can only be used if it is: • Current • Sufficient • Relevant	

To page 6 of 12

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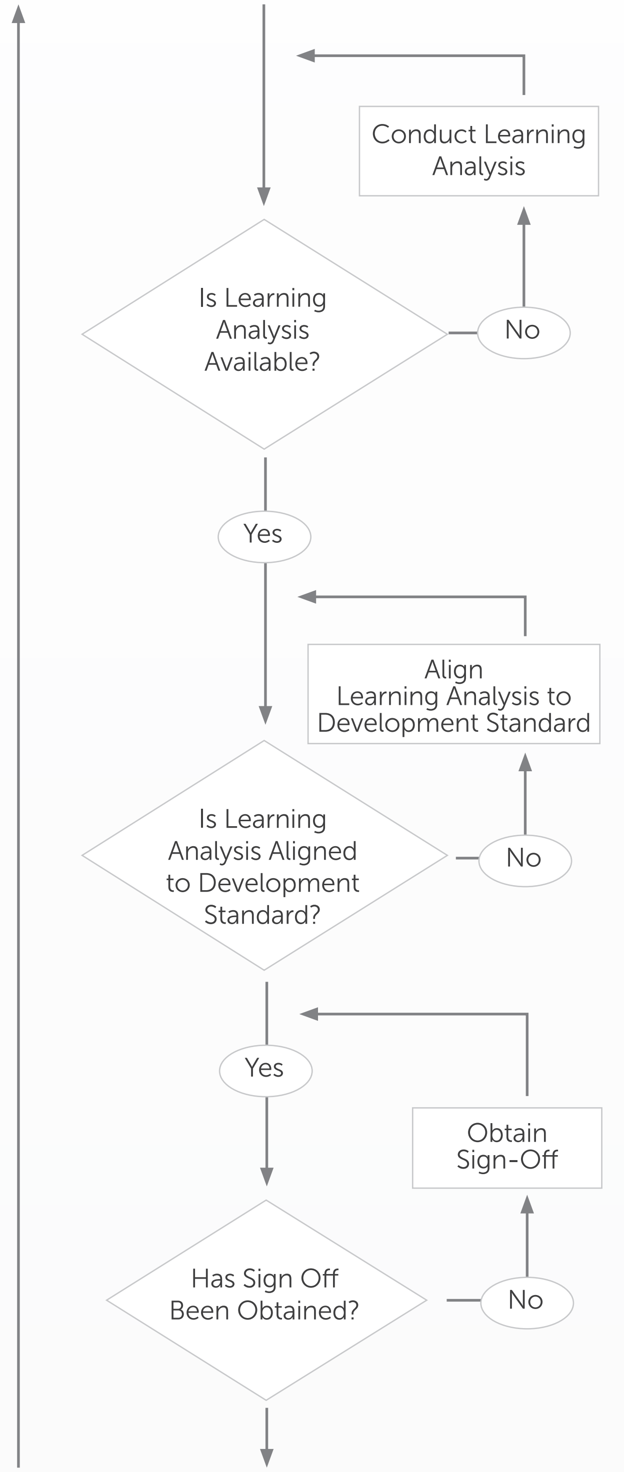
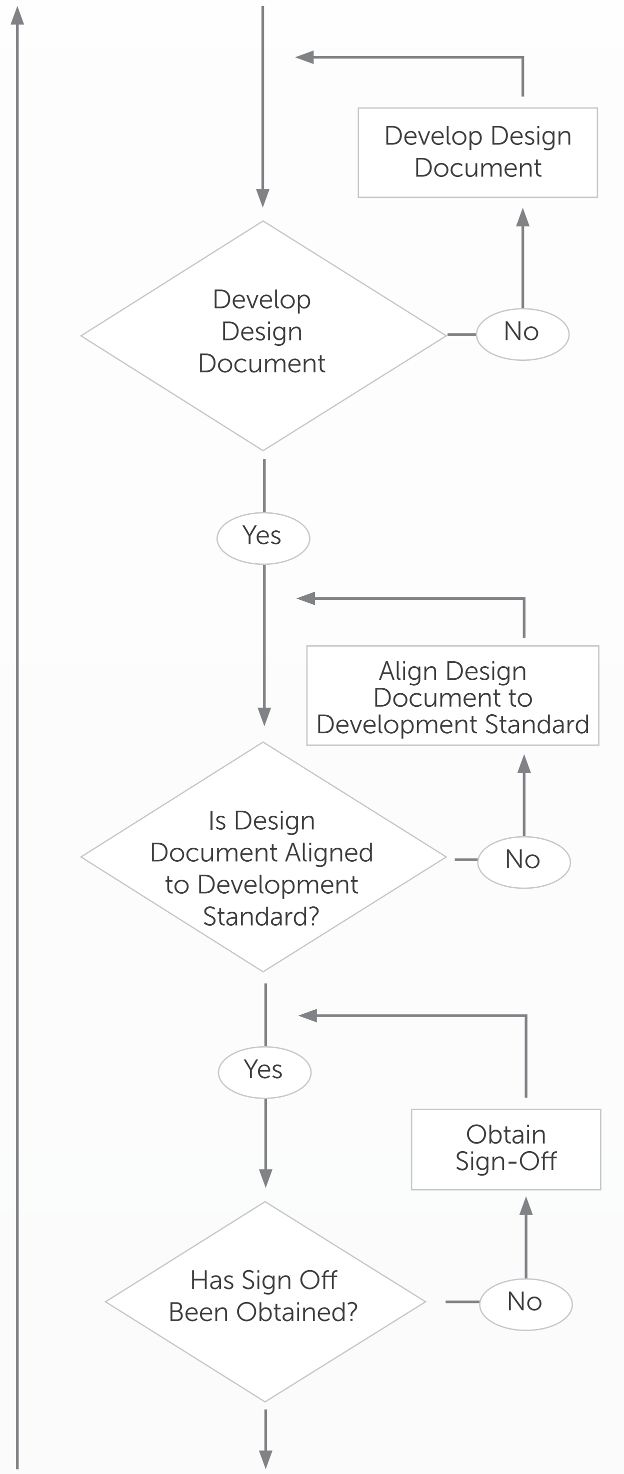
	Page No:	6 of 12
Activity/Actions	**Critical/Safety Issues**	**References**
From Page 5 of 12		
	At least the following should be available: • Outcomes List • Analysis Specification • Objective Analysis • Learning Statement Analysis At least the following should be available: • Outcomes List • Analysis Specification • Objective Analysis • Learning Statement Analysis From required stakeholders and originator	Procedure for Learning Analysis and Design

To page 7 of 12

Continued on Next Page ....

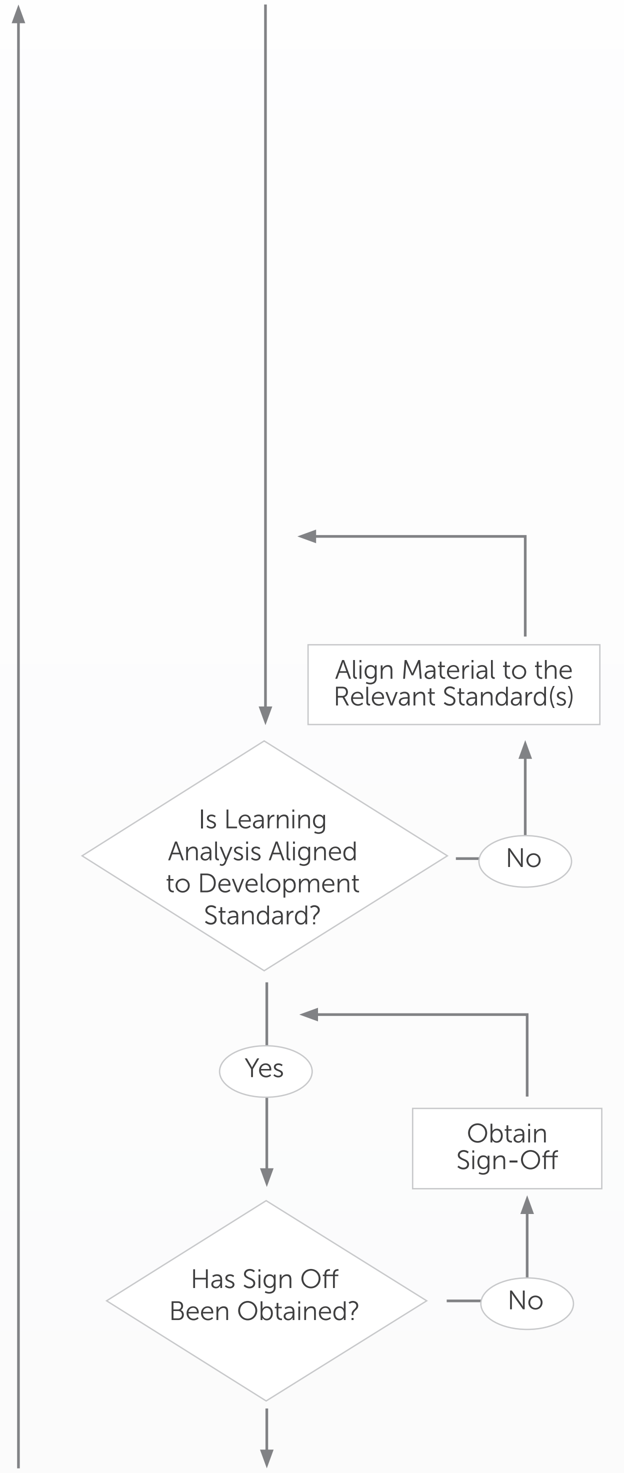
<table>
<tr><td></td><td>Page No:</td><td>7 of 12</td></tr>
<tr><td>Activity/Actions</td><td>Critical/Safety Issues</td><td>References</td></tr>
<tr><td>From Page 6 of 12</td><td></td><td></td></tr>
<tr><td>
</td><td>Should comprise at least the following:
• Target Population Analysis
• Assessment Strategy • Design Strategy
• Timeline
• Occupational Standard Alignment & Contextualization

Should comprise at least the following:
• Target Population Analysis
• Assessment Strategy
• Design Strategy • Timeline
• Unit Standard Alignment & Contextualization

From key stakeholders</td><td>Procedure for Design Document Development</td></tr>
</table>

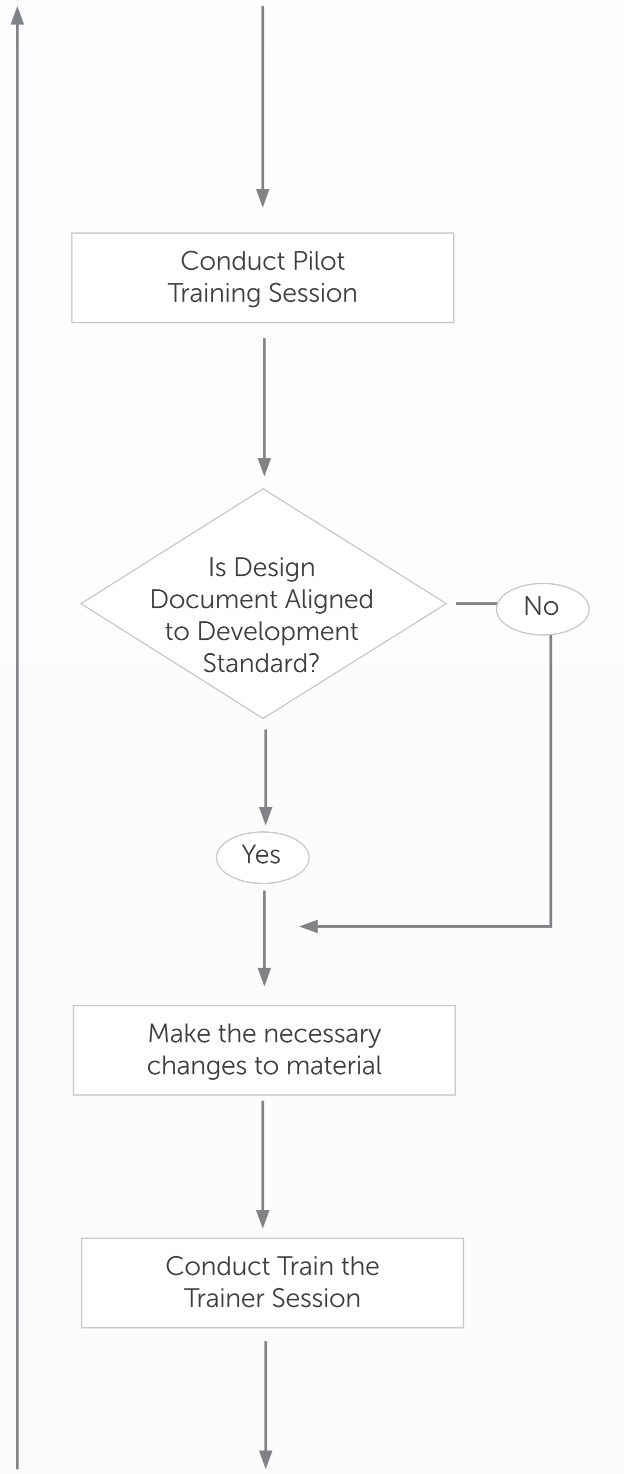
To page 8 of 12

Continued on Next Page ....

	Page No:	**8 of 12**
Activity/Actions	**Critical/Safety Issues**	**References**
From Page 7 of 12		
	The applicable procedures must be followed for the type of intervention that is being developed. All development standards must be met before sign-off phase. By relevant stakeholders	Templates for: Learner Guide Facilitator Guide Assessment and Tool for the Evaluation of Learning Material

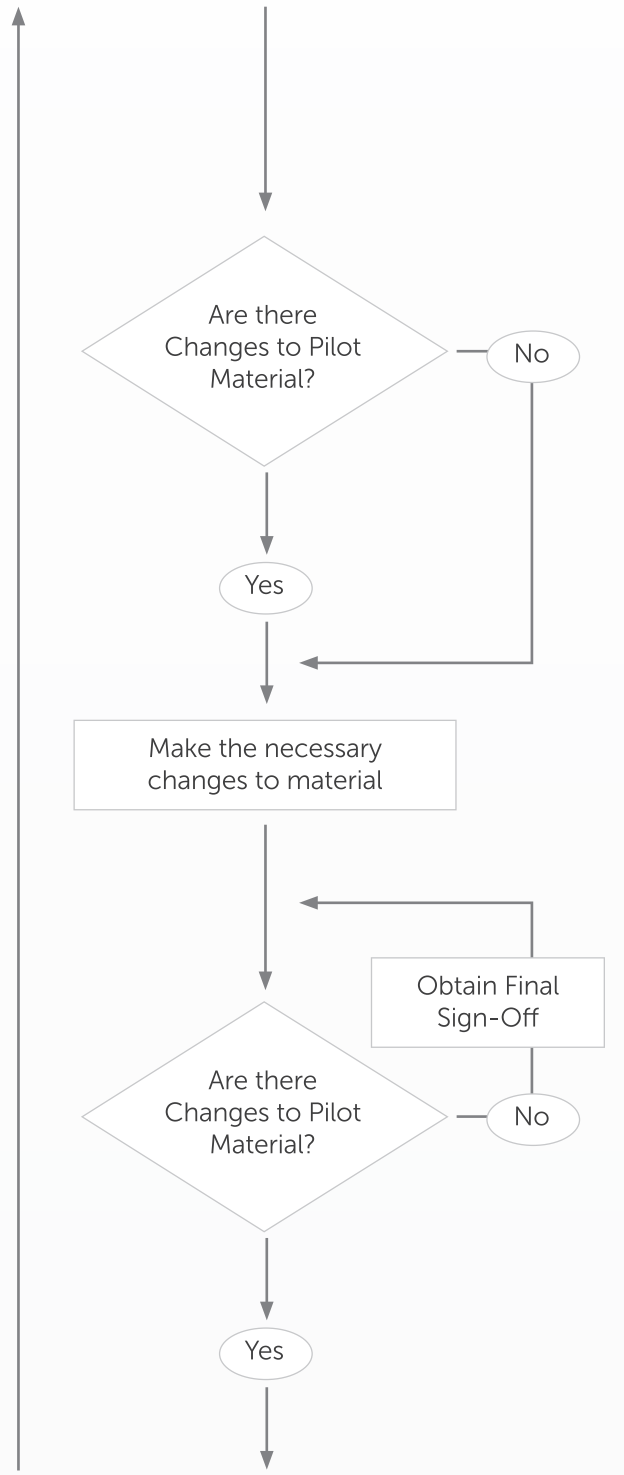
To page 9 of 12

Continued on Next Page ....

	Page No:	**9 of 12**
Activity/Actions	**Critical/Safety Issues**	**References**
From Page 8 of 12		
		Course Evaluation Form

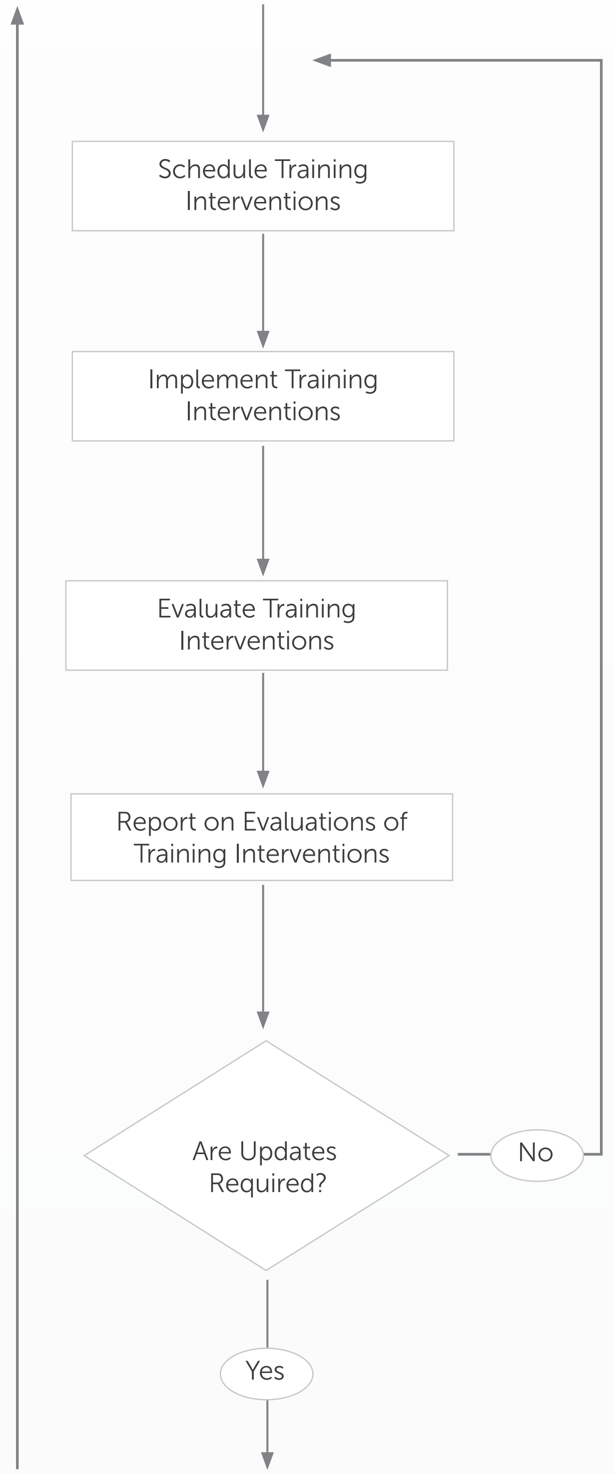
To page 10 of 12

Continued on Next Page ....

	Page No:	**10 of 12**
Activity/Actions	**Critical/Safety Issues**	**References**
From Page 9 of 12		
	From all relevant stakeholders and initiator	

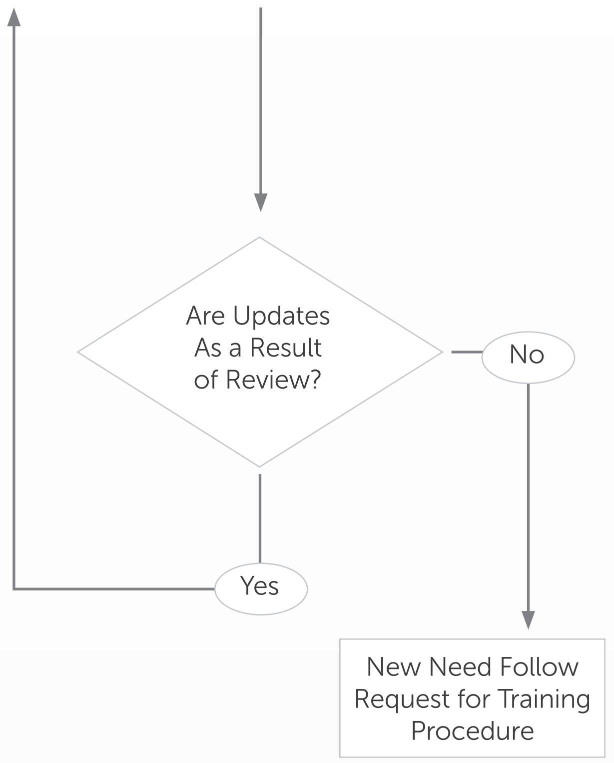
To page 11 of 12

Continued on Next Page ....

	Page No:	**11 of 12**
Activity/Actions	**Critical/Safety Issues**	**References**
From Page 10 of 12		
		

To page 12 of 12

Continued on Next Page ....

	Page No:	**12 of 12**
Activity/Actions	**Critical/Safety Issues**	**References**
From Page 11 of 12		
	If the updates are as a result of the review process redo the ADDIE process If review is as a result of a change in process or a new process, follow the Request for Training Policy	

2. Request for training

Request for Training Form

Proposed Project Name			
Proposed Target Population			
Request submitted by: (Name, Surname & Telephone No.)		Date:	

A description of the perceived need

Division, Department / Site Requesting training	
Proposed Target Population	
The Need in Broad Terms	Please describe the perceived training need in broad terms. Also describe what impact the perceived need has on the current situation.

The impact of the perceived need

Division, Department / Site Requesting training

Please indicate who the key stakeholders regarding the need are, and what their role, responsibility or contribution to this research is.

Name of Stakeholder	Role, Responsibility or Contribution

Knowledge Skills and Attitude

We will use the following information to determine the "mix" of knowledge, skills and attitudinal material to include in the proposed learning intervention.

Is the need more related to:	Because of a deficiency in...		
	Knowledge	Skills	Attitude
A task that is performed incorrectly?			
A task that should be performed but isn't?			
Future development?			
Other (please specify)			

Impact/Risk

What is the impact or risk of the need in terms of:
(Please consider monetary value as well as process or systemic impact)

The cost/impact of NOT doing training	
Frequency of errors picked up	
Cost of errors picked up	
What other processes are impacted by this need	
Added value to the business of doing training	
Other: (Please specify)	

Tracking of the Request for Training

Tracking Process

Upon completion of this document, the following will occur:

- This document has to be submitted to TEVETA to obtain a RFT (Request for Training) number.
- This request will be forwarded to the relevant person, where further Analysis of the Need and the Target Population will commence.
- Upon completion of this research, a RFTR (Request for Training Report) will be compiled and forwarded to the originator and developer if identified as a training need.

Please complete...

This request was submitted by ______ to ______

of the ______ on this ______ day of ______ 20 ______

Signed ______

For official use only:

RFT Registration number allocated ______

Registered by ______

Signed ______ Date ______

3. Front end analysis

Proposed Project Name			
Proposed Target Population			
Front end analysis conducted by			
Project Start Date		Project end Date	

Front End Analysis

What do you want to find out?		Possible sources of information	Data collection method used	Data compared to?	Number of people in source group		What are you looking for?	What did you find?
					No.	Job Titles / Responsibilities		
Business	How is the perceived need/problem affecting the business?							
Performance	How is the perceived need/problem affecting / affected by the performance of employees?							
Training	What is the level of / lack of knowledge and skill within the target population							
Environmental	What necessary resources, tool, conditions, procedures etc. are available / no available?							
Other	Anything else that does not fit into one of the categories mentioned above?							

Gap Analysis

	What is the actual performance?	What is the desired performance?	What is the gap in performance?
Business			
Performance			
Training			
Environmental			
Other			

Summary of front end and gap analysis

Please indicate who the key stakeholders regarding the need are and what their role, responsibility or contribution towards this research is/was.

Name of stakeholder	Role, responsibility or contribution

According to the Gap Analysis, which of the four areas seemed to be most problematic? Rate from 1-4 with 1 being the most problematic and 4 the least.

Business	Performance	Training	Environmental

Please recommend possible solutions to the actual need identified

Please Note:

The following documents should be attached to this document:

- Any/all documentation relating to meetings held with the stakeholders (including any/all agreements, contracts, minutes of the meeting(s), etc.
- The management of the data collected including data collection tools, graphs summarising the data, data management plan, etc.

4. Target population analysis

To be completed by the Project Sponsor:

Overall Division / Department:	

Physical and/or Postal Address		**Contact Details**	**Tel:**	
			Fax:	
			E-mail:	

Individual Analysis	

Individual Division / Department / Centre:	
Designation:	

Group Analysis	

Other: (Please Specify)	
Job Title/s:	

Physical Attributes

- Please complete all fields using clear and legible writing
- Where applicable, indicate your answer with a (X)

For Individual:

No	Position	Gender	Age	Language (English)	Highest Educational Qualification
1.		*Male* *Female*		*1st Language* *2nd Language* *3rd Language*	

For a Group:

No	Position	Gender	Age	Language (English)	Highest Educational Qualification
1.		*Male* *Female*		*1st Language* *2nd Language* *3rd Language*	
2.		*Male* *Female*		*1st Language* *2nd Language* *3rd Language*	
3.		*Male* *Female*		*1st Language* *2nd Language* *3rd Language*	
4.		*Male* *Female*		*1st Language* *2nd Language* *3rd Language*	
	Additional rows as needed				

Biographical Information

- Please make sure that you read the questions carefully before answering.
- Please answer each question.
- If you are an individual completing this questionnaire, please answer the questions in your own experience and words.
- If you are a group completing this questionnaire, please ensure that all contributions from individuals are documented.
- If the space provided for answering the questions are insufficient, you may add additional pages. If additional pages are used, please clearly indicate the question number to which the answer relates.

1. Please describe the work pressures that you encounter in performing your unction within your Department / Job Function. (example: Time pressures / tight schedules / conflict etc.)

2. Please describe the nature and amount of change within your job function / Division / Department (example: Frequency and scope of change in work practices and schedules / turnover of staff / frequent change in responsibilities / No change within the last months, etc.

3. Please describe the importance and nature of teamwork and co-operation within your Job Function / Department (example: Support to other departments / specific assistance rendered to certain functions / willingness to offer assistance by co-workers / you don't have to work with others, etc.)

4. Please describe how personal development / learning is viewed within your Job Function / Department. (example: Training and development is a high priority / is not a priority / individuals are not interested in or enthusiastic about learning / you are provided with enough time & assistance to attend training and complete activities at the workplace, etc.)

5. Please describe the problems that you are experiencing regarding your own development /training within your Job Function / Department (example: You need a buddy / coach / mentor / on-line assistance or that there are not sufficient resources, etc.)

6. Please indicate the support systems that are currently available to assist you in terms of training & development. (example: A buddy / coach / mentor / on-line assistance, etc.)

7. Please list any circumstances / conditions / requirements, etc. that your training provider should be aware of when providing you with learning interventions.

Learning Resources

- Please make sure that you read the questions carefully before answering.
- Please answer each question.
- If you are an individual completing this questionnaire, please answer the questions in your own experience and words.
- If you are a group completing this questionnaire, please ensure that all contributions from individuals are documented, or that the group's answers are averaged and indicated as an average.

1. In the past I/we have received work related training by means of a:

	Never	Seldom	Occasionally	Frequently	Always
Workshop					
Workshop accompanied by a workbook					
On the job training					
Distance learning accompanied by a workbook					
Distance learning using electronic mediums*					
Other, please specify					

** Electronic media include: computer, internet, intranet, e-mail, via web-cam, satellite, television etc.*

2. I/we would prefer to receive work related training in the future by means of a:

	Never	Seldom	Occasionally	Frequently	Always
Workshop					
Workshop accompanied by a workbook					
On the job training					
Distance learning accompanied by a workbook					
Distance learning using electronic Mediums					
Other, please specify					

3. The most convenient time for me/us to study (self-study) is:

	Never	Seldom	Occasionally	Frequently	Always
In the morning before work					
In the evening after work					
During work hours (if permitted)					
Whenever I find time					

4. I/we would prefer to be assisted in my/our learning with the help of visual aids and practical demonstrations:

YES			NO	

5. I/we would prefer to be assisted in my/our learning with the help of a Coach/Mentor within my /our work environment:

YES			NO	

6. I/we would prefer to be able to apply what I/we have learnt or am/are learning, by practically applying the theory during the learning process:

YES			NO	

7. I/we have access to a computer at

Home	Work	Other

(For a Group completing this question, please indicate the percentage of the group represented in the answer. You may indicate more than one option.)

8. I/we make use of / have access to a computer within my Job function:

Never	Seldom	Occasionally	Frequently	Always

9. The computer I/we have access to is equipped with the following Hardware/Software:

A CD-ROM Drive	
Internet Access	
Intranet Access	
An E-mail facility	
A Printer	
Windows packages (Word, Excel, PowerPoint, ETC.)	
Other, please specify...	

10. I/we make use of the following facilities when working on the computer:

	Never	Seldom	Occasionally	Frequently	Always
A CD-ROM Drive					
Internet Access					
Intranet Access					
An E-mail facility					
A Printer					
Windows packages (Word, Excel, PowerPoint, ETC.)					
Other, please specify…					

5. Request for training report

Request for Training Report

Proposed Project Name:			
Request for Training Reference Number:			
Proposed Target Population:			
Request Submitted by:		Date:	
From: Division, Department/Site			

The Impact of the Perceived Need

The Need in Broad Terms

Please describe the perceived training need in broad terms. Also describe what impact the perceived need has on the current situation.

Key Role Players/ Stakeholders

Please indicate who the key stakeholders regarding the need are, and what their roles, responsibilities or contributions are to this research.

Name of Stakeholder	Role, Responsibility or Contribution

Knowledge, Skills and Attitude

We will use the following information to determine the "mix" of knowledge, skills and attitudinal material to include in the proposed learning intervention (should one be required).

Is the need more related to:	*Because of a deficiency in...*		
	Knowledge	**Skill**	**Attitude**
• A task that is performed incorrectly?			
• A task that should be performed but isn't?			
• Future development?			
• Other (please specify)			

Impact / Risk

What is the impact or risk of the need in terms of: (Please consider monetary value as well as process or systemic impact)

The cost/impact of NOT addressing the need	
Frequency of errors picked up	
Cost of errors picked up	
What other processes are impacted by this need	
Added value to the business of addressing the need	
Other: (Please specify)	

Actual Performance vs. Desired Performance

Please summarise the information gathered regarding the Front-End Analysis and the Gap Analysis in the table below.
Please only indicate the aspects that carried the most weight in terms of importance and impact.

Actual Performance vs. Desired Performance

Please summarise the information gathered regarding the Front-End Analysis and the Gap Analysis in the table below.
Please only indicate the aspects that carried the most weight in terms of importance and impact.

	What is the actual Performance?	**What is the desired Performance?**	**What is the Gap in Performance?**
Business			
Performance			
Training			
Environmental			
Other			

The Need Identified

According to the Gap Analysis, which of the areas indicated on the previous page seems to be the most problematic?
Rate the areas accordingly on a scale of 1 – 5, with 1 being the most problematic and 5 the least problematic.

Business	**Performance**	**Training**	**Environment**	**Other**

The Actual Need

Please describe the actual need vs. the perceived need as derived from the research.

The Perceived Need	**The Actual Need**

Job Specific	Is the need related to a specific Job Title / Function?	**Yes**	**No**
	(If "Yes", please indicate the Job Title(s) /Function(s) in the space provided below)		
	Are there job descriptions/profiles available for the specific Job Title / Function?	**Yes**	**No**
	(Please attach all relevant documentation to this report)		

Please indicate the Job Title(s) /Function(s) that relates to the need.

Summary

The Actual Need The actual need was identified as being:

Proposed Solutions and/or Suggestion(s) Based on the actual need the following suggestion(s) and/or course(s) of action is/are advised.

Target Population The target population(s) affected by the need is/are:

Tracking Process	Upon completion of this document, the following will occur: • Upon completion of the RFTR (Request for Training Report), this document needs to be forwarded to TEVETA where the request will be formalised and actioned. • If a training need was identified as the actual need, the request will be allocated a Learning Unit Number and forwarded to the relevant person for development and implementation of the intervention. • If the need was anything other than a training need, the request and suggested actions will be forwarded to the applicable stakeholder. • The Learning Unit number allocated must be used to refer to this learning unit hereafter on all applicable documentation.

Please complete the following...

This report was submitted by		to					
of the		on this		day of		20	
Signed							

For official use only:

RFT Registration number	
Learning/Unit number	
Registered by	
Signed	Date

6. Template for DACUM chart

Expert Panel

Names, Job Titles and Organisational details of participants

Co-ordinator

Name, Title and Organisation of Co-ordinator

Facilitator

Name, Title and organisation of DACUM facilitator

Dates and Venue

Dates and venue of workshop

Occupational Profile of

(Occupation)

1st Draft

(Date of Profile Completion)

Duties and Tasks

A. Duty (Generic crosscutting)

A1 Task	**A2** Task	**A3** Task	**A4** Task	**A5** Task	**A6** Task
MQF Level	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**
B. Duty (introduction to occupation)					
B1 Task	**B2** Task	**B3** Task	**B4** Task	**B5** Task	**B6** Task
MQF Level	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**
C. Duty (Core of occupation)					
C1 Task	**C2** Task	**C3** Task	**C4** Task	**C5** Task	**C6** Task
MQF Level	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**
D. Duty (CORE OF occupation)					
D1 Task	**D2** Task	**D3 Task**	**D4** Task	**D5** Task	**D6** Task
MQF Level	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**
E. Duty (CORE OF occupation)					
E1 Task	**E2** Task	**E3** Task	**E4** Task	**E5** Task	**E6** Task
MQF Level	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**
F. Duty (PROBLEM SOLVING/REFLECTIVE COMPETENCE)					
F1 Task	**F2** Task	**F3** Task	**F4** Task	**F5** Task	**F6** Task
MQF Level	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**	**MQF Level**

7. Sign off for DACUM chart

Occupation:				Approved?		Signature
Full Names	Company/Institution	Telephone	Email	Yes	No	

8. Occupational Standard Template

NATIONAL OCCUPATIONAL STANDARDS
FOR

(Occupation)

OVERVIEW

Sector:
Sub-Sector:
Occupation:
Qualifications:
(List the known or possible qualifications that this standard could be applied in.)
Brief Occupation Description:
(Describe the occupation)
Personal Attributes:

Applicable National Occupational Standards (NOS) Units

TEVETA Unit Code	MQF Level	Unit Title	Credits	Page Number
			**	
		Total		

*(**Note that one credit = 10 notional learning hours)*

Unit Code	(TEVETA Unit Code...)
MQF Level	
Credits	
Unit Title	(Can be one or more clustered tasks)
Unit Description	This Occupation Standard unit is about ....
Unit Scope/Range	This unit covers the following skills:

Element 1	(One or more clustered outcomes from task analysis)
Range	
Performance Criteria	
1.1. (Written in the passive voice)	

Element 2	
Performance Criteria	
2.1.	

Underpinning Knowledge
The individual needs to demonstrate knowledge of:
Generic Skill(s)
The individual needs to demonstrate ability to:

9. Criteria for quality check of an occupational standard

Criteria for Checking an Occupational Standard

Checklist

Researched and developed by Simon Coetzee
Version No: 01: November 2016

Criteria for the Quality Check of Occupational Standards

General	Yes	No
Language is clear and does not present potential barriers to access		
Outcomes/competences (unit titles and elements) are consistent with sound assessment practice		
Elements and performance criteria are achievable, clear, and the assessment load is reasonable		
Text is free from typographical, grammatical, and punctuation errors (publishable quality) & meets current formatting requirements		
Unit Titles	**Yes**	**No**
Describe the major meaningful outcomes attributable to the individual		
Use the format verb – noun – condition/context and are consistent with the domain		
Do not mislead or over-represent		
Are unique		
Do not include Range items		
Elements	**Yes**	**No**
Are collectively consistent with level and title		
Express demonstrable and assessable outcomes		
Are in a format similar to the title: Verb in the active voice, noun		
Element and title are the same for single element unit standards		
Performance Criteria	**Yes**	**No**
Express the essential evidence required to meet the outcomes in the elements (are not tasks or instructions)		
Provide informative guidance and sufficient detail for manageable assessment and consistent decisions		
Collectively indicate the level or quality of performance required		
Range Statements	**Yes**	**No**
Range notes that apply to the whole occupational standard are placed in the assigned box for each occupational standard		
Range statements applicable to a particular element are written immediately below the relevant element, or incorporated into the element text		
Clearly distinguish the items that must be considered		
Descriptions	**Yes**	**No**
Summarise, and are consistent with the content and elements of the occupational standard		
Indicate the rationale and importance of the occupational standard for the sector		

10. Occupational Standard sign off sheet

Occupation:				Approved?		Signature
Full Names	Company/Institution	Telephone	Email	Yes	No	

11. Learning Content Analysis Checklist

Content Analysis

Proposed Learning Unit:	

Outcomes Analysis

Analyst's Name:		
Overall Outcome / Purpose of this Unit:		**Bloom Level:**
Overall Purpose of the Assessment:		**Bloom Level:**
Pre-requisites to this Learning Unit:		
Occupational Standards applicable to this Unit:		
Notional Learning Hours & or Credits:		

Section A:	Outcomes Analysis (Cluster of duties from Developing a Curriculum (DACUM)/Systematic Curriculum and Instructional Development (SCID) process)

Main Outcome:		Bloom Level:

Specific Outcome 1:		Bloom Level:
Objectives:		

Foundational Competence	Bloom	Practical Competence	Bloom	Reflective Competence	Bloom
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

Main Outcome:		Bloom Level:

Specific Outcome 2:		Bloom Level:

Objectives:

Foundational Competence	Bloom	Practical Competence	Bloom	Reflective Competence	Bloom
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

Main Outcome:		Bloom Level:

Specific Outcome 3:		Bloom Level:

Objectives:

Foundational Competence	Bloom	Practical Competence	Bloom	Reflective Competence	Bloom
				1.	
				2.	
				3.	
				4.	
				5.	
				6.	
				7.	
				8.	

Section B:	Learning Content Analysis

Bloom Level:

Main Outcome:	
Specific Outcome 1:	
Learning Objective 1:	
Resources:	
Critical Cross Field Outcomes:	

Foundational Learning Statements	Blooms	Practical Learning Statements	Blooms	Reflective Learning Statements	Blooms	Assessment Criteria	Blooms

Bloom Level:

Main Outcome:	
Specific Outcome 1:	
Learning Objective 2:	
Resources:	
Critical Cross Field Outcomes:	

Foundational Learning Statements	Blooms	Practical Learning Statements	Blooms	Reflective Learning Statements	Blooms	Assessment Criteria	Blooms

		Bloom Level:
Main Outcome:		
Specific Outcome 1:		
Learning Objective 3:		
Resources:		
Critical Cross Field Outcomes:		

Foundational Learning Statements	Blooms	Practical Learning Statements	Blooms	Reflective Learning Statements	Blooms	Assessment Criteria	Blooms

Bloom Level:

Main Outcome:	
Specific Outcome 1:	
Learning Objective 4:	
Resources:	
Critical Cross Field Outcomes:	

Foundational Learning Statements	Blooms	Practical Learning Statements	Blooms	Reflective Learning Statements	Blooms	Assessment Criteria	Blooms

12. Tool for the evaluation of Learning Materials

Name of intervention:	

Criteria		Yes	No	Comments
Outcomes, Objectives & Unit Standard Alignment				
1	Does the Occupational Standard or Business Need appear in the beginning of the learning unit?			
2	Are the Outcomes and/or Objectives aligned with the Occupational Standard/Business Need?			
3	Does the Main Outcome contain an Action, Context or Condition, Criteria & Purpose (Why)?			
4	Does the Main Outcome cover all the Specific Outcomes and relate directly to the training intervention?			
5	Are Outcomes stated up front?			
6	Are Outcomes and Objectives Clear and without ambiguity?			
7	Can the Outcomes and Objectives be Observed and Measured?			
8	Do the Specific Outcomes contain a verb, object and condition?			
9	Are the Specific Outcomes and Objectives set out in the Curriculum document met?			
10	Do the Outcomes and Objectives cover all the general areas of information related to the topic?			
11	Does the Specific Outcome have enough substance to represent a meaningful chunk of learning?			

Criteria		Yes	No	Comments
Assessment Criteria				
1	Do the Assessment Criteria relate directly to the Main Outcome/Specific Outcomes/ Objectives?			
2	Are the Assessment Criteria clear and without ambiguity?			
3	Have the Assessment Criteria been written in the Noun-Verb-Condition form?			
4	Is it possible to collect the required evidence?			
5	Can the evidence be collected cost effectively?			
6	Can the learner collect the evidence without specialized tools and/or equipment?			

7	Do the assessment criteria assess the knowledge component of the intended learning outcomes? (Formative)			
8	Do the assessment criteria assess the practical component of the intended learning outcomes? (Summative/Workplace)			
9	Are the assessment criteria pitched at the same Bloom's level as the Outcomes & Objectives?			
10	Is experience and knowledge gained previously catered for? (RPL)			
11	Is the impact of the training intervention on the business/industry measured? (ROI, not necessarily monetary)			

Criteria		Yes	No	Comments
Content				
1	Are the instructions clear on how to use the applicable materials?			
2	Is the content relevant and up to date?			
3	Are the Principles of Adult Learning catered for in the content?			
	Does the material actively involve the learners?			
	Does the material allow learners to learn from their mistakes?			
	Is the focus of the material on encouraging critical thinking, reasoning, reflection and action?			
	Is the knowledge and skills relevant and connected to real-life situations?			
	Is learning practical?			
	Is applied competence integrated into activities?			
4	Is navigation through the material and reference material/extra reading material easy and manageable?			
5	Is the subject matter specified in the outcomes & objectives covered in detail in the content?			
6	Is the supporting information for the learner/ facilitator/ coach/trainer relevant and detailed enough?			
7	Are Critical Cross Field Outcomes imbedded in the material?			

Criteria	Yes	No	Comments
Structure and Organisation			
1	Is the structure of the content clearly defined		
2	Is there a logical sequence between the modules within the Learning Unit?		
3	Is there a logical flow/link from one section to the next?		
4	Can the content be easily updated?		
Learner Control & Support			
1	Is access to Learning Unit Flexible?		
2	Can the material/training be tailored to meet learner's specific needs		
Exercises & Activities			
1	Are clear instructions provided on how activities and assessments should be completed? (including time?)		
2	Are clear instructions given on how feedback will be provided? / Is constructive feedback provided?		
3	Do the activities allow for a mixture of views and answers?		
4	Are activities & Assessments interactive?		
5	Are activities relevant to the content and user-friendly?		

Criteria	Yes	No	Comments
Language			
1	Is the content pitched and written at the appropriate level?		
2	Is the content easy to read and understand?		
3	Is the content written in an informal and friendly tone?		
4	Are technical terms and jargon clearly explained?		
Appearance			
1	Are the Look & Feel Standards adhered to?		
2	Is the presentation/layout of the content attractive?		
3	Is the presentation/layout of the content consistent?		
4	Are the sign-posts/icons self-explanatory?		
5	Is the use of colour, graphics, and illustrations applicable?		
6	Is the font size & type applicable to the target populations, and does it allow for easy reading?		
7	Is the content well-spaced and illustrations/ graphics proportionate?		
8	Is the text split into manageable chunks?		
9	Are the headings, sub-headings & map titles clear and relevant to the content discussed?		

Your signature indicates satisfaction with the product, as well as confirmation that the documents have been carefully and critically examined.

Sign-off provided by:

Content	**Look & Feel**
Name:	Name:
Signature:	Signature:
Date:	Date:

General	**General**
Name:	Name:
Signature:	Signature:
Date:	Date:

Name:	Name:
Signature:	Signature:
Date:	Date:

Name:	Name:
Signature:	Signature:
Date:	Date:

Recommended Action(s):

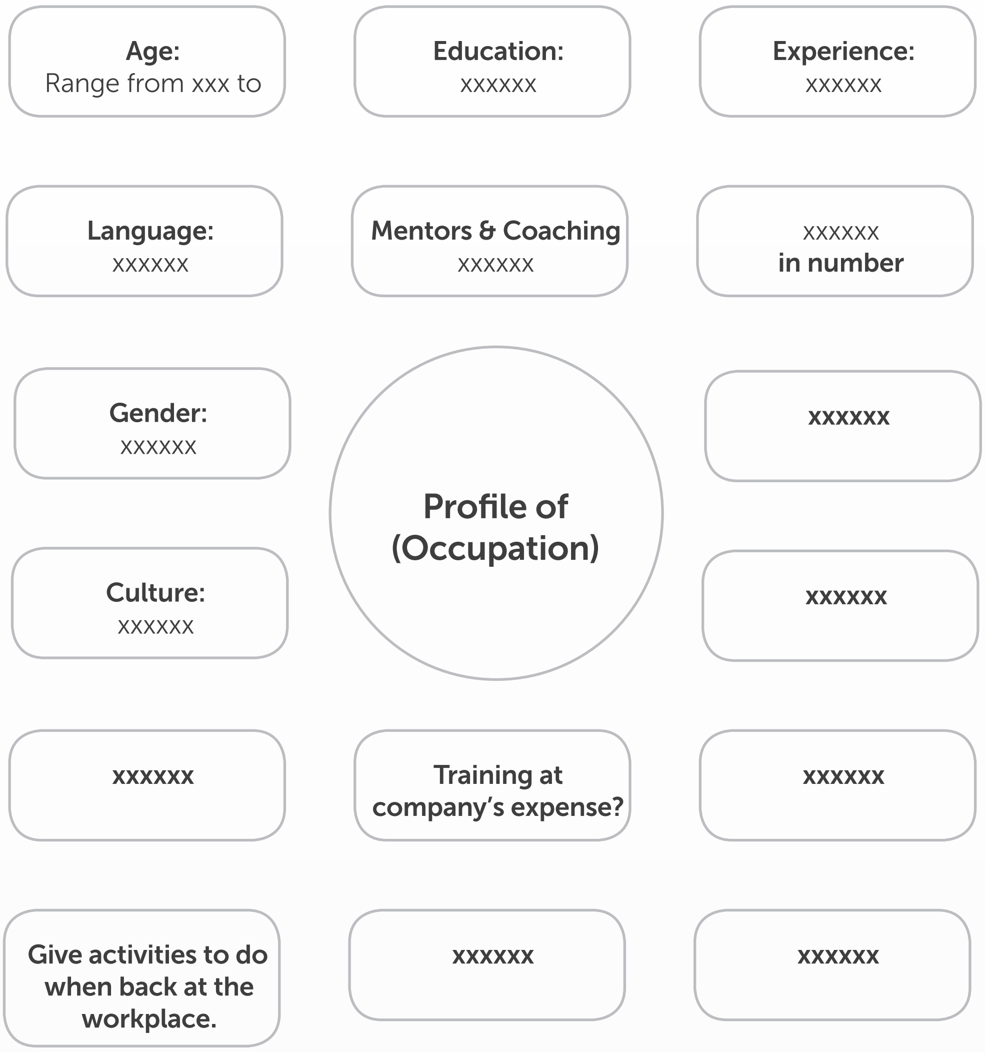
Thank you for your valued input!

13. Design Document Template

Overview	
Background	(Give the background to why the module is to be developed from the Request for Training report)
Design Strategies, Processes & Procedures	This document serves to outline the following design strategies, processes and procedures for the development and implementation of this module: • **The Learning Process** o Instructional Strategy o Transfer of Learning Strategy o Assessment Strategy • **The Delivery Strategy** • **Control Procedures** • **Support Procedures**
Methodology	This module is designed and developed, based on Competency (Outcomes) Based Methodology, which includes the following aspects: • Learning should be accessible to all learners • Adult learning principles must be followed • Learning must be interactive • The learning strategy must allow for the control of the learning process • Media selection must support real-time application of the learning cost effectively, and • The learning unit under discussion must form part of a holistic integration of all applicable processes, policies, standards, etc. relevant to this learning unit.

Target Population

Insert details of Target Population analysis



Aspects of the Learning Process

Boxes marked with **xxxxxx** can be used to add other audience characteristics. Not all boxes need to be completed and those not needed should be deleted.

The learning process encompasses the following aspects:

- Course structure (Learning Sequence)
- Pre-requisite learning
- Media, Methods & Mode selection for the learning process and delivery strategy
- Transfer of learning strategy
- Assessment strategy, and
- Links to relevant Occupational Standards

Occupational Standard Alignment	
Unit Standards	❑ List Occupational standards here
Learning Outcomes	1. List learning outcomes here from the analysis documents
Programme Articulation	Insert program articulation options here
Learning Pathway	Insert learning pathway here

The Delivery Strategy	
Delivery Medium	This Learning unit will be provided as a Facilitated Workshop Session. • Learners will be provided with a Learner Guide/Workbook
Learning Intervention Implementation Plan	The learning Intervention strategy is as follows:

Activity	By when...	Responsible Persons
• Complete Analysis and Design Documents		
• Develop Learning Material		
• Prepare Learning Material for Vetting		
• Do Updates		
• Prepare for Pilot / Train the trainer		
Conduct Pilot / Train the Trainer		

The Control Mechanisms	
Control Mechanisms	The following control mechanisms will be put into place to assist the learner/s through the learning experience: • The learner will be provided with a workbook, in which all the necessary theory will be provided • All activities will be done in the workbook during the workshop • The learner will be provided with instructions for all activities including the instructions for both the learner and the coach regarding his/her workplace activities and workplace assessments • A coach will be available for the learner within his/her workplace should any further assistance be required • A follow-up will be conducted within 3 months after attending the workshop to ensure that learners are able to complete their workplace activities and formal assessment in time to ensure certification

14. Design Document Learning Process

The Learning Process for (Learning Unit Title)

Target Population: (Occupation)

Pre-Requisites: (Entry Level Requirements)

Occupational Standard(s):

Acknowledge Experience: RPL Assessment based on assessment criteria and methods

Learning Outcomes	Instructional Strategy and Activities			Transfer of Learning Strategy		Assessment Strategy	
	Method & Mode	**Medium**	**Feedback**	**Workplace Activities**	**Feedback**	**Assessment Criteria**	**Assessment Method**
	Delivery method E.g.: *Workshop* • *Group Facilitation* • *Individual activities* • *Workplace activities*	*Learner Resources E.g.: Workbook*	*E.g.: Feedback by facilitator and group members*	*Where workplace activities are indicated linked to log book, list here*	*Where feedback from coach/mentor is required (can be in the form of a logbook or report)*	*List assessment criteria per outcome from analysis*	*List assessment method e.g.: Observation:* *Integrated assessment, measuring the learners' ability to Handle Toyota Genuine Parts safely and correctly during the delivery process*

15. Curriculum sign off sheet

Curriculum for:				Approved?		Signature
Full Names	Company/Institution	Telephone	Email	Yes	No	

16. Learner Guide template

Module (title)

Learner Guide

Module Overview	
Introduction	This module covers the skills and knowledge required to______________.
Program	This module forms part of the __________________________ course.
Tasks	The following tasks make up this Module: (List the tasks)
Assessment	Assessment for this module is by means of a written theory test and practical tasks. The pass mark is 80% for theory and 100% for practical.

Information Sheet: Task #1: (Main Outcome)	
Theoretical Assessment	This section will give the learner the knowledge and skills to be able to _______________________________. These are the Steps and Enabling Objectives of this Task:
	Steps
	(List steps of task)
	Enabling Objectives
	(Module Outcomes)

(Main Outcome)	
Introduction	(Introduce the module)
Content	(Add all content as per the analysis document making use of illustrations and pictures where possible. At lower skill levels the content should be predominantly picture/illustration based.)

Job Sheet #1	
ask # 1: (Task title)	Duration: min
Job Statement	(Part of the process you will be practicing, e.g. cut timber using rip saw)
Performance Criteria	(List the performance criteria related to this exercise)
Notes	(Include any drawings and specific requirements here)
Job Procedure:	Steps: (List the task steps here)
Resources Required	**Tools/equipment/materials required:** (List required equipment, tools and materials for the job here) **Personal Protective Equipment (PPE):** (Required PPE)
Name of the Instructor: **Designation:** **Date:**	

Assessment (Module Title)

Question 1.

(Knowledge questions in the form of multiple choice, identify objects, true/false, short answer, essay)

Assessment (Module Title)

Practical Assessment	Rate the performance using the criteria listed below. For each criterion, place a tick mark along each scale where you think the performance is best described.

Items to be Evaluated	**Tolerance**	**Competent**	**Not Yet Competent**
(List the critical task steps here)			

17. Facilitator Guide template

Module (title)

Facilitator Guide

(Module Title)	
Introduction	This module covers the skills and knowledge required to_______________.
Program	This module forms part of the ___________________________ course.
Tasks	The following tasks make up this Module: (List the tasks)
Assessment	Assessment for this module is by means of a written theory test and practical tasks. The pass mark is 80% for theory and 100% for practical.

Lesson Plan

Task 1: (Task Title)				Total Time: (Notional learning time)
Session Objectives: List objectives of the learning module **Given:** (What the learner is given, tools, materials etc) **What:** (What the learner is expected to do) **How well:** (Performance criteria for the task)				
#	Activity	Method	Media/Visual	Time
INTRODUCTION				
1.	1.1 Start with the greeting. 1.2 Do you know about the _________________ 1.3 Why is it important to ____________________ (Occupation)?	Discussion		5 min
2.	2.1 State the topic: (Main outcome) 2.2 Explain objectives of the session using visual layout. 2.3 Provide overview of the session verbally: what you will do to teach the lesson and learner activities to learn about the skill.	Illustrated talk	Learner Guide pages______	10 min
MAIN BODY				
3.	**Presentation:** List learning steps	Illustrated talk	Learner Guide	min
4.	**Guided Practice:** 4.1 Ask the participants to work in a small group of 2 or individually 4.2 Provide Job Sheet #1	Group work	Job Sheet	min
5.	**Evaluation:** 5.1 Get learners to complete the theoretical and practical assessment	Performance evaluation	Theoretical and practical assessment	min

CONCLUSION				
6.	6.1 Review the session 6.2 Ask learner what have you learned from this session 6.3 Briefly discuss the next session on ______________________________ ______.	Discussion		5 min
	Resources required for this lesson: (List all equipment, tools and materials required for this task) **Personal Protective Equipment (PPE):** (List required PPE for the task)			

Information Sheet: Task #1 (Main Outcome)	
 Theoretical Assessment	This section will give the learner the knowledge and skills to be able to ____. These are the Steps and Enabling Objectives of this Task:
	Steps
	(List steps of task)
	Enabling Objectives
	(Module outcomes)

(Main Outcome)	
Introduction	(Introduce the module)
Content	(Add all content as per the analysis document making use of illustrations and pictures where possible. At lower skill levels the content should be predominantly picture/illustration based.)

Job Sheet #1

Task #1: (task title)	**Duration:** min
Job Statement	(Part of the process you will be practicing, e.g. cut timber using rip saw)
Performance Criteria	(List the performance criteria related to this exercise)
Notes	(Include any drawings and specific requirements here)
Job Procedure:	**Steps:** (List the task steps here)
Resources Required	**Tools/equipment/materials required:** (List required equipment, tools and materials for the job here) **Personal Protective Equipment (PPE):** (Required PPE)
Name of the Instructor: **Designation:** **Date:**	

Assessment (Module Title)

Question 1.

(knowledge questions in the form of multiple choice, identify objects, true/false, short answer, essay)

Assessment (Module Title)

Practical Assessment

Rate the performance using the criteria listed below. For each criterion, place a tick mark along each scale where you think the performance is best described.

Items to be Evaluated	**Tolerance**	**Competent**	**Not Yet Competent**
1.(List the critical task steps here)			
2.			
3.			
4.			
5.			
6.			

Assessment Model Answers

Question 1.

(Answer all questions here for the instructor)

Learner is	**Competent / Not Yet Competent**	(Circle one Option)
Theory Mark:	$\frac{\text{Marks obtained}}{\text{Total marks}} \times \frac{100}{1} =$	%

Signed Instructor: ______________________________ Date: ______________________________

Name: ____

Signed Learner: ________________________________ Date: ______________________________

Name: ____

18. Course evaluation form

Evaluation Form

Course Title:

Venue:

Trainer / Facilitator:

Date:

Presenter	Yes	No	Comment
1. Was the presenter prepared?			
2. Was the presenter consistent in his/her performance?			
3. Was the presenter prepared and willing to provide service?			
4. Was the presenter competent (skills and knowledge)?			
5. Was the presenter open to questions, suggestions and feedback?			
6. Was the presenter polite?			
7. Did the presenter portray a professional image?			

Training Co-ordination	Excellent	Good	Fair	Poor
1.The workshop administration was				
2.The Venue was				
3.Pre-workshop contact with you was timely and professional				

Did the course meet your expectations?	
Did the course meet the needs of the business or site?	

Will you be sending any of your other staff members on the course in the future?	
How can we improve the course?	

19. Code of conduct – Assessors

Code of Conduct for Assessors

Guideline

Assessors' Code of Conduct

Registered Assessor Number:

I, the undersigned, hereby commit myself to abide by the Code of Conduct in relation to all my work conducted as a registered assessor. The Assessors' code of conduct has been drawn up to enable registered assessors to carry out their functions objectively in line with TEVETA policies and procedures.

The Code of Conduct to which I agree is as follows:

1. Responsibilities:

- to plan and conduct assessments as outlined in the occupational standard
- to assess candidates against the relevant occupational standard(s) and or qualification;
- to be guided by the provider's assessment plan, guide, tools and reporting format;
- to assess in a fair and transparent manner, avoiding bias and addressing barriers to learning;
- to judge evidence observing the rules of evidence;
- to give constructive written feedback to candidates; and
- to give feedback to moderators on occupational standards and qualifications.

2. Declaration of Interest:

On being requested to assess a group of candidates, assessors must inform the provider in confidence:

- Whether they have (past or present) a family relationship with any of the candidates;
- Whether they might have, or be seen to have, difficulty in assessing any candidate objectively because of friendship or other obligation; and
- Any other actual or potential conflict of interest involving candidates, moderators or other relevant parties.

3. Working Practices and Quality Standards:

- Assessors must act professionally, accurately and in an unbiased manner and be responsible for their actions in the assessment process.
- Assessors must not accept any inducements, commission, gift or any other benefit (apart from fair payment), or respond to any threats or harassment from providers, their employees or any interested party, or keep silent about any colleagues who do so.
- Assessors must report any assessment irregularities, complaints or appeals and any attempts to threaten or bribe to TEVETA in their reports.
- Assessors must not intentionally communicate false or misleading information that may compromise the integrity of any assessment.
- Assessors should keep relationships with candidates, moderators and providers on a professional basis.

4. Confidentiality

- Information on a provider's practices and procedure gained during the assessment process remains confidential to the provider.
- Information about individual learners and their organisations should remain confidential.

5. Relationship with ETDQA

- Assessors are registered with TEVETA; this constitutes a license to practice in the sector;
- Complaints submitted by assessors to TEVETA will be addressed by the head of the relevant department;
- Complaints submitted about assessors to TEVETA will be investigated, and should the assessor be in breach of the Code of Conduct, the assessor will be de-registered, and no longer able to practice as an assessor in the sector.
- Should an assessor believe that he or she has been unfairly refused registration, extension of registration, or been unfairly deregistered, TEVETA has a proper appeals procedure which should be followed.

Signature of Assessor: ________________________________ Date: _________________

20. Code of conduct – Moderators

Code of Conduct for Moderator

Guideline

Moderators' Code of Conduct

Registered Moderator Number:

I, the undersigned, hereby commit myself to abide by the TEVETA Code of Conduct in relation to all my work conducted as a registered moderator. The Moderators' code of conduct has been drawn up to enable TEVETA registered moderators to carry out their functions objectively in line with TEVETA policies and procedures. The Code of Conduct to which I agree is as follows:

1. **Responsibilities:**
- to plan and conduct moderation as outlined in the occupational standard
- to moderate candidates with reference to the relevant occupational standard(s) and or qualification;
- to be guided by the provider's moderation, guide, tools and reporting format,
- to be guided by the assessment manager's selection of the sample and reasons given for the selection;
- to moderate in a fair and transparent manner, avoiding bias and interviewing candidates if this should prove necessary;
- to moderate evidence observing the rules of evidence;
- to give constructive written feedback to assessors; and
- to give feedback to TEVETA on occupational standards and qualifications.

2. **Declaration of Interest:**
   On being requested to moderate a group of assessment, moderators must inform the provider in confidence:
- Whether they have (past or present) a family relationship with any of the candidates or assessors;
- Whether they might have, or be seen to have, difficulty in moderating any assessments objectively because of friendship or other obligation; and
- Any other actual or potential conflict of interest involving candidates, assessors or other relevant parties.

3. **Working Practices and Quality Standards:**
- Moderators must act professionally, accurately and in an unbiased manner and be responsible for their actions in the moderation process.
- Moderators must not accept any inducements, commission, gift or any other benefit (apart from fair payment), or respond to any threats or harassment from providers, their employees or any interested party, or keep silent about any colleagues who do so.
- Moderators must report any assessment irregularities, complaints or appeals and any attempts to threaten or bribe TEVETA in their reports.
- Moderators must not intentionally communicate false or misleading information that may compromise the integrity of any assessment.
- Moderators should keep relationships with candidates, assessors and providers on a professional basis.

4. **Confidentiality**
- Information on a provider's practices and procedure gained during the moderation process remains confidential to the provider.
- Information about individual learners and their organizations should remain confidential.

5. **Relationship with TEVETA Quality Assurance Department**
- Moderators are registered with TEVETA; this constitutes a license to practice in the sector;
- Complaints submitted by moderators to TEVETA will be addressed by the head of the relevant department;

- Complaints submitted about moderators to TEVETA will be investigated, and, should the moderator be in breach of the Code of Conduct, the moderator will be de-registered, and no longer able to practice as a moderator in the sector.
- Should a moderator believe that he or she has been unfairly refused registration, extension of registration, or been unfairly de-registered, TEVETA has a proper appeals procedure which should be followed.

Signature of Moderator: _______________________________ Date: _________________

21. Gender Inclusive Language Guide

Gender Inclusive Language

Guideline

What is Gendered Language?

Gendered language in English means using masculine nouns and pronouns to refer to people whose gender is unknown or to groups that include both men and women. Gendered language is also used to establish connections between occupations and gender ("policeman", "repairman", "seamstress"). Using male or female terms to define people or occupations may contribute to gender bias in choice of occupation, selection of candidates and other factors. To the extent possible, using gender neutral and gender inclusive terms in writing TVET materials can help to reduce gender bias and promote equality. This applies equally to female- and male-dominated occupations.

The following strategies can help.

Gendered nouns

"Man" and words ending in "-man" are the most commonly used gendered nouns in English. These words are easy to spot and replace with more neutral language, even in contexts where many readers strongly expect the gendered noun. A Thesaurus is a useful tool for finding alternates such as the ones below.

Gendered noun	Gender-inclusive noun
man	person, individual
mankind	people, human beings, humanity
man-made	machine-made, synthetic, artificial
the common man	the average person
chairman	chair, chairperson, coordinator, head
mailman	mail carrier, letter carrier, postal worker
policeman	police officer
steward, stewardess	flight attendant
actor, actress	actor

Terms such as "Technician" or "Nurse" are already gender neutral. Assumptions about the gender of these people can mean qualifying these: "Male Nurse" for example. Unless there is a very specific need to refer to gender, there is no need to qualify. For example, Malawi is developing a learning module for Solar Installers specifically directed at women. In this case, gender may be specified as needed.

Pronouns

Pronouns substitute for nouns. In English, pronouns take the gender of the object referred to (he, she or 'it' for inanimate objects). There are a few strategies for using pronouns to be gender inclusive:

- Using more than one pronoun: "he or she", "he/she", "s/he", "her/him," etc. However, this can mean referring to gender where it isn't relevant and may be awkward when used repetitively.
- Alternating pronouns, changing them by item in a list or from paragraph to paragraph, for example:
  - Ask her to describe the set-up of the equipment.
  - Ask him to explain the safety features of the equipment.
  - Etc.

However, this can be confusing if assumptions are made that the gender used is not meant inclusively!

- Use a noun instead: "Ask the trainee to explain the safety features of the equipment"
- Use plural forms so that you can then use 'they': "Trainees will be able to correctly install a circuit. They will demonstrate use of appropriate tools and techniques."
- "They" can also be used as a singular pronoun. This is increasing accepted as a correct gender inclusive approach. "A qualified technician will be aware of current regulatory and licensing requirements. They will be able to locate up-to-date references as required."

Editing Checklist

Ask yourself:

- Have you used "man" or "men" or words containing them to refer to people who may not be men?
- Have you used "he," "him," "his," or "himself" to refer to people who may not be men?
- If you have mentioned someone's sex or gender, was it necessary to do so?
- Do you use any occupational (or other) stereotypes?
- Do you provide the same kinds of information and descriptions when writing about people of different genders?

This Guideline was adapted from Gender-Inclusive Language by the Writing Center, University of North Carolina Chapel Hill https://writingcenter.unc.edu/tips-and-tools/gender-inclusive-language/

22. Taxonomy of Educational Objectives (Bloom's Taxonomy)

Bloom's Taxonomy. Centre for Teaching Excellence, University of Waterloo. https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/planning-courses-and-assignments/course-design/blooms-taxonomy

The Taxonomy of Educational Objectives, known as Bloom's Taxonomy (Bloom, Engelhart, Furst, & Krathwohl, 1956) is one of the most recognized learning theories in the field of education. That the Taxonomy has persisted since the mid-twentieth century speaks to its ongoing value — educators often use Bloom's Taxonomy to create learning outcomes that target not only subject matter but also the depth of learning they want students to achieve, and to then create assessments that accurately report on students' progress towards these outcomes (Anderson & Krathwohl, 2001).

An introduction to Bloom's Taxonomy

Bloom's Taxonomy comprises three learning domains: the cognitive, affective, and psychomotor, and assigns to each of these domains a hierarchy that corresponds to different levels of learning.
It's important to note that the different levels of thinking defined within each domain of the Taxonomy are hierarchical. In other words, each level subsumes the levels that come before it. So, if we look at the cognitive domain for example (which is represented in Figure 1), we can infer that before a student can conduct an analysis, they first might need to know the methods of analysis, understand the different elements to review, and consider which method to apply. It is only then that they will be ready to conduct the analysis itself.

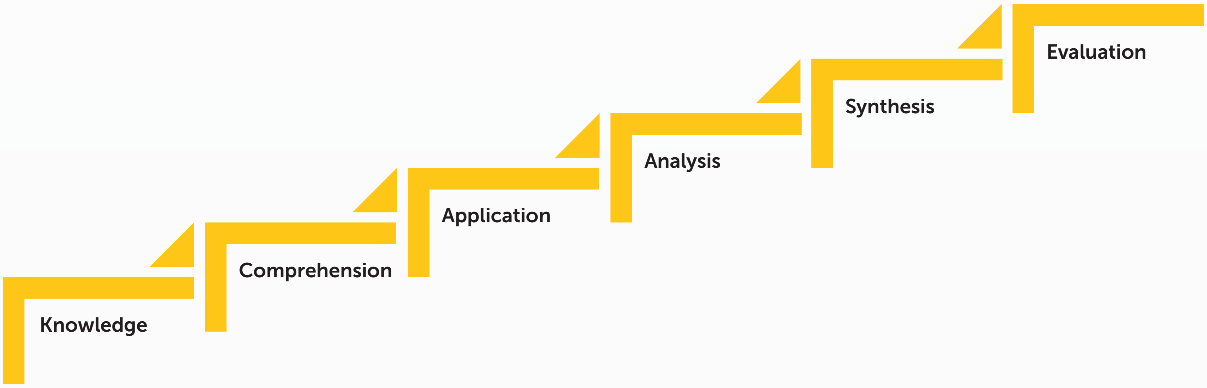


Figure 1: The hierarchy of the cognitive domain of Bloom's Taxonomy (1956).

Bloom's Taxonomy revised

In 2001, David Krathwohl (one of Bloom's original collaborators) and co-editor Lorin Anderson published a revision to the 1956 hierarchy with contributions from cognitive psychologists, curriculum theorists, instructional researchers, and testing and assessment specialists. This new revised version introduced a key change to the cognitive domain of Bloom's Taxonomy: it shifted the language used from nouns to verbs (see Figure 2) and thereby focused the attention away from acquisition and toward active performance of the types of learning involved in each stage of the hierarchy. "Synthesis" was also dropped and "create" was moved to the highest level of the domain.

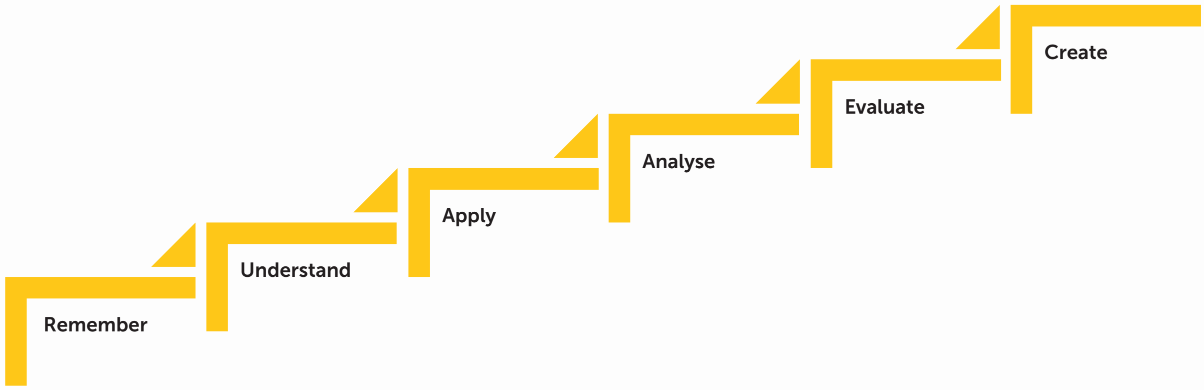


Figure 2. Anderson and Krathwol's (2001) revision to Bloom's cognitive hierarchy.

Bloom's Taxonomy in practice

To provide a deeper look at how Bloom's Taxonomy works in practice, we break down each domain — the cognitive, affective, and pyschomotor — in the following sections of this Teaching Tip. Here, we present example learning outcomes and assessments mapped to each level of the domain hierarchies to help you make use of Bloom's Taxonomy.

Cognitive domain

The cognitive domain is focused on intellectual skills such as critical thinking, problem solving, and creating a knowledge base. It was the first domain created by the original group of Bloom's researchers. The cognitive hierarchy spans from simple memorization designed to build the knowledge of learners, to creating something new based on previously-learned information. In this domain, learners are expected to progress linearly through the hierarchy, beginning at "remember" and ending at "create."

When writing your own learning outcomes, we encourage you to choose verbs that best describe what is expected (e.g., for remember, you might consider define, identify, list, recall, recognize, match, etc.). A search for "Bloom's Verbs" will provide lists of synonyms to use.

Cognitive hierarchy

Remember

Sample learning outcome: Remember the names and relationships of a cast of characters in a play.
Sample assessment/activity: A multiple-choice test designed to test the memory of learners.
Rationale: A multiple-choice test will allow educators to see whether students have effectively memorized the given material.

Understand

Sample learning outcome: Understand and explain the main ideas of a play or piece of literature.
Sample assessment/activity: Write a short (1 page) paper summarizing the plot and most important events in the play.
Rationale: Writing a summary encourages learners to think about what the most important parts of a piece of literature are, and to decide which aspects of the plot to discard in favor of a concise summary.

It allows educators to evaluate whether or not they have understood the main idea of the play.

Apply

Sample learning outcome: Apply the main ideas/themes in the play to another context.
Sample assessment/activity: Write an advice column responding to one of the characters.
Rationale: In doing this assignment, learners will consider the implications of character's actions outside of the consequences shown in the play.

Analyze

Sample learning outcome: Be able to analyze the relative roles of each character in the play and their relationships to each other.
Sample assessment/activity: Write an analytical paper comparing the antagonists and protagonists of the play.
Rationale: Through this assignment, as learners consider what makes each character an antagonist or a protagonist, they need to use both their knowledge of the play and critical thinking skills.

Evaluate

Sample learning outcome: Evaluate the decisions of characters in the play, supporting their evaluation with textual evidence.
Sample assessment/activity: Write a response to one of the events in the play, either supporting or rejecting their actions on the basis of evidence from the play as well as personal opinion and projected/ actual consequences of action.
Rationale: Through this assignment, learners will consider the rationale and consequences for actions in the play, leading them to understand and make judgements about the validity of a character's decision making.

Create

Sample learning outcome: Create a new and unique piece of writing using similar plot devices.
Sample assessment/activity: Create a short story using similar plot devices in a new time or setting.
Rationale: Through this activity, learners must integrate the plot devices and writing techniques into a new setting, allowing them to practice their creative writing skills and showing their full understand of the writer's techniques.

Affective domain

The affective domain focuses on the attitudes, values, interests, and appreciations of learners. The hierarchy associated with it begins with receiving and listening to information, and extends to characterization, or internalizing values and consistently acting upon them. It focuses on allowing learners to understand what their own values are and how they have developed.

Affective hierarchy

Receiving

Sample learning outcome: Listen to other students with respect.
Sample assessment/activity: Be an audience member to another student's presentation, and then write a summary.
Rationale: Through this assignment, learners will learn how to listen effectively to others as well as remember key details about their presentation (used in writing the summary).

Responding

Sample learning outcome: Speak effectively in front of an audience and actively respond to others.
Sample assessment/activity: Present on a subject in front of the class, and answer questions from peers about their presentation.
Rationale: Through this, learners will become more comfortable with public speaking as well as more comfortable with contributing to a discussion in the form of answering questions.

Valuing

Sample learning outcome: Demonstrate and explain own values regarding various topics.
Sample assessment/activity: Write an opinion piece on any issue, explaining one's own stance and reasons supporting that stance.

Rationale: Through this, learners will explore not only their own values but why they support their values, giving them a chance to understand more fully their own value system.

Organization
Sample learning outcome: Compare value systems and understand evidence behind values.
Sample assessment/activity: Organize and compare different cultural value systems, evaluating the differences between them and why these differences may have arisen.
Rationale: In doing this activity, learners will consider how value systems are put into place and organized, as well as the evidence that supports different value systems across the world.

Characterization
Sample learning outcome: Work well in a team of peers.
Sample assessment/activity: A group project, including group work on any assignment.
Rationale: By working in a group, learners must balance their own values with the values of the team, as well as prioritize tasks and practice teamwork.

Psychomotor domain
The psychomotor domain encompasses the ability of learners to physically accomplish tasks and perform movement and skills. There are several different versions including different hierarchies – the examples here fall into Harrow's (1972) theory of the psychomotor domain. This hierarchy ranges from reflexes and basic movement to non-discursive communication and meaningfully expressive activity.

Psychomotor Hierarchy
Reflex
Sample learning outcome: Instinctively respond to a physical stimulus.
Sample assessment/activity: A game of dodgeball.
Rationale: Learners must react (dodge) the balls that are being thrown at them, allowing them to develop their reflexive skills.

Basic fundamental movements
Sample learning outcome: Perform a simple action (including running and throwing).
Sample assessment/activity: A game of dodgeball.
Rationale: Learners must run and throw to actively engage the opposing team, allowing them to develop these skills.

Perceptual abilities
Sample learning outcome: Use more than one ability to integrate different sensory perceptions.
Sample assessment/activity: A game of catch or soccer (or other game involving movement and passing).
Rationale: Learners must integrate running, visual information about the position of the ball, and predictive information about the future position of the ball.

Physical abilities
Sample learning outcome: Sustain an activity for a set period of time.
Sample assessment/activity: Run for 25 minutes steadily.
Rationale: This activity is a measure of the learner's stamina and physical fitness.

Skilled movements
Sample learning outcome: Adapt one's behaviour and movement to better achieve goals.
Sample assessment/activity: A soccer or other strategic game (football, hockey).
Rationale: This activity allows teams to change their strategy and individuals to change their physical behaviour depending on the response of the other team.

Non-discursive communication
Sample learning outcome: Express oneself through purposeful movement and activity.
Sample assessment/activity: A soccer or other strategic game (football, hockey)

Rationale: These games all involve teamwork, strategy, and integrative and purposeful movement. Successful teams must integrate all of their senses, communicate through movement, and use a variety of adaptive strategies.

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Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain. New York: David McKay Company.

Harrow, A.J. (1972). A taxonomy of the psychomotor domain. New York: David McKay Co.

23. Gap analysis tools

Useful references for descriptions of and ways to use various gap analysis tools.

Cause and Effect (Fishbone)
Often referred to as a cause and effect diagram, or Ishikawa, it is a simple root cause analysis tool that is used for brainstorming issues and causes of particular problems and can and often is used in conjunction with the 5 Whys tool. https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/fishbonerevised.pdf
http://asq.org/learn-about-quality/cause-analysis-tools/overview/fishbone.html

6 Sigma
Six Sigma is an approach to data-driven management that seeks to improve quality by measuring how many defects there are in a process and systematically eliminating them until there are as close to zero defects as possible.
https://www.youtube.com/watch?v=4B4OR6zffRI

5 Whys
The 5 Why method is simply asking the question "Why" enough times until you get past all the symptoms of a problem and down to the root cause.
https://www.mindtools.com/pages/article/newTMC_5W.htm

Pareto Chart (Pareto Principle 80/20)
A Pareto chart is a bar graph. The lengths of the bars represent frequency or cost (time or money), and are arranged with longest bars on the left and the shortest to the right. In this way the chart visually depicts which situations are more significant.
http://asq.org/learn-about-quality/cause-analysis-tools/overview/pareto.html
http://www.excel-easy.com/examples/pareto-chart.html

Scatter diagrams
The scatter diagram graphs pairs of numerical data, with one variable on each axis, to look for a relationship between them.
http://asq.org/learn-about-quality/cause-analysis-tools/overview/scatter.html

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Funded by the European Union and implemented by UNESCO in collaboration with the Government of Malawi, the Skills and Technical Education Programme (STEP) is dedicated to reinforcing Technical and Vocational Education and Training (TVET) in Malawi. The programme will run from 2016 -2020 and aims to improve TVET at post-secondary level with focus on equal access to enrollment, with particular focus on female learners, improving quality in the sector, and establishment of clear government structures.

STEP is producing a number of quality, user friendly training resources for instructors, trainees, curriculum developers, managers and other stakeholders in Malawi.

The Manual - Process for the Development of TEVET Courses - is one of these resources.

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